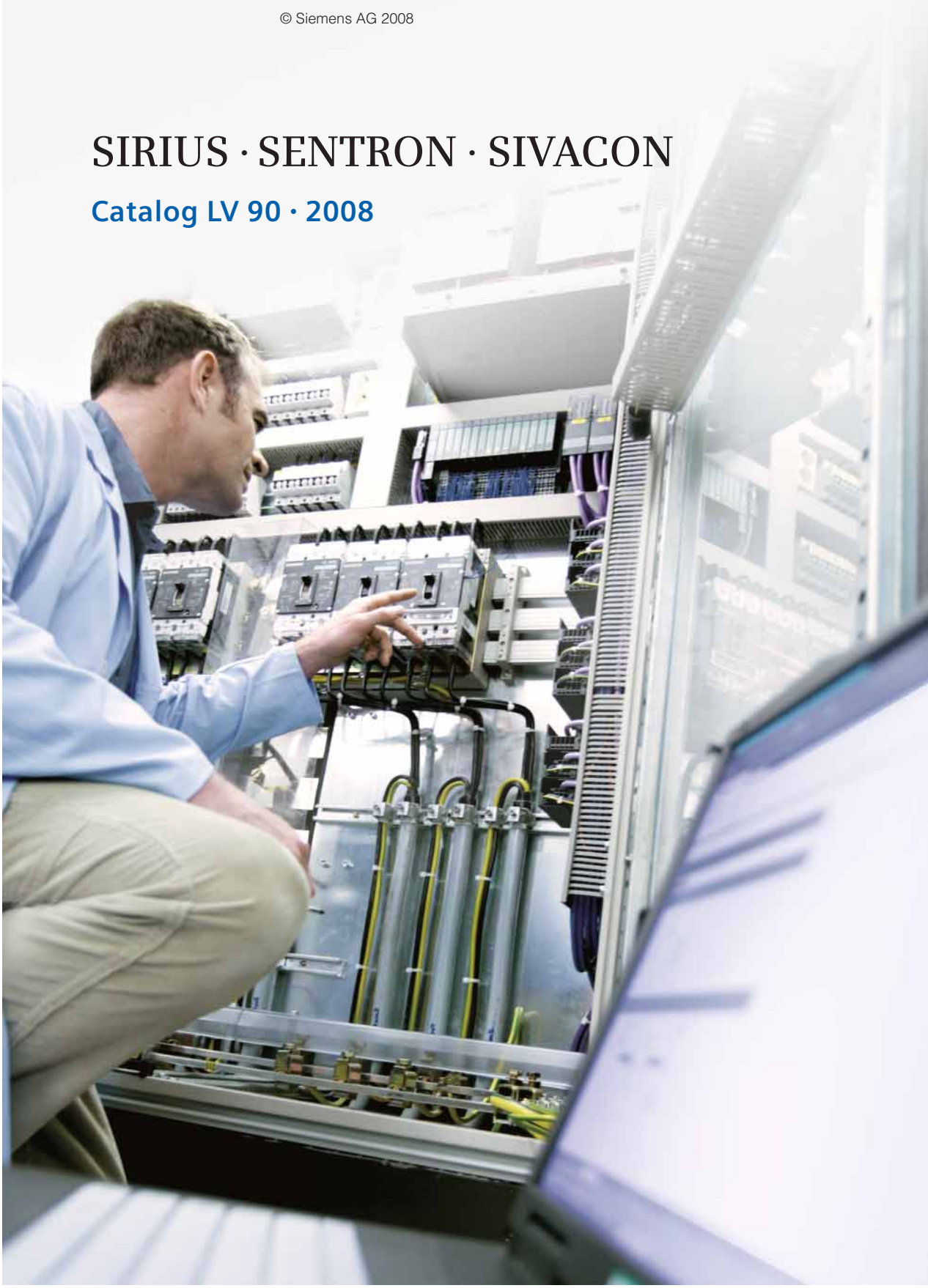
© Siemens AG 2008

SIRIUS · SENTRON · SIVACON

Catalog LV 90 · 2008



Low-Voltage Controls and Distribution

www.siemens.com/lowvoltage

SIEMENS

© Siemens AG 2008

Related catalogs

Low-Voltage Controls and Distribution
SIRIUS · SENTRON · SIVACON
Order No.:
Catalog LV 1
E86060-K1002-A101-A7-7600
Technical Information incl. LV 1 T

Systems • Controlgear: Contactors and contactor assemblies, solid-state switching devices • Protection equipment • Load feeders, motor starters and soft starters • Monitoring and control devices • Detecting devices • Commanding and signaling devices • Transformers • Power supplies • Planning and configuration with SIRIUS • Power Management System • SIVACON Power, distribution boards, busway and cubicle systems • SENTRON switching and protection devices for power distribution • Air circuit breakers, molded case circuit breakers, switch disconnectors • Software for power distribution• BETA low-voltage circuit protection

Low-Voltage
Controls and Components for Applications according to UL
Order no.:
E86060-K1816-A101-A1-7600
LV 16

SIRIUS 3RV17 and 3RV18 circuit breakers according to UL 489 • SIVACON Components for 8US Distribution Systems according to UL 508A • SENTRON 3WL5 air circuit breakers/ non-automatic air circuit breakers according to UL 489/IEC • SENTRON 3VL Molded Case Circuit Breakers according to UL 489/IEC • ALPHA Devices according to UL Standard • BETA Devices according to UL standard

Industrial Communication
Industrial Communication for Automation and Drives
Order No.:
E86060-K6710-A101-B6-7600 IK PI
E86060-K6710-A121-A2-7600 IK PI N

PROFINET/Industrial Ethernet • Industrial Mobile Communicaton • PROFIBUS to IEC 61158/EN 50170 • SIMATIC ET 200 distributed I/Os • AS-Interface to EN 50295/IEC 61158 • Remote operation with SINAUT Telecontrol • Routers • ECO-FAST system

SICUBE
System Cubicles and Cubicle Air-Conditioning
Order No.:
E86060-K1920-A101-A3-7600
LV 50

System cubicles • Cubicle modifications • Cubicle expansion components • Accessories • Special cubicles
Cubicle solutions in applications • Cubicle air-conditioning • Special colors

SIDAC
Reactors and Filters
Order No.:
E86060-K2803-A101-A4-7600
LV 60

Commutating reactors for converters • Mains reactors for frequency converters • Iron-core output reactors • Ferrite output reactors • Iron-core smoothing reactors • Smoothing air-core reactors • Filter reactors • Application-specific reactors • Radio interference suppression filters • dv/dt filters • Sinewave filters

SIVACON 8PS
CD-K, BD01, BD2
Busbar Trunking Systems up to 1250 A
Order No.:
E86060-K1870-A101-A3-7600
LV 70

Busbar trunking systems, overview • CD-K system (25 A to 40 A) • BD01 system (40 A to 160 A) • BD2 system (160 A to 1250 A)

Automation & Drives
The A&D Offline Mall
CD-ROM:
E86060-D4001-A110-C6-7600
DVD:
E86060-D4001-A510-C6-7600
CA 01

All Automation and Drives products, including those in the catalogs listed above.

A&D Mall
Internet:
http://www.siemens.com/automation/mall

All Automation and Drives products, including those in the catalogs listed above.

Catalog-PDF
Internet:
http://www.automation.siemens.com/cd

All catalogs for low-voltage controls and distribution can be downloaded as PDF files.

Contents

Registered trademarks

All product designations may be registered trademarks or product names of Siemens AG or other supplying companies. Third parties using these trademarks or product names for their own purposes may infringe upon the rights of the trademark owners.

Further information about low-voltage controls is available on the Internet at:
http://www.siemens.com/lowvoltage

Technical Assistance

Expert technical assistance for Low-voltage controls and electrical installation.

Tel.: +49 (9 11) 8 95-59 00
Fax: +49 (9 11) 8 95-59 07
E-Mail: technical-assistance@siemens.com

© Siemens AG 2008

Low-Voltage Controls and Distribution SIRIUS · SENTRON · SIVACON

Catalog LV 90 · 2008

Replaces:
Catalog LV 90 · 2007

Selected Products and Systems of the Catalog LV1 · 2008.

The products in this catalog can also be found in the Offline-Mall CA 01
Order No.:
E86060-D4001-A110-C6-7600 (CD-ROM)
E86060-D4001-A510-C6-7600 (DVD)

Contact your local Siemens representative

© Siemens AG 2008

Information about the CD-ROM attached

The CD-ROM attached contains the following catalogs in electronic form as structured PDF files:

- LV 1 Low-Voltage Controls and Distribution SIRIUS · SENTRON · SIVACON
- LV 16 Controls and Components for Applications according to UL
- LV 50 SICUBE System Cubicles and Cubicle Air-Conditioning
- LV 60 SIDAC Reactors and Filters
- LV 65 SIVENT Fans
- LV 70 SIVACON 8PS Busbar Trunking Systems
- ET A1 ALPHA Distribution Boards and Terminal Blocks
- ET B1 BETA Low-Voltage Circuit Protection
- D81.1 Low-Voltage Three-Phase Motors IEC Squirrel-Cage Motors
- IK PI Industrial Communication for Automation and Drives

In addition the CD-ROM contains technical information on:

- LV 1 T Low-Voltage Controls and Distribution SIRIUS · SENTRON · SIVACON

IQNet
THE INTERNATIONAL CERTIFICATION NETWORK

The products and systems listed in this catalog are manufactured using a certified quality management system which complies with EN ISO 9001 (for the Certificate Register No. see the Appendix). The TÜV certificate is recognized in all IQ Net countries.

SIEMENS

© Siemens AG 2008

© Siemens AG 2008

SIRIUS Industrial Controls

1 Introduction
Answers for Industry.
Low-Voltage Controls and Distribution. The basis for progressive solutions.

2 Systems
AS-Interface

3 Controls – Contactors and Contactor Assemblies
3RT, 3TF Contactors for Switching Motors
3RA13, 3RA14 Contactor Assemblies
3RT, 3RH, 3TC, 3TK Contactors for Special Applications
3RH Contactor Relays · 3RT Coupling Relays
3TX7, 3RS18 Coupling Relays · LZS, LZX Plug-In Relays
3TG10 Power Relays/Miniature Contactors

4 Controls – Solid-State Switching Devices
For Resistive Loads:
3RF20, 3RF21, 3RF22 Solid-State Relays
3RF23, 3RF24 Solid-State Contactors · 3RF29 Function Modules
For Switching Motors :
3RF24 Solid-State Contactors and Solid-State Reversing Contactors

5 Protection Equipment
3RV Motor Starter Protectors
3RB2 Solid-State Overload Relays
3RU1 Thermal Overload Relays

6 Load Feeders, Motor Starters and Soft Starters
3RW Soft Starters
3RA Fuseless Load Feeders
3RA71 Load Feeders with Safety Integrated
ET 200S, ET 200pro Motor Starters
3RE Encapsulated Starters

7 Monitoring and Control Devices
SIMOCODE 3UF Motor Management and Control Devices
LOGO! Logic Modules · 3RP Timing Relays
3UG Monitoring Relays for Electrical and Additional Measurements
3RS10, 3RS11 Temperature Monitoring Relays
3RN1 Thermistor Motor Protection
3TK28 Safety Relays
3RS17 Interface Converters

8 Detecting Devices
3SE5 Position Switches
3SE5 Hinge Switches
3SF1 AS-Interface Position Switches
3SF1 AS-Interface Hinge Switches
3SE6 Magnetically Operated Switches

9 Commanding and Signaling Devices
3SB2, 3SB3 Pushbutton Units and Indicator Lights
3SB3 Two-Hand Operation Consoles
3SE7, 3SF2 Cable-Operated Switches
3SE2, 3SE3 Foot Switches
8WD4 Signaling Columns
8WD5 Integrated Signal Lamps

10 Transformers
Single-Phase Transformers
Three-Phase Transformers

Low-Voltage Power Distribution

11 Power Supplies
4AV Non-Stabilized Power Supplies
6EP Stabilized Power Supplies
LOGO!Power
SITOP modular

12 Engineering Software Planning and Configuration with SIRIUS
Motor Starter ES
ECOFAST ES
SIMOCODE ES
Soft Starter ES

13 Power Management System
System Overview
- SIMATIC Powercontrol
- SIMATIC Powercost
SENTRON Multifunction Measuring Instruments
- PAC3200 Multifunction Measuring Instruments

14 SIVACON Power Distribution Boards, Busway Systems and Cubicle Systems
8PS Busbar Trunking Systems
ALPHA FIX Terminal Blocks
Components for 8US, 8UC, 4NC Distribution Systems

15 SENTRON Switching and Protection Devices for Power Distribution
3WL Air Circuit Breakers

16 SENTRON Switching and Protection Devices for Power Distribution
3VL, 3VF2 Molded Case Circuit Breakers

17 SENTRON Switching and Protection Devices for Power Distribution
3KA, 3LD Switch Disconnectors
3KL Switch Disconnectors with Fuses
3NP, 3NJ4, 3NJ5 Fuse Switch Disconnectors
LV HRC Fuses
SITOR Fuses

18 Software for Power Distribution
Dimensioning with SIMARIS Design
Configuring, Visualizing and Controlling with SIMATIC
Configuring, Visualizing and Controlling with SENTRON

19 BETA Modular Installation Devices

20 Appendix
Ordering notes · Further documentation
Standards and approvals · Quality management ·
Siemens contacts · Online services · Customer support ·
Software licenses · Subject index · Order number index
Conditions of sale and delivery

© Siemens AG 2008

Explanations

Delivery time class (DT)

► Preferred type

Preferred types are available immediately from stock, i.e. are dispatched within 24 hours.

Normal quantities of the products are usually delivred within the specified time following receipt of your order at our branch.

In exceptional cases, the actual delivery time may differ from that specified.

The delivery times apply up to the ramp at Siemens AG (products ready for dispatch). The transport times depend on the destination and type of shipping. The standard transport time for Germany is 1 day.

The delivery times specified here represent the state of 10/2007. They are permanently optimized. Up-to-date information can be found at http://www.siemens.com/automation/mall.

Note: If you have any queries regarding delivery time classes, please contact your nearest Siemens branch.

Price units (PU)

The price unit defines the number of units, sets or meters to which the specified price and weight apply.

Packaging sizes (PS)

The packaging size defines the number, e.g. of units, sets or meters, for outer packaging.

Only the quantity defined by the packaging size or a multiple thereof can be ordered!

For multi-unit packaging and recyclable packaging, see Appendix.

Weight

The defined weight in kg refers to the price unit (PU).

Dimensions

All dimensions in mm.

© Siemens AG 2008

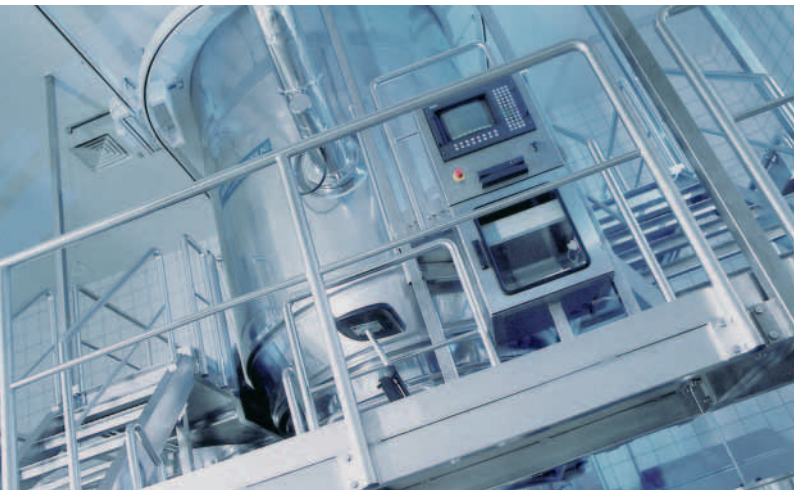
Introduction

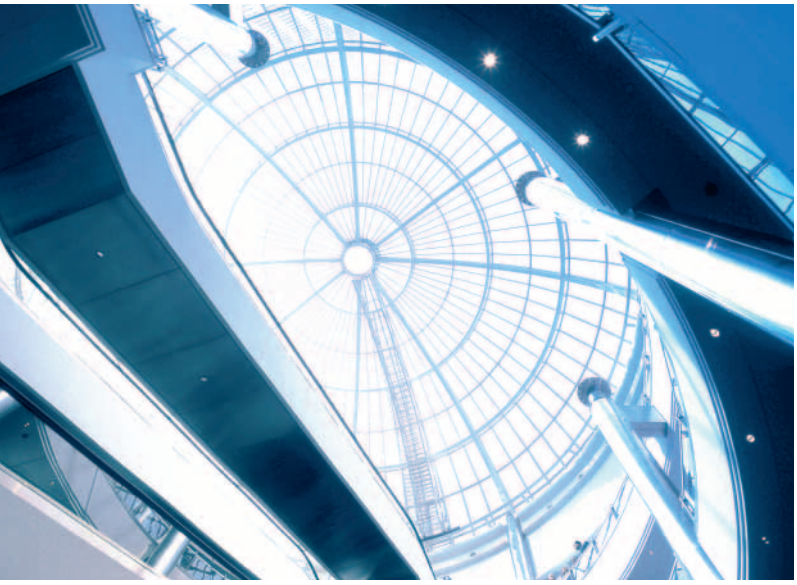
1

1/2 **Answers for Industry.**

1/4 **Low-Voltage Controls and Distribution. The basis for progressive solutions.**

© Siemens AG 2008





© Siemens AG 2008

Answers for Industry.

Siemens Industry answers the challenges in the manufacturing and the process industry as well as in the building automation business. Our drive and automation solutions based on Totally Integrated Automation (TIA) and Totally Integrated Power (TIP) are employed in all kinds of industry. In the manufacturing and the process industry. In industrial as well as in functional buildings.

Siemens offers automation, drive, and low-voltage switching technology as well as industrial software from standard products up to entire industry solutions. The industry software enables our industry customers to optimize the entire value chain – from product design and development through manufacture and sales up to after-sales service. Our electrical and mechanical components offer integrated technologies for the entire drive train – from couplings to gear units, from motors to control and drive solutions for all engineering industries. Our technology platform TIP offers robust solutions for power distribution.

The high quality of our products sets industry-wide benchmarks. High environmental aims are part of our eco-management, and we implement these aims consistently. Right from product design, possible effects on the environment are examined. Hence many of our products and systems are RoHS compliant (Restriction of Hazardous Substances). As a matter of course, our production sites are certified according to DIN EN ISO 14001, but to us, environmental protection also means most efficient utilization of valuable resources. The best example are our energy-efficient drives with energy savings up to 60 %.

Check out the opportunities our automation and drive solutions provide. And discover how you can sustainably enhance your competitive edge with us.

© Siemens AG 2008

Low-Voltage Controls and Distribution. The basis for progressive solutions.

Extremely high demands are made on modern low-voltage controls and distribution: users want cost-effective solutions that are easy to integrate in control cabinets, distribution boards and distributed systems and can communicate perfectly with each other. Siemens has the answer: SIRIUS industrial controls and the low-voltage power distribution with Power Management, SIVACON and SENTRON.

SIRIUS industrial controls

The SIRIUS range has everything you need for switching, protecting and starting loads. Products for monitoring, control, detection, commanding, signaling and power supply round off the spectrum of industrial controls.

Combined with Totally Integrated Automation, Safety Integrated and ECOFAST, our product portfolio can be bundled to create optimized systems. All in all, Siemens provides innovative controls with modern features, such as integrated communication and safety technology that work to your advantage: The basis for ground-breaking integrated solutions.

Low-voltage power distribution with Power Management, SIVACON and SENTRON

Non-residental buildings and industrial plants have one thing in common: without electricity, everything comes to a halt. The availability, safety and cost effectiveness of the power distribution system is of utmost importance – from the medium voltage supply point through to the socket outlet. And only integrated solutions can ensure maximum efficiency for planning, configuration and operation.

The concept is called Totally Integrated Power from Siemens. Total integration in planning and configuration creates synergies and saves costs. Perfectly matched products and systems provide efficient engineering and reliable operation.

© Siemens AG 2008

© Siemens AG 2008

Notes

© Siemens AG 2008

Systems

2

AS-Interface

Introduction

2/2 Transmission technology

ASIsafe

2/3 AS-Interface safety monitors

AS-Interface safety modules

Ch. 8 3SF1, 3SF3 position switches for AS-Interface

Ch. 9 3SF2 cable-operated switches for AS-Interface

Ch. 9 AS-Interface F adapters for EMERGENCY-STOP

Masters

2/4 CP 243-2 and CP 343-2 P

Routers

2/5 DP/AS-i F-Link, IE/AS-i Link PN IO, DP/AS-i Link Advanced

Slaves

2/6 I/O modules for operation in the field

2/8 I/O modules for operation in the control cabinet

2/9 Modules with special functions

Power Supply Units and Transmission Media

2/10 AS-Interface power supply units

AS-Interface shaped cables

System Components and Accessories

2/11 Extension plug

Addressing units

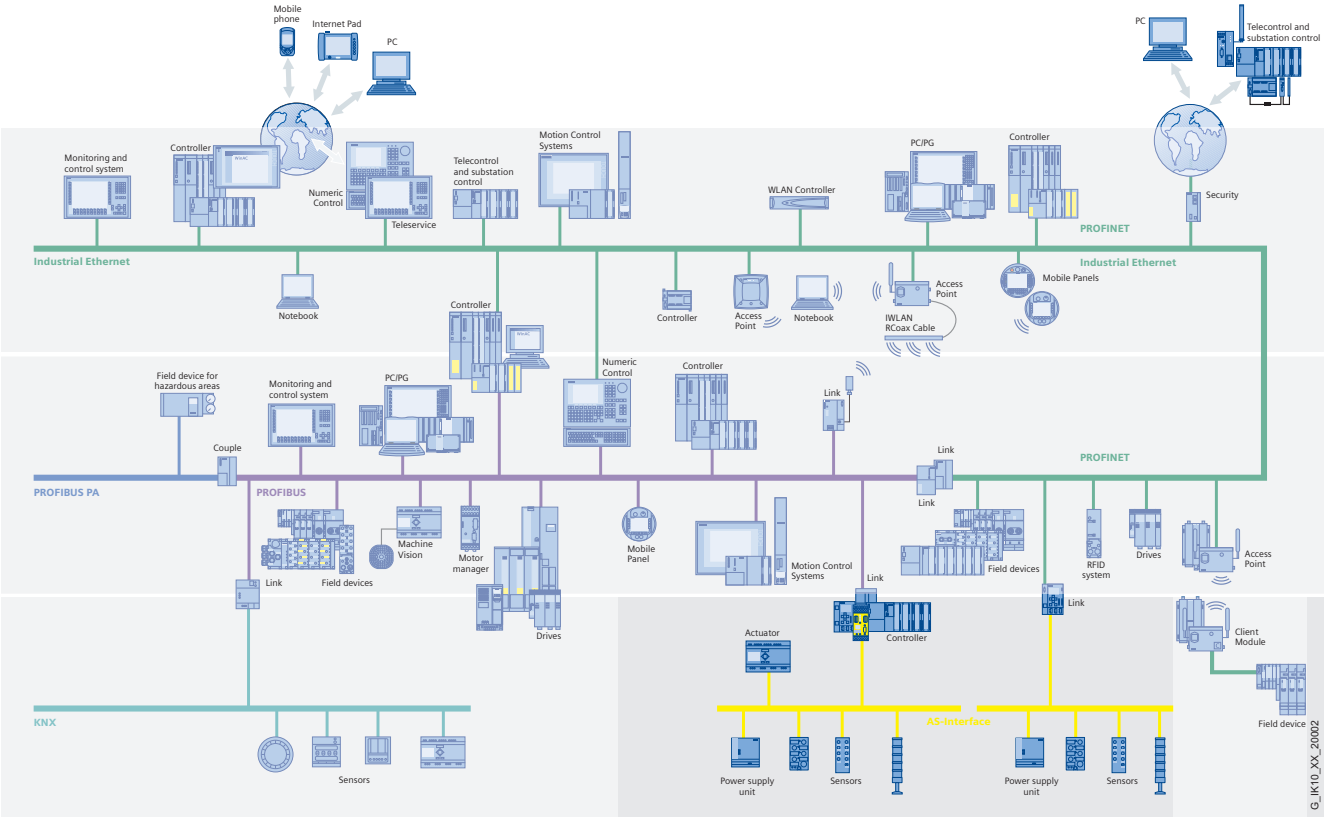
2/12 Accessories

© Siemens AG 2008

Overview

AS-Interface is an open, international standard according to EN 50295 and IEC 62026-2 for process and field communication. Leading manufacturers of actuators and sensors all over the world support the AS-Interface. Interested companies are provided with the electrical and mechanical specifications by the AS-Interface Association.

AS-Interface is a single master system. For automation systems from Siemens there are communications processors (CPs) and routers (links) which control the process or field communication as masters, and actuators and sensors which are activated as AS-Interface slaves.



A key feature of AS-Interface technology is the use of a shared two-conductor cable for data transmission and the distribution of auxiliary power to the sensors/actuators. An AS-Interface power supply unit that meets the requirements of the AS-Interface transmission method is used for the distribution of auxiliary power.

Communication – System components

Numerous system components are offered for implementing the communication. The key elements of a system installation are:

- Master interface modules for central control units such as SIMATIC S5 and SIMATIC S7, ET 200 M/X distributed peripherals
- AS-Interface shaped cables
- Network components such as repeaters/extenders
- Power supplies for slaves, modules for connection of standard sensors/actuators
- Actuators and sensors with integrated slave ASIC
- Safety modules for transmitting safe data through AS-Interface
- Address programming units for setting the slave address

You can find more information on the Internet at:

http://www.siemens.com/simatic-net/ik-info

Expansions of AS-Interface Specification 2.1

- AS-Interface Specification 2.1 enables the number of network stations to be doubled from 31 to 62. Using the so-called expanded addressing system, the 31 addresses available in an AS-Interface network can be split into two.
- If this option is used for each of the 31 slaves, the maximum number of stations in an AS-Interface network is then 62. The so-called A/B slaves can have a maximum of four inputs and three outputs.

AS-Interface master

To be able to operate A/B slaves on an AS-Interface network you must also use master modules that meet the minimum requirements of Specification 2.1.

A/B technology is supported by the masters of the SIMATIC S7 and the DP/AS-Interface links from Siemens. Only standard slaves and A slaves (= A/B slave with an A address) can be operated on masters which do not support Specification 2.1.

© Siemens AG 2008

Overview

The ASIsafe concept supports the direct integration of safety-related components, such as EMERGENCY-STOP switches, protective door switches or safety light arrays, in the AS-Interface network. These are fully compatible with the familiar AS-Interface components (masters, slaves, power supplies, repeaters, etc.) in according to IEC 62062/EN 50295 and are operated in conjunction with them on the yellow AS-Interface cable.

The signals of the safety sensors are evaluated by a safety monitor which not only monitors the switching signals of the safety sensors but also continuously checks that the data transmission works correctly.

A failsafe controller or a special master is not required.

Selection and ordering data

Version		DT	Order No.	PS*	Weight per PU approx. kg
Safety monitors with screw terminals					
Basic safety monitors					
• One enabling circuit			**3RK1 105-1AE04-0CA0**	1 unit	0.336
• Two enabling circuits		▶	**3RK1 105-1BE04-0CA0**	1 unit	0.408
Expanded safety monitors					
• One enabling circuit			**3RK1 105-1AE04-2CA0**	1 unit	0.336
• Two enabling circuits			**3RK1 105-1BE04-2CA0**	1 unit	0.408
ASIsafe CD		▶	**3RK1 802-2FB06-0GA0**	1 unit	0.212
• Configurations software asimon V2					
• Diagnostics package for STEP7 (FB102)					
Cable sets		▶	**3RK1 901-5AA00**	1 unit	0.054
• PC configuration cable					
• Transfer cable between two safety monitors					
Sealable covers		▶	**3RP1 902**	5 units	0.004
Compact safety modules					
K20F compact safety modules					
I/O type	U_{aux} 24 V				
2 F-DI	--		**3RK1 205-0BQ30-0AA3**	1 unit	0.075
K45F compact safety modules[1]					
2 F-DI	--	▶	**3RK1 205-0BQ00-0AA3**	1 unit	0.103
4 F-DI			**3RK1 205-0CQ00-0AA**	1 unit	0.110
2 F-DI LS type 4[1]			**3RK1 205-0BQ24-0AA3**	1 unit	0.108
[1] Connection of Siemens light curtain FS 400 3RG7846 (type 4) through socket 1/3, other makes through socket 2/3.					
K45 mounting plates					
• For wall mounting		▶	**3RK1 901-2EA00**	1 unit	0.027
• For standard rail mounting		▶	**3RK1 901-2DA00**	1 unit	0.036
K60 mounting plates					
• For wall mounting		▶	**3RK1 901-0CA00**	1 unit	0.065
• For standard rail mounting		▶	**3RK1 901-0CB01**	1 unit	0.095
24 V supply modules for K45F LS (light sensor)					
Optional, for transmitter supply with large protective field widths; supplied without mounting plate			**3RK1 901-1NP00**	1 unit	0.075
Input bridges for K45F/K60F					
• Black version			**3RK1 901-1AA00**	1 unit	0.012
• Red version			**3RK1 901-1AA01**	1 unit	0.013
AS-Interface sealing caps M12, tamper-proof For free M12 sockets			**3RK1 901-1KA01**	10 units	0.100
SlimLine safety modules					
S22.5F SlimLine safety modules					
Connection	I/O type	U_{aux} 24 V			
Screw terminals	2 F-DI	--	**3RK1 205-0BE00-0AA2**	1 unit	0.132
	2 F-DI / 2 DO	--	**3RK1 405-0BE00-0AA2**	1 unit	0.180
	2 F-DI / 2 DO	✓	**3RK1 405-1BE00-0AA2**	1 unit	0.180
Spring-loaded terminals	2 F-DI	--	**3RK1 205-0BG00-0AA2**	1 unit	0.102
	2 F-DI / 2 DO	--	**3RK1 405-0BG00-0AA2**	1 unit	0.170
	2 F-DI / 2 DO	✓	**3RK1 405-1BG00-0AA2**	1 unit	0.170

3RK1 105-1BE04-0CA0

3RK1 901-5AA00

3RK1 205-0BQ00-0AA3

3RK1 405-1BQ00-0AA3

3RK1 901-1AA00

3RK1 901-1KA01

3RK1 205-0BE00-0AA2

[1] The modules are supplied without mounting plate. See also page 2/12.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

CP 243-2 and CP 343-2 P

Overview

The CP 243-2 is the AS-Interface master for the innovative SIMATIC S7-200 generation. The compact enclosure matches the design of the innovative SIMATIC S7-200 generation

The CP 343-2 P is the AS-Interface master for the SIMATIC S7-300 programmable controller and the ET 200M distributed I/O station. The compact enclosure matches the design of the SIMATIC S7-300.

The communications processor performs the following functions:

- Connection of up to 62 AS-Interface slaves and integrated analog value transmission (according to the extended AS-Interface Specification V2.1)
- Supports all AS-Interface master functions according to the extended AS-Interface Specification V2.1
- Status displays of operating states and indication of the readiness for operation of connected slaves by means of LEDs in the front panel (CP 243-2)
- Fault indications (e.g. AS-Interface voltage fault, configuration fault) by means of LEDs in the front panel
- The CP 343-2 P also supports configuring of the AS-Interface network with STEP 7 V5.2 and higher

Selection and ordering data

	Version	DT	Order No.	PS*	Weight per PU approx.
					kg
Masters					
6GK7 243-2AX01-0XA	**CP 243-2 communications processors** For connection of SIMATIC S7-200 (2nd generation) to AS-Interface using a bus connector		**6GK7 243-2AX01-0XA0**	1 unit	0.204
6GK7 343-2AH10-0XA0	**CP 343-2 P communications processors** For connection of SIMATIC S7-300 and ET 200M to AS-Interface, without front connectors		**6GK7 343-2AH10-0XA0**	1 unit	0.262
	Front connectors 20-pole, with screw-type contacts, for CP 343		**6ES7 392-1AJ00-0AA0**	1 unit	0.069

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

Version	DT	Order No.	PS*	Weight per PU approx.
				kg
DP/AS-i F-Link				
Router between PROFIBUS DP and AS-Interface				
For failsafe data transmission from ASIsafe to PROFIBUS DP – PROFIsafe Master profile M3.M4 according to extended AS-i Specification 3.0, degree of protection IP20				
• Screw terminals		**3RK3 141-1CD10**	1 unit	0.300
• Spring-loaded terminals		**3RK3 141-2CD10**	1 unit	0.300
IE/AS-i LINK PN IO				
Router between Industrial Ethernet and AS-Interface; M3 and M4 master profiles, extended AS-Interface Specification V3.0; degree of protection IP20; manual on CD-ROM, German, English, French, Spanish, Italian				
• Single master with display		**6GK1 411-2AB10**	1 unit	0.380
• Double master with display		**6GK1 411-2AB20**	1 unit	0.380
DP/AS-i LINK Advanced				
Router between PROFIBUS DP and AS-Interface; it is a PROFIBUS DP slave and an AS-Interface master. Power is supplied over the AS-Interface cable; M3 and M4 master profiles, extended AS-Interface Specification V3.0; degree of protection IP20; manual on CD-ROM, German, English, French, Spanish, Italian				
• Single master with display		**6GK1 415-2BA10**	1 unit	0.380
• Double master with display		**6GK1 415-2BA20**	1 unit	0.380

6GK1 415-2BA

Accessories for Advanced Link

C-PLUG				**6GK1 900-0AB00**	1 unit	0.200
Digital I/O modules IP67 - K60 data couplers						
• Modules supplied without mounting plate						
Type	Current carrying capacity of outputs	Slave type	Pin assignment			
Data coupler 4 inputs/ 4 outputs (virtual)	--	Standard		**3RK1 408-8SQ00-0AA3**	1 unit	0.200
AS-Interface power supply units, IP20						
• Single output IP20						
• With integrated ground-fault detection						
• 2.6 A version NEC Class 2 Power Supply						
Output current	Input voltage					
2.6 A Class 2	120 / 230 V AC (selectable)		►	**3RX9 501-2BA00**	1 unit	0.550

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

I/O modules for operation in the field
Digital I/O modules

Overview

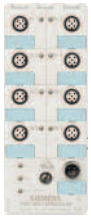
Three coordinated series of AS-Interface compact modules with digital and analog compact modules and a high degree of protection are available for operation in the field:

- Series K60 (digital and analog)
- Series K45 (digital)
- Series K20 (digital)

All compact modules are characterized by particularly simple handling. The K60 and K45 modules are mounted with a mounting plate. The mounting plate is used to receive the AS-Interface flat cables and enables mounting on a wall or standard mounting rail.

The K20 modules are directly mounted without a mounting plate and connected to the AS-Interface using a round cable.

Selection and ordering data

	Version					DT	Order No.	PS*	Weight per PU approx.
	Type	Current carrying capacity of outputs	Slave type	Pin assignment	Connection method				kg
Digital I/O modules									
3RK1 400-1DQ00-0AA3	**Digital I/O modules, IP67 – K60**[1] • PNP transistor • Current carrying capacity of the inputs: 200 mA								
	8 inputs/2 outputs	2 A	A/B	Special	M12		**3RK2 400-1HQ00-0AA3**	1 unit	0.210
	8 inputs	--	Standard	Y-II	M12	►	**3RK1 200-0DQ00-0AA3**	1 unit	0.195
			A/B			►	**3RK2 200-0DQ00-0AA3**	1 unit	0.191
	4 inputs/4 outputs	2 A	Standard	Y-II	M12	►	**3RK1 400-1DQ00-0AA3**	1 unit	0.209
				Standard		►	**3RK1 400-1CQ00-0AA3**	1 unit	0.209
		1 A		Y-II			**3RK1 400-1DQ01-0AA3**	1 unit	0.208
				Standard		►	**3RK1 400-1DQ03-0AA3**	1 unit	0.207
	4 inputs/3 outputs	2 A	A/B	Y-II	M12	►	**3RK2 400-1FQ03-0AA3**	1 unit	0.212
	4 inputs/2 outputs		Standard			►	**3RK1 400-1MQ00-0AA3**	1 unit	0.206
	4 inputs	--				►	**3RK1 200-0CQ00-0AA3**	1 unit	0.204
	2 × 2 inputs/ 2 × 2 outputs	1 A		Y			**3RK1 400-1DQ02-0AA3**	1 unit	0.205
	4 outputs	2 A		Y-II		►	**3RK1 100-1CQ00-0AA3**	1 unit	0.204
	Digital I/O modules, IP67 – K60[1] **– Version ATEX (Ex) II 3D IP65 X** • PNP transistor • Current carrying capacity of the inputs: 200 mA								
	4 inputs/4 outputs	2 A	Standard	Y-II	M12		**3RK1 400-1DQ05-0AA3**	1 unit	0.209
	4 inputs	--					**3RK1 200-0CQ05-0AA3**	1 unit	0.204
	Digital I/O modules IP67 – K60 data couplers • Modules supplied without mounting plate								
	Data coupler 4 inputs / 4 outputs (virtual)	--	Standard				**3RK1 408-8SQ00-0AA3**	1 unit	0.200
3RK1 400-0GQ20-0AA3	**Digital I/O modules, IP67 – K45**[1] • PNP transistor • Current carrying capacity of the inputs: 200 mA								
	4 inputs	--	Standard	Standard	M12	►	**3RK1 200-0CQ20-0AA3**	1 unit	0.086
					M8 screw fitting		**3RK1 200-0CT20-0AA3**	1 unit	0.098
					M8 snap fitting		**3RK1 200-0CU20-0AA3**	1 unit	0.091
			A/B		M12	►	**3RK2 200-0CQ20-0AA3**	1 unit	0.099
					M8 screw fitting		**3RK2 200-0CT20-0AA3**	1 unit	0.100
					M8 snap fitting		**3RK2 200-0CU20-0AA3**	1 unit	0.102
	2 x 2 inputs	--	A/B	Y	M12		**3RK2 200-0CQ22-0AA3**	1 unit	0.100
	2 inputs/2 outputs	2 A[2]	Standard	Standard		►	**3RK1 400-1BQ20-0AA3**	1 unit	0.100
	2 x (1 input/1 output)	0.2 A		Y			**3RK1 400-0GQ20-0AA3**	1 unit	0.098
	4 outputs	1 A		Standard		►	**3RK1 100-1CQ20-0AA3**	1 unit	0.100
	4 x (1 input/1 output)	0.2 A		Y			**3RK1 400-0GQ20-0AA3**	1 unit	0.098
	3 outputs	--	A/B	--		►	**3RK2 100-1EQ20-0AA3**	1 unit	0.093
	2 outputs/2 inputs	2 A		--			**3RK2 400-1BQ20-0AA3**	1 unit	0.100
 3RK1 400-0CR00-0AA3	**Digital I/O modules, IP68 / IP69K– K60R**[1] • Tested in severe operating conditions (salt water, creepable oil, drilling emulsion, high-pressure cleaners) • PNP transistor • Current carrying capacity of the inputs: 200 mA • Supply from M12 round cable								
	4 inputs/4 outputs	2 A	Standard	Y-II	M12		**3RK1 400-1CR00-0AA3**	1 unit	0.208

[1] The modules are supplied without mounting plate. See page 2/12.

[2] The typical current carrying capacity per output increased with version "E12" from 1.5 to 2 A (available since approx. 07/2003).

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview

AS-Interface analog modules from the K60 compact series detect or issue analog signals locally. These modules are linked to the higher-level controller through an AS-Interface master according to Specification 2.1 or 3.0.

The analog modules are divided into five groups:

- Input module for sensors with current signal
- Input module for sensors with voltage signal
- Input module for sensors with thermal resistor
- Output module for current actuators
- Output module for voltage actuators

The input modules according to Profile 7.3/7.4 are available with two or four input channels. It is possible in addition to convert the two-channel module to using only one input channel, thus enabling very short times before the analog value is available.
The conversion is effected by means of a jumper plug at socket 3. The transmission times achieved with analog modules according to Profile 7.A.9 are half shorter by half than those achieved with Profile 7.3/7.4. Operation is adjustable in this case, e.g.it is possible to choose with the ID1 Code whether the module is operated with one or two channels.

The output modules are configured as two-channel modules as standard.

The input and output channels are electrically isolated from the AS-Interface network. If sensors with a higher power requirement are to be connected, more power can be supplied through the auxiliary voltage as an alternative to the internal supply.

Selection and ordering data

Version			DT	Order No.	PS*	Weight per PU approx.
						kg
Analog I/O modules						
Analog I/O modules, IP67 – K60[1], analog profile 7.3 • Slave type: Standard						
Inputs	Type	Measuring range				
1 or 2 inputs (selectable by jumper plug to socket 3)	Current	4 ... 20 mA or ± 20 mA (selectable)	►	**3RK1 207-1BQ40-0AA3**	1 unit	0.187
	Voltage	± 10 V or 1 ... 5 V (selectable)	►	**3RK1 207-2BQ40-0AA3**	1 unit	0.188
	Thermal resistor	Pt 100 or Ni 100 or 0 ... 600 Ω (selectable)	►	**3RK1 207-3BQ40-0AA3**	1 unit	0.183
4 inputs	Current	4 ... 20 mA or ± 20 mA (selectable)		**3RK1 207-1BQ44-0AA3**	1 unit	0.190
	Voltage	± 10 V or 1 ... 5 V (selectable)		**3RK1 207-2BQ44-0AA3**	1 unit	0.190
	Thermal resistor	Pt 100 or Ni 100 or 0 ... 600 Ω (selectable)		**3RK1 207-3BQ44-0AA3**	1 unit	0.190
Outputs	Type	Output range				
2 outputs	Current for 2-wire actuators	4 ... 20 mA or ± 20 mA or 0 ... 20 mA, (selectable)	►	**3RK1 107-1BQ40-0AA3**	1 unit	0.200
	Voltage for 2-wire actuators	± 10 V or 0 ... 10 V or 1 ... 5 V (selectable)	►	**3RK1 107-2BQ40-0AA3**	1 unit	0.200
Analog I/O modules, IP67 - K60[1], analog profile 7.A.9 • Slave type: A/B (Spec. 3.0)						
Inputs	Type	Measuring range				
1 or 2 inputs (variably adjustable)	Current	4 ... 20 mA or ± 20 mA (selectable)		**3RK2 207-1BQ50-0AA3**	1 unit	0.187
	Voltage	± 10 V or 1 ... 5 V (selectable)		**3RK2 207-2BQ50-0AA3**	1 unit	0.187

3RK1 207-1BQ44-0AA3

3RK2 207-2BQ50-0AA3

[1] The modules are supplied without mounting plate. See page 2/12.

© Siemens AG 2008

I/O modules for operation in the control cabinet

Overview

For AS-Interface applications inside control cabinets there are various module series for the most diverse requirements:

- SlimLine S22.5
- SlimLine S45
- F90 module
- Flat module

All modules of these series can be snap-mounted directly on a standard mounting rail or be fastened using screws.

AS-Interface modules in IP20 have direct terminals for the AS-Interface cables and therefore do not require a base.

Selection and ordering data

3RK1 200-0CE00-0AA2

3RK1 400-1CE00-0AA2

Version					DT	Order No.	PS*	Weight per PU approx.
Type	Terminals	Slave type	Inputs	Outputs				kg
SlimLine modules								
S22.5 SlimLine modules, inputs: PNP transistor								
4 inputs	Screw	Standard	2-wire	--	▶	**3RK1 200-0CE00-0AA2**	1 unit	0.138
			2- and 3-wire		▶	**3RK1 200-0CE02-0AA2**	1 unit	0.141
		A/B slave	2- and 3-wire		▶	**3RK2 200-0CE02-0AA2**	1 unit	0.145
	Spring	Standard	2-wire	--		**3RK1 200-0CG00-0AA2**	1 unit	0.115
			2- and 3-wire			**3RK1 200-0CG02-0AA2**	1 unit	0.117
		A/B slave	2- and 3-wire			**3RK2 200-0CG02-0AA2**	1 unit	0.122
2 inputs/ 2 outputs	Screw	Standard	2-wire	PNP transistor 2 A	▶	**3RK1 400-0BE00-0AA2**	1 unit	0.139
				Relays	▶	**3RK1 402-0BE00-0AA2**	1 unit	0.165
	Spring	Standard	2-wire	PNP transistor 2 A		**3RK1 400-0BG00-0AA2**	1 unit	0.112
				Relays		**3RK1 402-0BG00-0AA2**	1 unit	0.145
4 outputs	Screw	Standard	--	PNP transistor 1 A	▶	**3RK1 100-1CE00-0AA2**	1 unit	0.138
	Spring	Standard	--	PNP transistor 1 A		**3RK1 100-1CG00-0AA2**	1 unit	0.114
S45 SlimLine modules, inputs: PNP transistor								
4 inputs/ 4 outputs	Screw	Standard	2- and 3-wire	PNP transistor 1 A	▶	**3RK1 400-1CE00-0AA2**	1 unit	0.291
				PNP transistor 2 A	▶	**3RK1 400-1CE01-0AA2**	1 unit	0.289
			2- and 3-wire floating	PNP transistor 1 A floating	▶	**3RK1 402-3CE01-0AA2**	1 unit	0.287
			2- and 3-wire	Relays	▶	**3RK1 402-3CE00-0AA2**	1 unit	0.316
		A/B (Spec. 3.0)	2- and 3-wire	PNP transistor 2 A		**3RK2 400-1CE01-0AA2**	1 unit	0.289
	Spring	Standard	2- and 3-wire	PNP transistor 1 A		**3RK1 400-1CG00-0AA2**	1 unit	0.243
				PNP transistor 2 A		**3RK1 400-1CG01-0AA2**	1 unit	0.241
			2- and 3-wire floating	PNP transistor 1 A floating		**3RK1 402-3CG01-0AA2**	1 unit	0.239
			2- and 3-wire	Relays		**3RK1 402-3CG00-0AA2**	1 unit	0.272
		A/B (Spec. 3.0)	2- and 3-wire	PNP transistor 2 A		**3RK2 400-1CG01-0AA2**	1 unit	0.241
4 inputs/ 3 outputs	Screw	A/B slave	2- and 3-wire	PNP transistor 2 A	▶	**3RK2 400-1FE00-0AA2**	1 unit	0.294
	Spring	A/B slave	2- and 3-wire	PNP transistor 2 A		**3RK2 400-1FG00-0AA2**	1 unit	0.247
Accessories for SlimLine modules								
Sealable covers To secure against unauthorized addressing					▶	**3RP1 902**	5 units	0.004
Push-in lugs For screw fixing					▶	**3RP1 903**	10 units	0.002
SlimLine opening tools For all devices with spring-loaded terminal connections up to max. 1.5 mm^2 conductor cross-section, partially insulated						**8WA2 807**	On req.	

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

Version				DT	Order No.	PS*	Weight per PU approx.
							kg
F90 modules							
F90 modules Standard slave							
Type	Connection	Inputs	Outputs				
4 inputs/4 outputs	Screw terminals	2- and 3-wire PNP transistor	PNP transistor 1A		**3RG9 002-0DB00**	1 unit	0.112
			PNP transistor 2A		**3RG9 002-0DA00**	1 unit	0.112
		2- and 3-wire PNP transistor floating			**3RG9 002-0DC00**	1 unit	0.111
	Combicon	2- and 3-wire PNP transistor	PNP transistor 1A		**3RG9 004-0DB00**	1 unit	0.090
			PNP transistor 2A		**3RG9 004-0DA00**	1 unit	0.090
		2- and 3-wire PNP transistor floating			**3RG9 004-0DC00**	1 unit	0.107
16 inputs	Screw terminals	PNP transistor	--		**3RG9 002-0DE00**	1 unit	0.133
	Combicon				**3RG9 004-0DE00**	1 unit	0.086
Accessories for F90 modules							
Combicon connector sets For 4I/4O modules with Combicon connection One set comprises: • 4 x 5-pole plug for connection • Standard sensors/actuators • 2 x 4-pole plug for AS-Interface and external auxiliary voltage				►	**3RX9 810-0AA00**	1 unit	0.062
Flat modules							
Flat modules • 4 inputs/ 4 outputs • 200 mA for all I/Os • Screw terminals					**3RK1 400-0CE00-0AA3**	1 unit	0.097
Modules with special functions							
Overvoltage protection modules					**3RK1 901-1GA00**	1 unit	0.146

3RG9 002-0DB00

3RK1 400-0CE00-0AA3

3RK1 901-1GA0

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview

Power Supply Units

AS-Interface power supplies are an essential and functionally important part of an AS-Interface network. They supply the electronics of the network (AS-Interface modules and AS-Interface masters) and the connected sensor technology. Furthermore, the integrated data decoupling of AS-Interface power supplies ensures the separation of data and energy, thus enabling AS-Interface to transmit data and power on a single cable.

Shaped cables

The actuator-sensor interface - the networking system used for the lowest field area - is characterized by very easy mounting and installation. A new connection method was developed specially for AS-Interface.

The stations are connected using the AS-Interface cable. This two-wire cable has a trapezoidal shape, thus ruling out polarity reversal.

Connection is effected by the insulation piercing method. In other words, male contacts pierce the shaped AS-Interface cable and make reliable contact with the two wires. Cutting to length and stripping are superfluous. Consequently, AS-Interface stations (e.g. I/O modules, intelligent devices) can be connected in the shortest possible time and exchanging devices is quick.

Selection and ordering data

	Version		DT	Order No.	PS*	Weight per PU approx.
						kg
Power supply units						
3RX9 501–0BA00	**AS-Interface power supply units, IP20** • Single output IP20 • With integrated ground-fault detection					
	Output current	Input voltage				
	2.6 A Class 2	120 / 230 V AC (selectable)	▶	**3RX9 501–2BA00**	1 unit	0.550
	3 A	120 / 230 V AC (selectable)	▶	**3RX9 501–0BA00**	1 unit	0.550
		24 V DC	▶	**3RX9 501–1BA00**	1 unit	0.570
	5 A	120 / 230 V AC (selectable)	▶	**3RX9 502–0BA00**	1 unit	0.710
	8 A	120 / 230 ... 500 V AC (selectable)	▶	**3RX9 503–0BA00**	1 unit	1.310
3RX9 503–0BA00						
Shaped cables						
	AS-Interface shaped cables					
	Material	Color	Quantity			
	Rubber	Yellow (AS-Interface)	100-m roll	▶ **3RX9 010-0AA00**	1 unit	7.148
			1-km drum	**3RX9 012-0AA00**	1 unit	80.000
		Black (24 V DC)	100-m roll	▶ **3RX9 020-0AA00**	1 unit	7.092
			1-km drum	**3RX9 022-0AA00**	1 unit	80.000
	TPE	Yellow (AS-Interface)	100-m roll	▶ **3RX9 013-0AA00**	1 unit	6.627
			1-km drum	**3RX9 014-0AA00**	1 unit	78.000
		Black (24 V DC)	100-m roll	▶ **3RX9 023-0AA00**	1 unit	6.459
			1-km drum	**3RX9 024-0AA00**	1 unit	69.666
	TPE special version according to UL Class 2	Yellow (AS-Interface)	100-m roll	**3RX9 017-0AA00**	1 unit	6.900
		Black (24 V DC)	100-m roll	**3RX9 027-0AA00**	1 unit	6.984
	PUR[1)]	Yellow (AS-Interface)	100-m roll	▶ **3RX9 015-0AA00**	1 unit	6.131
			1-km drum	**3RX9 016-0AA00**	1 unit	69.100
		Black (24 V DC)	100-m roll	▶ **3RX9 025-0AA00**	1 unit	6.323
			1-km drum	**3RX9 026-0AA00**	1 unit	200.000

1) Note on towability of the AS-Interface cable with PUR outer sheath:
To determine its towability, the AS-Interface cable was tested in "IGUS tow chains" type 10.2.048 and 20.2.55. For the test, the tow chain was fitted with 3 × AS-Interface cables and diverse round cables. After three million bendings (stroke), no damage to the cores, strands or outer sheath were discovered (tow chain equipped to 50 %).

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

	Version	DT	Order No.	PS*	Weight per PU approx.
					kg
Extension plugs					
3RK1 901-1MX00	**AS-Interface extension plugs**[1)] • Doubling of the cable length to 200 m per AS-Interface segment • Undervoltage monitoring signal by means of diagnostics LED	►	**3RK1 901-1MX00**	1 unit	0.035
	AS-Interface extension plugs Plus[1)] • Doubling of the cable length to 200 m per AS-Interface segment • Undervoltage monitoring signal through integrated AS-Interface slave to AS-Interface master	►	**3RK1 901-1MX01**	1 unit	0.035
6GK1 210-0SA00	**Repeaters** • Extension of an AS-i segments to max. 200 m with an extension plug (without an additional power supply unit) • Expansion of one bus segment with an AS-i repeater • Maximum size increases (when combined) to more than 600 m Your advantage: lower infrastructure costs, more possibilities of use and greater freedom for plant planning		**3RK1, 6GK1** Repeater/extender: See Catalog IK PI "Industrial Communication for Automation and Drives" Extension plug: LV1 2008 (page 2/60)		
Accessories for extension plugs					
3RX9 801-0AA00	**AS-Interface M12 feeders** • For adaptation of shaped AS-Interface cable to a standard round cable • Insulation piercing method for connection of AS-Interface cable • M12 socket for connection of standard round cable • Degree of protection IP67	►	**3RX9 801-0AA00**	1 unit	0.029
Addressing units					
3RK1 904-2AB01	**AS-Interface addressing units** • For active AS-Interface modules, intelligent sensors and actuators • According to AS-Interface Version 2.1 • Including expanded addressing mode • Scope of supply: - One addressing unit - One operating manual (German, English, French, Spanish, Italian) - One addressing cable (1.5 m, with jack plug)	►	**3RK1 904-2AB01**	1 unit	0.540
Accessories for addressing units					
	FK-E coupling modules, with integrated addressing socket[2)] For addressing user modules		**3RK1 901-1MA00**	1 unit	0.057
	Addressing cables, with M12 socket[2)] • For addressing[3)] slaves with M12 connection (e.g. K60R) or light curtains • 1.5 m		**3RX8 000-0GF32-1AB5**	1 unit	0.069
	Addressing cables, with jack plug[4)] • 1.5 m • Included in scope of supply of the 3RK1 904-2AB01 addressing unit		**Z236A**	1 unit	

1) For connection to the AS-Interface flat cable you need the AS-Interface M12 feeder, which must be ordered separately (see section *Accessories*).

2) Not included in scope of supply of of the 3RK1 904-2AB01 addressing unit.

3) Note: A 3-pole cable must be used because the addressing unit uses PIN 2, 4 and 5 for IR addressing.

4) Can be ordered only from the following address:
Gossen-Metrawatt GmbH, Thomas-Mann-Str. 16-20,
90471 Nürnberg, Germany
Tel.: +49 (0)911/8602-111, Fax: 0911/8602-777,
E-Mail: info@gmc-instruments.com

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

	Version	Application	DT	Order No.	PS*	Weight per PU approx.
						kg
Accessories for K60, K45, K60R modules						
3RK1 901-0CA00	**K60 mounting plates** Suitable for all K60 compact modules	K60, K60R, K60 analog				
	• For wall mounting		▶	**3RK1 901-0CA00**	1 unit	0.065
	• For standard rail mounting		▶	**3RK1 901-0CB01**	1 unit	0.095
	K45 mounting plates	K45				
	• For wall mounting		▶	**3RK1 901–2EA00**	1 unit	0.027
	• For standard rail mounting		▶	**3RK1 901–2DA00**	1 unit	0.036
3RK1 901-1KA00	**AS-Interface sealing caps M12** For free M12 sockets	K20, K45, K60, K60R, K60 analog	▶	**3RK1 901–1KA00**	10 units	0.100
3RK1 901-1PN00	**AS-Interface sealing caps M8** For free M8 sockets	K20, K45		**3RK1 901-1PN00**	10 units	0.100
3RK1 901-1KA01	**AS-Interface sealing caps M12, tamper-proof** For free M12 sockets	K60		**3RK1 901-1KA01**	10 units	0.100
3RK1 901-1NN00	**AS-Interface standard distributors** • For AS-Interface flat cables, load capacity 2 A • Delivery includes special mounting plate for wall and standard rail mounting • Seals (3RK1 902-0AR00) are required only if a cable is to be terminated in the distributor and must be ordered separately	K20, K45, K60	▶	**3RK1 901-1NN00**	1 unit	0.086
3RK1 902-0AR00	**Sealing sets** • For K60 mounting plate and standard distributor • Cannot be used for K45 mounting plate • One set contains one straight and one shaped seal	K60, K60 analog		**3RK1 902-0AR00**	5 units	0.100
3RK1 901-1AA00	**Jumper plugs** For changing over the 2-channel input modules	K60 analog		**3RK1 901-1AA00**	1 unit	0.012
3RK1 901-1NR00	**AS-Interface quadruple M12 feeders** • Quadruple AS-i/U_{aux} • Flat cable on 4 x M12 (socket) • Current carrying capacity: 4O • Passive without LED • Delivery includes coupling module	K20, K60R		**3RK1 901-1NR00**	1 unit	0.186
3RK1 901-1TR00	**M12-T distributors** • IP68 • 1 x M12 plug • 2 x M12 box	K20, K60R		**3RK1 901-1TR00**	1 unit	0.038
3RK1 901-3RA00	**M12 addressing cables** Required only for 3RK1 904-2AB00 addressing unit; if the latest version of the 3RK1 904-2AB01 addressing unit is used, the addressing is performed with a standard 3RX8 000-0GF32-1AB5 M12 cable	K20, K60R		**3RK1 901-3RA00**	1 unit	0.064

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

	Version	DT	Order No.	PS*	Weight per PU approx. kg
Accessories for cables					
3RX9 801-0AA00	**AS-Interface M12 feeders** • Transition of shaped AS-Interface flat cable to M12 (socket) for standard round cable • Insulation piercing method for connection of AS-Interface cable, cable end in feeder possible • Degree of protection IP67	►	**3RX9 801-0AA00**	1 unit	0.029
3RK1 901-1NN10	**AS-Interface compact distributors, for AS-Interface flat cables** Current carrying capacity up to 6 A		**3RK1 901-1NN10**	1 unit	0.040
3RK1 901-1NR10	**AS-Interface M12 feeders**				
	• Transition from AS-i flat cable to				
	- M12 socket		**3RK1 901-1NR10**	1 unit	0.060
	- M12 cable box with 1 m round cable		**3RK1 901-1NR11**	1 unit	0.070
	- M12 cable box with 2 m round cable		**3RK1 901-1NR12**	1 unit	0.100
3RK1 901-1NR11	• Transition from AS-i / U_{aux} flat cable to				
	- M12 socket		**3RK1 901-1NR20**	1 unit	0.060
	- M12 cable box with 1 m round cable		**3RK1 901-1NR21**	1 unit	0.070
	- M12 cable box with 2 m round cable		**3RK1 901-1NR22**	1 unit	0.100
	• Cable end in feeder not possible				
3RK1 901-1MD00	**AS-Interface seals M20** • For AS-Interface cable, shaped • For insertion in M20 glands		**3RK1 901-1MD00**	10 units	0.100
3RK1 901-3QM00	**Cable adapters for flat cables** Connection of AS-Interface cable to metric gland with insulation piercing method				
	• Continuation using standard cable				
	- For M16 gland		**3RK1 901-3QM00**	1 unit	0.015
	- For M20 gland		**3RK1 901-3QM10**	1 unit	0.017
	• Continuation using pins				
	- For M16 gland		**3RK1 901-3QM01**	1 unit	0.015
	- For M20 gland		**3RK1 901-3QM11**	1 unit	0.015
3RK1 901-3QA00	**Cable clips for cable adapters** Suitable for Pg cable adapters and metric version	►	**3RK1 901-3QA00**	10 units	0.100
3RK1 901-1MN00	**Cable terminating pieces** For sealing of open cable ends (shaped AS-Interface cable) in IP67	►	**3RK1 901-1MN00**	10 units	0.085
6ES7 194-1KA01-0XA0	**M12 Y-shaped coupler plugs** For connecting two sensors with a single cable, 5-pole		**6ES7 194-1KA01-0XA0**	1 unit	0.046

More accessories:

- See Catalog FS 10 / chapter *Proximity Switches BERO / section Accessories / Plug-in Connectors*
- See A&D Mall / section *Low-Voltage Controls / SIRIUS Industrial Controls / Sensors, Measurement and Testing Systems / Proximity Switches BERO / Accessories / Plug Connectors*

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Notes

© Siemens AG 2008

Controls – Contactors and Contactor Assemblies

3

3/2 **Introduction**

3RT, 3TF Contactors for Switching Motors
3/4 General data
3/10 3RT10 contactors, 3-pole, 3 ... 250 kW
3/17 3RT12 vacuum contactors, 3-pole, 110 ... 250 kW
3/18 3TF6 vacuum contactors, 3-pole, 335 ... 450 kW

3RA13, 3RA14 Contactor Assemblies
3RA13 Reversing Contactor Assemblies
3/19 3RA13 complete units, 3 ... 45 kW
3/23 Components for customer assembly
3RA14 Contactor Assemblies for Wye-Delta Starting
3/24 3RA14 complete units, 3 ...75 kW
3/29 Components for customer assembly

3RT, 3RH, 3TC, 3TK Contactors for Special Applications
3RT14 Contactors for Switching Resistive Loads (AC-1)
3/30 3-pole, 140 ... 690 A
3RT13 Contactors for Switching Resistive Loads (AC-1)
3/31 4-pole, 4 NO, 18 ... 140 A
3RT15 Contactors
3/32 4-pole, 2 NO + 2 NC, 4 ... 18.5 kW
3RT16 Capacitor Contactors
3/33 12.5 ... 50 kvar

3RH Contactor Relays
3/34 3RH1 contactor relays, 4- and 8-pole
3/36 3RH14 latched contactor relays, 4-pole
3/37 3RH11 coupling relays for switching auxiliary circuits, 4-pole

3RT Coupling Relays
3/38 3RT10 coupling relays (interface), for switching motors, 3-pole, 3 ... 11 kW

3TX7, 3RS18 Coupling Relays
3TX7 Coupling Relays, Narrow Design
3/39 Relay couplers
3/40 Relay couplers with plug-in connection
Semiconductor couplers
3RS18 Coupling Relays with Industrial Housing
3/41 Relay couplers

LZS, LZX Plug-In Relays
3/42 Relay couplers

3TG10 Power Relays/ Miniature Contactors
3/49 4-pole, 4 kW

Accessories and Spare Parts
For 3RT, 3RH, 3TF, 3TC Contactors and Contactor Relays
3/50 Accessories for 3RT, 3RH contactors and contactor relays
3/60 Accessories for 3TF, 3TC contactors

© Siemens AG 2008

Introduction

Overview

Size			**S00**			**S0**				**S2**		
Type			3RT10 1			3RT10 2				3RT10 3		
3RT10 contactors • 3RT12 and 3TF68/69 vacuum contactors												
Type AC, DC operation			**3RT10 15** (p. 3/10, 3/12)	**3RT10 16**	**3RT10 17**	**3RT10 23** (p. 3/10, 3/12)	**3RT10 24**	**3RT10 25**	**3RT10 26**	**3RT10 34** (p. 3/11, 3/13)	**3RT10 35**	**3RT10 36**
Type			--			--				--		
AC-3												
I_e/AC-3/400 V		A	7	9	12	9	12	17	25	32	40	50
400 V AC/DC		**kW**	**3**	**4**	**5.5**	**4**	**5.5**	**7.5**	**11**	**15**	**18.5**	**22**
230 V		kW	2.2	3	3	3	3	4	5.5	7.5	11	15
500 V		kW	3.5	4.5	5.5	4.5	7.5	10	11	18.5	22	30
690 V	3RT10/12	kW	4	5.5	5.5	5.5	7.5	11	11	18.5	22	22
1 000 V	3RT10/12	kW	--	--	--	--	--	--	--	--	--	--
AC-4 (for $I_a = 6 \times I_e$)												
400 V		**kW**	**3**	**4**	**4**	**4**	**5.5**	**7.5**	**7.5**	**15**	**18.5**	**22**
400 V (200 000 operating cycles)	3RT10/12	kW	1.15	2	2	2	2.6	3.5	4.4	8.2	9.5	12.6
AC-1 (40 °C, ≤ 690 V)												
I_e	3RT10/12	**A**	**18**	**22**	**22**	**40**	**40**	**40**	**40**	**50**	**60**	**60**
3RT14 AC-1 contactors												
Type			**--**			**--**				**--**		
I_e/AC-1/40 °C/≤ 690 V		**A**	**--**			**--**				**--**		
Accessories for contactors												
Auxiliary switch blocks	front lateral		**3RH19 11** **--**		(p. 3/50)	**3RH19 21** **3RH19 21**		(p. 3/51) (p. 3/52)				
Terminal covers			**--**			**--**				**3RT19 36-4EA2**		(p. 3/57)
Box terminal blocks			**--**			**--**				**--**		
Surge suppressors			**3RT19 16**		(p. 3/55)	**3RT19 26**		(p. 3/55)		**3RT19 26/36**		(p. 3/55)
3RU1 and 3RB2 overload relays (protection equipment: overload relays)												
3RU11, thermal, CLASS 10			**3RU11 16**	0.1 ... 12 A	(Chapter 5)	**3RU11 26**	1.8 ... 25 A	(Chapter 5)		**3RU11 36**	5.5 ... 50 A	(Chapter 5)
3RB20/21, solid-state, CLASS 5, 10, 20 and 30			**3RB20 16** **3RB21 16**	0.1 ... 12 A	(Chapter 5)	**3RB20 26** **3RB21 26**	3 ... 25 A	(Chapter 5)		**3RB20 36** **3RB21 36**	6 ... 50 A	(Chapter 5)
3RB22/23, solid-state, CLASS 5, 10, 20 and 30			**3RB2. 83 + 3RB29 06**	0.3 ... 25 A	(Chapter 5)					**3RB2. 83 + 3RB29 06**	10 ... 100 A	(Chapter 5)
3RV10 motor starter protectors (protection equipment: motor starter protectors)												
Type			**3RV10 11**	0.18 ... 12 A	(Chapter 5)	**3RV10 21**	9 ... 25 A	(Chapter 5)		**3RV10 31**	22 ... 50 A	(Chapter 5)
Link modules			**3RA19 11**		(Chapter 5)	**3RA19 21**		(Chapter 5)		**3RA19 31**		(Chapter 5)
3RA13 reversing contactor assemblies												
Complete units		Type	**3RA13 15** (p. 3/19)	**3RA13 16**	**3RA13 17**		**3RA13 24** (p. 3/20)	**3RA13 25**	**3RA13 26**	**3RA13 34** (p. 3/21)	**3RA13 35**	**3RA13 36**
400 V		**kW**	**3**	**4**	**5.5**		**5.5**	**7.5**	**11**	**15**	**18.5**	**22**
Assembly kits/wiring modules			**3RA19 13-2A**		(p. 3/23)	**3RA19 23-2A**		(p. 3/23)		**3RA19 33-2A**		(p. 3/23)
Mechanical interlocks			**3RA19 12-2H**		(p. 3/23)	**3RA19 24-1A/-2B**		(p. 3/23)				
3RA14 contactor assemblies for wye-delta starting												
Complete units		Type	**3RA14 15** (p. 3/24)	**3RA14 16**		**3RA14 23** (p. 3/25)		**3RA14 25**		**3RA14 34** (p. 3/26)	**3RA14 35** (p. 3/28)	**3RA14 36**
400 V		**kW**	**5.5**	**7.5**		**11**		**15/18.5**		**22/30**	**37**	**45**
Assembly kits/wiring modules			**3RA19 13-2B**		(p. 3/29)	**3RA19 23-2B**		(p. 3/29)		**3RA19 33-2B/-2C**		(p. 3/29)

© Siemens AG 2008

S3 3RT1. 4			**S6** 3RT1. 5			**S10** 3RT1. 6			**S12** 3RT1. 7		**14** 3TF6	
3RT10 44 (p. 3/11, 3/13)	**3RT10 45**	**3RT10 46**	**3RT10 54** (p. 3/14)	**3RT10 55**	**3RT10 56**	**3RT10 64** (p. 3/14)	**3RT10 65**	**3RT10 66**	**3RT10 75** (p. 3/14)	**3RT10 76**	**--**	
--			--			**3RT12 64** (p. 3/17)	**3RT12 65**	**3RT12 66**	**3RT12 75** (p. 3/17)	**3RT12 76**	**3TF68** (p. 3/18)	**3TF69**
65	80	95	115	150	185	225	265	300	400	500	630	820
30	**37**	**45**	**55**	**75**	**90**	**110**	**132**	**160**	**200**	**250**	**335**	**450**
18.5	22	22	37	45	55	55	75	90	132	160	200	260
37	45	55	75	90	110	160	160	200	250	355	434	600
45	55	55	110	132	160	200	250	250	400	400/500	600	800
30	37	37	75	90	90	90/315	132/355	132/400	250/560	250/710	600	800
30	**37**	**45**	**55**	**75**	**90**	**110**	**132**	**160**	**200**	**250**	**355**	**400**
15.1	17.9	22	29	38	45	54/78	66/93	71/112	84/140	98/161	168	191
100	**120**	**120**	**160**	**185**	**215**	**275/330**	**330**	**330**	**430/610**	**610**	**700**	**910**
3RT14 46		(p. 3/30)	**3RT14 56**		(p. 3/30)	**3RT14 66**		(p. 3/30)	**3RT14 76**	(p. 3/30)	**--**	
140			**275**			**400**			**690**		**--**	
											-- **3TY7 561**	(p. 3/60)
3RT19 46-4EA1/2		(p. 3/57)	**3RT19 56-4EA1/2/3**		(p. 3/57)	**3RT19 66-4EA1/2/3**		(p. 3/57)			**3TX7 686/696**	(p. 3/60)
--			**3RT19 55/56-4G**		(p. 3/57)	**3RT19 66-4G**		(p. 3/57)			**--**	
			3RT19 56-1C (RC element) (p. 3/56)								**3TX7 572**	(p. 3/60)
3RU11 46	18 ... 100 A (Chapter 5)		**--**			**--**			**--**		**--**	
3RB20 46 **3RB21 46**	12,5 ... 100 A (Chapter 5)		**3RB20 56** **3RB21 56**	50 ... 200 A (Chapter 5)		**3RB20 66** **3RB21 66**	55 ... 630 A (Chapter 5)		**3RB20 66** **3RB21 66**	160 ... 630 A (Chapter 5)	**3RB20 66** **3RB21 66**	160 ... 630 A (Chapter 5)
			3RB2. 83 + 3RB29 56	20 ... 200 A (Chapter 5)		**3RB2. 83 + 3RB29 66**	63 ... 630 A (Chapter 5)					
3RV10 41	45 ... 100 A (Chapter 5)		**--**			**--**			**--**		**--**	
3RA19 41	(Chapter 5)		**--**			**--**			**--**		**--**	
3RA13 44 (p. 3/22)	**3RA13 45**	**3RA13 46**	**--**			**--**			**--**		**3TD68 04**	
30	**37**	**45**	**55**	**75**	**90**	**110**	**132**	**160**	**200**	**250**	**335**	
3RA19 43-2A		(p. 3/23)	**3RA19 53-2A**		(p. 3/23)	**3RA19 63-2A**		(p. 3/23)	**3RA19 73-2A**	(p. 3/23)	**3TX7 680-1A**	
			3RA19 54-2A		(p. 3/23)						**3TX7 686-1A**	
3RA14 44 (p. 3/24)	**3RA14 45**		**--**			**--**			**--**		**3TE68 04**	
55	**75**		**--**			**--**			**--**		**630**	
3RA19 43-2B/-2C		(p. 3/29)	**3RA19 53-2B**		(p. 3/29)	**3RA19 63-2B**		(p. 3/29)	**3RA19 73-2B**	(p. 3/29)	**3TX7 680-1B**	

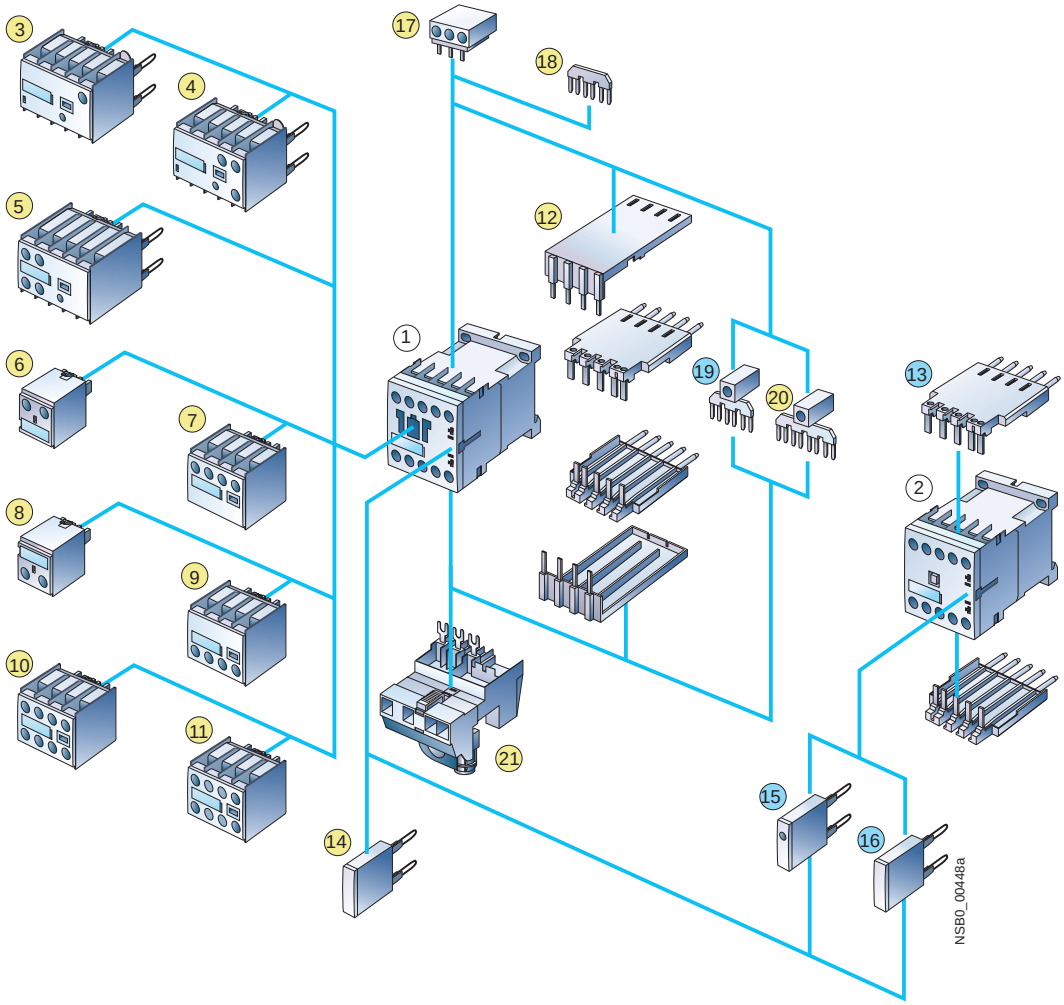
© Siemens AG 2008

General data

Overview

3RT1 contactors and coupling relays
Size S00 with mountable accessories

The SIRIUS generation of controls is a complete, modular system family, logically designed right down to the last detail, from the basic units to the accessories.



1 Contactor (page 3/10)
2 Coupling relay (page 3/38)

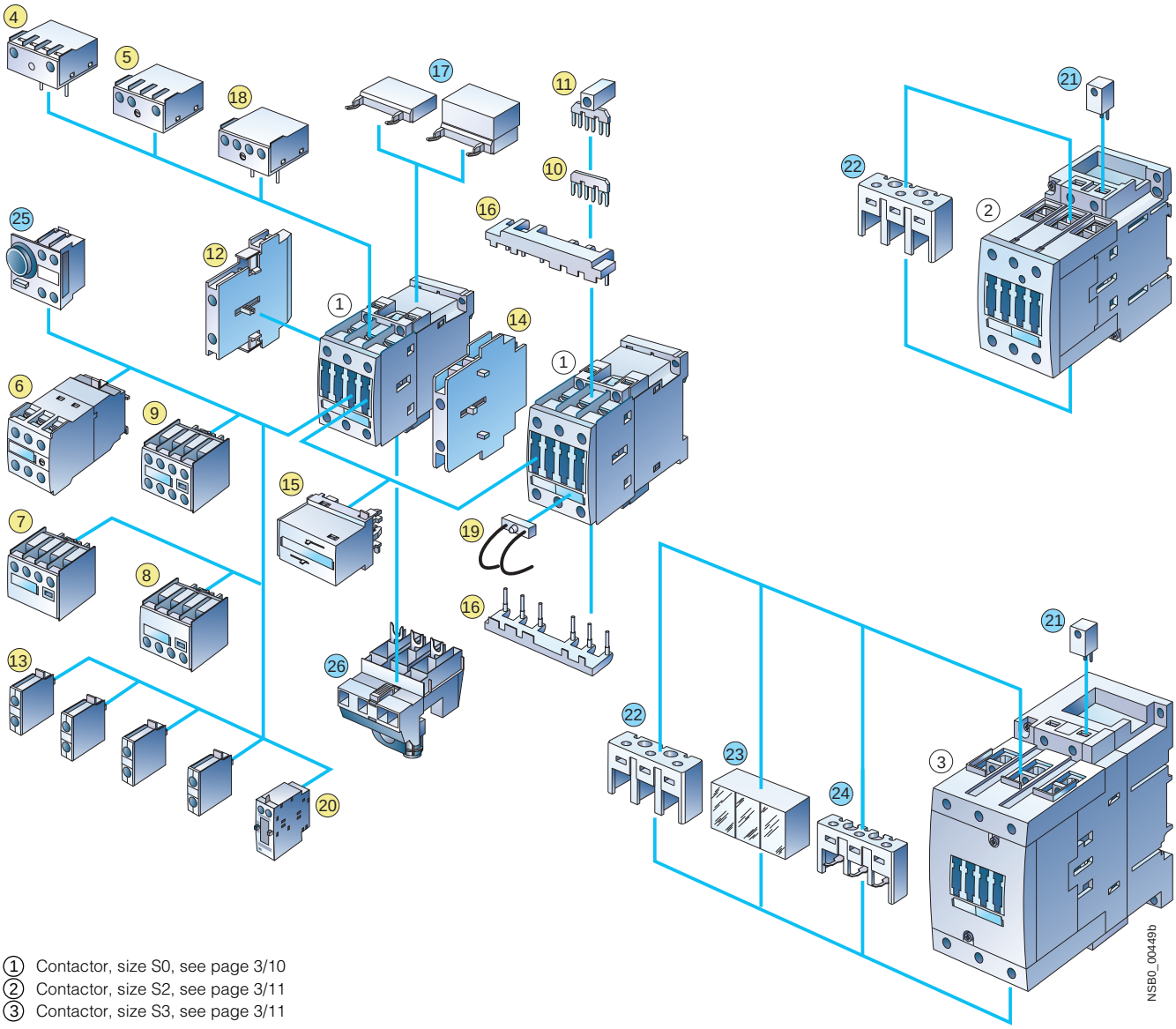
3 Solid-state time-delay block, ON-delay (page 3/54)
4 Solid-state time-delay block, OFF-delay (page 3/54)
5 Auxiliary switch block with solid-state time delay (page 3/53) (ON or OFF-delay or wye-delta function)
6 1-pole auxiliary switch block, cable entry from above (page 3/50)
7 2-pole auxiliary switch block, cable entry from above (page 3/50)
8 1-pole auxiliary switch block, cable entry from below (page 3/50)
9 2-pole auxiliary switch block, cable entry from below (page 3/50)
10 4-pole auxiliary switch block (page 3/50) (terminal designations according to EN 50012 or EN 50005)
11 2-pole auxiliary switch block, standard version or solid-state compatible design (pages 3/50, 3/53) (terminal designations according to EN 50005)
12 Solder pin adapter for contactors with 4-pole auxiliary switch block (page 3/58)
13 Solder pin adapter for contactors and coupling relays (page 3/58)
14 Additional load module for increasing the permissible residual current (page 3/56)
15 Surge suppressor with LED (page 3/56)
16 Surge suppressor without LED (page 3/55)
17 3-phase feeder terminal (page 3/29)
18 Link for paralleling (star jumper), 3-pole, without connection terminal (page 3/29)
19 Link for paralleling, 3-pole, with terminal (page 3/58)
20 Link for paralleling, 4-pole, with terminal (page 3/58)
21 Connection module (adapter and connector) for contactors with screw-type connection

For contactors
For contactors and coupling relays (interface)

For contactor assemblies see pages 3/19 to 3/29.
For assembly kit for reversing contactor assemblies (mech. interlocking, wiring modules) see page 3/23.
For mountable overload relays see Chapter 5.
For fuseless load feeders see Chapter 6.

© Siemens AG 2008

3RT1 contactors
Sizes S0 to S3 with mountable accessories



① Contactor, size S0, see page 3/10
② Contactor, size S2, see page 3/11
③ Contactor, size S3, see page 3/11

For sizes S0 to S3:

④ Solid-state time-delay block, ON-delay (page 3/54)
⑤ Solid-state time-delay block, OFF-delay (page 3/54)
⑥ Auxiliary switch block with solid-state time delay (page 3/53) (ON or OFF-delay or wye-delta function)
⑦ 2-pole auxiliary switch block, cable entry from above (page 3/51)
⑧ 2-pole auxiliary switch block, cable entry from below (page 3/51)
⑨ 4-pole auxiliary switch block (page 3/51) (terminal designations according to EN 50012 or EN 50005)
⑩ Link for paralleling (star jumper), 3-pole, without connection terminal (page 3/29)
⑪ Link for paralleling, 3-pole, with terminal (page 3/58)
⑫ 2-pole auxiliary switch block, laterally mountable left or right (page 3/52) (terminal designations according to EN 50012 or EN 50005)
⑬ Single-pole auxiliary switch block (up to 4 can be snapped on) (page 3/51)
⑭ Mechanical interlock, laterally mountable (page 3/23)
⑮ Mechanical interlock, mountable on the front (page 3/23)
⑯ Wiring modules on the top and bottom (reversing duty) (page 3/23)
⑰ Surge suppressor (page 3/55) (varistor, RC element, diode assembly), can be mounted on the top or bottom (different for S0 and S2/S3)
⑱ Coupling link for mounting directly onto contactor coil (page 3/56)
⑲ LED module for indicating contactor operation (page 3/56)

Only for size S0:

㉕ Pneumatic delay block (page 3/54)
㉖ Connection module (adapter and connector) for contactors with screw-type connection

Only for sizes S0 and S2:

⑳ Mechanical latching

Only for sizes S2 and S3:

㉑ Coil repeat terminal for making contactor assemblies (page 3/23)
㉒ Terminal cover for box terminals (page 3/57)

Only for size S3:

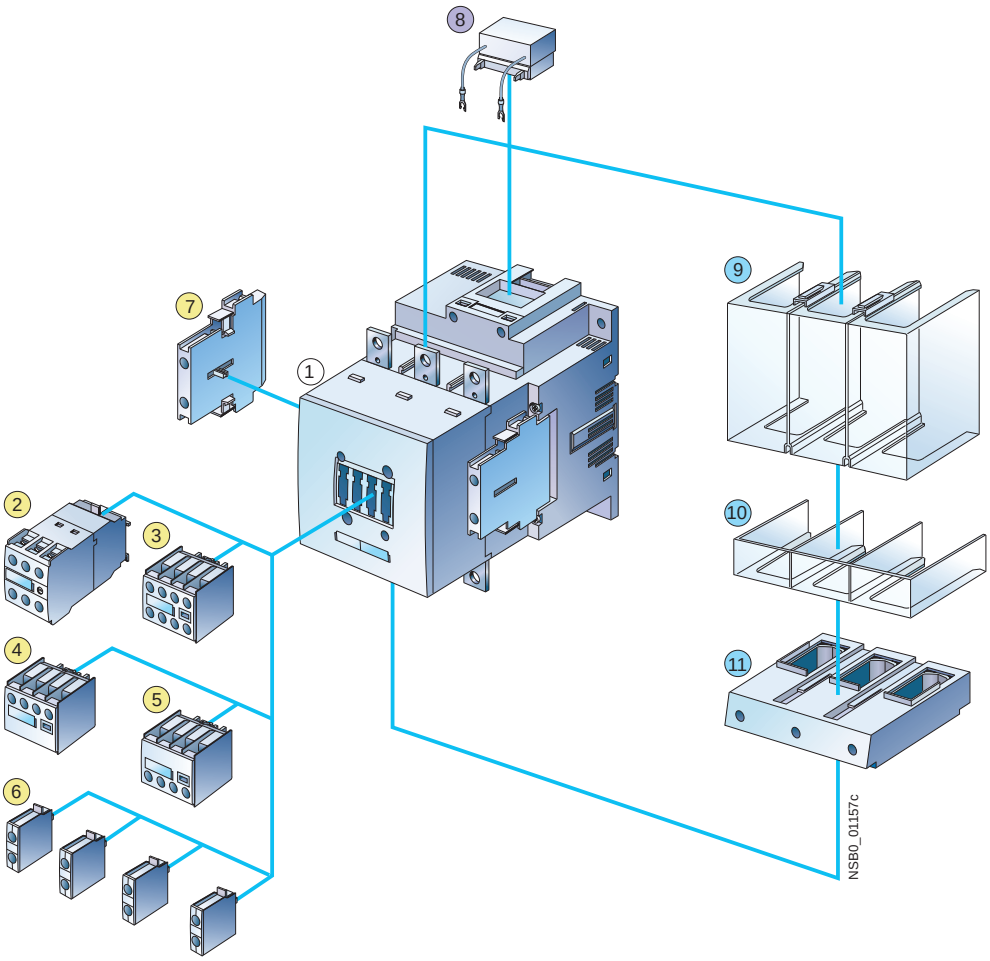
㉓ Terminal cover for cable lugs and busbar connections (page 3/57)
㉔ Auxiliary conductor terminal, 3-pole (page 3/57)

Accessories identical for sizes S0 to S3
Accessories differ according to size

© Siemens AG 2008

General data

3RT1 contactors
Sizes S6 to S12 with accessories
(illustration for basic unit)



(1) 3RT10 and 3RT14 air-break contactor, sizes S6, S10 and S12 (page 3/14 and 3/30)

(3) Auxiliary switch block with solid-state time delay (page 3/53) (ON or OFF-delay or wye-delta function)
(4) 4-pole auxiliary switch block (page 3/50) (terminal designations according to EN 50012 or EN 50005)
(5) 2-pole auxiliary switch block, cable entry from above (page 3/51)
(6) 2-pole auxiliary switch block, cable entry from below (page 3/51)
(7) Single-pole auxiliary switch block (up to 4 can be snapped on) (page 3/51)
(8) 2-pole auxiliary switch block, laterally mountable left or right (page 3/52)(terminal designations according to EN 50012 or EN 50005) (identical for S0 to S12)
(9) Surge suppressor (RC element) (page 3/56), for plugging into top of withdrawable coil
(10) Mechanical interlock, laterally mountable (page 3/23)

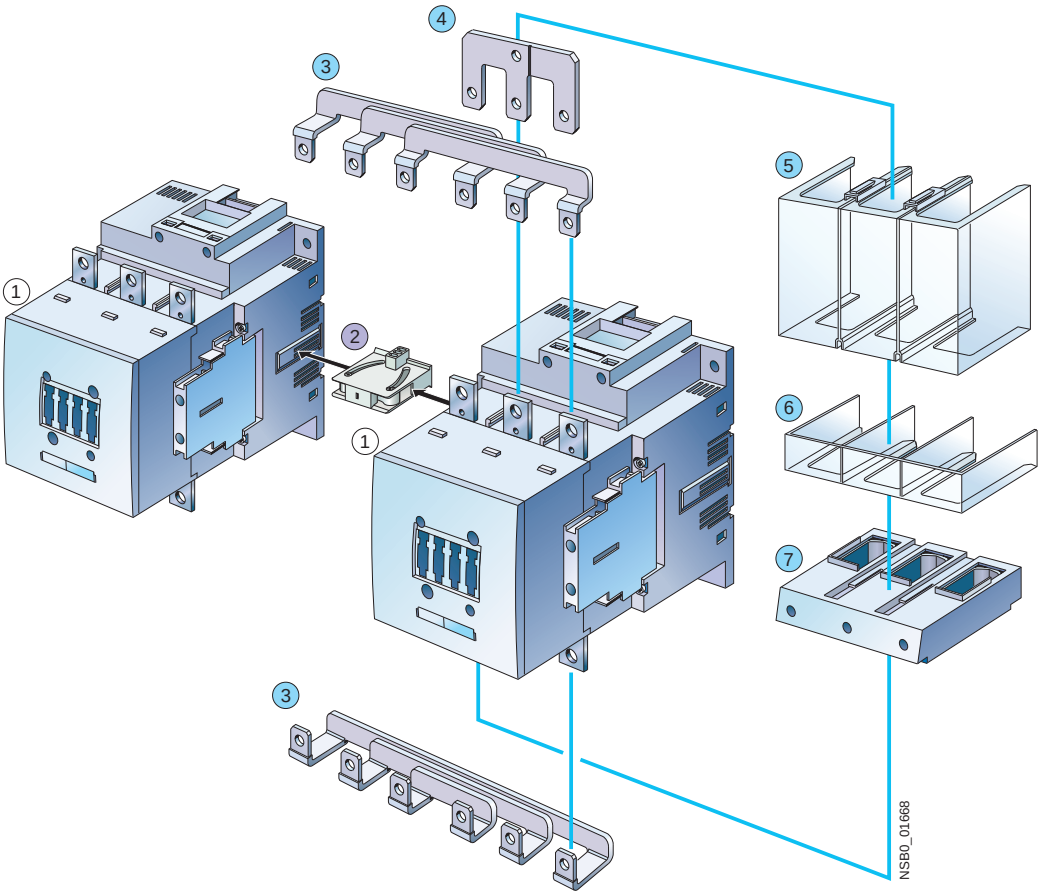
(11) Wiring modules on the top and bottom (reversing duty) (page 3/23)
(12) Link for paralleling (star jumper), 3-pole, with through hole (page 3/58), different for sizes S6 and S10/S12
(13) Terminal cover for cable lug and busbar connection (page 3/57), different for sizes S6 and S10/S12
(14) Terminal cover for box terminal, (page 3/57), different for sizes S6 and S10/S12
(15) Box terminal block (page 3/57), different for sizes S6 and S10/S12

Accessories identical for sizes S0 to S12
Accessories identical for sizes S6 to S12
Accessories differ according to size

For mountable overload relays see Chapter 5.

© Siemens AG 2008

3RA1 contactor assemblies, 3RT1 contactors
Size S6 with accessories



(1) 3RT10 and 3RT14 air-break contactor, size S6 (page 3/14 and 3/30)

(2) 3RA19 54-2A mechanical interlock, laterally mountable (page 3/29)
(3) 3RA19 53-2A wiring modules on the top and bottom (page 3/29)
(4) 3RT19 56-4BA31 link for paralleling (star jumper), 3-pole, with through hole (page 3/58)
(5) Terminal cover for cable lug and busbar connection (page 3/57), different for sizes S6 and S10/S12
(6) Terminal cover for box terminal, (page 3/57), different for sizes S6 and S10/S12
(7) Box terminal block (page 3/57), different for sizes S6 and S10/S12

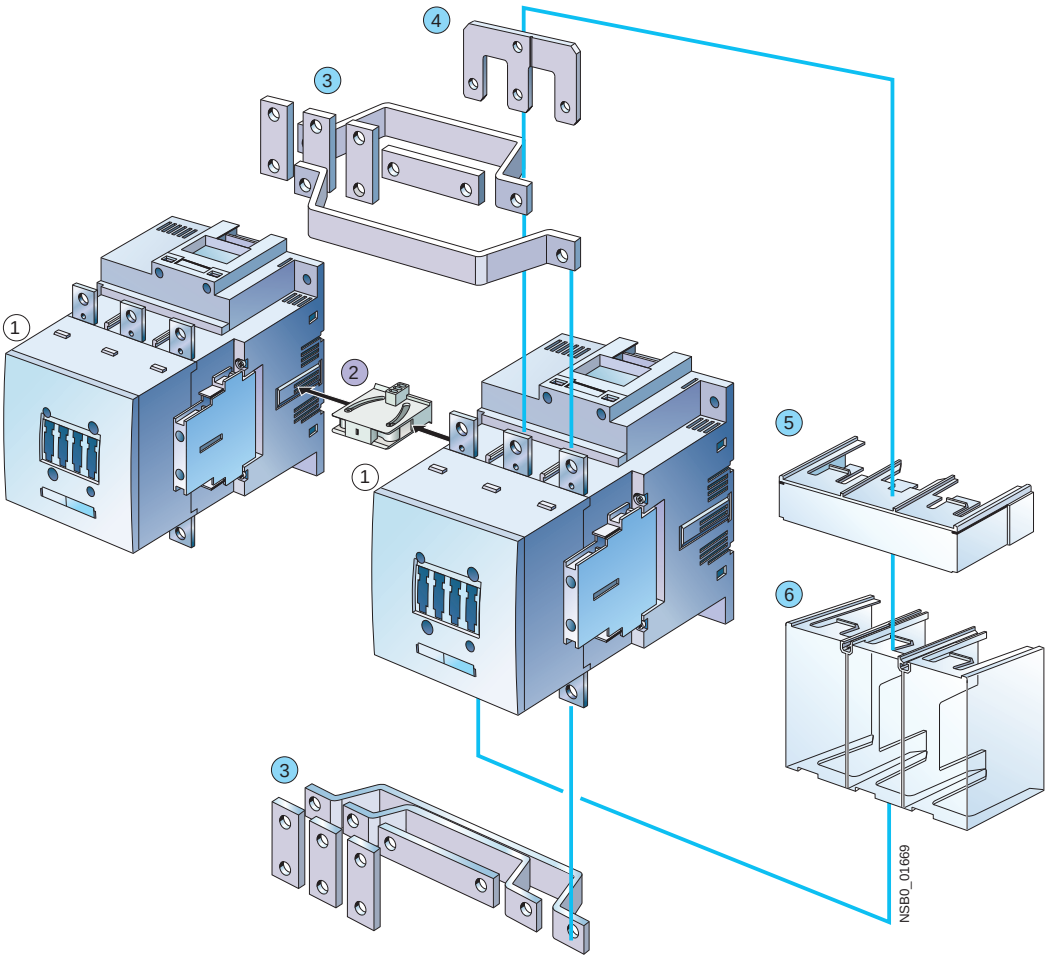
Accessories identical for sizes S6 to S12
Accessories differ according to size

For mountable overload relays see Chapter 5.

© Siemens AG 2008

General data

3RA1 contactor assemblies, 3RT1 contactors
Sizes S6, S10 and S12 with accessories



① 3RT10 and 3RT14 air-break contactor, sizes S6, S10 and S12 (page 3/14 and 3/30) or
3RT12 vacuum contactor, sizes S10 and S12 (page 3/17)

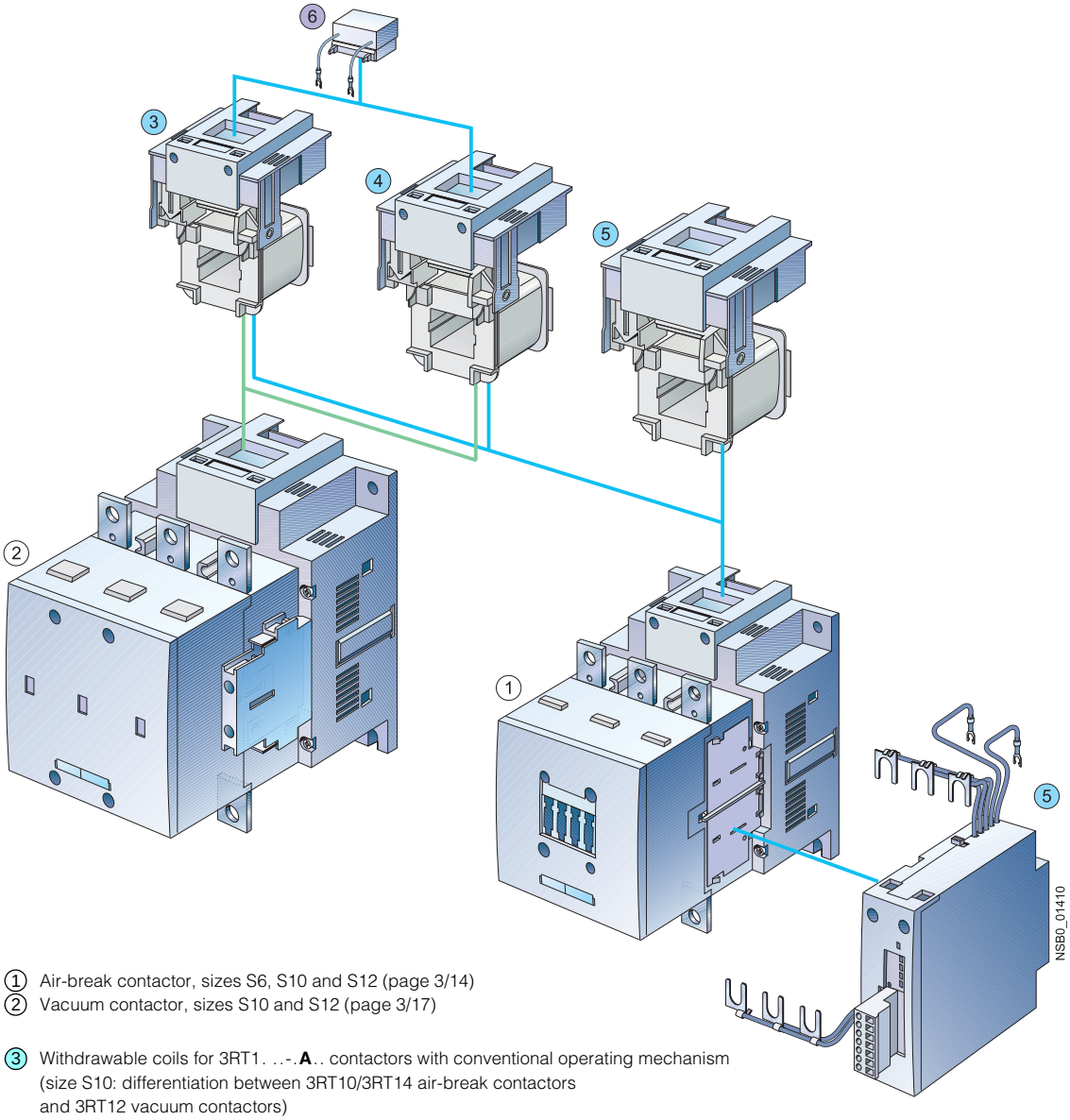
② Mechanical interlock, laterally mountable (page 3/29)
③ 3RA19 wiring modules on the top and bottom (page 3/29)
④ 3RT19 56-4BA31 link for paralleling (star jumper), 3-pole, with through hole (page 3/58)
⑤ Terminal cover for box terminal, (page 3/57), different for sizes S6 and S10/S12
⑥ Terminal cover for cable lug and busbar connection (page 3/57), different for sizes S6 and S10/S12

Accessories identical for sizes S6 to S12
Accessories differ according to size

For mountable overload relays see Chapter 5.

© Siemens AG 2008

3RT1 contactors
Sizes S6 to S12 with accessories



(1) Air-break contactor, sizes S6, S10 and S12 (page 3/14)
(2) Vacuum contactor, sizes S10 and S12 (page 3/17)

(3) Withdrawable coils for 3RT1. ..-.**A**.. contactors with conventional operating mechanism
(size S10: differentiation between 3RT10/3RT14 air-break contactors
and 3RT12 vacuum contactors)
(size S12: the same for air-break and vacuum contactors)
(4) Withdrawable coils for 3RT1. ..-.**N**.. contactors with solid-state operating mechanism.
(size S10: differentiation between 3RT10/3RT14 air-break contactors and 3RT12 vacuum contactors)
(size S12: the same for air-break and vacuum contactors)
(5) Withdrawable coils and laterally mountable module (plug-on) for 3RT1 ..-.**P**.. and
3RT1. ..-.**Q**.. air-break contactors with solid-state operating
mechanism and remaining lifetime indicator type.
(6) Surge suppressor (RC element) (page 3/55), plug-mountable on withdrawable coils
- 3RT1...-.**A**.. with conventional operating mechanism
- 3RT1...-.**N**.. with solid-state operating mechanism

Identical for sizes S6 to S12
Different according to size

For mountable overload relays see Chapter 5.

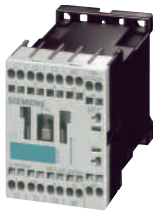
© Siemens AG 2008

3RT10 contactors, 3-pole, 3 ... 250 kW

Selection and ordering data

AC operation

3RT10 1.-1A...


3RT10 1.-2A...

3RT10 2.-1A.00

3RT10 2.-3A.00

3RT10 2.-1A.0

Rated data for utilization category AC-2 and AC-3, T_u: up to 60 °C		AC-1, T_u: 40 °C	Auxiliary contacts			Rated control supply voltage U_s at 50/60 Hz	DT	Screw terminals	PS*	Weight per PU approx.	DT	Cage Clamp terminals (for 3RT10 2. only coil)	PS*	Weight per PU approx.
Operational current I_e at 400 V	Rating of induction motors at 50 Hz and **400 V**	Operational current I_e up to 690 V	Ident. No.	Version NO	Version NC	V AC		Order No.		kg		Order No.		kg
For screw and snap-on mounting onto 35 mm standard mounting rail														
Size S00[1]														
Terminal designations according to EN 50012														
7	**3**	18	**10 E**	1	--	24	▶	**3RT10 15-1AB01**	1 unit	0.200	▶	**3RT10 15-2AB01**	1 unit	0.200
						110	▶	**3RT10 15-1AF01**	1 unit	0.200	▶	**3RT10 15-2AF01**	1 unit	0.200
						230	▶	**3RT10 15-1AP01**	1 unit	0.200	▶	**3RT10 15-2AP01**	1 unit	0.200
			01	--	1	24	▶	**3RT10 15-1AB02**	1 unit	0.200	▶	**3RT10 15-2AB02**	1 unit	0.200
						110	▶	**3RT10 15-1AF02**	1 unit	0.200	▶	**3RT10 15-2AF02**	1 unit	0.200
						230	▶	**3RT10 15-1AP02**	1 unit	0.200	▶	**3RT10 15-2AP02**	1 unit	0.200
9	**4**	22	**10 E**	1	--	24	▶	**3RT10 16-1AB01**	1 unit	0.200	▶	**3RT10 16-2AB01**	1 unit	0.200
						110	▶	**3RT10 16-1AF01**	1 unit	0.200	▶	**3RT10 16-2AF01**	1 unit	0.200
						230	▶	**3RT10 16-1AP01**	1 unit	0.200	▶	**3RT10 16-2AP01**	1 unit	0.200
			01	--	1	24	▶	**3RT10 16-1AB02**	1 unit	0.200	▶	**3RT10 16-2AB02**	1 unit	0.200
						110	▶	**3RT10 16-1AF02**	1 unit	0.200	▶	**3RT10 16-2AF02**	1 unit	0.200
						230	▶	**3RT10 16-1AP02**	1 unit	0.200	▶	**3RT10 16-2AP02**	1 unit	0.200
12	**5.5**	22	**10 E**	1	--	24	▶	**3RT10 17-1AB01**	1 unit	0.200	▶	**3RT10 17-2AB01**	1 unit	0.200
						110	▶	**3RT10 17-1AF01**	1 unit	0.200	▶	**3RT10 17-2AF01**	1 unit	0.200
						230	▶	**3RT10 17-1AP01**	1 unit	0.200	▶	**3RT10 17-2AP01**	1 unit	0.200
			01	--	1	24	▶	**3RT10 17-1AB02**	1 unit	0.200	▶	**3RT10 17-2AB02**	1 unit	0.200
						110	▶	**3RT10 17-1AF02**	1 unit	0.200	▶	**3RT10 17-2AF02**	1 unit	0.200
						230	▶	**3RT10 17-1AP02**	1 unit	0.200	▶	**3RT10 17-2AP02**	1 unit	0.200
Size S0[2]						at 50 Hz								
9	**4**	40	--	--	--	24	▶	**3RT10 23-1AB00**	1 unit	0.350		**3RT10 23-3AB00**	1 unit	0.350
						110	▶	**3RT10 23-1AF00**	1 unit	0.350		**3RT10 23-3AF00**	1 unit	0.350
						230	▶	**3RT10 23-1AP00**	1 unit	0.350	▶	**3RT10 23-3AP00**	1 unit	0.350
12	**5.5**	40	--	--	--	24	▶	**3RT10 24-1AB00**	1 unit	0.350		**3RT10 24-3AB00**	1 unit	0.350
						110	▶	**3RT10 24-1AF00**	1 unit	0.350		**3RT10 24-3AF00**	1 unit	0.350
						230	▶	**3RT10 24-1AP00**	1 unit	0.350	▶	**3RT10 24-3AP00**	1 unit	0.350
17	**7.5**	40	--	--	--	24	▶	**3RT10 25-1AB00**	1 unit	0.350		**3RT10 25-3AB00**	1 unit	0.350
						110	▶	**3RT10 25-1AF00**	1 unit	0.350		**3RT10 25-3AF00**	1 unit	0.350
						230	▶	**3RT10 25-1AP00**	1 unit	0.350	▶	**3RT10 25-3AP00**	1 unit	0.350
25	**11**	40	--	--	--	24	▶	**3RT10 26-1AB00**	1 unit	0.350		**3RT10 26-3AB00**	1 unit	0.350
						110	▶	**3RT10 26-1AF00**	1 unit	0.350		**3RT10 26-3AF00**	1 unit	0.350
						230	▶	**3RT10 26-1AP00**	1 unit	0.350	▶	**3RT10 26-3AP00**	1 unit	0.350
Size S0[2]														
With mounted auxiliary switch block (**removable**)														
Terminal designations according to EN 50012														
9	**4**	40	**22 E**	2	2	230	▶	**3RT10 23-1AP04**	1 unit	0.400		--		
12	**5.5**	40	**22 E**	2	2	230	▶	**3RT10 24-1AP04**	1 unit	0.400		--		
17	**7.5**	40	**22 E**	2	2	230	▶	**3RT10 25-1AP04**	1 unit	0.400		--		
25	**11**	40	**22 E**	2	2	230	▶	**3RT10 26-1AP04**	1 unit	0.400		--		

For other voltages see page 3/16.

[1] For size S00: coil operating range at 50 Hz: 0.8 to 1.1 x U_s, at 60 Hz: 0.85 to 1.1 x U_s.

[2] Minimum conductor cross-section 10 mm².

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RT10 contactors, 3-pole, 3 ... 250 kW

AC operation

3RT10 3.-1A.00

3RT10 3.-3A.00

3RT10 3.-1A.04

3RT10 4.-1A.00

3RT10 4.-3A.00

Rated data for utilization category AC-2 and AC-3, T_u: up to 60 °C		AC-1, T_u: 40 °C	Auxiliary contacts			Rated control supply voltage U_s at 50 Hz	DT	Screw terminals	PS*	Weight per PU approx.	DT	Cage Clamp terminals (only coil)	PS*	Weight per PU approx.
Operational current I_e at 400 V	Rating of induction motors at 50 Hz and **400 V**	Operational current I_e up to 690 V	Ident. No.	Version				Order No.				Order No.		
A	**kW**	A		NO	NC	V AC				kg				kg
For screw and snap-on mounting onto 35 mm standard mounting rail														
Size S2														
32	**15**	50	--	--	--	24	▶	**3RT10 34-1AB00**	1 unit	0.850		**3RT10 34-3AB00**	1 unit	0.850
						110	▶	**3RT10 34-1AF00**	1 unit	0.850		**3RT10 34-3AF00**	1 unit	0.850
						230	▶	**3RT10 34-1AP00**	1 unit	0.850	▶	**3RT10 34-3AP00**	1 unit	0.850
40	**18.5**	60	--	--	--	24	▶	**3RT10 35-1AB00**	1 unit	0.850		**3RT10 35-3AB00**	1 unit	0.850
						110	▶	**3RT10 35-1AF00**	1 unit	0.850		**3RT10 35-3AF00**	1 unit	0.850
						230	▶	**3RT10 35-1AP00**	1 unit	0.850	▶	**3RT10 35-3AP00**	1 unit	0.850
50	**22**	60	--	--	--	24	▶	**3RT10 36-1AB00**	1 unit	0.850		**3RT10 36-3AB00**	1 unit	0.850
						110	▶	**3RT10 36-1AF00**	1 unit	0.850		**3RT10 36-3AF00**	1 unit	0.850
						230	▶	**3RT10 36-1AP00**	1 unit	0.850	▶	**3RT10 36-3AP00**	1 unit	0.850
Size S2 With mounted auxiliary switch block (**removable**)[1)] Terminal designations according to EN 50012														
32	**15**	50	**22 E**	2	2	230	▶	**3RT10 34-1AP04**	1 unit	0.950		--		
40	**18.5**	60	**22 E**	2	2	230	▶	**3RT10 35-1AP04**	1 unit	0.950		--		
50	**22**	60	**22 E**	2	2	230	▶	**3RT10 36-1AP04**	1 unit	0.950		--		
For screw and snap-on mounting onto 35 mm or 75 mm standard mounting rail														
Size S3														
65	**30**	100	--	--	--	24	▶	**3RT10 44-1AB00**	1 unit	1.800		**3RT10 44-3AB00**	1 unit	1.800
						110	▶	**3RT10 44-1AF00**	1 unit	1.800		**3RT10 44-3AF00**	1 unit	1.800
						230	▶	**3RT10 44-1AP00**	1 unit	1.800	▶	**3RT10 44-3AP00**	1 unit	1.800
80	**37**	120	--	--	--	24	▶	**3RT10 45-1AB00**	1 unit	1.800		**3RT10 45-3AB00**	1 unit	1.800
						110	▶	**3RT10 45-1AF00**	1 unit	1.800		**3RT10 45-3AF00**	1 unit	1.800
						230	▶	**3RT10 45-1AP00**	1 unit	1.800	▶	**3RT10 45-3AP00**	1 unit	1.800
95	**45**	120	--	--	--	24	▶	**3RT10 46-1AB00**	1 unit	1.800		**3RT10 46-3AB00**	1 unit	1.800
						110	▶	**3RT10 46-1AF00**	1 unit	1.800		**3RT10 46-3AF00**	1 unit	1.800
						230	▶	**3RT10 46-1AP00**	1 unit	1.800	▶	**3RT10 46-3AP00**	1 unit	1.800
Size S3 With mounted auxiliary switch block (**removable**) Terminal designations according to EN 50012														
65	**30**	100	**22 E**	2	2	230	▶	**3RT10 44-1AP04**	1 unit	1.950		--		
80	**37**	120	**22 E**	2	2	230	▶	**3RT10 45-1AP04**	1 unit	1.950		--		
95	**45**	120	**22 E**	2	2	230	▶	**3RT10 46-1AP04**	1 unit	1.950		--		

For other voltages see page 3/16.

1) Order No. for the auxiliary switch block (removable): 3RH19 21-1HA22 (2NO + 2NC according to EN 50012; 22E).

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RT10 contactors, 3-pole, 3 ... 250 kW

DC operation · DC solenoid system

3RT10 1.-1B...

3RT10 1.-2B...

3RT10 2.-1B.40

3RT10 2.-3B.40

3RT10 2.-1B.44

Rated data for utilization category AC-2 and AC-3, T_u: up to 60 °C		AC-1, T_u: 40 °C	Auxiliary contacts			Rated control supply voltage U_s	DT	Screw terminals	PS*	Weight per PU approx.	DT	Cage Clamp terminals (for 3RT10 2. only coil)	PS*	Weight per PU approx.
Operational current I_e at 400 V	Rating of induction motors at 50 Hz and 400 V	Operational current I_e up to 690 V	Ident. No.	Version NO	Version NC			Order No.				Order No.		
A	kW	A				V DC				kg				kg
For screw and snap-on mounting onto 35 mm standard mounting rail														
Size S00 Terminal designations according to EN 50012														
7	**3**	18	**10 E**	1	--	24	▶	**3RT10 15-1BB41**	1 unit	0.260	▶	**3RT10 15-2BB41**	1 unit	0.260
						220		**3RT10 15-1BM41**	1 unit	0.260		**3RT10 15-2BM41**	1 unit	0.260
			01	--	1	24	▶	**3RT10 15-1BB42**	1 unit	0.260	▶	**3RT10 15-2BB42**	1 unit	0.260
						220		**3RT10 15-1BM42**	1 unit	0.260		**3RT10 15-2BM42**	1 unit	0.260
9	**4**	22	**10 E**	1	--	24	▶	**3RT10 16-1BB41**	1 unit	0.260	▶	**3RT10 16-2BB41**	1 unit	0.260
						220		**3RT10 16-1BM41**	1 unit	0.260		**3RT10 16-2BM41**	1 unit	0.260
			01	--	1	24	▶	**3RT10 16-1BB42**	1 unit	0.260	▶	**3RT10 16-2BB42**	1 unit	0.260
						220		**3RT10 16-1BM42**	1 unit	0.260		**3RT10 16-2BM42**	1 unit	0.260
12	**5.5**	22	**10 E**	1	--	24	▶	**3RT10 17-1BB41**	1 unit	0.260	▶	**3RT10 17-2BB41**	1 unit	0.260
						220		**3RT10 17-1BM41**	1 unit	0.260		**3RT10 17-2BM41**	1 unit	0.260
			01	--	1	24	▶	**3RT10 17-1BB42**	1 unit	0.260	▶	**3RT10 17-2BB42**	1 unit	0.260
						220		**3RT10 17-1BM42**	1 unit	0.260		**3RT10 17-2BM42**	1 unit	0.260
Size S0[1]														
9	**4**	40	--	--	--	24	▶	**3RT10 23-1BB40**	1 unit	0.580	▶	**3RT10 23-3BB40**	1 unit	0.580
						220		**3RT10 23-1BM40**	1 unit	0.580		**3RT10 23-3BM40**	1 unit	0.580
12	**5.5**	40	--	--	--	24	▶	**3RT10 24-1BB40**	1 unit	0.580	▶	**3RT10 24-3BB40**	1 unit	0.580
						220		**3RT10 24-1BM40**	1 unit	0.580		**3RT10 24-3BM40**	1 unit	0.580
17	**7.5**	40	--	--	--	24	▶	**3RT10 25-1BB40**	1 unit	0.580	▶	**3RT10 25-3BB40**	1 unit	0.580
						220		**3RT10 25-1BM40**	1 unit	0.580		**3RT10 25-3BM40**	1 unit	0.580
25	**11**	40	--	--	--	24	▶	**3RT10 26-1BB40**	1 unit	0.580	▶	**3RT10 26-3BB40**	1 unit	0.580
						220		**3RT10 26-1BM40**	1 unit	0.580		**3RT10 26-3BM40**	1 unit	0.580
Size S0[1) 2)] **With mounted auxiliary switch block (removable)** Terminal designations according to EN 50012														
9	**4**	40[2)]	**22 E**	2	2	24	▶	**3RT10 23-1BB44**	1 unit	0.650		--		
12	**5.5**	40[2)]	**22 E**	2	2	24	▶	**3RT10 24-1BB44**	1 unit	0.650		--		
17	**7.5**	40[2)]	**22 E**	2	2	24	▶	**3RT10 25-1BB44**	1 unit	0.650		--		
25	**11**	40[2)]	**22 E**	2	2	24	▶	**3RT10 26-1BB44**	1 unit	0.650		--		

For other voltages see page 3/16.

1) Minimum conductor cross-section 10 mm².

2) Order No. for the auxiliary switch block (removable): 3RH19 21-1HA22 (2NO + 2NC according to EN 50012; 22E).

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

DC operation · DC solenoid system

3RT10 3.-1B.40

3RT10 4.-1B.40

3RT10 3.-3B.40

3RT10 4.-3B.40

3RT10 4.-1B.44

Rated data for utilization category AC-2 and AC-3, T_u: up to 60 °C		AC-1, T_u: 40 °C	Auxiliary contacts			Rated control supply voltage U_s	DT	Screw terminals	PS*	Weight per PU approx.	DT	Cage Clamp terminals (for 3RT10 2. only coil)	PS*	Weight per PU approx.
Operational current I_e at 400 V	Rating of induction motors at 50 Hz and **400 V**	Operational current I_e up to 690 V	Ident. No.	Version NO	NC	V DC		Order No.				Order No.		
A	**kW**	A								kg				kg
For screw and snap-on mounting onto 35 mm standard mounting rails														
Size S2														
32	**15**	50	--	--	--	24	▶	**3RT10 34-1BB40**	1 unit	1.450	▶	**3RT10 34-3BB40**	1 unit	1.450
						220		**3RT10 34-1BM40**	1 unit	1.450		**3RT10 34-3BM40**	1 unit	1.450
40	**18.5**	60	--	--	--	24	▶	**3RT10 35-1BB40**	1 unit	1.450	▶	**3RT10 35-3BB40**	1 unit	1.450
						220		**3RT10 35-1BM40**	1 unit	1.450		**3RT10 35-3BM40**	1 unit	1.450
50	**22**	60	--	--	--	24	▶	**3RT10 36-1BB40**	1 unit	1.450	▶	**3RT10 36-3BB40**	1 unit	1.450
						220		**3RT10 36-1BM40**	1 unit	1.450		**3RT10 36-3BM40**	1 unit	1.450
Size S2 **With mounted auxiliary switch block (removable)[1)]** Terminal designations according to EN 50012														
32	**15**	50	22 E	2	2	24	▶	**3RT10 34-1BB44**	1 unit	1.550		--		
						220		**3RT10 34-1BM44**	1 unit	1.550		--		
40	**18.5**	60	22 E	2	2	24	▶	**3RT10 35-1BB44**	1 unit	1.550		--		
						220		**3RT10 35-1BM44**	1 unit	1.550		--		
50	**22**	60	22 E	2	2	24	▶	**3RT10 36-1BB44**	1 unit	1.550		--		
						220		**3RT10 36-1BM44**	1 unit	1.550		--		
For screw and snap-on mounting onto 35 mm or 75 mm standard mounting rail														
Size S3														
65	**30**	100	--	--	--	24	▶	**3RT10 44-1BB40**	1 unit	2.800	▶	**3RT10 44-3BB40**	1 unit	2.800
						220		**3RT10 44-1BM40**	1 unit	2.800		**3RT10 44-3BM40**	1 unit	2.800
80	**37**	120	--	--	--	24	▶	**3RT10 45-1BB40**	1 unit	2.800	▶	**3RT10 45-3BB40**	1 unit	2.800
						220		**3RT10 45-1BM40**	1 unit	2.800		**3RT10 45-3BM40**	1 unit	2.800
95	**45**	120	--	--	--	24	▶	**3RT10 46-1BB40**	1 unit	2.800	▶	**3RT10 46-3BB40**	1 unit	2.800
						220		**3RT10 46-1BM40**	1 unit	2.800		**3RT10 46-3BM40**	1 unit	2.800
Size S3 **With mounted auxiliary switch block (removable)[1)]** Terminal designations according to EN 50012														
65	**30**	100	22 E	2	2	24	▶	**3RT10 44-1BB44**	1 unit	2.900		--		
						220		**3RT10 44-1BM44**	1 unit	2.900		--		
80	**37**	120	22 E	2	2	24	▶	**3RT10 45-1BB44**	1 unit	2.900		--		
						220		**3RT10 45-1BM44**	1 unit	2.900		--		
95	**45**	120	22 E	2	2	24	▶	**3RT10 46-1BB44**	1 unit	2.900		--		
						220		**3RT10 46-1BM44**	1 unit	2.900		--		

For other voltages see page 3/16.

1) Order No. for the auxiliary switch block (removable): 3RH19 21-1HA22 (2NO + 2NC according to EN 50012; 22E).

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RT10 contactors, 3-pole, 3 ... 250 kW

AC/DC operation *(40 to 60 Hz, DC)*
Withdrawable coils
Integrated coil circuit *(varistor)*
Auxiliary and control conductors: screw terminals or Cage Clamp terminals
Main conductors: busbar connections, for 3RT1054 (55 kW) box terminals[1)]

3RT10 54-1

3RT10 6.-6

3RT10 7.-6

Size	Rated data for utilization category AC-2 and AC-3, T_u: up to 60 °C					AC-1, T_u: 40 °C	Auxiliary contacts, lateral		Rated control supply voltage U_s	DT	Screw terminals	PS*	Weight per PU approx.	DT	Cage Clamp terminals (only coil)	PS*	Weight per PU approx.
	Operational current I_e up to 500 V	Ratings of induction motors at 50 Hz and 230 V	**400 V**	500 V	690 V	Operational current I_e up to 690 V					Order No.				Order No.		
	A	kW	**kW**	kW	kW	A	NO	NC	V AC/DC				kg				kg
Conventional operating mechanism																	
S6	115	37	**55**	75	110	160	2	2	110 ... 127	▶	**3RT10 54-1AF36**	1 unit	3.600		**3RT10 54-3AF36**	1 unit	3.600
									220 ... 240	▶	**3RT10 54-1AP36**	1 unit	3.600		**3RT10 54-3AP36**	1 unit	3.600
	150	45	**75**	90	132	185	2	2	110 ... 127	▶	**3RT10 55-6AF36**	1 unit	3.500		**3RT10 55-2AF36**	1 unit	3.500
									220 ... 240	▶	**3RT10 55-6AP36**	1 unit	3.500		**3RT10 55-2AP36**	1 unit	3.500
	185	55	**90**	110	160	215	2	2	110 ... 127	▶	**3RT10 56-6AF36**	1 unit	3.500		**3RT10 56-2AF36**	1 unit	3.500
									220 ... 240	▶	**3RT10 56-6AP36**	1 unit	3.500		**3RT10 56-2AP36**	1 unit	3.500
S10	225	55	**110**	160	200	275	2	2	110 ... 127	▶	**3RT10 64-6AF36**	1 unit	6.500		**3RT10 64-2AF36**	1 unit	6.500
									220 ... 240	▶	**3RT10 64-6AP36**	1 unit	6.500		**3RT10 64-2AP36**	1 unit	6.500
	265	75	**132**	160	250	330	2	2	110 ... 127	▶	**3RT10 65-6AF36**	1 unit	6.500		**3RT10 65-2AF36**	1 unit	6.500
									220 ... 240	▶	**3RT10 65-6AP36**	1 unit	6.500		**3RT10 65-2AP36**	1 unit	6.500
	300	90	**160**	200	250	330	2	2	110 ... 127	▶	**3RT10 66-6AF36**	1 unit	6.500		**3RT10 66-2AF36**	1 unit	6.500
									220 ... 240	▶	**3RT10 66-6AP36**	1 unit	6.500		**3RT10 66-2AP36**	1 unit	6.500
S12	400	132	**200**	250	400	430	2	2	110 ... 127	▶	**3RT10 75-6AF36**	1 unit	10.500		**3RT10 75-2AF36**	1 unit	10.500
									220 ... 240	▶	**3RT10 75-6AP36**	1 unit	10.500		**3RT10 75-2AP36**	1 unit	10.500
	500	160	**250**	355	400	610	2	2	110 ... 127	▶	**3RT10 76-6AF36**	1 unit	10.500		**3RT10 76-2AF36**	1 unit	10.500
									220 ... 240	▶	**3RT10 76-6AP36**	1 unit	10.500		**3RT10 76-2AP36**	1 unit	10.500
Solid-state operating mechanism • for 24 V DC PLC output																	
S6	115	37	**55**	75	110	160	2	2	96 ... 127		**3RT10 54-1NF36**	1 unit	3.500		**3RT10 54-3NF36**	1 unit	3.600
									200 ... 277	▶	**3RT10 54-1NP36**	1 unit	3.500		**3RT10 54-3NP36**	1 unit	3.600
	150	45	**75**	90	132	185	2	2	96 ... 127		**3RT10 55-6NF36**	1 unit	3.500		**3RT10 55-2NF36**	1 unit	3.600
									200 ... 277	▶	**3RT10 55-6NP36**	1 unit	3.500		**3RT10 55-2NP36**	1 unit	3.600
	185	55	**90**	110	160	215	2	2	96 ... 127		**3RT10 56-6NF36**	1 unit	3.500		**3RT10 56-2NF36**	1 unit	3.600
									200 ... 277	▶	**3RT10 56-6NP36**	1 unit	3.500		**3RT10 56-2NP36**	1 unit	3.600
S10	225	55	**110**	160	200	275	2	2	96 ... 127		**3RT10 64-6NF36**	1 unit	6.700		**3RT10 64-2NF36**	1 unit	6.600
									200 ... 277		**3RT10 64-6NP36**	1 unit	6.700		**3RT10 64-2NP36**	1 unit	6.600
	265	75	**132**	160	250	330	2	2	96 ... 127		**3RT10 65-6NF36**	1 unit	6.700		**3RT10 65-2NF36**	1 unit	6.600
									200 ... 277		**3RT10 65-6NP36**	1 unit	6.700		**3RT10 65-2NP36**	1 unit	6.600
	300	90	**160**	200	250	330	2	2	96 ... 127		**3RT10 66-6NF36**	1 unit	6.700		**3RT10 66-2NF36**	1 unit	6.600
									200 ... 277		**3RT10 66-6NP36**	1 unit	6.700		**3RT10 66-2NP36**	1 unit	6.600
S12	400	132	**200**	250	400	430	2	2	96 ... 127		**3RT10 75-6NF36**	1 unit	10.500		**3RT10 75-2NF36**	1 unit	10.500
									200 ... 277		**3RT10 75-6NP36**	1 unit	10.500		**3RT10 75-2NP36**	1 unit	10.500
	500	160	**250**	355	400	610	2	2	96 ... 127		**3RT10 76-6NF36**	1 unit	10.500		**3RT10 76-2NF36**	1 unit	10.500
									200 ... 277		**3RT10 76-6NP36**	1 unit	10.500		**3RT10 76-2NP36**	1 unit	10.500

For other voltages see page 3/16.

1) Alternatively the 3RT10 54-1 contactor (55 kW) can be supplied with busbar connections instead of box terminals. In the 8th position of the Order No. the **"1"** must be replaced with **"6"**, e.g. 3RT10 54-**6**... (for screw terminals) or the **"3"** must be replaced by **"2"** (for Cage Clamp terminals).

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RT10 contactors, 3-pole, 3 ... 250 kW

AC/DC operation *(40 to 60 Hz, DC)*
Withdrawable coils
Integrated coil circuit *(varistor)*
Auxiliary and control conductors: screw terminals
Main conductors: busbar connections, for 3RT10 54 (55 kW) box terminals[1)]

3RT10 56-6P

3RT10 56-6Q

Size	Rated data AC-2 and AC-3, T_u: up to 60 °C					AC-1, T_u: 40 °C	Auxiliary contacts, lateral		Rated control supply voltage U_s	DT	**Screw terminals**	PS*	Weight per PU approx.
	Operational current I_e	Ratings of induction motors at 50 Hz and				Operational current I_e					Order No.		
	up to 500 V	230 V	**400 V**	500 V	690 V	up to 690 V							
	A	kW	**kW**	kW	kW	A	NO	NC	V AC/DC				kg
Solid-state operating mechanism • for 24 V DC PLC output/PLC relay output, with RLT remaining lifetime indicator													
S6	115	37	**55**	75	110	160	1	1	96 ... 127 200 ... 277		**3RT10 54-1PF35** **3RT10 54-1PP35**	1 unit 1 unit	4.000 4.000
	150	45	**75**	90	132	185	1	1	96 ... 127 200 ... 277		**3RT10 55-6PF35** **3RT10 55-6PP35**	1 unit 1 unit	4.000 4.000
	185	55	**90**	110	160	215	1	1	96 ... 127 200 ... 277		**3RT10 56-6PF35** **3RT10 56-6PP35**	1 unit 1 unit	4.000 4.000
S10	225	55	**110**	160	200	275	1	1	96 ... 127 200 ... 277		**3RT10 64-6PF35** **3RT10 64-6PP35**	1 unit 1 unit	7.000 7.000
	265	75	**132**	160	250	330	1	1	96 ... 127 200 ... 277		**3RT10 65-6PF35** **3RT10 65-6PP35**	1 unit 1 unit	7.000 7.000
	300	90	**160**	200	250	330	1	1	96 ... 127 200 ... 277		**3RT10 66-6PF35** **3RT10 66-6PP35**	1 unit 1 unit	7.000 7.000
S12	400	132	**200**	250	400	430	1	1	96 ... 127 200 ... 277		**3RT10 75-6PF35** **3RT10 75-6PP35**	1 unit 1 unit	10.500 10.500
	500	160	**250**	355	400	610	1	1	96 ... 127 200 ... 277		**3RT10 76-6PF35** **3RT10 76-6PP35**	1 unit 1 unit	10.500 10.500
Solid-state operating mechanisms • with AS-Interface and remaining lifetime indicator (RLT)													
S6	115	37	**55**	75	110	160	1	1	96 ... 127 200 ... 277		**3RT10 54-1QF35** **3RT10 54-1QP35**	1 unit 1 unit	4.000 4.000
	150	45	**75**	90	132	185	1	1	96 ... 127 200 ... 277		**3RT10 55-6QF35** **3RT10 55-6QP35**	1 unit 1 unit	4.000 4.000
	185	55	**90**	110	160	215	1	1	96 ... 127 200 ... 277		**3RT10 56-6QF35** **3RT10 56-6QP35**	1 unit 1 unit	4.000 4.000
S10	225	55	**110**	160	200	275	1	1	96 ... 127 200 ... 277		**3RT10 64-6QF35** **3RT10 64-6QP35**	1 unit 1 unit	7.000 7.000
	265	75	**132**	160	250	330	1	1	96 ... 127 200 ... 277		**3RT10 65-6QF35** **3RT10 65-6QP35**	1 unit 1 unit	7.000 7.000
	300	90	**160**	200	250	330	1	1	96 ... 127 200 ... 277		**3RT10 66-6QF35** **3RT10 66-6QP35**	1 unit 1 unit	7.000 7.000
S12	400	132	**200**	250	400	430	1	1	96 ... 127 200 ... 277		**3RT10 75-6QF35** **3RT10 75-6QP35**	1 unit 1 unit	10.500 10.500
	500	160	**250**	355	400	610	1	1	96 ... 127 200 ... 277		**3RT10 76-6QF35** **3RT10 76-6QP35**	1 unit 1 unit	10.500 10.500

For other voltages see page 3/16.

[1)] Alternatively the 3RT10 54-1 contactor (55 kW) can be supplied with busbar connections instead of box terminals.
Without additional price. In the 8th position of the Order No. the **"1"** must be replaced with **"6"**, e.g. 3RT10 54-**6**. .35.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RT10 contactors, 3-pole, 3 ... 250 kW

Rated control supply voltages (the 10th and 11th position of the order number must be changed)

Contactor type Rated control supply voltage U_s	3RT10 1	3RT10 2, 3RT10 3, 3RT10 4	3RT14 4	3RT13 1, 3RT15 1	3RT13 2 ... 3RT13 4, 3RT15 2 and 3RT15 3	3RT16
Sizes S00 ... S3						
AC operation [1]						
Magnetic coils for 50 Hz (exception: size S00: 50 and 60 Hz[2])						
24 V AC	B0	B0	B0	B0	B0	B0
42 V AC	D0	D0	D0	D0	--	--
48 V AC	H0	H0	H0	H0	--	--
110 V AC	F0	F0	F0	F0	F0	F0
230 V AC	P0	P0	P0	P0	P0	P0
400 V AC	V0	V0	V0	V0	V0	V0
Magnetic coils for 50 and 60 Hz[2]						
24 V AC	B0	C2	C2	B0	C2	C2
42 V AC	D0	D2	D2	D0	D2	--
48 V AC	H0	H2	H2	H0	H2	--
110 V AC	F0	G2	G2	F0	G2	G2
220 V AC	N2	N2	N2	N2	N2	N2
230 V AC	P0	L2	L2	P0	L2	L2
Magnetic coils (for USA and Canada[3]**)**						
50 Hz / **60 Hz**						
110 V AC / 120 V AC	K6	K6	K6	K6	K6	K6
220 V AC / 240 V AC	P6	P6	P6	P6	P6	P6
Magnetic coils (for Japan)						
50/60 Hz[4] / **60 Hz**[5]						
100 V AC / 110 V AC	G6	G6	G6	G6	G6	G6
200 V AC / 220 V AC	N6	N6	N6	N6	N6	N6
400 V AC / 440 V AC	R6	R6	R6	R6	R6	R6
DC operation [1]						
12 V DC	A4	--	--	A4	--	--
24 V DC	B4	B4	B4	B4	B4	--
42 V DC	D4	D4	D4	D4	D4	--
48 V DC	W4	W4	W4	W4	--	--
60 V DC	E4	E4	E4	--	--	--
110 V DC	F4	F4	F4	F4	F4	--
125 V DC	G4	G4	G4	G4	G4	--
220 V DC	M4	M4	M4	M4	M4	--
230 V DC	P4	P4	P4	P4	--	--

Sizes S6 ... S12

AC/DC operation (AC 40 ... 60 Hz, DC)

Conventional operating mechanism

$U_{s\,min}$ ... $U_{s\,max}$[6]	Contactor type	3RT1. 5.-.A 3RT1. 6.-.A 3RT1. 7.-.A	$U_{s\,min}$ ... $U_{s\,max}$[6]	Contactor type	3RT1. 5.-.A 3RT1. 6.-.A 3RT1. 7.-.A
23 ... 26 V AC/DC		B3	240 ... 277 V AC/DC		U3
42 ... 48 V AC/DC		D3	380 ... 420 V AC/DC		V3
110 ... 127 V AC/DC		F3	440 ... 480 V AC/DC		R3
200 ... 220 V AC/DC		M3	500 ... 550 V AC/DC		S3
220 ... 240 V AC/DC		P3	575 ... 600 V AC/DC		T3

Solid-state operating mechanism

$U_{s\,min}$ ... $U_{s\,max}$[6]	Contactor type	3RT1. 5.-.N 3RT1. 6.-.N 3RT1. 7.-.N	3RT1. 5.-.P/Q 3RT1. 6.-.P/Q 3RT1. 7.-.P/Q
21 ... 27.3 V		B3	--
96 ... 127 V AC/DC		F3	F3
200 ... 277 V AC/DC		P3	P3

Examples

AC operating mechanism	3RT10 23-1A**P0**0	Contactor with screw terminals; with magnetic coil for 50 Hz for rated control supply voltage 230 V AC.
	3RT10 23-1A**G2**0	Contactor with screw terminals; with magnetic coil for 50/60 Hz for rated control supply voltage 110 V AC.
DC operating mechanism	3RT10 34-3B**B4**0	Contactor with Cage Clamp terminals; for rated control supply voltage 24 V DC.
	3RT10 34-3B**G4**0	Contactor with Cage Clamp terminals; for rated control supply voltage 125 V DC.

1) For deviating coil voltages and coil operating ranges of sizes S00 and S0, the 24 V DC SITOP Power power supply unit with wide range input (93 to 264 V AC; 30 to 264 V DC) can be used for coil excitation (see "Power Supplies" --> "SITOP power Power Supplies").

2) Coil operating range
at 50 Hz: 0.8 to 1.1 x U_s
at 60 Hz: 0.85 to 1.1 x U_s.

3) Coil operating range
Size S00: at 50 Hz: 0.85 to 1.1 x U_s
at 60 Hz: 0.8 to 1.1 x U_s
Sizes S0 to S3: at 50 Hz and 60 Hz: 0.8 to 1.1 x U_s.

4) Coil operating range
Size S00: at 50/60 Hz: 0.85 to 1.1 x U_s
Sizes S0 to S3: at 50 Hz: 0.8 to 1.1 x U_s
at 60 Hz: 0.85 to 1.1 x U_s.

5) Coil operating range
at 60 Hz: 0.8 to 1.1 x U_s.

6) Operating range:
0.8 x $U_{s\,min}$ to 1.1 x $U_{s\,max}$.

© Siemens AG 2008

Selection and ordering data

AC/DC operation *(40 to 60 Hz, DC)*
Auxiliary and control conductors: screw terminals
Withdrawable coils
Integrated coil circuit *(Varistor)*
Main conductors: busbar connections

3RT12 7.

3RT12 7.

Size	Rated data AC-2 and AC-3, T_u: up to 60 °C					AC-1, T_u: 40 °C	Auxiliary contacts, lateral		Rated control supply voltage U_s	DT	**Screw terminals**	PS*	Weight per PU approx.
	Operational current I_e up to	Ratings of induction motors at 50 Hz and				Operational current I_e up to					Order No.		
	1000 V	230 V	**400 V**	500 V	690 V	1000 V							
	A	kW	**kW**	kW	kW	A	NO	NC	V AC/DC				kg
Conventional operating mechanism													
S10	225	55	**110**	160	200	330	2	2	110 … 127 220 … 240		**3RT12 64-6AF36** **3RT12 64-6AP36**	1 unit 1 unit	7.300 7.300
	265	75	**132**	160	250	330	2	2	110 … 127 220 … 240		**3RT12 65-6AF36** **3RT12 65-6AP36**	1 unit 1 unit	7.300 7.300
	300	90	**160**	200	250	330	2	2	110 … 127 220 … 240		**3RT12 66-6AF36** **3RT12 66-6AP36**	1 unit 1 unit	7.300 7.300
S12	400	132	**200**	250	400	610	2	2	110 … 127 220 … 240		**3RT12 75-6AF36** **3RT12 75-6AP36**	1 unit 1 unit	10.500 10.500
	500	160	**250**	355	500	610	2	2	110 … 127 220 … 240		**3RT12 76-6AF36** **3RT12 76-6AP36**	1 unit 1 unit	10.500 10.500
Solid-state operating mechanism · for 24 V DC PLC output													
S10	225	55	**110**	160	200	330	2	2	96 … 127 200 … 277		**3RT12 64-6NF36** **3RT12 64-6NP36**	1 unit 1 unit	7.300 7.300
	265	75	**132**	160	250	330	2	2	96 … 127 200 … 277		**3RT12 65-6NF36** **3RT12 65-6NP36**	1 unit 1 unit	7.300 7.300
	300	90	**160**	200	250	330	2	2	96 … 127 200 … 277		**3RT12 66-6NF36** **3RT12 66-6NP36**	1 unit 1 unit	7.300 7.300
S12	400	132	**200**	250	400	610	2	2	96 … 127 200 … 277		**3RT12 75-6NF36** **3RT12 75-6NP36**	1 unit 1 unit	10.500 10.500
	500	160	**250**	355	500	610	2	2	96 … 127 200 … 277		**3RT12 76-6NF36** **3RT12 76-6NP36**	1 unit 1 unit	10.500 10.500

For other voltages see page 3/16.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

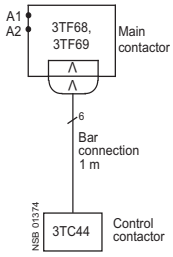
3TF6 vacuum contactors, 3-pole, 335 ... 450 kW

Selection and ordering data

Auxiliary and control conductors: screw terminals
Main conductors: busbar connections
Size 14

Rated data AC-2 and AC-3 (up to 55 °C)						AC-1	Auxiliary contacts		Rated control supply voltage U_s	DT	Screw terminals	PS*	Weight per PU approx.
Operational current I_e up to 690 V	Ratings of induction motors at 50 Hz and					Operational current I_e (at 40 °C)	Version				Order No.		
	230 V	**400 V**	500 V	690 V	1000 V								
A	kW	**kW**	kW	kW	kW	A	NO	NC	V				kg
AC operation[1) 2)]													
630	200	**335**	434	600	--	700	4	4	110 ... 132 AC, 50/60 Hz ►		**3TF68 44-0CF7**	1 unit	20.000
									200 ... 240 AC, 50/60 Hz ►		**3TF68 44-0CM7**	1 unit	20.000
630	200	**335**	434	600	600	700	4	4	110 ... 132 AC, 50/60 Hz		**3TF68 44-8CF7**	1 unit	20.000
									200 ... 240 AC, 50/60 Hz		**3TF68 44-8CM7**	1 unit	20.000
820	260	**450**	600	800	--	910	4	4	110 ... 132 AC, 50/60 Hz		**3TF69 44-0CF7**	1 unit	22.200
									200 ... 240 AC, 50/60 Hz ►		**3TF69 44-0CM7**	1 unit	22.200
820	260	**450**	600	800	800	910	4	4	110 ... 132 AC, 50/60 Hz		**3TF69 44-8CF7**	1 unit	22.200
									200 ... 240 AC, 50/60 Hz		**3TF69 44-8CM7**	1 unit	22.200
DC operation · DC economy circuit													
630	200	**335**	434	600	--	700	3	3	24 DC		**3TF68 33-1DB4**	1 unit	19.500
					600						**3TF68 33-8DB4**	1 unit	19.500
820	260	**450**	600	800	--	910	3	3	24 DC		**3TF69 33-1DB4**	1 unit	22.500
					800						**3TF69 33-8DB4**	1 unit	22.500
AC operation · Version for AC controls which are subject to strong interference													
630	200	**335**	434	600	--	700	3	3	110 ... 120 AC, 50/60 Hz		**3TF68 33-1QG7**	1 unit	21.000
									220 ... 240 AC, 50/60 Hz		**3TF68 33-1QL7**	1 unit	21.000
									380 ... 420 AC, 50/60 Hz		**3TF68 33-1QV7**	1 unit	21.000
					600	700	3	3	110 ... 120 AC, 50/60 Hz		**3TF68 33-8QG7**	1 unit	21.000
									220 ... 240 AC, 50/60 Hz		**3TF68 33-8QL7**	1 unit	21.000
820	260	**450**	600	800	--	910	3	3	110 ... 120 AC, 50/60 Hz		**3TF69 33-1QG7**	1 unit	23.000
									220 ... 240 AC, 50/60 Hz		**3TF69 33-1QL7**	1 unit	23.000
									380 ... 420 AC, 50/60 Hz		**3TF69 33-1QV7**	1 unit	23.000
					800	910	3	3	110 ... 120 AC, 50/60 Hz		**3TF69 33-8QG7**	1 unit	23.000
									220 ... 240 AC, 50/60 Hz		**3TF69 33-8QL7**	1 unit	23.000

3TF68



3TF6. 33-.Q.

Reversing contactors supplied: 3TC44 17-4A..

1) Built-in surge suppression: varistor circuit.

2) 3TF68/69 vacuum contactors are supplied with integrated overvoltage damping for the main current paths. The surge suppression circuit is not required if 3TF68/69 contactors are used in circuits with DC choppers, frequency converters or speed-variable operating mechanisms, for example. It could be damaged by the voltage peaks and harmonics and cause phase-to-phase short-circuits.
For this reason, the contactors can also be supplied without integrated overvoltage damping. Without additional price.
The order number must include **"-Z"** and the order code **"A02"**.

Rated control supply voltages (the 10th and 11th position of the order number must be changed)

Contactors	Type	**3TF68..-.C/-.D, 3TF69..-.C/-.D**
AC operation · Magnetic coils for 50/60 Hz		
230 ... 277 V AC		P7
380 ... 460 V AC		Q7
500 ... 600 V AC		S7
DC operation		
110 V DC		F4
125 V DC		G4
220 V DC		M4
230 V DC		P4

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

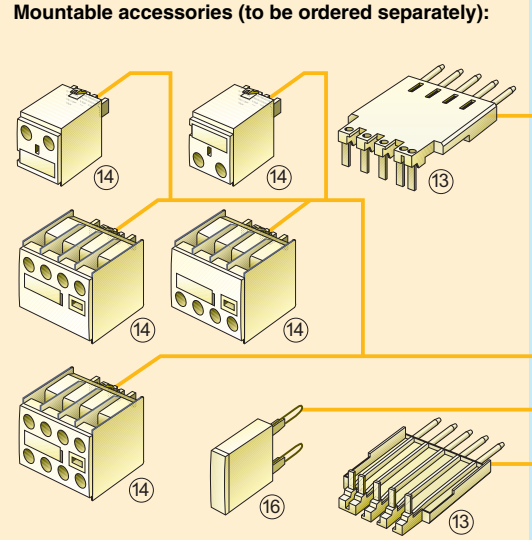
Fully wired and tested contactor assemblies[2] · Size S00 · up to 5.5 kW

	Rated data AC-2 and AC-3					Rated control supply voltage U_s[1]	DT	Screw terminals	PS*	PG	Weight per PU approx.
	Operational current I_e up to	Ratings of induction motors at 50 Hz and						Order No.			
	400 V	230 V	**400 V**	500 V	690 V						
	A	kW	**kW**	kW	kW	V					kg
AC operation, 50/60 Hz											
3RA13 1.-8XB30-1...	7	2.2	**3**	3.5	4	24 AC		**3RA13 15-8XB30-1AB0**	1 unit	101	0.430
						110 AC		**3RA13 15-8XB30-1AF0**	1 unit	101	0.430
						230 AC	▶	**3RA13 15-8XB30-1AP0**	1 unit	101	0.430
	9	3	**4**	4.5	5.5	24 AC		**3RA13 16-8XB30-1AB0**	1 unit	101	0.430
						110 AC		**3RA13 16-8XB30-1AF0**	1 unit	101	0.430
						230 AC	▶	**3RA13 16-8XB30-1AP0**	1 unit	101	0.430
	12	3	**5.5**	5.5	5.5	24 AC		**3RA13 17-8XB30-1AB0**	1 unit	101	0.430
						110 AC		**3RA13 17-8XB30-1AF0**	1 unit	101	0.430
						230 AC	▶	**3RA13 17-8XB30-1AP0**	1 unit	101	0.430
DC operation											
	7	2.2	**3**	3.5	4	24 DC	▶	**3RA13 15-8XB30-1BB4**	1 unit	101	0.550
	9	3	**4**	4.5	5.5	24 DC	▶	**3RA13 16-8XB30-1BB4**	1 unit	101	0.550

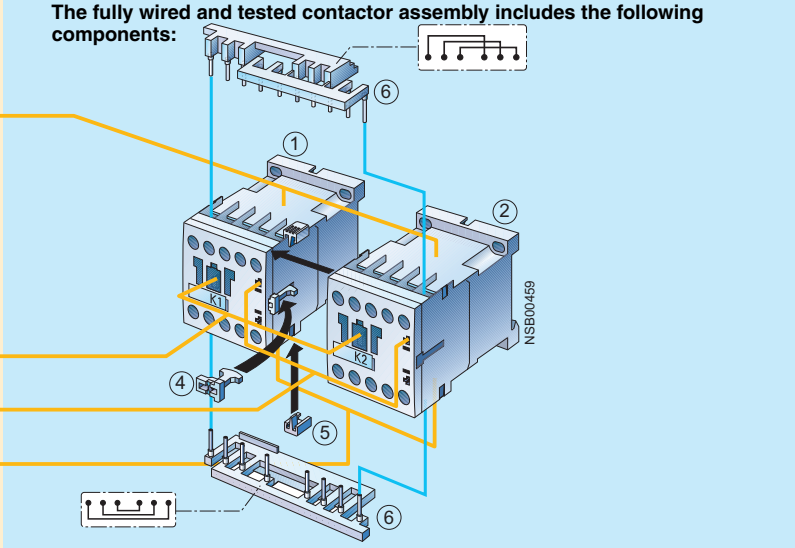
[1] Coil operating range
at 50 Hz: 0.8 ... 1.1 x U_s;
at 60 Hz: 0.85 ... 1.1 x U_s.

[2] The contactors integrated in the contactor assemblies have no unassigned auxiliary contacts.

Mountable accessories (to be ordered separately):



The fully wired and tested contactor assembly includes the following components:



Accessories	Order No.	Page
13 Solder pin adapters	3RT19 16-4KA1	3/58
14 Auxiliary switch block, front (auxiliary switch block according to EN 50005 must be used)	3RH19 11-1....	3/50
16 Surge suppressors	3RT19 16-1....	3/55, 3/56

Individual parts		Order No. K1	Order No. K2	Page
1 2	Contactors, 3 kW	3RT10 15	3RT10 15	3/10
1 2	Contactors, 4 kW	3RT10 16	3RT10 16	3/10
1 2	Contactors, 5.5 kW	3RT10 17	3RT10 17	3/10
4 5 6	Assembly kit	3RA19 13-2A		3/23

The assembly kit contains:

4 Mechanical interlock
5 2 connecting clips for 2 contactors
6 Wiring modules on the top and bottom for connecting the main current paths, electrical interlock included[1], interruptible (NC contact interlock)

[1] 3RT10 1. contactors with one NC contact in the basic unit are required for the electrical interlock.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RA13 Reversing Contactor Assemblies

3RA13 complete units, 3 ... 45 kW

Fully wired and tested contactor assemblies · Size S0 · up to 11 kW

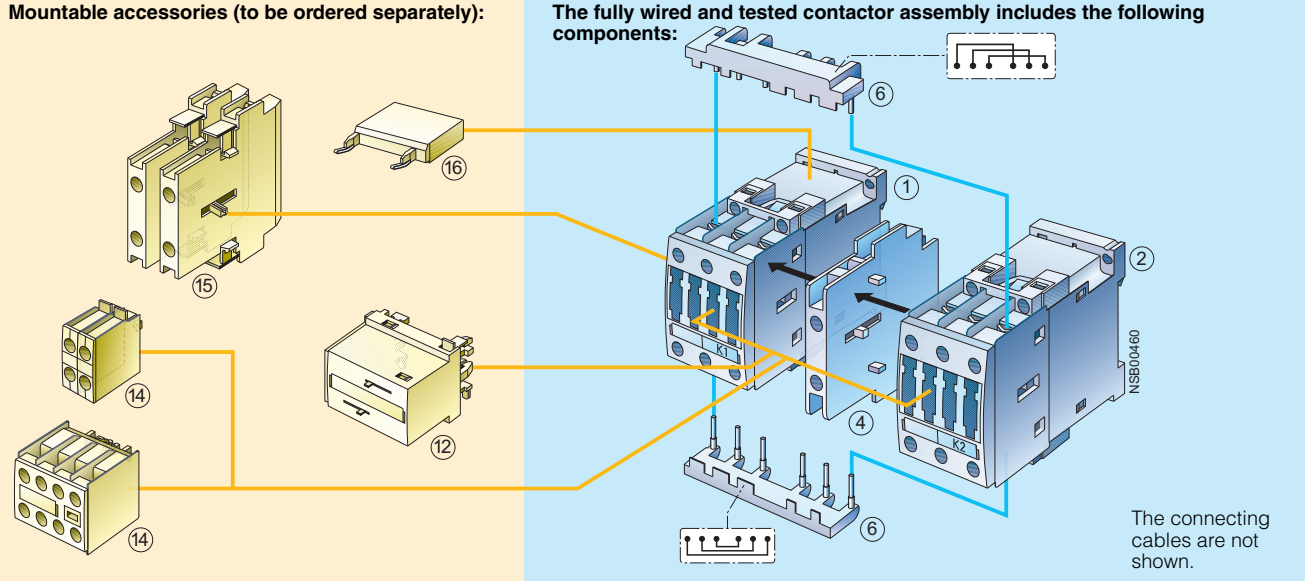
3RA13 2.-8XB30-1...

Rated data AC-2 and AC-3					Rated control supply voltage U_s [1]	DT	Screw terminals	PS*	PG	Weight per PU approx.
Operational current I_e up to	Ratings of induction motors at 50 Hz and						Order No.			
400 V	230 V	**400 V**	500 V	690 V						
A	kW	**kW**	kW	kW	V					kg
AC operation, 50/60 Hz										
12	3	**5.5**	7.5	7.5	24 AC		**3RA13 24-8XB30-1AC2**	1 unit	101	0.770
					110 AC		**3RA13 24-8XB30-1AG2**	1 unit	101	0.770
					230 AC	►	**3RA13 24-8XB30-1AL2**	1 unit	101	0.770
17	4	**7.5**	10	11	24 AC		**3RA13 25-8XB30-1AC2**	1 unit	101	0.770
					110 AC		**3RA13 25-8XB30-1AG2**	1 unit	101	0.770
					230 AC	►	**3RA13 25-8XB30-1AL2**	1 unit	101	0.770
25	5.5	**11**	11	11	24 AC		**3RA13 26-8XB30-1AC2**	1 unit	101	0.770
					110 AC		**3RA13 26-8XB30-1AG2**	1 unit	101	0.770
					230 AC		**3RA13 26-8XB30-1AL2**	1 unit	101	0.770
DC operation										
12	3	**5.5**	7.5	7.5	24 DC	►	**3RA13 24-8XB30-1BB4**	1 unit	101	1.230
17	4	**7.5**	10	11	24 DC		**3RA13 25-8XB30-1BB4**	1 unit	101	1.230
25	5.5	**11**	11	11	24 DC		**3RA13 26-8XB30-1BB4**	1 unit	101	1.230

[1] Coil operating range
at 50 Hz: 0.8 ... 1.1 x U_s; at 60 Hz: 0.85 ... 1.1 x U_s.

Mountable accessories (to be ordered separately):

The fully wired and tested contactor assembly includes the following components:



The connecting cables are not shown.

Accessories		Order No.	Page
12	Mechanical interlock, front	3RA19 24-1A	3/23
14	Auxiliary switch block, front	3RH19 21-1CA..	3/51
15	Auxiliary switch block, lateral	3RH19 21-1EA..	3/52
16	Surge suppressors	3RT19 26-1....	3/55

Individual parts		Order No. K1	Order No. K2	Page
1 2	Contactors, 5.5 kW	3RT10 24	3RT10 24	3/10
1 2	Contactors, 7.5 kW	3RT10 25	3RT10 25	3/10
1 2	Contactors, 11 kW	3RT10 26	3RT10 26	3/10
4	Mechanical interlock, lateral	3RA19 24-2B		3/23
6	Assembly kit	3RA19 23-2A		3/23

The assembly kit contains wiring modules on the top and bottom (they also form the mechanical connection between the contactors).

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Fully wired and tested contactor assemblies · Size S2 · up to 22 kW

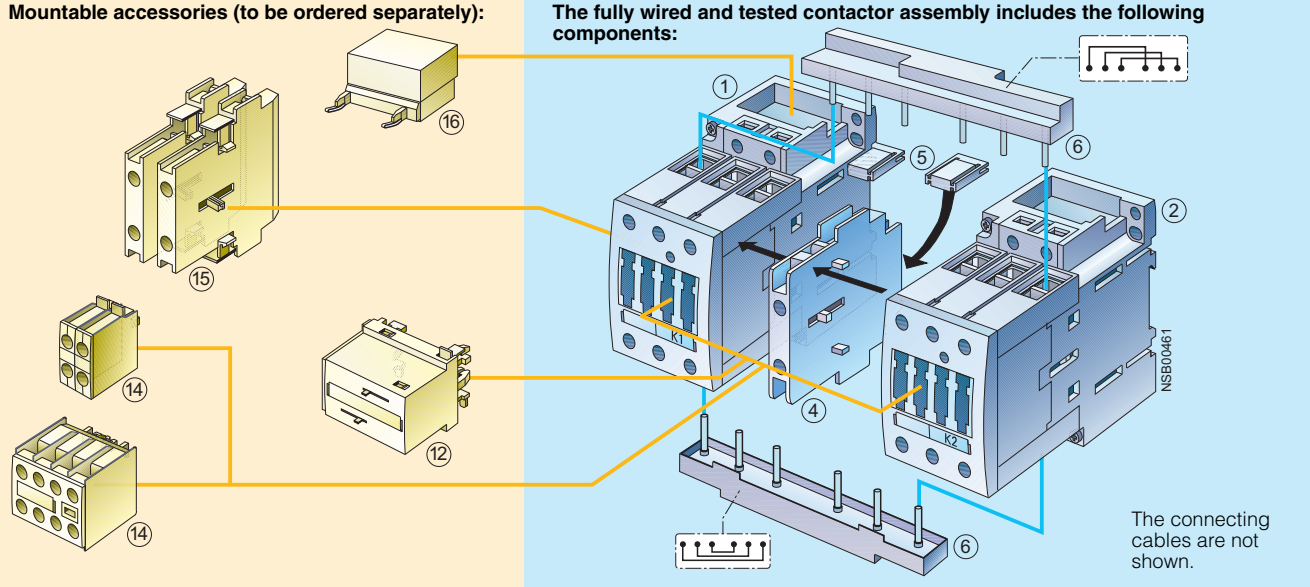
3RA13 3.-8XB30-1...

Rated data AC-2 and AC-3					Rated control supply voltage U_s [1]	DT	Screw terminals	PS*	PG	Weight per PU approx.
Operational current I_e up to	Ratings of induction motors at 50 Hz and						Order No.			
500 V	230 V	**400 V**	500 V	690 V						
A	kW	**kW**	kW	kW	V					kg
AC operation, 50/60 Hz										
32	7.5	**15**	18.5	18.5	24 AC		**3RA13 34-8XB30-1AC2**	1 unit	101	2.300
					110 AC		**3RA13 34-8XB30-1AG2**	1 unit	101	2.300
					230 AC		**3RA13 34-8XB30-1AL2**	1 unit	101	2.300
40	11	**18.5**	22	22	24 AC		**3RA13 35-8XB30-1AC2**	1 unit	101	2.300
					110 AC		**3RA13 35-8XB30-1AG2**	1 unit	101	2.300
					230 AC		**3RA13 35-8XB30-1AL2**	1 unit	101	2.300
50	15	**22**	30	22	24 AC		**3RA13 36-8XB30-1AC2**	1 unit	101	2.300
					110 AC		**3RA13 36-8XB30-1AG2**	1 unit	101	2.300
					230 AC		**3RA13 36-8XB30-1AL2**	1 unit	101	2.300
DC operation										
32	7.5	**15**	18.5	18.5	24 DC		**3RA13 34-8XB30-1BB4**	1 unit	101	3.450
40	11	**18.5**	22	22	24 DC		**3RA13 35-8XB30-1BB4**	1 unit	101	3.450
50	15	**22**	30	22	24 DC		**3RA13 36-8XB30-1BB4**	1 unit	101	3.450

[1] Coil operating range
at 50 Hz: 0.8 ... 1.1 x U_s; at 60 Hz: 0.85 ... 1.1 x U_s.

Mountable accessories (to be ordered separately):

The fully wired and tested contactor assembly includes the following components:



Accessories		Order No.	Page
12	Mechanical interlock, front	3RA19 24-1A	3/23
14	Auxiliary switch block, front	3RH19 21-1CA..	3/51
15	Auxiliary switch block, lateral	3RH19 21-1EA..	3/52
16	Surge suppressors	3RT19 26-1.... 3RT19 36-1....	3/55

Individual parts		Order No. K1	Order No. K2	Page
1 2	Contactors, 15 kW	3RT10 34	3RT10 34	3/11
1 2	Contactors, 18.5 kW	3RT10 35	3RT10 35	3/11
1 2	Contactors, 22 kW	3RT10 36	3RT10 36	3/11
4	Mechanical interlock, lateral	3RA19 24-2B		3/23
5 6	Assembly kit	3RA19 33-2A		3/23

The assembly kit contains:

5 2 connecting clips for 2 contactors with a distance of 10 mm

6 Wiring modules on the top and bottom for connecting the main current paths

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RA13 Reversing Contactor Assemblies

3RA13 complete units, 3 ... 45 kW

Fully wired and tested contactor assemblies · Size S3 · up to 45 kW

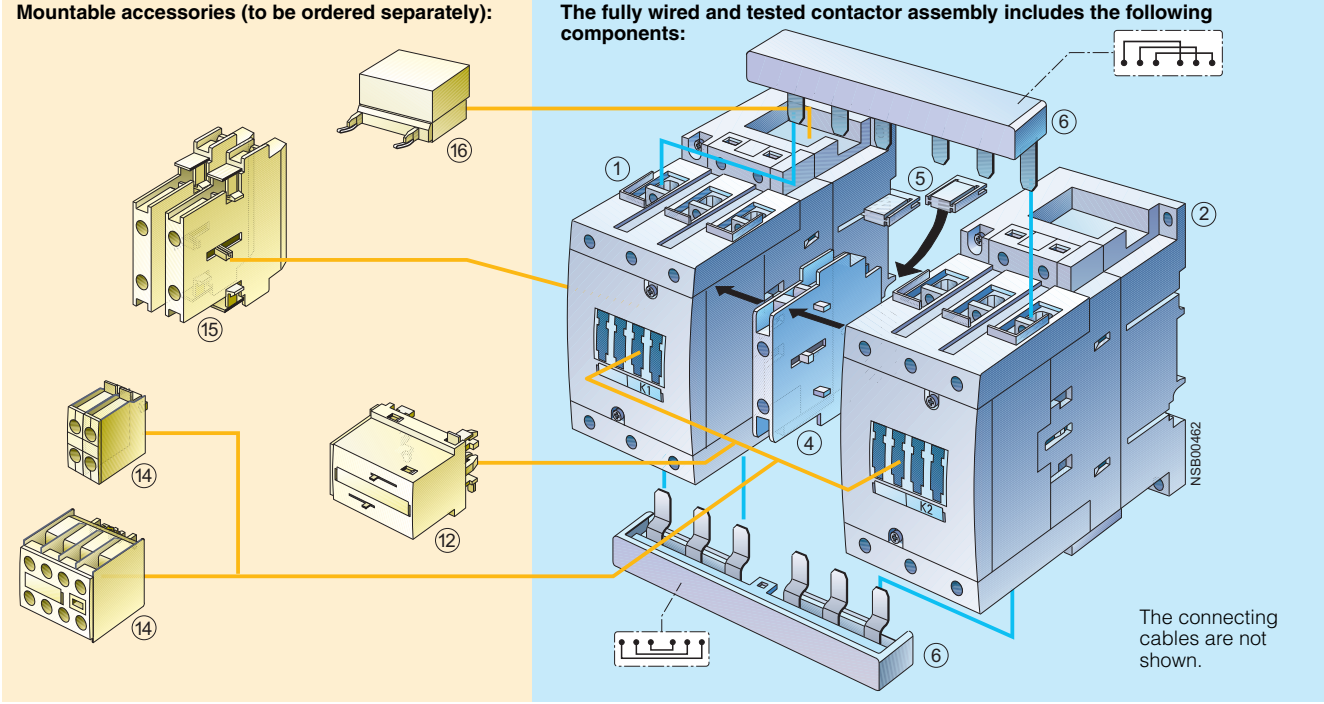
3RA13 4.-8XB30-1...

Rated data AC-2 and AC-3					Rated control supply voltage U_s [1]	DT	Screw terminals	PS*	PG	Weight per PU approx.
Operational current I_e up to	Ratings of induction motors at 50 Hz and						Order No.			
500 V	230 V	**400 V**	500 V	690 V						
A	kW	**kW**	kW	kW	V					kg
AC operation at 50/60 Hz										
65	18.5	**30**	37	45	24 AC		**3RA13 44-8XB30-1AC2**	1 unit	101	4.500
					110 AC		**3RA13 44-8XB30-1AG2**	1 unit	101	4.500
					230 AC		**3RA13 44-8XB30-1AL2**	1 unit	101	4.500
80	22	**37**	45	55	24 AC		**3RA13 45-8XB30-1AC2**	1 unit	101	4.500
					110 AC		**3RA13 45-8XB30-1AG2**	1 unit	101	4.500
					230 AC		**3RA13 45-8XB30-1AL2**	1 unit	101	4.500
95	22	**45**	55	55	24 AC		**3RA13 46-8XB30-1AC2**	1 unit	101	4.500
					110 AC		**3RA13 46-8XB30-1AG2**	1 unit	101	4.500
					230 AC		**3RA13 46-8XB30-1AL2**	1 unit	101	4.500
DC operation										
65	18.5	**30**	37	45	24 DC		**3RA13 44-8XB30-1BB4**	1 unit	101	6.500
80	22	**37**	45	55	24 DC		**3RA13 45-8XB30-1BB4**	1 unit	101	6.500
95	22	**45**	55	55	24 DC		**3RA13 46-8XB30-1BB4**	1 unit	101	6.500

[1] Coil operating range
at 50 Hz: 0.8 ... 1.1 x U_s; at 60 Hz: 0.85 ... 1.1 x U_s.

Mountable accessories (to be ordered separately):

The fully wired and tested contactor assembly includes the following components:



The connecting cables are not shown.

Accessories		Order No.	Page
12	Mechanical interlock, front	3RA19 24-1A	3/23
14	Auxiliary switch block, front	3RH19 21-1CA..	3/51
15	Auxiliary switch block, lateral	3RH19 21-1EA..	3/52
16	Surge suppressors	3RT19 26-1.... 3RT19 36-1....	3/55

Individual parts		Order No. K1	Order No. K2	Page
1 2	Contactors, 30 kW	3RT10 44	3RT10 44	3/11
1 2	Contactors, 37 kW	3RT10 45	3RT10 45	3/11
1 2	Contactors, 45 kW	3RT10 46	3RT10 46	3/11
4	Mechanical interlock, lateral	3RA19 24-2B		3/23
5 6	Assembly kit	3RA19 43-2A		3/23

The assembly kit contains:

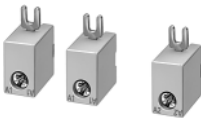
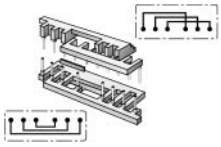
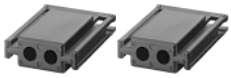
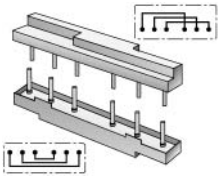
5 2 connecting clips for 2 contactors with a distance of 10 mm

6 Wiring modules on the top and bottom for connecting the main current paths

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

	For contactors Type	Size	Version	DT	Order No.	PS*	Weight per PU approx. kg
Mechanical interlocks							
3RA19 24-1A mounted onto 2 contactors	3RT10 2 3RT10 3 3RT10 4 3RT13 2 3RT13 3 3RT13 4	**S0** **S2** **S3**	**For lateral mounting**[1] Each with one auxiliary contact (1 NC contact) per contactor (can only be used to connect contactors which are not more than 1 size larger or smaller. The mounting depth of the smaller contactor has to be adapted.)	►	**3RA19 24-2B**	1 unit	0.060
	3RT10 2 3RT10 3 3RT10 4 3RT13 2	**S0** **S2** **S3** **S0**	**For mounting to the front**[2] Onto contactors with sizes S0 to S3 (for contactors of the same size) Note: Size S0: Wiring modules must be mounted first Sizes S2 and S3: Use 3RA19 32-2C mechanical connectors.	►	**3RA19 24-1A**	1 unit	0.050
3RA19 54-2A	3RT1. 5 to 3RT1. 7	**S6** **S10** **S12**	**For lateral mounting** Without auxiliary contacts; size S6, S10 and S12 contactors can be interlocked with each other as required; no adaptation of mounting depth is necessary. Contactor clearance 10 mm.	►	**3RA19 54-2A**	1 unit	0.050
Coil repeat terminals							
 3RA19 23-3B	3RT10 3 3RT10 4	**S2, S3**	For the coil terminals A1 and A2 for reversing starters (contactor sizes S2 and S3). 2 x A1 and 1 x A2 required per assembly. (1 set contains 10 x A1 and 5 x A2)		**3RA19 23-3B**	1 unit	0.080
Assembly kits for making 3-pole contactor assemblies							
3RA19 13-2A 	3RT10 1	**S00**	The assembly kit contains: Mechanical interlock; 2 connecting clips for 2 contactors; wiring modules on the top and bottom	►	**3RA19 13-2A**	1 unit	0.040
	3RT10 2	**S0**	The assembly kit contains: wiring modules on the top and bottom	►	**3RA19 23-2A**	1 unit	0.060
 3RA19 33-2A 	3RT10 3	**S2**	The assembly kit contains: 2 connecting clips for 2 contactors; wiring modules on the top and bottom	►	**3RA19 33-2A**	1 unit	0.120
	3RT10 4	**S3**	The assembly kit contains: 2 connecting clips for 2 contactors; wiring modules on the top and bottom	►	**3RA19 43-2A**	1 unit	0.300
	3RT10 5 3RT1. 6 3RT1. 7	**S6** **S10** **S12**	The assembly kit contains: wiring modules on the top and bottom		**3RA19 53-2A** **3RA19 63-2A** **3RA19 73-2A**	1 unit 1 unit 1 unit	1.300 2.400 3.000

Wiring modules and mechanical connectors are also available separately.

[1] Can also be used for 4-pole contactors with sizes S2 and S3.

[2] Can also be used for size S0 4-pole contactors.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RA14 Contactor Assemblies for Wye-Delta Starting

3RA14 complete units, 3 ... 75 kW

Selection and ordering data

Fully wired and tested contactor assemblies · Size S00-S00-S00 · up to 7.5 kW

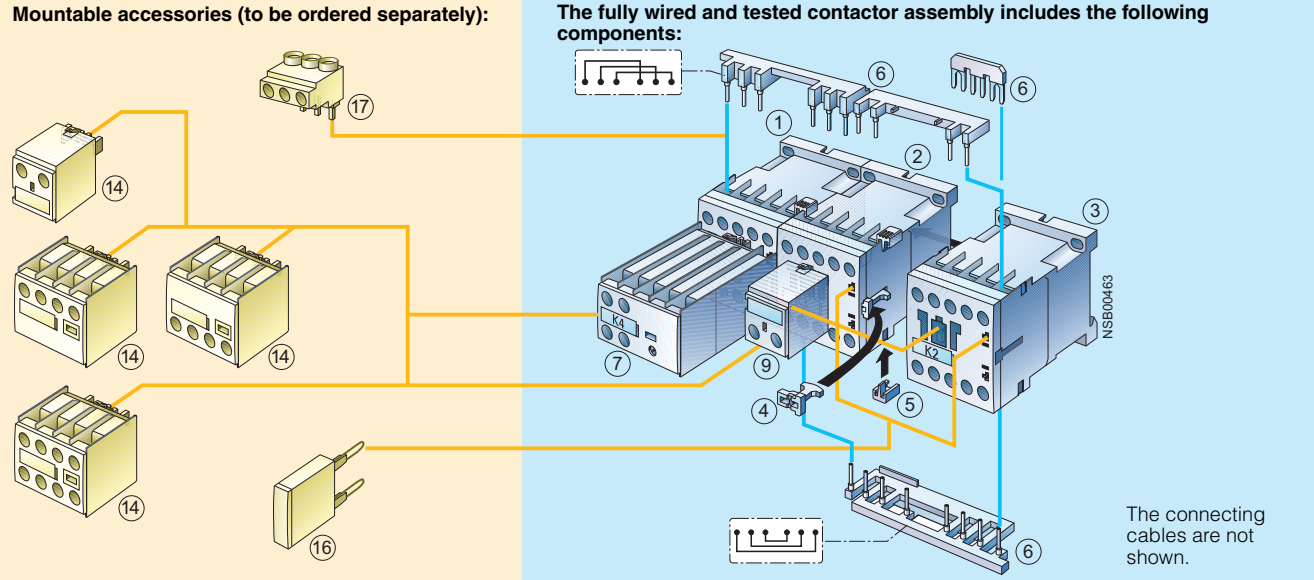
3RA14 1.-8XB31-1...

Rated data AC-3					Rated control supply voltage U_s [1]	DT	Screw terminals	PS*	PG	Weight per PU approx.
Operational current I_e at	Ratings of induction motors at 50 Hz and						Order No.			
400 V	230 V	**400 V**	500 V	690 V						
A	kW	**kW**	kW	kW	V					kg
AC operation, 50/60 Hz										
12	3.3	**5.5**	7.2	9.2	24 AC		**3RA14 15-8XB31-1AB0**	1 unit	101	0.950
					110 AC		**3RA14 15-8XB31-1AF0**	1 unit	101	0.950
					230 AC	▶	**3RA14 15-8XB31-1AP0**	1 unit	101	0.950
17	4.7	**7.5**	10.3	9.2	24 AC		**3RA14 16-8XB31-1AB0**	1 unit	101	0.990
					110 AC		**3RA14 16-8XB31-1AF0**	1 unit	101	0.990
					230 AC	▶	**3RA14 16-8XB31-1AP0**	1 unit	101	0.990
DC operation										
12	3.3	**5.5**	7.2	9.2	24 DC		**3RA14 15-8XB31-1BB4**	1 unit	101	1.120
17	4.7	**7.5**	10.3	9.2	24 DC	▶	**3RA14 16-8XB31-1BB4**	1 unit	101	1.120

[1] Coil operating range
at 50 Hz: 0.8 ... 1.1 x U_s; at 60 Hz: 0.85 ... 1.1 x U_s.

Mountable accessories (to be ordered separately):

The fully wired and tested contactor assembly includes the following components:



The connecting cables are not shown.

Accessories	Order No.	Page
14 Auxiliary switch block, front	3RH19 11-1....	3/50
16 Surge suppressors	3RT19 16-1....	3/55, 3/56
17 3-phase feeder terminals	3RA19 13-3K	3/29

Individual parts		Order No. K1[1]	K3[2]	K2[2]	Page
1 2 3	Contactors, 5.5 kW	3RT10 15	3RT10 15	3RT10 15	3/10
1 2 3	Contactors, 7.5 kW	3RT10 17	3RT10 17	3RT10 15	3/10
7	Solid-state time-delay auxiliary switch block, front	3RT19 16-2G.51			3/53
9	Auxiliary switch block with 1 unassigned NO contact	3RH19 11-1BA10			3/50
4 5 6	Assembly kit	3RA19 13-2B			3/29

The assembly kit contains:

4 Mechanical interlock
5 3 connecting clips
6 Wiring modules on the top and bottom for connecting the main and control conducting paths

[1] Use version with 1 NO.
[2] Use version with 1 NC.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Fully wired and tested contactor assemblies · Size S0-S0-S0 · up to 18.5 kW

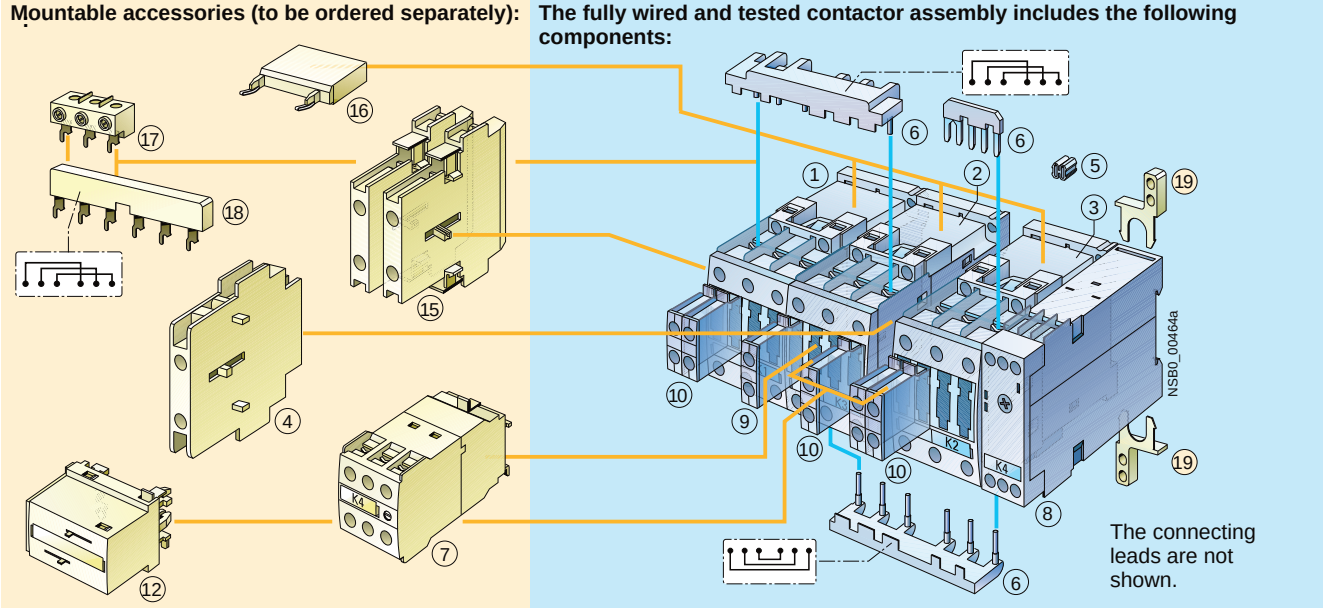
3RA14 2.-8XC21-1...

Rated data AC-3					Rated control supply voltage U_s [1]	DT	Screw terminals	PS*	PG	Weight per PU approx.
Operational current I_e at	Ratings of induction motors at 50 Hz and						Order No.			
400 V	230 V	**400 V**	500 V	690 V						
A	kW	**kW**	kW	kW	V					kg
AC operation, 50/60 Hz										
25	7.1	**11**	15.6	19	24 AC		**3RA14 23-8XC21-1AC2**	1 unit	101	1.800
					110 AC		**3RA14 23-8XC21-1AG2**	1 unit	101	1.800
					230 AC	►	**3RA14 23-8XC21-1AL2**	1 unit	101	1.800
32 / 40	11.4	**15 / 18.5**	19	19	24 AC		**3RA14 25-8XC21-1AC2**	1 unit	101	1.800
					110 AC		**3RA14 25-8XC21-1AG2**	1 unit	101	1.800
					230 AC	►	**3RA14 25-8XC21-1AL2**	1 unit	101	1.800
DC operation										
25	7.1	**11**	15.6	19	24 DC	►	**3RA14 23-8XC21-1BB4**	1 unit	101	2.450
32 / 40	11.4	**15 / 18.5**	19	19	24 DC	►	**3RA14 25-8XC21-1BB4**	1 unit	101	2.450

[1] Coil operating range at 50 Hz: 0.8 ... 1.1 x U_s ; at 60 Hz: 0.85 ... 1.1 x U_s.

Mountable accessories (to be ordered separately):

The fully wired and tested contactor assembly includes the following components:



Accessories	Order No.	Page
(4) Mechanical interlock, lateral	3RA19 24-2B	3/23
(7) Solid-state time-delay auxiliary switch block, front[1]	3RT19 26-2G...	3/53
(12) Mechanical interlock, front	3RA19 24-1A	3/23
(15) Auxiliary switch block, lateral	3RH19 21-1EA..	3/52
(16) Surge suppressors	3RT19 26-1....	3/55
(17) 3-phase feeder terminal[2]	3RV19 15-5A	3/29
(18) 3-phase busbar[2]	3RT19 26-4CC20	3/29
(19) Push-in lug[3] for timing relay screw fixing	3RP19 03	4)

Individual parts		Order No. K1	K3	K2	Page
(1)(2)(3)	Contactors, 11 kW	3RT10 24	3RT10 24	3RT10 24	3/10
(1)(2)(3)	Contactors, 15/18.5 kW	3RT10 26	3RT10 26	3RT10 24	3/10
(8)	Timing relay, lateral	3RP15 74-1N.30			4)
(9)	Auxiliary switch block with 1 unassigned NO contact	3RH19 21-1CA10			3/51
(10)	Auxiliary switch block for local control				
	2 units	3RH19 21-1CA01			
	3 units	3RH19 21-1CA10			3/51
(5)(6)	Assembly kit	3RA19 23-2B			3/29

The assembly kit contains:

(5) Connecting clips

(6) Wiring modules on the top and bottom for connecting the main and control conducting paths

[1] Generally possible. If a solid-state time-delay auxiliary switch block is mounted onto the front of K3, a standard auxiliary switch block can only be mounted onto the side.

[2] (17) and (18) can only be mounted with contactors with screw terminal (coil).

[3] Not part of the scope of supply of the preassembled contactor assemblies; can be ordered as an accessory.

[4] See Monitoring and Control Devices (Chapter 7): 3RP15 timing relay in industrial enclosure, 22.5 mm.

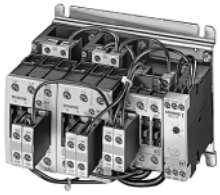
*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RA14 Contactor Assemblies for Wye-Delta Starting

3RA14 complete units, 3 ... 75 kW

Fully wired and tested contactor assemblies · Size S2-S2-S0 · up to 30 kW



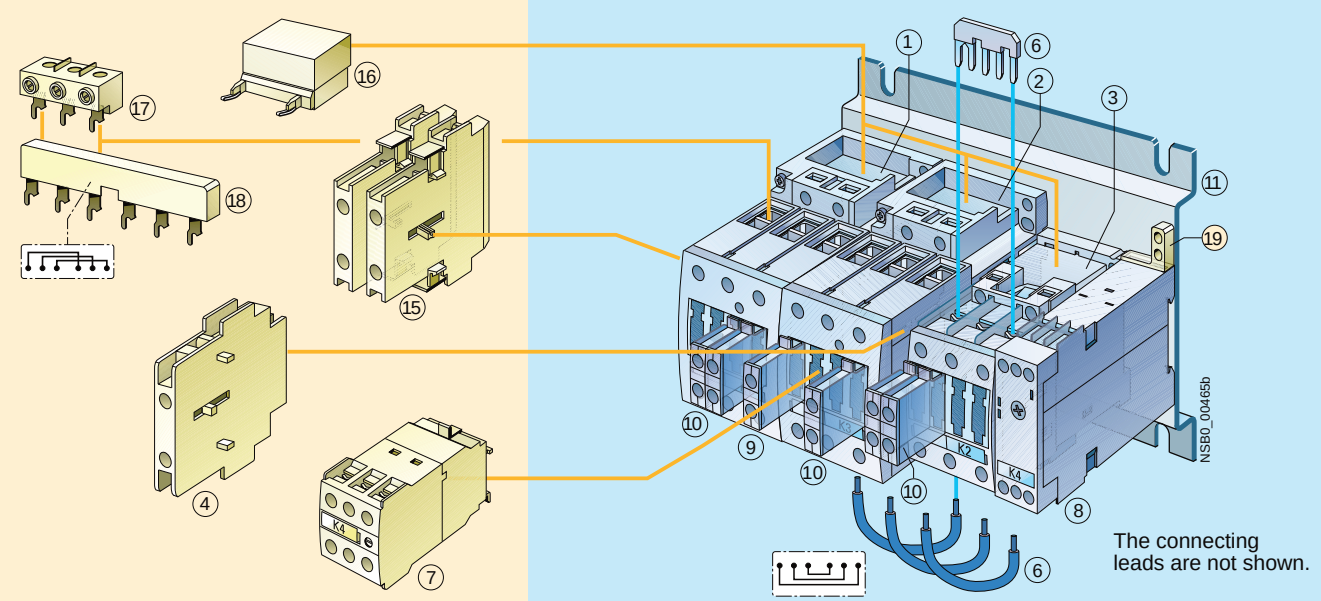
3RA14 34-8XC21-1...

Rated data AC-3					Rated control supply voltage U_s [1]	DT	Screw terminals	PS*	PG	Weight per PU approx.
Operational current I_e up to	Ratings of induction motors at 50 Hz and						Order No.			
400 V	230 V	**400 V**	500 V	690 V						
A	kW	**kW**	kW	kW	V					kg
AC operation, 50/60 Hz										
50 / 65	19.6	**22 / 30**	35	34	24 AC		**3RA14 34-8XC21-1AC2**	1 unit	101	3.100
					110 AC		**3RA14 34-8XC21-1AG2**	1 unit	101	3.100
					230 AC	►	**3RA14 34-8XC21-1AL2**	1 unit	101	3.100
DC operation										
50 / 65	19.6	**22 / 30**	35	34	24 DC	►	**3RA14 34-8XC21-1BB4**	1 unit	101	4.500

[1] Coil operating range
at 50 Hz: 0.8 ... 1.1 x U_s; at 60 Hz: 0.85 ... 1.1 x U_s.

Mountable accessories (to be ordered separately):

The fully wired and tested contactor assembly includes the following components:



Accessories	Order No.	Page
(4) Mechanical interlock, lateral Depth compensation required K3: 1.5 mm; K2: 0 mm [1]	3RA19 24-2B	3/23
(7) Solid-state time-delay auxiliary switch block, front [2]	3RT19 26-2G...	3/53
(15) Auxiliary switch block, lateral	3RH19 21-1EA..	3/54
(16) Surge suppressors	3RT19 26-1.... 3RT19 36-1....	3/55, 3/55
(17) 3-phase feeder terminals	3RV19 35-5A	3/29
(18) 3-phase busbars	3RV19 35-1A	3/29
(19) Push-in lug [3] for timing relay screw fixing	3RP19 03	[4]

[1] Use the 3RA19 32-2B base plate for this configuration.

[2] Generally possible. If a solid-state time-delay auxiliary switch block is mounted onto the front of K3, a standard auxiliary switch block can only be mounted onto the side.

Individual parts	Order No. K1	K3	K2	Page
(1)(2)(3) Contactors, 22/30 kW	3RT10 34	3RT10 34	3RT10 26	3/11
(8) Timing relay, lateral	3RP15 74-1N.30			[4]
(9) Auxiliary switch block with 1 unassigned NO contact	3RH19 21-1CA10			3/51
(10) Auxiliary switch block for local control 2 units 3 units	 3RH19 21-1CA01 3RH19 21-1CA10			 3/51
(11) Base plate	3RA19 32-2E			3/29
(6) Assembly kit	3RA19 33-2C			3/29

The assembly kit contains the star jumper on the top and the wiring module on the bottom for connecting the main current paths.

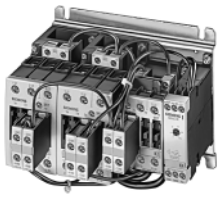
[3] Not part of the scope of supply of the preassembled contactor assemblies; can be ordered as an accessory.

[4] See Monitoring and Control Devices: 3RP, 7PV timing relays -> 3RP15 timing relays in 22.5 mm industrial enclosure.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Fully wired and tested contactor assemblies · Size S2-S2-S0 · up to 30 kW



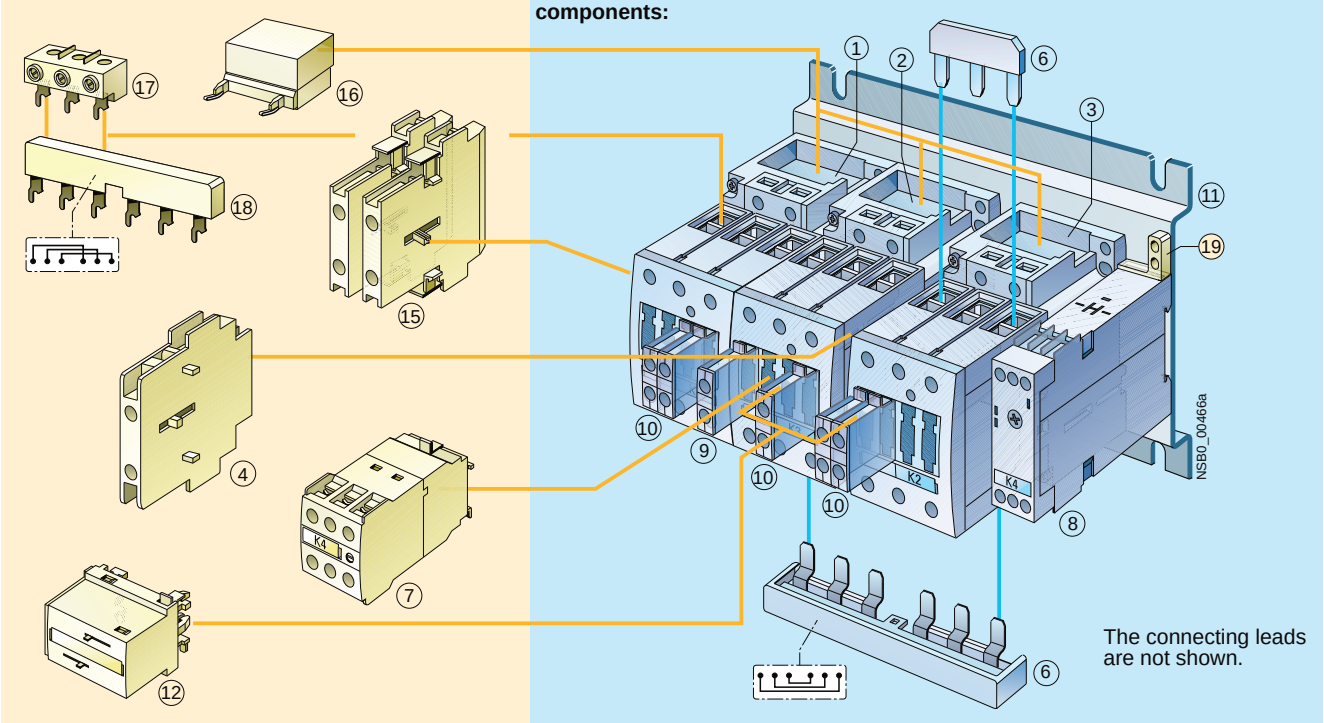
3RA14 34-8XC21-1...

Rated data AC-3					Rated control supply voltage U_s [1]	DT	Screw terminals	PS*	PG	Weight per PU approx.
Operational current I_e up to	Ratings of induction motors at 50 Hz and						Order No.			
400 V	230 V	**400 V**	500 V	690 V						
A	kW	**kW**	kW	kW	V					kg
AC operation, 50/60 Hz										
50 / 65	19.6	**22 / 30**	35	34	24 AC		**3RA14 34-8XC21-1AC2**	1 unit	101	3.100
					110 AC		**3RA14 34-8XC21-1AG2**	1 unit	101	3.100
					230 AC	►	**3RA14 34-8XC21-1AL2**	1 unit	101	3.100
DC operation										
50 / 65	19.6	**22 / 30**	35	34	24 DC	►	**3RA14 34-8XC21-1BB4**	1 unit	101	4.500

[1] Coil operating range
at 50 Hz: 0.8 ... 1.1 x U_s; at 60 Hz: 0.85 ... 1.1 x U_s.

Mountable accessories (to be ordered separately):

The fully wired and tested contactor assembly includes the following components:



The connecting leads are not shown.

Accessories	Order No.	Page
4 Mechanical interlock, lateral	3RA19 24-2B	3/23
7 Solid-state time-delay auxiliary switch block, front[1]	3RT19 26-2G...	3/53
12 Mechanical interlock, front	3RA19 24-1A	3/23
15 Auxiliary switch block, lateral	3RH19 21-1EA..	3/52
16 Surge suppressors	3RT19 26-1.... 3RT19 36-1....	3/55, 3/55
17 3-phase feeder terminals	3RV19 35-5A	3/29
18 3-phase busbars	3RV19 35-1A	3/29
19 Push-in lug[2] for timing relay screw fixing	3RP19 03	3)

Individual parts		Order No. K1	K3	K2	Page
1 2 3	Contactors, 37 kW	3RT10 35	3RT10 35	3RT10 34	3/11
1 2 3	Contactors, 45 kW	3RT10 36	3RT10 36	3RT10 34	3/11
8	Timing relay, lateral	3RP15 74-1N.30			3)
9	Auxiliary switch block with 1 unassigned NO contact	3RH19 21-1CA10			3/51
10	Auxiliary switch block for local control 2 units 3 units	 3RH19 21-1CA01 3RH19 21-1CA10			 3/51
11	Base plate	3RA19 32-2F			3/29
6	Assembly kit	3RA19 33-2B			3/29

The assembly kit contains the star jumper on the top and the wiring module on the bottom for connecting the main current paths.

[1] Generally possible. If a solid-state time-delay auxiliary switch block is mounted onto the front of K3, a standard auxiliary switch block can only be mounted onto the side.

[2] Not part of the scope of supply of the preassembled contactor assemblies; can be ordered as an accessory.

[3] See Monitoring and Control Devices: 3RP, 7PV timing relays -> 3RP15 timing relays in 22.5 mm industrial enclosure.

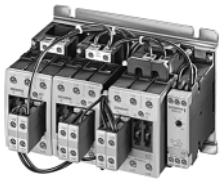
*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RA14 Contactor Assemblies for Wye-Delta Starting

3RA14 complete units, 3 ... 75 kW

Fully wired and tested contactor assemblies · Size S2-S2-S2 · up to 45 kW



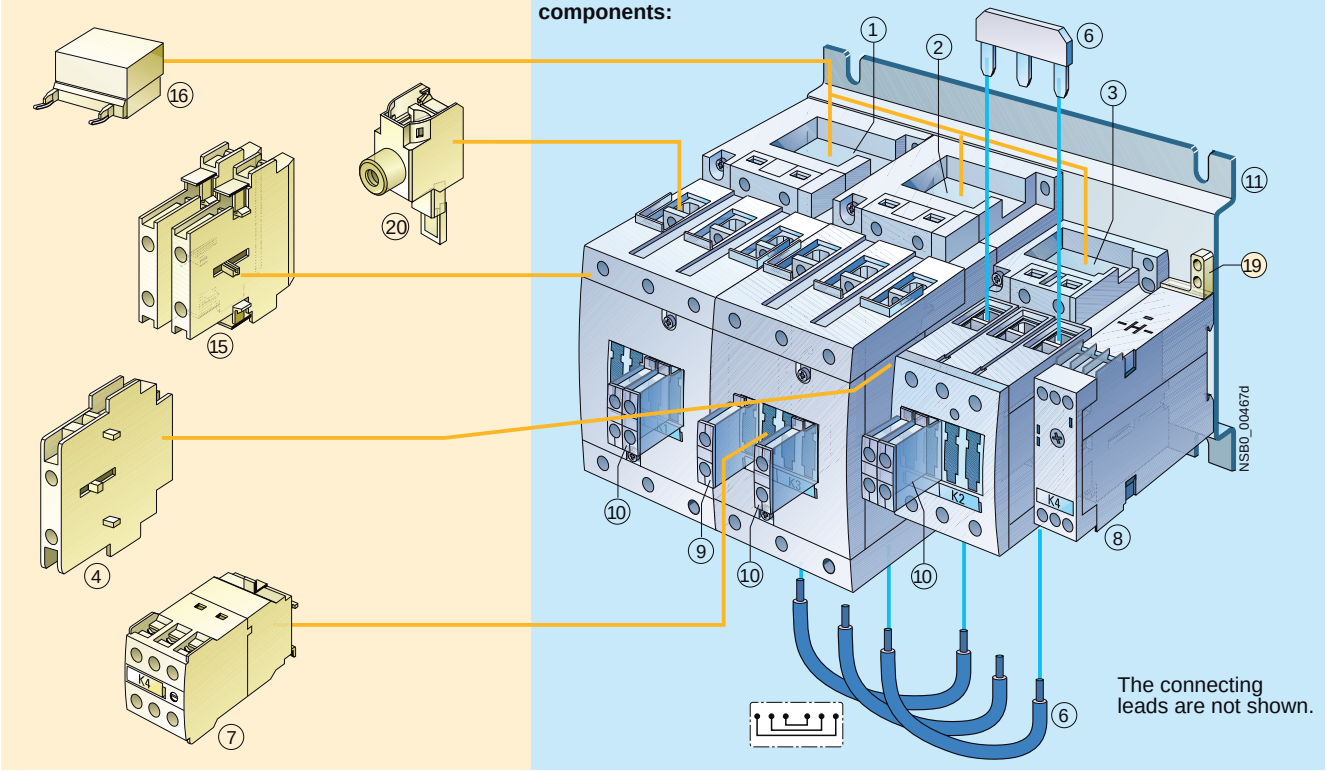
3RA14 3.-8XC21-1...

Rated data AC-3					Rated control supply voltage U_s [1]	DT	Screw terminals	PS*	PG	Weight per PU approx.
Operational current I_e up to	Ratings of induction motors at 50 Hz and						Order No.			
400 V	230 V	**400 V**	500 V	690 V						
A	kW	**kW**	kW	kW	V					kg
AC operation, 50/60 Hz										
80	25	**37**	51	63	24 AC		**3RA14 35-8XC21-1AC2**	1 unit	101	3.700
					110 AC		**3RA14 35-8XC21-1AG2**	1 unit	101	3.700
					230 AC	►	**3RA14 35-8XC21-1AL2**	1 unit	101	3.700
86	27	**45**	55	63	24 AC		**3RA14 36-8XC21-1AC2**	1 unit	101	3.700
					110 AC		**3RA14 36-8XC21-1AG2**	1 unit	101	3.700
					230 AC	►	**3RA14 36-8XC21-1AL2**	1 unit	101	3.700
DC operation										
80	25	**37**	51	63	24 DC		**3RA14 35-8XC21-1BB4**	1 unit	101	5.500
86	27	**45**	55	63	24 DC		**3RA14 36-8XC21-1BB4**	1 unit	101	5.500

[1] Coil operating range at 50 Hz: 0.8 ... 1.1 x U_s; at 60 Hz: 0.85 ... 1.1 x U_s.

Mountable accessories (to be ordered separately):

The fully wired and tested contactor assembly includes the following components:



The connecting leads are not shown.

Accessories	Order No.	Page
4 Mechanical interlock, lateral Depth compensation required K3: 0 mm; K2: 27.5 mm [1]	3RA19 24-2B	3/23
7 Solid-state time-delay auxiliary switch block, front [2]	3RT19 26-2G...	3/53
15 Auxiliary switch block, lateral	3RH19 21-1EA..	3/52
16 Surge suppressors	3RT19 .6-1....	3/55
19 Push-in lug [3] for timing relay screw fixing	3RP19 03	[4]
20 1-phase feeder terminals	3RA19 43-3L	3/29

Individual parts	Order No. K1	K3	K2	Page
1 2 3 Contactors, 55 kW	3RT10 44	3RT10 44	3RT10 35	3/11
1 2 3 Contactors, 75 kW	3RT10 45	3RT10 45	3RT10 36	3/11
8 Timing relay, lateral	3RP15 74-1N.30			[4]
9 Auxiliary switch block with 1 unassigned NO contact	3RH19 21-1CA10			3/51
10 Auxiliary switch block for local control				
2 units	3RH19 21-1CA01			
3 units	3RH19 21-1CA10			3/51
11 Base plate	3RA19 42-2E			3/29
6 Assembly kit	3RA19 43-2C			3/29

The assembly kit contains the star jumper on the top and the wiring module on the bottom for connecting the main current paths.

[1] Use the 3RA19 42-2B base plate for this configuration.

[2] Generally possible. If a solid-state time-delay auxiliary switch block is mounted onto the front of K3, a standard auxiliary switch block can only be mounted onto the side.

[3] Not part of the scope of supply of the preassembled contactor assemblies; can be ordered as an accessory.

[4] See Monitoring and Control Devices: 3RP, 7PV timing relays -> 3RP15 timing relays in 22.5 mm industrial enclosure.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

	Version	Size	DT	Order No.	PS*	Weight per PU approx. kg
Assembly kits						
	The assembly kit contains: Mechanical interlock; 3 connecting clips, star jumper, wiring modules on the top and bottom	**S00-S00-S00**	►	**3RA19 13-2B**	1 unit	0.0450
	The assembly kit contains: 5 connecting clips, star jumper, wiring modules on the top and bottom	**S0-S0-S0**	►	**3RA19 23-2B**	1 unit	0.060
	The assembly kit contains: Star jumper, wiring module on the bottom	**S2-S2-S0**	►	**3RA19 33-2C**	1 unit	0.060
		S2-S2-S2	►	**3RA19 33-2B**	1 unit	0.070
		S3-S3-S2	►	**3RA19 43-2C**	1 unit	0.140
	(wiring module on the top is not included in the scope of supply. A double infeed between the line contactor and the delta contactor is recommended.)	**S3-S3-S3**	►	**3RA19 43-2B**	1 unit	0.160
		S6-S6-S6		**3RA19 53-2B**	1 unit	0.850
		S6-S6-S6		**3RA19 53-2N**	1 unit	0.600
		S10-S10-S10		**3RA19 63-2B**	1 unit	1.800
		S12-S12-S12		**3RA19 73-2B**	1 unit	2.200
1-phase feeder terminals						
	Conductor cross-section: 95 mm²	**S3**		**3RA19 43-3L**	1 unit	0.280
3-phase feeder terminal						
	Feeder terminal block for the line contactor for large conductor cross-sections					
	Conductor cross-section: 6 mm²	**S00**	►	**3RA19 13-3K**	1 unit	0.020
	Conductor cross-section: 25 mm²	**S0**	►	**3RV19 15-5A**	1 unit	0.040
	Conductor cross-section: 50 mm²	**S2**	►	**3RV19 35-5A**	1 unit	0.110
3-phase busbars						
	Bridging phase-by-phase of all input terminals of					
	the line contactor (K1) and	**S0**		**3RT19 26-4CC20**	1 unit	0.030
	the delta contactor (K3)	**S2**	►	**3RV19 35-1A**	1 unit	0.150
Links for paralleling, 3-pole (star jumpers)						
 3RT19 26-4BA31	Without connection terminal (the links for paralleling can be reduced by one pole)	**S00**	►	**3RT19 16-4BA31**	1 unit	0.010
		S0	►	**3RT19 26-4BA31**	1 unit	0.010
		S2	►	**3RT19 36-4BA31**	1 unit	0.020
		S3	►	**3RT19 46-4BA31**	1 unit	0.030
		S6[1]	►	**3RT19 56-4BA31**	1 unit	0.160
		S10, S12[1]	►	**3RT19 66-4BA31**	1 unit	0.500
Base plates						
	For customer assembly of contactor assemblies for wye-delta starting with a **laterally mounted** timing relay					
	Side-by-side mounting	**S2, S2, S0**		**3RA19 32-2E**	1 unit	0.450
	10 mm distance between K3 and K2	**S2, S2, S2**		**3RA19 32-2F**	1 unit	0.480
	Side-by-side mounting	**S3, S3, S2**		**3RA19 42-2E**	1 unit	0.870
	10 mm distance between K1, K3 and K2	**S6, S6, S3**		**3RA19 52-2E**	1 unit	1.800
		S6, S6, S6		**3RA19 52-2F**	1 unit	1.950
		S10, S10, S6		**3RA19 62-2E**	1 unit	3.180
		S10, S10, S10		**3RA19 62-2F**	1 unit	3.400
		S12, S12, S10		**3RA19 72-2E**	1 unit	3.600
		S12, S12, S12		**3RA19 72-2F**	1 unit	3.700
	For customer assembly of contactor assemblies for wye-delta starting with a **front-mounted** timing relay, 10 mm distance between K1, K3 and K2	**S2, S2, S0**		**3RA19 32-2B**	1 unit	0.450
		S2, S2, S2		**3RA19 32-2B**	1 unit	0.450
		S3, S3, S2		**3RA19 42-2B**	1 unit	0.700

[1] The 3RT19 56-4EA1 (S6) or 3RT19 66-4EA1 (S10, S12) cover can be used for touch protection.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RT14 Contactors for Switching Resistive Loads (AC-1)

3-pole, 140 ... 690 A

Selection and ordering data

Size	Rated data AC-1, T_u: 40 °C					Rated control supply voltage U_s	DT	Screw terminals	PS*	Weight per PU approx.
	Operational current I_e	Ratings of AC loads (p.f. = 0.95) at						Order No.		
	up to 690 V	230 V	400 V	500 V	690 V					
	A	kW	kW	kW	kW	V				kg
With screw terminals · for screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail										
AC operation										
S3	**140**	53	92	115	159	24, 50 Hz		**3RT14 46-1AB00**	1 unit	1.850
						110, 50 Hz		**3RT14 46-1AF00**	1 unit	1.850
						230, 50 Hz	►	**3RT14 46-1AP00**	1 unit	1.850
DC operation · DC solenoid system										
S3	**140**	53	92	115	159	24 DC	►	**3RT14 46-1BB40**	1 unit	2.800
						220 DC		**3RT14 46-1BM40**	1 unit	2.800

3RT14 46-1A..0

AC/DC operation *(40 to 60 Hz, DC)*
Auxiliary and control conductors: screw terminals
Withdrawable coils
Integrated coil circuit *(Varistor)*
Main conductors: busbar connections

Size	Rated data AC-1, T_u: 40 °C					Auxiliary contacts		Rated control supply voltage U_s	DT	Screw terminals	PS*	Weight per PU approx.
	Operational current I_e	Ratings of AC loads (p.f. = 0.95) at				Version				Order No.		
	up to 690 V	230 V	400 V	500 V	690 V							
	A	kW	kW	kW	kW	NO	NC	V				kg
Conventional operating mechanism												
S6	**275**	105	180	225	310	2	2	110 ... 127	►	**3RT14 56-6AF36**	1 unit	3.360
								220 ... 240	►	**3RT14 56-6AP36**	1 unit	3.360
S10	**400**	151	263	329	454	2	2	110 ... 127	►	**3RT14 66-6AF36**	1 unit	6.600
								220 ... 240	►	**3RT14 66-6AP36**	1 unit	6.600
S12	**690**	261	454	568	783	2	2	110 ... 127		**3RT14 76-6AF36**	1 unit	10.500
								220 ... 240	►	**3RT14 76-6AP36**	1 unit	10.500
Solid-state operating mechanism · for 24 V DC PLC output												
S6	**275**	105	180	225	310	2	2	96 ... 127		**3RT14 56-6NF36**	1 unit	3.400
								200 ... 277		**3RT14 56-6NP36**	1 unit	3.400
S10	**400**	151	263	329	454	2	2	96 ... 127		**3RT14 66-6NF36**	1 unit	6.600
								200 ... 277		**3RT14 66-6NP36**	1 unit	6.600
S12	**690**	261	454	568	783	2	2	96 ... 127		**3RT14 76-6NF36**	1 unit	10.500
								200 ... 277		**3RT14 76-6NP36**	1 unit	10.500
Solid-state operating mechanism for 24 V DC PLC output/PLC relay output, with RLT remaining lifetime indicator												
S6	**275**	105	180	225	310	1	1	96 ... 127		**3RT14 56-6PF35**	1 unit	4.200
								200 ... 277		**3RT14 56-6PP35**	1 unit	4.200
S10	**400**	151	263	329	454	1	1	200 ... 277		**3RT14 66-6PP35**	1 unit	5.700
S12	**690**	261	454	568	783	1	1	200 ... 277		**3RT14 76-6PP35**	1 unit	10.500
Solid-state operating mechanism · with AS-Interface and RLT remaining lifetime indicator												
S6	**275**	105	180	225	310	1	1	96 ... 127		**3RT14 56-6QF35**	1 unit	3.100
								200 ... 277		**3RT14 56-6QP35**	1 unit	3.100
S10	**400**	151	263	329	454	1	1	200 ... 277		**3RT14 66-6QP35**	1 unit	5.700
S12	**690**	261	454	568	783	1	1	200 ... 277		**3RT14 76-6QP35**	1 unit	10.500

3RT14 6.

For other voltages see page 3/16.
For accessories see pages 3/50 and 3/51.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

4 NO contact

3RT13 1.-1A.00

3RT13 2.-1A.00

3RT13 36-1A.00

3RT13 1.-2B..0

Rated data for utilization category AC-1, T_u: 40/60 °C		Rated control supply voltage U_s	DT	**Screw terminals**	PS*	Weight per PU approx.	DT	**Cage Clamp terminals**	PS*	Weight per PU approx.
Operational current I_e	Ratings of AC loads (p.f. = 0.95) at 50 Hz and **400 V**			Order No.				Order No.		
A	**kW**	V				kg				kg
For screw and snap-on mounting onto 35 mm standard mounting rail										
AC operation										
Size S00[1]										
18 / 16	**12 / 11**	24, 50/60 Hz	▶	**3RT13 16-1AB00**	1 unit	0.200		**3RT13 16-2AB00**	1 unit	0.200
		110, 50/60 Hz	▶	**3RT13 16-1AF00**	1 unit	0.200		**3RT13 16-2AF00**	1 unit	0.200
		230, 50/60 Hz	▶	**3RT13 16-1AP00**	1 unit	0.200	▶	**3RT13 16-2AP00**	1 unit	0.200
22 / 20	**14.5 / 13**	24, 50/60 Hz	▶	**3RT13 17-1AB00**	1 unit	0.200		**3RT13 17-2AB00**	1 unit	0.200
		110, 50/60 Hz	▶	**3RT13 17-1AF00**	1 unit	0.200		**3RT13 17-2AF00**	1 unit	0.200
		230, 50/60 Hz	▶	**3RT13 17-1AP00**	1 unit	0.200	▶	**3RT13 17-2AP00**	1 unit	0.200
Size S0										
35 / 30[2]	**22 / 20**	24, 50 Hz	▶	**3RT13 25-1AB00**	1 unit	0.400		--		
		110, 50 Hz	▶	**3RT13 25-1AF00**	1 unit	0.400		--		
		230, 50 Hz	▶	**3RT13 25-1AP00**	1 unit	0.400		--		
40 / 35[2]	**26 / 23**	24, 50 Hz	▶	**3RT13 26-1AB00**	1 unit	0.400		--		
		110, 50 Hz	▶	**3RT13 26-1AF00**	1 unit	0.400		--		
		230, 50 Hz	▶	**3RT13 26-1AP00**	1 unit	0.400		--		
Size S2										
60 / 55	**39 / 36**	24, 50 Hz		**3RT13 36-1AB00**	1 unit	0.990		--		
		110, 50 Hz		**3RT13 36-1AF00**	1 unit	0.990		--		
		230, 50 Hz	▶	**3RT13 36-1AP00**	1 unit	0.990		--		
Size S3										
110 / 100	**72 / 66**	24, 50 Hz		**3RT13 44-1AB00**	1 unit	2.200		--		
		110, 50 Hz		**3RT13 44-1AF00**	1 unit	2.200		--		
		230, 50 Hz	▶	**3RT13 44-1AP00**	1 unit	2.200		--		
140 / 120	**92 / 79**	24, 50 Hz		**3RT13 46-1AB00**	1 unit	2.200		--		
		110, 50 Hz		**3RT13 46-1AF00**	1 unit	2.200		--		
		230, 50 Hz	▶	**3RT13 46-1AP00**	1 unit	2.200		--		
DC operation · DC solenoid system										
Size S00										
18 / 16	**12 / 11**	24 DC	▶	**3RT13 16-1BB40**	1 unit	0.250	▶	**3RT13 16-2BB40**	1 unit	0.250
		220 DC		**3RT13 16-1BM40**	1 unit	0.250		**3RT13 16-2BM40**	1 unit	0.250
22 / 20	**14.5 / 13**	24 DC	▶	**3RT13 17-1BB40**	1 unit	0.250		**3RT13 17-2BB40**	1 unit	0.250
		220 DC		**3RT13 17-1BM40**	1 unit	0.250		**3RT13 17-2BM40**	1 unit	0.250
Size S0										
35 / 30[2]	**22 / 20**	24 DC	▶	**3RT13 25-1BB40**	1 unit	0.630		--		
		220 DC		**3RT13 25-1BM40**	1 unit	0.630		--		
40 / 35[2]	**26 / 23**	24 DC	▶	**3RT13 26-1BB40**	1 unit	0.630		--		
		220 DC		**3RT13 26-1BM40**	1 unit	0.630		--		
Size S2										
60 / 55	**39 / 36**	24 DC[3]	▶	**3RT13 36-1BB40**	1 unit	1.600		--		
Size S3										
110 / 100	**72 / 66**	24 DC[3]		**3RT13 44-1BB40**	1 unit	3.200		--		
140 / 120	**92 / 79**	24 DC[3]		**3RT13 46-1BB40**	1 unit	3.200		--		

Size S00: Snap-on auxiliary switch blocks according to EN 50005.
Size S0 ... S3: Snap-on auxiliary switch blocks according to EN 50012 and EN 50005 (for S0 max. 2 auxiliary contacts).

For other voltages see page 3/16.

[1] For size S00: Coil operating range at 50 Hz: 0.8 ... 1.1 x U_s, at 60 Hz: 0.85 ... 1.1 x U_s.

[2] Minimum conductor cross-section 10 mm².

[3] For 220 V DC make this change in the Order No.: BB --> BM.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RT15 Contactors

4-pole, 2 NO + 2 NC, 4 ... 18.5 kW

Selection and ordering data

AC and DC operation
2 NO + 2 NC[1]

3RT15 1.-1....

3RT15 1.-2....

3RT15 26-1....

Rated data for utilization category AC-2/AC-3, T_u: up to 60 °C		AC-1, T_u: 40/60 °C	Rated control supply voltage U_s	DT	Screw terminals	PS*	Weight per PU approx.	DT	Cage Clamp terminals	PS*	Weight per PU approx.
Operational current I_e at 400 V	Rating of induction motors at 50 Hz and **400 V**	Operational current I_e			Order No.				Order No.		
A	**kW**	A	V				kg				kg
For screw and snap-on mounting onto 35 mm standard mounting rail											
AC operation											
Size S00[2]											
9	**4**	18 / 16	24, 50/60 Hz		**3RT15 16-1AB00**	1 unit	0.200		**3RT15 16-2AB00**	1 unit	0.200
			110, 50/60 Hz		**3RT15 16-1AF00**	1 unit	0.200		**3RT15 16-2AF00**	1 unit	0.200
			230, 50/60 Hz	▶	**3RT15 16-1AP00**	1 unit	0.200	▶	**3RT15 16-2AP00**	1 unit	0.200
12	**5.5**	22 / 20	24, 50/60 Hz		**3RT15 17-1AB00**	1 unit	0.200		**3RT15 17-2AB00**	1 unit	0.200
			110, 50/60 Hz	▶	**3RT15 17-1AF00**	1 unit	0.200		**3RT15 17-2AF00**	1 unit	0.200
			230, 50/60 Hz	▶	**3RT15 17-1AP00**	1 unit	0.200	▶	**3RT15 17-2AP00**	1 unit	0.200
Size S0											
25	**11**	40 / 35[3]	24, 50 Hz		**3RT15 26-1AB00**	1 unit	0.400		--		
			110, 50 Hz	▶	**3RT15 26-1AF00**	1 unit	0.400		--		
			230, 50 Hz	▶	**3RT15 26-1AP00**	1 unit	0.400		--		
Size S2											
40	**18.5**	55 / 50	24, 50 Hz		**3RT15 35-1AB00**	1 unit	1.000		--		
			110, 50 Hz		**3RT15 35-1AF00**	1 unit	1.000		--		
			230, 50 Hz	▶	**3RT15 35-1AP00**	1 unit	1.000		--		
DC operation · DC solenoid system											
Size S00											
9	**4**	18 / 16	24 DC	▶	**3RT15 16-1BB40**	1 unit	0.260	▶	**3RT15 16-2BB40**	1 unit	0.260
			220 DC		**3RT15 16-1BM40**	1 unit	0.260		**3RT15 16-2BM40**	1 unit	0.260
12	**5.5**	22 / 20	24 DC	▶	**3RT15 17-1BB40**	1 unit	0.260		**3RT15 17-2BB40**	1 unit	0.260
			220 DC		**3RT15 17-1BM40**	1 unit	0.260		**3RT15 17-2BM40**	1 unit	0.260
Size S0											
20	**11**	40 / 35[3]	24 DC	▶	**3RT15 26-1BB40**	1 unit	0.630		--		
			220 DC		**3RT15 26-1BM40**	1 unit	0.630		--		
Size S2											
40	**18.5**	55 / 50	24 DC	▶	**3RT15 35-1BB40**	1 unit	1.590		--		
			220 DC		**3RT15 35-1BM40**	1 unit	1.590		--		

Size S00: Snap-on auxiliary switch blocks according to EN 50005.
Sizes S0 to S3: Snap-on auxiliary switch blocks according to EN 50012 and EN 50005
(for S0 max. 2 auxiliary contacts, please note information in the Technical Information LV 1 T).

For other voltages see page 3/16.

1) For reversing poles; not suitable for reversing duty.

2) For size S00: Coil operating range
at 50 Hz: 0.8 to 1.1 x U_s
at 60 Hz: 0.85 to 1.1 x U_s.

3) Minimum conductor cross-section 10 mm².

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

AC operation
Screw terminals

3RT16 17-1A.03

3RT16 27-1A.01

3RT16 47-1A.01

Utilization category AC-6b Switching of AC capacitors for an ambient temperature of 60 °C[1]				Auxiliary contacts, unassigned		Rated control supply voltage U_s[2]		DT	**Screw terminals**	PS*	Weight per PU approx.
Capacitor rating at operational voltage 50/60 Hz									Order No.		
At 230 V	At 400 V	At 525 V	At 690 V								
kvar	kvar	kvar	kvar	NO	NC	V AC	Hz				kg
For screw and snap-on mounting onto 35 mm standard mounting rail											
Size S00											
3 … 7.5	5 … 12.5	7.5 … 15	10 … 21	1	1	24	50 / 60	►	**3RT16 17-1AB03**	1 unit	0.280
						110			**3RT16 17-1AF03**	1 unit	0.280
						230		►	**3RT16 17-1AP03**	1 unit	0.280
Size S0[3]											
3.5 … 15	6 … 25	7.8 … 30	10 … 42	1	--	24	50		**3RT16 27-1AB01**	1 unit	0.440
						110			**3RT16 27-1AF01**	1 unit	0.440
						230		►	**3RT16 27-1AP01**	1 unit	0.440
Size S3											
3.5 … 30	5 … 50	7.5 … 60	10 … 84	1	--	24	50		**3RT16 47-1AB01**	1 unit	2.040
						110			**3RT16 47-1AF01**	1 unit	2.040
						230		►	**3RT16 47-1AP01**	1 unit	2.040

For additional voltages see page 3/16.
For accessories see page 3/51.

1) For size S3: 55 °C.
2) Operating range: 0.85 ... 1.1 x U_s.
3) For conductor cross-sections > 6 mm^2 use 3RV19 25-5AB terminals (2 units).

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

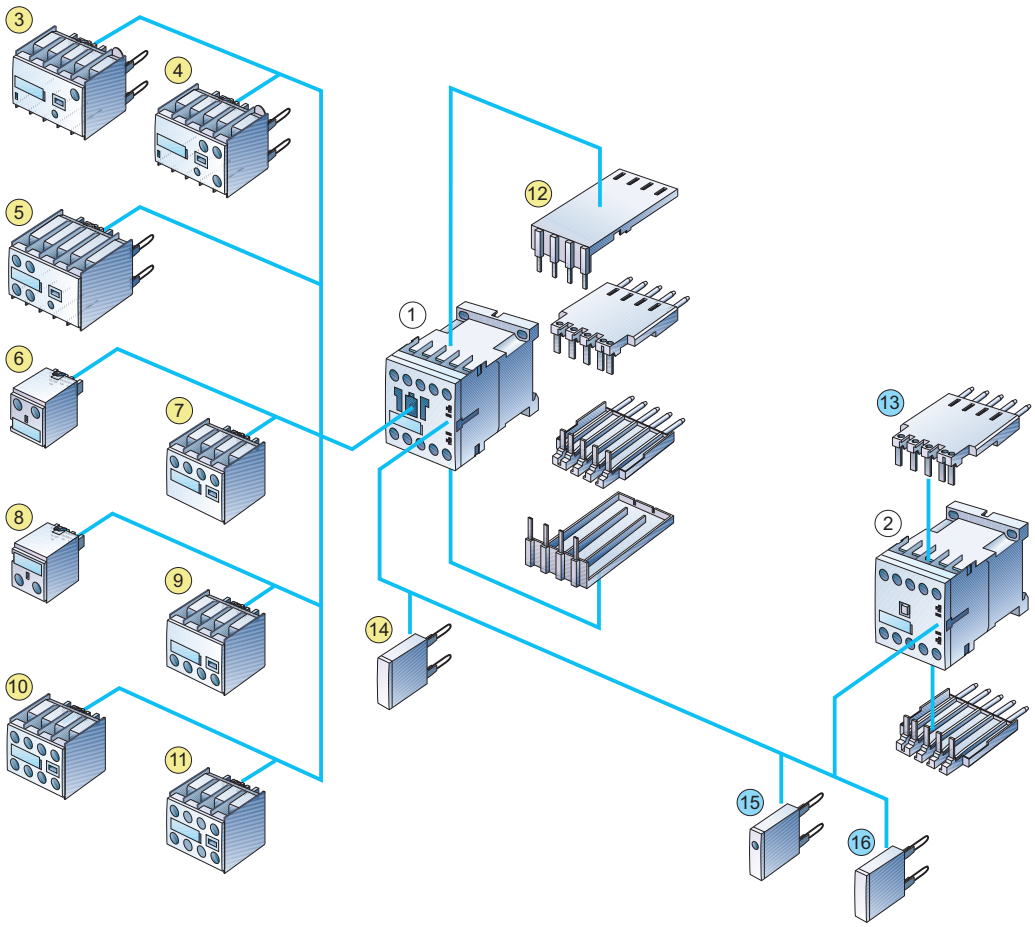
© Siemens AG 2008

3RH1 contactor relays, 4- and 8-pole

Overview

The SIRIUS generation of controls is a complete, modular system family, logically designed right down to the last detail, from the basic units to the accessories.

Contactor relays and coupling relays
Size S00 with accessories



1. Contactor relay, see page 3/35
2. Coupling relay for auxiliary circuit, see page 3/37
3. Solid-state time-delay block, ON-delay, see page 3/54
4. Solid-state time delay block, OFF-delay, see page 3/54
5. Auxiliary switch block with solid-state time delay, see page 3/53 (versions: ON or OFF-delay)
6. 1-pole auxiliary switch block, cable entry from above, see page 3/50
7. 2-pole auxiliary switch block, cable entry from above, see page 3/50
8. 1-pole auxiliary switch block, cable entry from below, see page 3/50
9. 2-pole auxiliary switch block, cable entry from below, see page 3/50
10. 4-pole auxiliary switch block see page 3/50 (terminal designations according to EN 50011 or EN 50005)
11. 2-pole auxiliary switch block, standard version or solid-state compatible version see page 3/50 (terminal designations according to EN 50005)
12. Solder pin adapter for contactor relays with 4-pole auxiliary switch block, see page 3/58
13. Solder pin adapter for contactor relays and coupling relays, see page 3/58
14. Additional load module for increasing the permissible residual current, see page 3/56
15. Surge suppressor with LED, see page 3/56
16. Surge suppressor without LED, see page 3/55

AC and DC operation

IEC 60947, EN 60947 (VDE 0660)

The 3RH1 contactor relays are suitable for use in any climate. They are finger-safe according to EN 50274.

The 3RH1 contactor relays have screw or Cage Clamp terminals. Four contacts are available in the basic unit.

© Siemens AG 2008

Selection and ordering data

AC and DC operation

3RH11 ..-1...

3RH11 ..-2...

3RH12 ..-1...

3RH12 ..-2...

Rated operational current	Contacts			Rated control supply voltage U_s	DT	Screw terminals	PS	Weight per PU approx.	DT	Cage Clamp terminals	PS*	Weight per PU approx.
I_e/AC-15/AC-14 at **230 V**	Ident. No.	Version				Order No.				Order No.		
A		NO	NC	V				kg				kg
For screw and snap-on mounting onto 35 mm standard mounting rails												
AC operation												
				AC 50/60 Hz[1]								
• **Size S00** Terminal designations according to EN 50011												
6	**40 E**	4	--	24	▶	**3RH11 40-1AB00**	1 unit	0.200	▶	**3RH11 40-2AB00**	1 unit	0.200
				110	▶	**3RH11 40-1AF00**	1 unit	0.200	▶	**3RH11 40-2AF00**	1 unit	0.200
				230	▶	**3RH11 40-1AP00**	1 unit	0.200	▶	**3RH11 40-2AP00**	1 unit	0.200
	31 E	3	1	24	▶	**3RH11 31-1AB00**	1 unit	0.200	▶	**3RH11 31-2AB00**	1 unit	0.200
				110	▶	**3RH11 31-1AF00**	1 unit	0.200	▶	**3RH11 31-2AF00**	1 unit	0.200
				230	▶	**3RH11 31-1AP00**	1 unit	0.200	▶	**3RH11 31-2AP00**	1 unit	0.200
	22 E	2	2	24	▶	**3RH11 22-1AB00**	1 unit	0.200	▶	**3RH11 22-2AB00**	1 unit	0.200
				110	▶	**3RH11 22-1AF00**	1 unit	0.200	▶	**3RH11 22-2AF00**	1 unit	0.200
				230	▶	**3RH11 22-1AP00**	1 unit	0.200	▶	**3RH11 22-2AP00**	1 unit	0.200
With permanently mounted auxiliary switch block												
6	**44 E**	4	4	230	▶	**3RH12 44-1AP00**	1 unit	0.254		**3RH12 44-2AP00**	1 unit	0.250
	62 E	6	2	230	▶	**3RH12 62-1AP00**	1 unit	0.251		**3RH12 62-2AP00**	1 unit	0.250
DC operation · DC solenoid system												
				DC								
6	**40 E**	4	--	24	▶	**3RH11 40-1BB40**	1 unit	0.260	▶	**3RH11 40-2BB40**	1 unit	0.260
				220	▶	**3RH11 40-1BM40**	1 unit	0.260		**3RH11 40-2BM40**	1 unit	0.260
	31 E	3	1	24	▶	**3RH11 31-1BB40**	1 unit	0.260	▶	**3RH11 31-2BB40**	1 unit	0.260
				220	▶	**3RH11 31-1BM40**	1 unit	0.260		**3RH11 31-2BM40**	1 unit	0.260
	22 E	2	2	24	▶	**3RH11 22-1BB40**	1 unit	0.260	▶	**3RH11 22-2BB40**	1 unit	0.260
				220	▶	**3RH11 22-1BM40**	1 unit	0.260		**3RH11 22-2BM40**	1 unit	0.260
With permanently mounted auxiliary switch block												
6	**44 E**	4	4	24	▶	**3RH12 44-1BB40**	1 unit	0.310		**3RH12 44-2BB40**	1 unit	0.310
	62 E	6	2	24	▶	**3RH12 62-1BB40**	1 unit	0.310		**3RH12 62-2BB40**	1 unit	0.310

For other voltages see page 3/36.

[1] Coil operating range
at 50 Hz: 0.8 to 1.1 x U_s
at 60 Hz: 0.85 to 1.1 x U_s.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RH14 latched contactor relays, 4-pole

Selection and ordering data

AC and DC operation

Rated operational current I_e/AC-15/AC-14 at **230 V**	Contacts Ident. No. acc. to EN 50011	Version NO	Version NC	Rated control supply voltage U_s	DT	**Screw terminals** Order No.	PS*	Weight per PU approx.
A				V				kg
For screw and snap-on mounting onto 35 mm standard mounting rail								
AC operation								
				AC 50/60 Hz[1]				
6	**40 E**	4	--	24		**3RH14 40-1AB00**	1 unit	0.380
				42		**3RH14 40-1AD00**	1 unit	0.380
				110		**3RH14 40-1AF00**	1 unit	0.380
				230		**3RH14 40-1AP00**	1 unit	0.380
	31 E	3	1	24		**3RH14 31-1AB00**	1 unit	0.380
				42		**3RH14 31-1AD00**	1 unit	0.380
				110		**3RH14 31-1AF00**	1 unit	0.380
				230		**3RH14 31-1AP00**	1 unit	0.380
	22 E	2	2	24		**3RH14 22-1AB00**	1 unit	0.380
				42		**3RH14 22-1AD00**	1 unit	0.380
				110		**3RH14 22-1AF00**	1 unit	0.380
				230	►	**3RH14 22-1AP00**	1 unit	0.380
DC operation · DC solenoid system								
				DC				
6	**40 E**	4	--	24	►	**3RH14 40-1BB40**	1 unit	0.500
				110		**3RH14 40-1BF40**	1 unit	0.500
				220		**3RH14 40-1BM40**	1 unit	0.500
	31 E	3	1	24		**3RH14 31-1BB40**	1 unit	0.500
				110		**3RH14 31-1BF40**	1 unit	0.500
				220		**3RH14 31-1BM40**	1 unit	0.500
	22 E	2	2	24	►	**3RH14 22-1BB40**	1 unit	0.500
				110		**3RH14 22-1BF40**	1 unit	0.500
				220		**3RH14 22-1BM40**	1 unit	0.500

3RH14 22-1BB40

[1] Coil operating range
at 50 Hz: 0.8 to 1.1 x U_s
at 60 Hz: 0.85 to 1.1 x U_s. Rated control supply voltages
(the 10th and 11th position of the order number must be changed)

[3] Coil operating range: at 50 Hz: 0.85 to 1.1 x U_s
at 60 Hz: 0.8 to 1.1 x U_s.

For accessories see pages 3/50 and 3/51.

Rated control supply voltage U_s	**Contactor type** Control supply voltage at	**3RH11**
AC operation		
Magnetic coils for 50/60 AC and 60 Hz		
50/60 Hz[1]	**60 Hz**	
24 V AC	--	B0
42 V AC	--	D0
48 V AC	--	H0
110 V AC	--	F0
220 V AC	--	N2
230 V AC	--	P0
400 V AC	--	V0
Magnetic coils for 50/60 AC and 60 Hz (for Japan[2])		
100 V AC	**Table 1: 110 V AC**	G6
200 V AC	220 V AC	N6
400 V AC	440 V AC	R6
Magnetic coils for 50 AC and 60 Hz (for USA and Canada [3])		
50 Hz	**60 Hz**	
110 V AC	120 V AC	K6
220 V AC	240 V AC	P6

[1] Coil operating range: at 50 Hz: 0.8 to 1.1 x U_s
at 60 Hz: 0.85 to 1.1 x U_s.
[2] Coil operating range: at 50/60 Hz: 0.85 to 1.1 x U_s
at 60 Hz: 0.8 to 1.1 x U_s.

Rated control supply voltage U_s	**Contactor type** Control supply voltage at	**3RH11**
DC operation		
12 V DC		A4
24 V DC		B4
42 V DC		D4
48 V DC		W4
60 V DC		E4
110 V DC		F4
125 V DC		G4
220 V DC		M4
230 V DC		P4

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RH11 coupling relays for switching auxiliary circuits, 4-pole

Application

DC operation

IEC 60947 and EN 60947 (VDE 0660)

The 3RH11 coupling relays for switching auxiliary circuits are tailored to the special requirements of working with electronic controls.

The 3RH11 coupling relays cannot be extended with auxiliary switch blocks.

Selection and ordering data

DC operation
Screw terminals
Low power consumption
Extended operating range of the magnetic coils
Integrated coil circuit

3RH11 ..-1.B40

Surge suppressors	Rated operational current I_e/AC-15/AC-14 at **230 V** A	Auxiliary contacts Ident. No. NO	Version NC	DT	**Screw terminals** Order No.	PS*	Weight per PU approx. kg	DT	**Cage Clamp terminals** Order No.	PS*	Weight per PU approx. kg
For screw and snap-on mounting onto 35 mm standard mounting rail											
• **Size S00** Terminal designations according to EN 50011											
Rated control supply voltage U_s = 24 V DC, operating range **0.7 to 1.25 x U_s** Power consumption of the magnetic coils **2.3 W** at 24 V (no auxiliary switch blocks can be mounted)											
Diode, varistor or RC element, attachable	**6**	**40 E**	4	--	▶ **3RH11 40-1HB40**	1 unit	0.260		**3RH11 40-2HB40**	1 unit	0.260
		31 E	3	1	▶ **3RH11 31-1HB40**	1 unit	0.260		**3RH11 31-2HB40**	1 unit	0.260
		22 E	2	2	▶ **3RH11 22-1HB40**	1 unit	0.260		**3RH11 22-2HB40**	1 unit	0.260
Built-in diode	**6**	**40 E**	4	--	▶ **3RH11 40-1JB40**	1 unit	0.260		**3RH11 40-2JB40**	1 unit	0.260
		31 E	3	1	▶ **3RH11 31-1JB40**	1 unit	0.260	▶	**3RH11 31-2JB40**	1 unit	0.260
		22 E	2	2	▶ **3RH11 22-1JB40**	1 unit	0.260		**3RH11 22-2JB40**	1 unit	0.260
Built-in varistor	**6**	**40 E**	4	--	▶ **3RH11 40-1KB40**	1 unit	0.260		**3RH11 40-2KB40**	1 unit	0.260
		31 E	3	1	▶ **3RH11 31-1KB40**	1 unit	0.260	▶	**3RH11 31-2KB40**	1 unit	0.260
		22 E	2	2	▶ **3RH11 22-1KB40**	1 unit	0.260	▶	**3RH11 22-2KB40**	1 unit	0.260
Rated control supply voltage U_s = 24 V DC, operating range **0.85 to 1.85 x U_s** Power consumption of the magnetic coils **1.4 W** at 24 V (no auxiliary switch blocks can be mounted)											
Diode, varistor or RC element, attachable	**6**	**40 E**	4	--	**3RH11 40-1MB40-0KT0**	1 unit	0.260		**3RH11 40-2MB40-0KT0**	1 unit	0.260
		31 E	3	1	**3RH11 31-1MB40-0KT0**	1 unit	0.260		**3RH11 31-2MB40-0KT0**	1 unit	0.260
		22 E	2	2	**3RH11 22-1MB40-0KT0**	1 unit	0.260		**3RH11 22-2MB40-0KT0**	1 unit	0.260
Built-in diode	**6**	**40 E**	4	--	**3RH11 40-1VB40**	1 unit	0.260		**3RH11 40-2VB40**	1 unit	0.260
		31 E	3	1	**3RH11 31-1VB40**	1 unit	0.260		**3RH11 31-2VB40**	1 unit	0.260
		22 E	2	2	**3RH11 22-1VB40**	1 unit	0.260		**3RH11 22-2VB40**	1 unit	0.260
Built-in varistor	**6**	**40 E**	4	--	**3RH11 40-1WB40**	1 unit	0.260		**3RH11 40-2WB40**	1 unit	0.260
		31 E	3	1	**3RH11 31-1WB40**	1 unit	0.260		**3RH11 31-2WB40**	1 unit	0.260
		22 E	2	2	**3RH11 22-1WB40**	1 unit	0.260		**3RH11 22-2WB40**	1 unit	0.260

For accessories see pages 3/50 and 3/51.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RT10 coupling relays (interface), for switching motors, 3-pole, 3 ... 11 kW

Overview

DC operation

IEC 60947, EN 60947

The 3RT10 coupling relays for switching motors are tailored to the special requirements of working with electronic controls.

Coupling relays have a low power consumption, an extended coil operating range and an integrated surge suppressor for damping opening surges (exception: 3RT10 1.–1HB4).

3RT10 1. coupling relays size S00 cannot be fitted with any auxiliary switch blocks, 3RT10 2. size S0 can be fitted with two 1-pole auxiliary switch blocks.

Selection and ordering data

DC operation

3RT10 2 .-1KB40

3RT10 1.-1HB4.

3RT10 2.-3KB40

3RT10 1.-2JB4

Surge suppressors	Rated data for utilization category AC-2 and AC-3, T_u: up to 60 °C		Auxiliary contacts			DT	Screw terminals	PS*	Weight per PU approx.	DT	Cage Clamp terminals	PS*	Weight per PU approx.
	Operational current I_e	Rating of induction motors at 50 Hz and	Ident. No.	Version			Order No.				Order No.		
	At 400 V	**400 V**											
	A	**kW**		NO	NC				kg				kg
For screw and snap-on mounting onto 35 mm standard mounting rails													
Size S00													
Terminal designations according to EN 50012													
Rated control supply voltage U_s = 24 V DC, operating range **0.7 to 1.25** x U_s													
Power consumption of the magnetic coils **2.3 W** at 24 V (no auxiliary switch blocks can be mounted)													
Diode, varistor or RC element, attachable	7	**3**	**10**	1	-	▶	**3RT10 15-1HB41**	1 unit	0.260		**3RT10 15-2HB41**	1 unit	0.260
			01	-	1	▶	**3RT10 15-1HB42**	1 unit	0.260		**3RT10 15-2HB42**	1 unit	0.260
Built-in diode	7	**3**	**10**	1	-	▶	**3RT10 15-1JB41**	1 unit	0.260	▶	**3RT10 15-2JB41**	1 unit	0.260
			01	-	1	▶	**3RT10 15-1JB42**	1 unit	0.260	▶	**3RT10 15-2JB42**	1 unit	0.260
Built-in varistor	7	**3**	**10**	1	-	▶	**3RT10 15-1KB41**	1 unit	0.260	▶	**3RT10 15-2KB41**	1 unit	0.260
			01	-	1	▶	**3RT10 15-1KB42**	1 unit	0.260	▶	**3RT10 15-2KB42**	1 unit	0.260
Diode, varistor or RC element, attachable	9	**4**	**10**	1	-	▶	**3RT10 16-1HB41**	1 unit	0.260		**3RT10 16-2HB41**	1 unit	0.260
			01	-	1	▶	**3RT10 16-1HB42**	1 unit	0.260		**3RT10 16-2HB42**	1 unit	0.260
Built-in diode	9	**4**	**10**	1	-	▶	**3RT10 16-1JB41**	1 unit	0.260	▶	**3RT10 16-2JB41**	1 unit	0.260
			01	-	1	▶	**3RT10 16-1JB42**	1 unit	0.260	▶	**3RT10 16-2JB42**	1 unit	0.260
Built-in varistor	9	**4**	**10**	1	-	▶	**3RT10 16-1KB41**	1 unit	0.260	▶	**3RT10 16-2KB41**	1 unit	0.260
			01	-	1	▶	**3RT10 16-1KB42**	1 unit	0.260	▶	**3RT10 16-2KB42**	1 unit	0.260
Diode, varistor or RC element, attachable	12	**5.5**	**10**	1	-		**3RT10 17-1HB41**	1 unit	0.260		**3RT10 17-2HB41**	1 unit	0.260
			01	-	1		**3RT10 17-1HB42**	1 unit	0.260		**3RT10 17-2HB42**	1 unit	0.260
Built-in diode	12	**5.5**	**10**	1	-	▶	**3RT10 17-1JB41**	1 unit	0.260	▶	**3RT10 17-2JB41**	1 unit	0.260
			01	-	1	▶	**3RT10 17-1JB42**	1 unit	0.260		**3RT10 17-2JB42**	1 unit	0.260
Built-in varistor	12	**5.5**	**10**	1	-	▶	**3RT10 17-1KB41**	1 unit	0.260	▶	**3RT10 17-2KB41**	1 unit	0.260
			01	-	1	▶	**3RT10 17-1KB42**	1 unit	0.260	▶	**3RT10 17-2KB42**	1 unit	0.260
Size S0													
Rated control supply voltage U_s = 24 V DC, operating range **0.7 to 1.25 x** U_s													
Power consumption of the coils **4.2 W** at 24 V (two 1-pole auxiliary switch blocks can be mounted)													
Varistor mounted	12	**5.5**	**-**	-	-	▶	**3RT10 24-1KB40**	1 unit	0.600		**3RT10 24-3KB40**	1 unit	0.600
	17	**7.5**	**-**	-	-	▶	**3RT10 25-1KB40**	1 unit	0.600	▶	**3RT10 25-3KB40**	1 unit	0.600
	25	**11**	**-**	-	-	▶	**3RT10 26-1KB40**	1 unit	0.600	▶	**3RT10 26-3KB40**	1 unit	0.600

For accessories see from page 3/50.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

AC and DC operation · for snap-on mounting onto 35 mm standard mounting rail

Rated control supply voltage U_s AC 50/60 Hz V	Contacts Version NO	CO	Width mm	DT	Screw terminals Order No.	DT	Spring-loaded terminals Order No.	PS*	Weight per PU approx. kg
Relay coupling links in terminal block design									
Output coupling links									
24 AC/DC	1	--	11.5	▶	**3TX7 002-1AB00**	▶	**3TX7 003-1AB00**	1 unit	0.035
	1[1]	--		▶	**3TX7 002-1AB02**		**--**	1 unit	0.035
24 AC/DC 230 AC/DC	--	1	17.5	▶ ▶	**3TX7 002-1BB00** **3TX7 002-1BF00**	▶	**3TX7 003-1BB00** **--**	1 unit 1 unit	0.045 0.045
24 AC/DC	2[2]	--	22.5	▶	**3TX7 002-1CB00**	▶	**3TX7 003-1CB00**	1 unit	0.061
	--	2[1) 2)]		▶	**3TX7 002-1FB02**		**--**	1 unit	0.061
Input coupling links									
24 AC/DC 110 AC/DC	1	--	11.5	▶ ▶	**3TX7 002-2AB00** **3TX7 002-2AE00**		**--** **--**	1 unit 1 unit	0.035 0.035
230 AC/DC[2]	1	--	11.5	▶ ▶	**3TX7 002-2AF00** **3TX7 002-2AF05**		**3TX7 003-2AF00** **--**	1 unit 1 unit	0.035 0.035
230 AC/DC	--	1[1) 3)]	17.5	▶	**3TX7 002-2BF02**		**--**	1 unit	0.045

3TX7 002-1....

3TX7 002-2....

Rated control supply voltage U_s AC 50/60 Hz V	Contacts Version NO	CO	Manual-0-automatic switch for testing purposes	Width mm	DT	Screw terminals Order No.	DT	Spring-loaded terminals Order No.	PS*	Weight per PU approx. kg
Relay couplers in double-decker design										
Output coupling links										
24 AC/DC 230 AC/DC	--	1	Without	6.2	▶	**3TX7 004-1LB00**	▶	**3TX7 005-1LB00**	1 unit	0.035
	--	1	Without	6.2	▶	**3TX7 004-1LF00**	▶	**3TX7 005-1LF00**	1 unit	0.035
	--	1	Without	12.5[4]	▶	**3TX7 004-1BF05**		**--**	1 unit	0.051
24 AC/DC	--	1[1]	Without	6.2	▶	**3TX7 004-1LB02**	▶	**3TX7 005-1LB02**	1 unit	0.035
24 AC/DC 230 AC/DC	1	--	Without	6.2	▶	**3TX7 004-1MB00**	▶	**3TX7 005-1MB00**	1 unit	0.035
	1	--	Without	6.2	▶	**3TX7 004-1MF00**	▶	**3TX7 005-1MF00**	1 unit	0.035
24 AC/DC	--	1	With	12.5	▶	**3TX7 004-1BB10**		**--**	1 unit	0.052
Input coupling links										
24 AC/DC 110 AC/DC 230 AC/DC	1[1]	--	Without	6.2	▶	**3TX7 004-2MB02**		**3TX7 005-2MB02**	1 unit	0.035
	1[1]	--	Without	6.2	▶	**3TX7 004-2ME02**		**--**	1 unit	0.035
	1[1]	--	Without	6.2	▶	**3TX7 004-2MF02**		**3TX7 005-2MF02**	1 unit	0.035

3TX7 004-1LB0.

Note: For replacement products see 3RS18 Coupling Links with Industrial Housing or other 3TX70 products.

For coil voltages which are not listed, see SITOP power DC Power Supplies, e.g. 6EP1 331-2BA10 and 6EP1 731-2BA00, in "Power Supplies".

1) Hard gold-plated contacts.
2) The same potential must be applied to the output contacts of the 2 NO/2 CO relays.
3) Observe the maximum permissible cable length.
4) For long cables.

Accessories

For coupling link Type	Version	DT	Order No.	PS*	Weight per PU approx. kg
Connecting combs					
3TX7 004	24 terminals, blue Width 6.2 mm	▶	**3TX7 004-8AA00**	1 unit	0.017
Connecting cables					
3TX7 002, 3TX7 003, 3TX7 004, 3TX7 005	24 terminals, with supply, blue		**3TX7 004-8BA00**	1 unit	0.040

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3TX7 Coupling Relays, Narrow Design

Relay couplers with plug-in connection
Semiconductor couplers

Selection and ordering data

Rated control supply voltage U_s	Contacts Version		DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
				Order No.		Order No.		
V	NO	CO						kg
Plug-in base couplers, 6.2 mm, complete with relay								
24 DC	1	--		**3TX7 014-1AM00**		**3TX7 015-1AM00**	5 units	0.045
24 DC	--	1		**3TX7 014-1BM00**		**3TX7 015-1BM00**	5 units	0.045
24 AC/DC	--	1		**3TX7 014-1BB00**		**3TX7 015-1BB00**	5 units	0.045
115 AC/DC	--	1		**3TX7 014-1BE00**		**3TX7 015-1BE00**	5 units	0.045
230 AC/DC	--	1		**3TX7 014-1BF00**		**3TX7 015-1BF00**	5 units	0.045
Plug-in base couplers, 6.2 mm, complete with relay and hard gold-plating[1)]								
24 DC	--	1		**3TX7 014-1BM02**		**3TX7 015-1BM02**	5 units	0.045
24 AC/DC	--	1		**3TX7 014-1BB02**		**3TX7 015-1BB02**	5 units	0.040
115 AC/DC	--	1		**3TX7 014-1BE02**		**3TX7 015-1BE02**	5 units	0.045
230 AC/DC	--	1		**3TX7 014-1BF02**		**3TX7 015-1BF02**	5 units	0.045

3TX7 014-1AM00

[1)] Hard gold-plated contacts are especially suitable for steady-state inputs of programmable logic controllers.

AC and DC operation · for snap-on mounting onto 35 mm standard mounting rail

Rated control supply voltage U_s	Contacts/ Version	Switching current	Width	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
AC 50/60 Hz					Order No.		Order No.		
V		A	mm						kg
Semiconductor couplers									
Output coupling links									
24 DC	1 transistor	1.8	12.5	▶	**3TX7 002-3AB00**		--	1 unit	0.033
		1.5	11.5	▶	**3TX7 002-3AB01**		--	1 unit	0.035
Input coupling links									
24 AC/DC	1 transistor	0.1	12.5	▶	**3TX7 002-4AB00**		--	1 unit	0.031
110 … 240 AC				▶	**3TX7 002-4AG00**		--	1 unit	0.035

3TX7 002

Rated control supply voltage U_s	Switching voltage	Switching current	Manual-0-automatic switch for testing purposes	Width	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
AC 50/60 Hz						Order No.		Order No.		
V	V	A		mm						kg
Semiconductor couplers										
Output coupling links										
24 DC	≤ 48 V DC	0.5	Without	6.2	▶	**3TX7 004-3AB04**	▶	**3TX7 005-3AB04**	1 unit	0.034
	≤ 30 V DC	1.5			▶	**3TX7 004-3PB54**	▶	**3TX7 005-3PB54**	1 unit	0.029
24 DC	≤ 30 V DC	3	Without	6.2	▶	**3TX7 004-3PB74**		**3TX7 005-3PB74**	1 unit	0.032
110 ... 230 AC/DC						**3TX7 004-3PG74**		**3TX7 005-3PG74**	1 unit	0.033
24 DC	≤ 30 V DC	5	Without	12.5	▶	**3TX7 004-3AC04**	▶	**3TX7 005-3AC04**	1 unit	0.052
			With			**3TX7 004-3AC14**		**3TX7 005-3AC14**	1 unit	0.061
24 DC	24 ... 250 V AC	2	Without	12.5	▶	**3TX7 004-3AC03**		**3TX7 005-3AC03**	1 unit	0.060
Input coupling links										
110 ... 230 AC/DC	≤ 30 V DC	0.1	Without	6.2	▶	**3TX7 004-4PG24**	▶	**3TX7 005-4PG24**	1 unit	0.034

3TX7 004-3AB04

Note: For replacement products see 3RS18 Coupling Links with Industrial Housing or other 3TX70 products.

For coil voltages which are not listed, see SITOP power DC Power Supplies, e.g. 6EP1 331-2BA10 and 6EP1 731-2BA00, in "Power Supplies".

For accessories, see page 3/39.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview

The new 3RS18 coupling relays are couplers in the well-proven standard 22.5 mm timing relay enclosure. The series comprises relays with 1, 2 and 3 changeover contacts with screw and spring-type connections for combined voltages and wide voltage ranges.

The relay coils are protected internally with noise suppression diodes.

Benefits

- Wide voltage range: one product for all voltages
- The industrial housing supports the same connection methods as the timing relay including spring-type connections, 2 wires can be clamped
- Versions with solid-state compatible outputs (hard gold-plating)
- Up to 3 changeover contacts with only 22.5 mm width

Selection and ordering data

Rated control supply voltage U_s	Contacts Version	DT	**Screw terminals**	DT	**Spring-loaded terminals**	PS*	Weight per PU approx.
AC 50/60 Hz			Order No.		Order No.		
V	W						kg
Coupling relays in industrial enclosure, 22.5 mm							
Wide voltage range							
24 ... 240	2		**3RS18 00-1BW00**		**3RS18 00-2BW00**	1 unit	0.143
	3		**3RS18 00-1HW00**		**3RS18 00-2HW00**	1 unit	0.168
	3[1]		**3RS18 00-1HW01**		**3RS18 00-2HW01**	1 unit	0.168
Combination voltage							
24 AC/DC and 110 ... 120 AC	1		**3RS18 00-1AQ00**		**3RS18 00-2AQ00**	1 unit	0.116
	2		**3RS18 00-1BQ00**		**3RS18 00-2BQ00**	1 unit	0.142
	3		**3RS18 00-1HQ00**		**3RS18 00-2HQ00**	1 unit	0.173
	3[1]		**3RS18 00-1HQ01**		**3RS18 00-2HQ01**	1 unit	0.173
24 AC/DC and 220 ... 240 AC	1		**3RS18 00-1AP00**		**3RS18 00-2AP00**	1 unit	0.112
	2		**3RS18 00-1BP00**		**3RS18 00-2BP00**	1 unit	0.142
	3		**3RS18 00-1HP00**		**3RS18 00-2HP00**	1 unit	0.166
	3[1]		**3RS18 00-1HP01**		**3RS18 00-2HP01**	1 unit	0.170

[1] Hard gold-plated contacts.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Relay couplers

Overview

The LZX complete units and accessory parts previously available are no longer listed in this catalog. They can still be supplied however in limited quantities. In their place you will now find the new LZS types. LZS complete units are fully compatible with their predecessors, the LZX complete units. The LZX plug-in relays have not been changed and are used accordingly in both the LZS and the LZX series.

Due to differences in geometry the LED modules, plug-in bases, retaining brackets and labels can be combined and/or used in only the respective series, LZS or LZX.

List for converting from LZX to LZS relay couplers:

Complete units	
Previous Order No.	**New Order No.**
LZX:PT3A5L24	**LZS:PT3A5L24**
LZX:PT3A5R24	**LZS:PT3A5R24**
LZX:PT3A5S15	**LZS:PT3A5S15**
LZX:PT3A5T30	**LZS:PT3A5T30**
LZX:PT5A5L24	**LZS:PT5A5L24**
LZX:PT5A5R24	**LZS:PT5A5R24**
LZX:PT5A5S15	**LZS:PT5A5S15**
LZX:PT5A5T30	**LZS:PT5A5T30**
LZX:PT5B5L24	**LZS:PT5B5L24**
LZX:PT5B5R24	**LZS:PT5B5R24**
LZX:PT5B5S15	**LZS:PT5B5S15**
LZX:PT5B5T30	**LZS:PT5B5T30**
LZX:RT3A4L24	**LZS:RT3A4L24**
LZX:RT3A4R24	**LZS:RT3A4R24**
LZX:RT3A4S15	**LZS:RT3A4S15**
LZX:RT3A4T30	**LZS:RT3A4T30**
LZX:RT3B4L24	**LZS:RT3B4L24**
LZX:RT3B4R24	**LZS:RT3B4R24**
LZX:RT3B4S15	**LZS:RT3B4S15**
LZX:RT3B4T30	**LZS:RT3B4T30**
LZX:RT4A4L24	**LZS:RT4A4L24**
LZX:RT4A4R24	**LZS:RT4A4R24**
LZX:RT4A4S15	**LZS:RT4A4S15**
LZX:RT4A4T30	**LZS:RT4A4T30**
LZX:RT4B4L24	**LZS:RT4B4L24**
LZX:RT4B4R24	**LZS:RT4B4R24**
LZX:RT4B4S15	**LZS:RT4B4S15**
LZX:RT4B4T30	**LZS:RT4B4T30**

Prices for the new LZS series are lower than for the previous LZX series. In addition the LZS series offers not only service-proven screw connections but also versions with push-in terminals.

The following conversion list will help you to change over from the LZX types previously sold to the new LZS types. Please contact your regional adviser if you have any questions.

List for converting from LZX to LZS accessories for individual modules:

Accessories for individual modules	
Previous Order No.	**New Order No.**
LZX:MT28800	**LZS:MT28800**
LZX:MT78750	**LZS:MT78750**
LZX:PT16016	**LZS:PT17024**
LZX:PT16040	**LZS:PT17040**
LZX:PT78702	**LZS:PT78720**
LZX:PT78703	**LZS:PT78730**
LZX:PT78704	**LZS:PT78740**
LZX:PT78802	**LZS:PT78722**
LZX:PT78804	**LZS:PT78742**
LZX:RPMG0024	**LZS:PTMG0024**
LZX:RPMG0524	**LZS:PTMG0524**
LZX:RPMG0730	**LZS:PTMG0730**
LZX:RPML0024	**LZS:PTML0024**
LZX:RPML0524	**LZS:PTML0524**
LZX:RPML0730	**LZS:PTML0730**
LZX:RPMT00A0	**LZS:PTMT00A0**
LZX:RPMU0548	**LZS:PTMU0524**
LZX:RPMU0730	**LZS:PTMU0730**
LZX:RT16016	**LZS:RT17016**
LZX:RT78625	**LZS:RT78725**
LZX:RT78626	**LZS:RT78726**
LZX:RY16040	**LZS:RT17040**

© Siemens AG 2008

Selection and ordering data

Version	Rated control supply voltage U_S at AC 50/60 Hz	Contacts, number of CO contacts	Width	DT	Screw terminals	PS*	PG	Weight per PU approx.
	V		mm		Order No.			kg
Complete units, 11- and 14-pole, PT series								
Complete units with plug-in base								
For snap-on mounting onto 35 mm standard mounting rail comprising: • Plug-in relay • Standard plug-in base with screw terminals • LED module (version 24 V DC: LED module with freewheel diode) • Fixing/ejection bracket • Label								
3 CO	24 DC	3	28		**LZS:PT3A5L24**	5 units	101	0.085
	24 AC				**LZS:PT3A5R24**	5 units	101	0.085
	115 AC				**LZS:PT3A5S15**	5 units	101	0.085
	230 AC				**LZS:PT3A5T30**	5 units	101	0.085
4 CO	24 DC	4	28		**LZS:PT5A5L24**	5 units	101	0.090
	24 AC				**LZS:PT5A5R24**	5 units	101	0.090
	115 AC				**LZS:PT5A5S15**	5 units	101	0.090
	230 AC				**LZS:PT5A5T30**	5 units	101	0.090
Complete units with plug-in base (logical isolation)[1)]								
For snap-on mounting onto 35 mm standard mounting rail comprising: • Plug-in relay • Plug-in base with logical isolation and screw terminals • LED module (version 24 V DC: LED module with freewheel diode) • Fixing/ejection bracket • Label								
4 CO	24 DC	4	28		**LZS:PT5B5L24**	5 units	101	0.095
	24 AC				**LZS:PT5B5R24**	5 units	101	0.095
	115 AC				**LZS:PT5B5S15**	5 units	101	0.095
	230 AC				**LZS:PT5B5T30**	5 units	101	0.095

LZS:PT3A5L24

					Push-in terminals			
					Order No.			
Complete units, 11- and 14-pole, PT series								
Complete units with plug-in base (logical isolation)[1)]								
For snap-on mounting onto 35 mm standard mounting rail comprising: • Plug-in relay • Plug-in base with logical isolation and push-in terminals • LED module (version 24 V DC: LED module with freewheel diode) • Fixing/ejection bracket • Label								
4 CO	24 DC	4	28		**LZS:PT5D5L24**	5 units	101	0.098
	24 AC				**LZS:PT5D5R24**	5 units	101	0.098
	115 AC				**LZS:PT5D5S15**	5 units	101	0.098
	230 AC				**LZS:PT5D5T30**	5 units	101	0.098

LZS:PT5D5L24

[1)] *Note:*
Logical isolation: The terminals for the contacts and the terminals for the coil are arranged on separate levels, e.g. above for contacts and below for the coil. Logical isolation is not necessarily safe isolation (see the technical specifications of the relay types).
Safe isolation: Safe isolation prevents voltage of one circuit affecting another circuit with sufficient protection (EN 61140).

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Relay couplers

Individual modules for customer assembly, PT series

Industrial relays, 8-, 11-, and 14-pole

LZX:PT370024

Version	Rated control supply voltage U_s at AC 50/60 Hz	Contacts, number of CO contacts	Width	DT	Order No.	PS*	PG	Weight per PU approx.
	V		mm					kg
Mini industrial relays								
• With test bracket and mechanical switch position indicator, without LED[1]								
	24 DC	2	22.5	▶	**LZX:PT270024**	1 unit	101	0.030
		3		▶	**LZX:PT370024**	1 unit	101	0.031
		4		▶	**LZX:PT570024**	1 unit	101	0.031
	24 AC	2	22.5		**LZX:PT270524**	1 unit	101	0.030
		3			**LZX:PT370524**	1 unit	101	0.031
		4		▶	**LZX:PT570524**	1 unit	101	0.031
	115 AC	2	22.5		**LZX:PT270615**	1 unit	101	0.028
		3			**LZX:PT370615**	1 unit	101	0.030
		4		▶	**LZX:PT570615**	1 unit	101	0.030
	230 AC	2	22.5	▶	**LZX:PT270730**	1 unit	101	0.029
		3		▶	**LZX:PT370730**	1 unit	101	0.030
		4		▶	**LZX:PT570730**	1 unit	101	0.030
• With hard gold-plating								
	24 DC	4	22.5	▶	**LZX:PT580024**	1 unit	101	0.031
	230 AC			▶	**LZX:PT580730**	1 unit	101	0.031
• Without test bracket								
	24 DC	4	22.5		**LZX:PT520024**	1 unit	101	0.031
	230 AC				**LZX:PT520730**	1 unit	101	0.031

Plug-in bases for PT relays

LZS:PT78720

LZS:PT78740

LZS:PT78722

LZS:PT7874P

Version	Rated control supply voltage U_s at AC 50/60 Hz	Contacts, number of CO contacts	Width	DT	Order No.	PS*	PG	Weight per PU approx.
Standard plug-in bases with screw terminals For mounting onto standard mounting rail					**Screw terminals**			
	--	2	28	▶	**LZS:PT78720**	1 unit	101	0.045
		3		▶	**LZS:PT78730**	1 unit	101	0.048
		4		▶	**LZS:PT78740**	1 unit	101	0.050
Plug-in bases with logical isolation[2] and screw terminals For mounting onto standard mounting rail								
	--	2	28	▶	**LZS:PT78722**	1 unit	101	0.048
		4		▶	**LZS:PT78742**	1 unit	101	0.050
Plug-in bases with logical isolation[2] with push-in terminals For mounting onto standard mounting rail					**Push-in terminals**			
	--	2	28	▶	**LZS:PT7872P**	1 unit	101	0.045
		4		▶	**LZS:PT7874P**	1 unit	101	0.050

[1] The test bracket is designed to be non-latching. If the test bracket is pressed further until 90° has been reached, two small lugs break off and the test bracket can be latched in position.

[2] *Note:*
Logical isolation: The terminals for the contacts and the terminals for the coil are arranged on separate levels, e.g. above for contacts and below for coil. Logical isolation is not necessarily safe isolation (see the technical specifications of the relay types).
Safe isolation: Safe isolation prevents voltage of one circuit affecting another circuit with sufficient protection (EN 61140).

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

	Version	Rated control supply voltage U_s at AC 50/60 Hz	Contacts, number of CO contacts	Width	DT	Order No.	PS*	PG	Weight per PU approx.
		V		mm					kg
Individual modules for customer assembly, PT series									
More individual modules									
LZS:PTML0024	**LED modules**								
	• Red								
	With freewheel diode	24 DC	--	12.5	▶	**LZS:PTML0024**	1 unit	101	0.004
	Without freewheel diode	24 AC/DC			▶	**LZS:PTML0524**	1 unit	101	0.004
		110 … 230 AC/DC			▶	**LZS:PTML0730**	1 unit	101	0.004
	• Green								
	With freewheel diode	24 DC	--	12.5	▶	**LZS:PTMG0024**	1 unit	101	0.004
	Without freewheel diode	24 AC			▶	**LZS:PTMG0524**	1 unit	101	0.004
		110 … 230 AC/DC			▶	**LZS:PTMG0730**	1 unit	101	0.004
LZS:PT17021	**Fixing/ejection brackets for PT base**								
	With logical isolation[1], screw terminals and push-in terminals		--	26	▶	**LZS:PT17021**	10 units	101	0.300
LZS:PT17024	**Fixing/ejection brackets for standard plug-in base**								
	Without logical isolation, screw terminals		--	26	▶	**LZS:PT17024**	10 units	101	0.300
LZS:PT17040	**Labels**								
		--	--	26	▶	**LZS:PT17040**	10 units	101	0.200
LZS:PTMU0730	**RC elements**								
		24 ... 48 AC	--	26	▶	**LZS:PTMU0524**	1 unit	101	0.004
		110 … 230 AC			▶	**LZS:PTMU0730**	1 unit	101	0.004
	Freewheel diodes with connection to A1								
		6 … 230 DC	--	26	▶	**LZS:PTMT00A0**	1 unit	101	0.004
3TX7 004-8BA00	**Connecting cables**								
	24-pole, current carrying capacity 12 A, with supply, blue					**3TX7 004-8BA00**	1 unit	101	0.040
Individual modules for customer assembly, MT series									
Industrial relays, 11-pole									
LZX:MT326024	**Industrial relays with test bracket**								
	Without LED	24 DC	3	35.5		**LZX:MT321024**	1 unit	101	0.088
	With LED				▶	**LZX:MT323024**	1 unit	101	0.088
	Without LED	24 AC	3	35.5		**LZX:MT326024**	1 unit	101	0.089
	With LED					**LZX:MT328024**	1 unit	101	0.089
	Without LED	115 AC	3	35.5		**LZX:MT326115**	1 unit	101	0.087
	With LED					**LZX:MT328115**	1 unit	101	0.088
	Without LED	230 AC	3	35.5		**LZX:MT326230**	1 unit	101	0.089
	With LED					**LZX:MT328230**	1 unit	101	0.089
LZS:MT78750	**Plug-in bases for mounting onto standard mounting rail** For mounting onto standard mounting rail With screw terminals					**Screw terminals**			
			--	38	▶	**LZS:MT78750**	1 unit	101	0.050
	Retaining brackets								
		--	--	38	▶	**LZS:MT28800**	1 unit	101	0.003

Note:
For coil voltages which are not listed, see SITOP power DC Power Supplies, e.g. 6EP1 331-2AB10 and 6EP1 731-2AB00, in "Power Supplies".

[1] *Note:*
Logical isolation: The terminals for the contacts and the terminals for the coil are arranged on separate levels, e.g. above for contacts and below for coil. Logical isolation is not necessarily safe isolation (see the technical specifications of the relay types).
Safe isolation: Safe isolation prevents voltage of one circuit affecting another circuit with sufficient protection (EN 61140).

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Relay couplers

Version	Rated control supply voltage U_s at AC 50/60 Hz	Contacts, number of CO contacts	Width	DT	Order No.	PS*	PG	Weight per PU approx.
	V		mm					kg
Complete units, 8-pole, 5 mm pinning, RT series								
Complete units with standard plug-in base					**Screw terminals**			
For snap-on mounting onto 35 mm standard mounting rail comprising: • Plug-in relay • Standard plug-in base with screw terminals • LED module (version 24 V DC: LED module with freewheel diode) • Fixing/ejection bracket • Label								
1 CO	24 DC	1	15.5		**LZS:RT3A4L24**	5 units	101	0.052
	24 AC				**LZS:RT3A4R24**	5 units	101	0.052
	115 AC				**LZS:RT3A4S15**	5 units	101	0.052
	230 AC				**LZS:RT3A4T30**	5 units	101	0.052
2 CO	24 DC	2	15.5		**LZS:RT4A4L24**	5 units	101	0.052
	24 AC				**LZS:RT4A4R24**	5 units	101	0.052
	115 AC				**LZS:RT4A4S15**	5 units	101	0.052
	230 AC				**LZS:RT4A4T30**	5 units	101	0.052
Complete units with plug-in base with logical isolation and screw terminals								
For snap-on mounting onto 35 mm standard mounting rail comprising: • Plug-in relay • Plug-in base with logical isolation and screw terminals • LED module (version 24 V DC: LED module with freewheel diode) • Fixing/ejection bracket • Label								
1 CO	24 DC	1	15.5		**LZS:RT3B4L24**	5 units	101	0.055
	24 AC				**LZS:RT3B4R24**	5 units	101	0.055
	115 AC				**LZS:RT3B4S15**	5 units	101	0.055
	230 AC				**LZS:RT3B4T30**	5 units	101	0.055
2 CO	24 DC	2	15.5		**LZS:RT4B4L24**	5 units	101	0.055
	24 AC				**LZS:RT4B4R24**	5 units	101	0.055
	115 AC				**LZS:RT4B4S15**	5 units	101	0.055
	230 AC				**LZS:RT4B4T30**	5 units	101	0.055
					Push-in terminals			
					Order No.			
Complete units, 8-pole, 5 mm pinning, RT series								
Complete units with plug-in base with logical isolation and push-in terminals								
For snap-on mounting onto 35 mm standard mounting rail comprising: • Plug-in relay • Plug-in base with logical isolation and push-in terminals • LED module (version 24 V DC: LED module with freewheel diode) • Fixing/ejection bracket • Label								
1 CO	24 DC	1	15.5		**LZS:RT3D4L24**	5 units	101	0.065
	24 AC				**LZS:RT3D4R24**	5 units	101	0.065
	115 AC				**LZS:RT3D4S15**	5 units	101	0.065
	230 AC				**LZS:RT3D4T30**	5 units	101	0.065
2 CO	24 DC	2	15.5		**LZS:RT4D4L24**	5 units	101	0.065
	24 AC				**LZS:RT4D4R24**	5 units	101	0.065
	115 AC				**LZS:RT4D4S15**	5 units	101	0.065
	230 AC				**LZS:RT4D4T30**	5 units	101	0.065

LZS:RT4B4T30

LZS:RT3D4L24

Note:
Logical isolation: The terminals for the contacts and the terminals for the coil are arranged on separate levels, e.g. above for contacts and below for the coil. Logical isolation is not necessarily safe isolation (see the technical specifications of the relay types).
Safe isolation: Safe isolation prevents voltage of one circuit affecting another circuit with sufficient protection (EN 61140).

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

	Version	Rated control supply voltage U_S at AC 50/60 Hz	Contacts, number of CO contacts	Width	DT	Order No.	PS*	PG	Weight per PU approx.
		V		mm					kg
Individual modules for customer assembly, RT series									
Print relays, 8-pole, 5 mm pinning									
LZX:RT314024	**Print relays**								
	• With hard gold-plating								
	Version with 1 CO contact								
		24 DC	1	12.7		**LZX:RT315024**	1 unit	101	0.016
		230 AC				**LZX:RT315730**	1 unit	101	0.015
LZS:RT78725	**Print relays**								
	Version with 1 CO contact								
		24 DC	1	12.7	▶	**LZX:RT314024**	1 unit	101	0.016
		24 AC				**LZX:RT314524**	1 unit	101	0.007
		115 AC				**LZX:RT314615**	1 unit	101	0.013
		230 AC			▶	**LZX:RT314730**	1 unit	101	0.007
	Version with 2 CO contacts								
		12 DC	2	12.7	▶	**LZX:RT424012**	1 unit	101	0.015
		24 DC			▶	**LZX:RT424024**	1 unit	101	0.015
		24 AC			▶	**LZX:RT424524**	1 unit	101	0.014
		115 AC			▶	**LZX:RT424615**	1 unit	101	0.012
		230 AC			▶	**LZX:RT424730**	1 unit	101	0.010
LZS:RT78726	**Standard plug-in bases with screw terminals**					**Screw terminals**			
	For mounting onto standard mounting rail		--	15.5	▶	**LZS:RT78725**	1 unit	101	0.035
	Plug-in bases with logical isolation and screw terminals								
	For mounting onto standard mounting rail		--	15.5	▶	**LZS:RT78726**	1 unit	101	0.037
	Plug-in bases with logical isolation and push-in terminals					**Push-in terminals**			
	For mounting onto standard mounting rail		--	15.5	▶	**LZS:RT7872P**	1 unit	101	0.035
LZS:RT7872P	**LED modules**								
	• Red								
	With freewheel diode	24 DC	--	15.5	▶	**LZS:PTML0024**	1 unit	101	0.004
	Without freewheel diode	24 AC/DC	--		▶	**LZS:PTML0524**	1 unit	101	0.004
		110 ... 230 AC/DC	--		▶	**LZS:PTML0730**	1 unit	101	0.004
	• Green								
	With freewheel diode	24 DC	--	15.5	▶	**LZS:PTMG0024**	1 unit	101	0.004
	Without freewheel diode	24 AC/DC	--		▶	**LZS:PTMG0524**	1 unit	101	0.004
		110 ... 230 AC/DC	--		▶	**LZS:PTMG0730**	1 unit	101	0.004
LZS:PTML0024									
LZS:RT17016	**Fixing/ejection brackets** For RT bases								
		--	--	15.5	▶	**LZS:RT17016**	10 units	101	0.300
LZS:RT17040	**Labels**								
		--	--	15.5	▶	**LZS:RT17040**	10 units	101	0.200
	RC elements								
		24 ... 48 AC	--	15.5	▶	**LZS:PTMU0524**	1 unit	101	0.004
		110 ... 230 AC			▶	**LZS:PTMU0730**	1 unit	101	0.004
LZS:PTMT0730	**Freewheel diodes with connection to A1**								
		6 ... 230 DC	--	15.5	▶	**LZS:PTMT00A0**	1 unit	101	0.004
3TX7 004-8BA00	**Connecting cables**								
	24-pole, current carrying capacity 12 A, with supply, blue					**3TX7 004-8BA00**	1 unit	101	0.040

Note: For coil voltages which are not listed, see SITOP power DC Power Supplies, e.g. 6EP1 331-2BA10 and 6EP1 731-2BA00, in "Power Supplies".

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

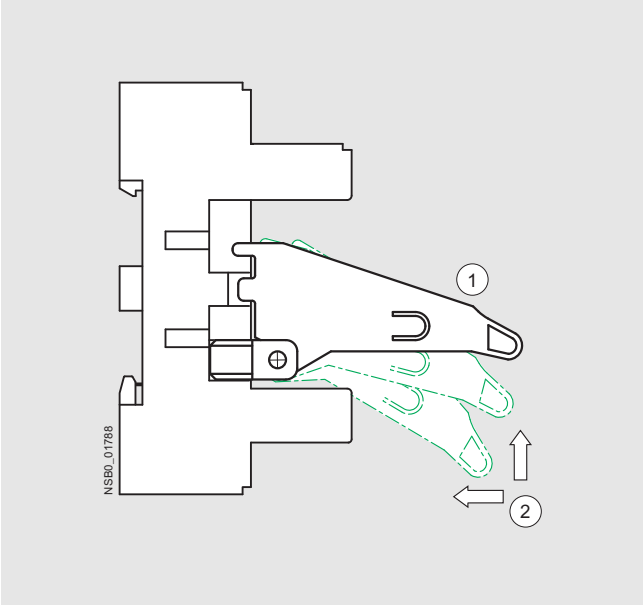
Relay couplers

More information

Notes on configuration

PT series

Mounting the LZS:PT17024 fixing/ejection bracket on the LZS:PT787.0 standard plug-in base with screw terminals:

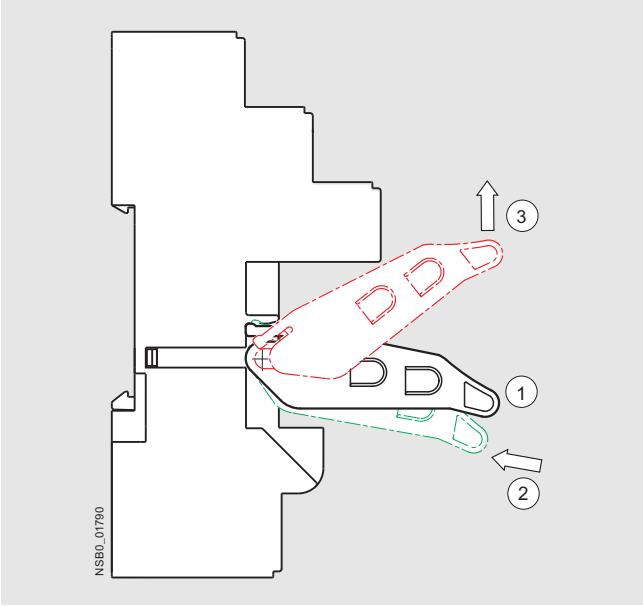


Legend:

① Locking position
② Mounting direction

RT series

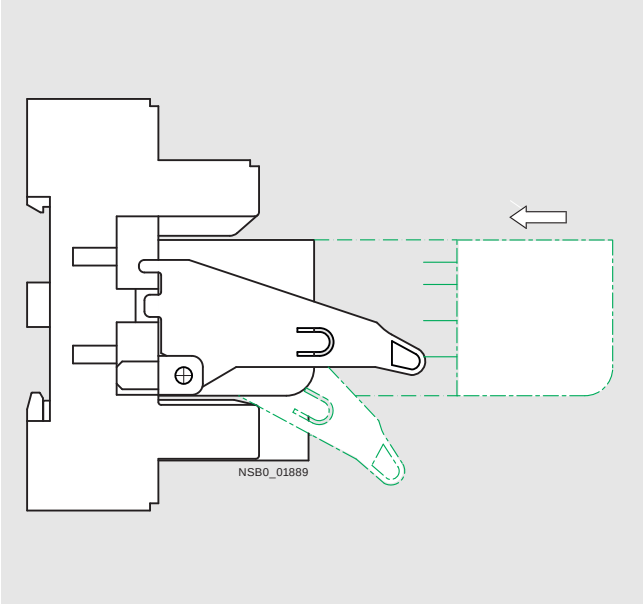
Mounting the LZS:RT17016 fixing/ejection bracket on the LZS:RT7872 plug-in base



Legend:

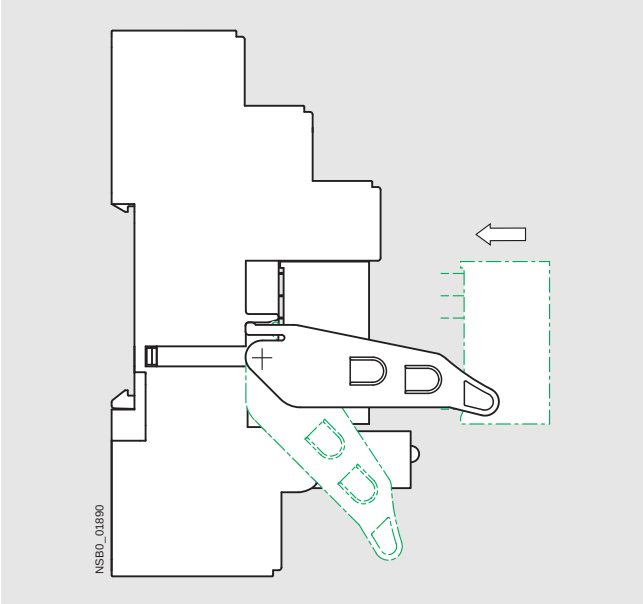
① Locking position
② Mounting direction
③ Demounting direction

Plug-in relay mounting



Caution:
The LZS:PT17021 and LZS:PT17024 ejection brackets of the plug-in relays are not status displays!

Plug-in relay mounting



Caution:
The LZS:RT17016 ejection bracket of the plug-in relays are not status displays!

© Siemens AG 2008

Overview

The 3TG10 power relays/miniature contactors with 4 main contacts are available with 6.3-0.8 mm screw terminals or flat connectors. The versions with screw terminals are climate-proof and finger-safe according to IEC 61140.

The 3TG10 power relays/miniature contactors are small. Their width is 36 mm.

The 3TG10 power relays/miniature contactors have an integrated protective circuit against opening surges.

Application

Because they are hum-free they are suitable for use in household appliances and distribution boards in office and residential areas. They can also be used for applications where there is little space such as air conditioners, heating systems, pumps, and fans, i.e. for simple electrical controls.

Selection and ordering data

	Rated data Utilization category				Main contacts		Rated control supply voltage U_s	DT	Screw terminals	PS*	Weight per PU approx.
	AC-1 Switching of resistive loads at 55 °C		AC-2 and AC-3						Order No.		
	Operational current I_e up to 400 V	Power of three-phase loads at 50 Hz and 400 V	Operational current I_e up to 400 V[1]	Power of three-phase loads at 50 Hz and 400 V	Version						
	A	kW	A	kW	NO	NC	V				kg
With screw terminals, 4-pole For screw and snap-on mounting onto 35 mm standard mounting rail · Hum-free											
	AC operation, 45 ... 450 Hz										
	20	13	8.4	4	4	--	24 AC	▶	**3TG10 10-0AC2**	1 unit	0.157
							110 AC	▶	**3TG10 10-0AG2**	1 unit	0.158
							230 AC	▶	**3TG10 10-0AL2**	1 unit	0.156
					3	1	24 AC	▶	**3TG10 01-0AC2**	1 unit	0.157
							110 AC	▶	**3TG10 01-0AG2**	1 unit	0.158
							230 AC	▶	**3TG10 01-0AL2**	1 unit	0.157
	DC operation										
3TG10 ..-0...	20	13	8.4	4	4	--	24 DC	▶	**3TG10 10-0BB4**	1 unit	0.157
					3	1	24 DC	▶	**3TG10 01-0BB4**	1 unit	0.157
With 6.3 × 0.8 mm flat connectors, 4-pole For screw and snap-on mounting onto 35 mm standard mounting rail · Hum-free									**Flat connectors**		
	AC operation, 45 ... 450 Hz								Order No.		
	16	10	8.4	4	4	--	24 AC	▶	**3TG10 10-1AC2**	1 unit	0.146
							110 AC		**3TG10 10-1AG2**	1 unit	0.146
							230 AC	▶	**3TG10 10-1AL2**	1 unit	0.145
					3	1	24 AC		**3TG10 01-1AC2**	1 unit	0.147
							110 AC		**3TG10 01-1AG2**	1 unit	0.146
							230 AC	▶	**3TG10 01-1AL2**	1 unit	0.144
	DC operation										
3TG10 ..-1...	16	10	8.4	4	4	--	24 DC	▶	**3TG10 10-1BB4**	1 unit	0.146
			8.4	4	3	1	24 DC		**3TG10 01-1BB4**	1 unit	0.146

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Accessories for 3RT, 3RH contactors and contactor relays

Selection and ordering data

3RH19 11-1HA..
3RH19 11-1FA..

3RH19 11-2HA..

3RH19 21-1HA..

3RH19 21-2HA..
3RH19 21-2FA.

3RH19 11-1AA.

3RH19 11-1LA..

For contactors	Rated operational current I_e/AC-15/AC14	Auxiliary contacts				DT	Screw terminals	PS*	Weight per PU approx.	DT	Cage Clamp terminals	PS*	Weight per PU approx.
	at **230 V**	Ident. No.	Version NO	NC	NO	NC	Order No.				Order No.		
Type	**A**								kg				kg
Auxiliary switch blocks for snapping onto the front according to EN 50012													
Size S00													
	For assembling contactors with 2, 4 or 5 auxiliary contacts												
3RT10 1.-1...1,	**6**	**11 E**	--	1	--	--	**3RH19 11-1HA01**	1 unit	0.060	**3RH19 11-2HA01**	1 unit	0.060
3RT10 1.-2...1		**22 E**	1	2	--	--	**3RH19 11-1HA12**	1 unit	0.060	**3RH19 11-2HA12**	1 unit	0.060
Ident. No. 10 E		**23 E**	1	3	--	--	**3RH19 11-1HA13**	1 unit	0.060	**3RH19 11-2HA13**	1 unit	0.060
		32 E	2	2	--	--	**3RH19 11-1HA22**	1 unit	0.060	**3RH19 11-2HA22**	1 unit	0.060
Sizes S0 ... S12[1]												
	4-pole											
3RT1. 2,		**31**	3	1	--	--	**3RH19 21-1HA31**	1 unit	0.075	**3RH19 21-2HA31**	1 unit	0.075
3RT1. 3 ... 3RT1.7,		**22**	2	2	--	--	**3RH19 21-1HA22**	1 unit	0.075	**3RH19 21-2HA22**	1 unit	0.075
3RT11		**13**	1	3	--	--	**3RH19 21-1HA13**	1 unit	0.075	**3RH19 21-2HA13**	1 unit	0.075
		22[2]	2	2	--	--	**3RH19 21-1XA22-0MA0**	1 unit	0.075	**3RH19 21-2XA22-0MA0**	1 unit	0.075
Auxiliary switch blocks for snapping onto the front according to EN 50005												
Size S00												
	2- or 4-pole auxiliary switch blocks for assembling contactors with 3 or 5 auxiliary contacts											
3RT1. 1,	**6**	**20**	2	--	--	-	**3RH19 11-1FA20**	1 unit	0.050	**3RH19 11-2FA20**	1 unit	0.050
3RH11,		**11**	1	1	--	-	**3RH19 11-1FA11**	1 unit	0.050	**3RH19 11-2FA11**	1 unit	0.050
3RH14		**02**	--	2	--	-	**3RH19 11-1FA02**	1 unit	0.050	**3RH19 11-2FA02**	1 unit	0.050
		11 U	--	--	1	1	**3RH19 11-1FB11**	1 unit	0.050	**3RH19 11-2FB11**	1 unit	0.050
	6	**40**	4	--	--	--	**3RH19 11-1FA40**	1 unit	0.060	**3RH19 11-2FA40**	1 unit	0.060
		31	3	1	--	--	**3RH19 11-1FA31**	1 unit	0.060	**3RH19 11-2FA31**	1 unit	0.060
		22	2	2	--	--	**3RH19 11-1FA22**	1 unit	0.060	**3RH19 11-2FA22**	1 unit	0.060
		22 U	--	--	2	2	**3RH19 11-1FC22**	1 unit	0.060	**3RH19 11-2FC22**	1 unit	0.060
		11, 11 U	1	1	1	1	**3RH19 11-1FB22**	1 unit	0.060	**3RH19 11-2FB22**	1 unit	0.060
	1- and 2-pole auxiliary switch blocks. Cable entry from one side											
	• Cable entry from above											
3RT1. 1,	**6**	--	1	--	--	--	**3RH19 11-1AA10**	1 unit	0.015	--		
3RH11,		--	--	1	--	--	**3RH19 11-1AA01**	1 unit	0.015	--		
3RH14		--	1	1	--	--	**3RH19 11-1LA11**	1 unit	0.045	--		
		--	2	--	--	--	**3RH19 11-1LA20**	1 unit	0.045	--		
	• Cable entry from below											
3RT1. 1,	**6**	--	1	--	--	--	**3RH19 11-1BA10**	1 unit	0.015	--		
3RH11,		--	--	1	--	--	**3RH19 11-1BA01**	1 unit	0.015	--		
3RH14		--	1	1	--	--	**3RH19 11-1MA11**	1 unit	0.045	--		
		--	2	--	--	--	**3RH19 11-1MA20**	1 unit	0.045	--		

[1] Exception: 3RT16.

[2] With identification numbers 5, 6, 7, 8.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RH19 21-1F..

2RH19 21-2F..

3RH19 21-1C..

3RH19 21-2C..

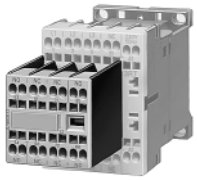
3RH19 21-1LA..

3RH19 21-1MA..

For contactors	Rated operational current I_e/AC-15/AC14	Auxiliary contacts				DT	Screw terminals	PS*	Weight per PU approx.	DT	Cage Clamp terminals	PS*	Weight per PU approx.
	at **230 V**	Ident. No.	Version				Order No.				Order No.		
Type	**A**		NO	NC	NO	NC			kg				kg
Auxiliary switch blocks for snapping onto the front according to EN 50005													
Sizes S0 ... S12[1]													
	4-pole auxiliary switch blocks												
3RT1. 2,	**6**	**40**	4	--	--	--	▶ **3RH19 21-1FA40**	1 unit	0.075	▶ **3RH19 21-2FA40**		1 unit	0.075
3RT1. 3		**31**	3	1	--	--	▶ **3RH19 21-1FA31**	1 unit	0.075	▶ **3RH19 21-2FA31**		1 unit	0.075
...		**22**	2	2	--	--	▶ **3RH19 21-1FA22**	1 unit	0.075	▶ **3RH19 21-2FA22**		1 unit	0.075
3RT1. 7		**04**	--	4	--	--	▶ **3RH19 21-1FA04**	1 unit	0.075	**3RH19 21-2FA04**		1 unit	0.075
3RT11		**22 U**	--	--	2	2	▶ **3RH19 21-1FC22**	1 unit	0.075	**3RH19 21-2FC22**		1 unit	0.075
	1-pole auxiliary switch blocks to EN 50005 and EN 50012												
3RT1. 2	**6**	--	1	--	--	--	▶ **3RH19 21-1CA10**	1 unit	0.020	▶ **3RH19 21-2CA10**		1 unit	0.020
...		--	--	1	--	--	▶ **3RH19 21-1CA01**	1 unit	0.020	▶ **3RH19 21-2CA01**		1 unit	0.020
3RT1. 7		--	--	--	1	--	▶ **3RH19 21-1CD10**	1 unit	0.020	**--**			
3RT11		--	--	--	--	1	▶ **3RH19 21-1CD01**	1 unit	0.020	**--**			
	2-pole auxiliary switch blocks with cable entry from one side												
	• Cable entry from above												
3RT1. 2,	**6**	--	1	1	--	--	▶ **3RH19 21-1LA11**	1 unit	0.075	**--**			
3RT1. 3		--	2	--	--	--	▶ **3RH19 21-1LA20**	1 unit	0.075	**--**			
...		--	--	2	--	--	▶ **3RH19 21-1LA02**	1 unit	0.075	**--**			
3RT1. 7 3RT11	**• Cable entry from below**												
	6	--	1	1	--	--	▶ **3RH19 21-1MA11**	1 unit	0.075	**--**			
		--	2	--	--	--	▶ **3RH19 21-1MA20**	1 unit	0.075	**--**			
		--	--	2	--	--	▶ **3RH19 21-1MA02**	1 unit	0.075	**--**			

[1] Exception: 3RT16.

3RH19 11-1GA..


3RH19 11-2GA..

For contactor relays	Rated operational current I_e/AC-15/AC-14	Contacts			DT	Screw terminals	PS*	Weight per PU approx.	DT	Cage Clamp terminals	PS*	Weight per PU approx.
	at **230 V**	Ident. No.	Version			Order No.				Order No.		
	A		NO	NC			Unit(s)	kg			Unit(s)	kg
Snap-on auxiliary switch blocks according to EN 50011												
	For assembling contactor relays with 8 contacts											
3RH11 40,	**6**	**80E**	4	--	▶	**3RH19 11-1GA40**	1 unit	0.060	▶	**3RH19 11-2GA40**	1 unit	0.060
3RH14 40		**71E**	3	1	▶	**3RH19 11-1GA31**	1 unit	0.060	▶	**3RH19 11-2GA31**	1 unit	0.060
(Ident. No.		**62E**	2	2	▶	**3RH19 11-1GA22**	1 unit	0.060	▶	**3RH19 11-2GA22**	1 unit	0.060
40 E)		**53E**	1	3	▶	**3RH19 11-1GA13**	1 unit	0.060	▶	**3RH19 11-2GA13**	1 unit	0.060
		44E	--	4	▶	**3RH19 11-1GA04**	1 unit	0.060	▶	**3RH19 11-2GA04**	1 unit	0.060

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Accessories for 3RT, 3RH contactors and contactor relays

3RH19 21-1DA11
3RH19 21-1JA11

3RH19 21-2DA11
3RH19 21-2JA11

3RH19 11-1NF..

3RH19 11-2NF..

3RH19 21-1FE22

3RH19 21-2FE22

For contactors	Rated operational current I_e/AC-15/AC14	Auxiliary contacts		DT	Screw terminals	PS*	Weight per PU approx.	DT	Cage Clamp terminals	PS*	Weight per PU approx.
	at **230 V**	Version			Order No.				Order No.		
Type	**A**	NO	NC				kg				kg
Laterally mountable auxiliary switch blocks according to EN 50012											
Sizes S0 ... S12											
	• First laterally mountable auxiliary switch block (right or left), 2-pole										
3RT1. 2 ... 3RT1. 7	**6**	1	1	▶	**3RH19 21-1DA11**	1 unit	0.050	▶	**3RH19 21-2DA11**	1 unit	0.050
Sizes S3 ... S12											
	• Second laterally mountable auxiliary switch block (right or left), 2-pole										
3RT1. 4 ... 3RT1. 7	**6**	1	1	▶	**3RH19 21-1JA11**	1 unit	0.050		**3RH19 21-2JA11**	1 unit	0.050
Laterally mountable auxiliary switch blocks according to EN 50005											
Sizes S0 ... S12											
	• First laterally mountable auxiliary switch block (right or left), 2-pole										
3RT1. 2 ... 3RT1. 7	**6**	2	--	▶	**3RH19 21-1EA20**	1 unit	0.050	▶	**3RH19 21-2EA20**	1 unit	0.050
		1	1	▶	**3RH19 21-1EA11**	1 unit	0.050		**--**		
		--	2	▶	**3RH19 21-1EA02**	1 unit	0.050	▶	**3RH19 21-2EA02**	1 unit	0.050
Sizes S3 ... S12											
	• Second laterally mountable auxiliary switch block (right or left), 2-pole										
3RT1. 4 ... 3RT1. 7	**6**	2	--	▶	**3RH19 21-1KA20**	1 unit	0.050		**3RH19 21-2KA20**	1 unit	0.050
		1	1	▶	**3RH19 21-1KA11**	1 unit	0.050		**--**		
		--	2	▶	**3RH19 21-1KA02**	1 unit	0.050		**3RH19 21-2KA02**	1 unit	0.050

For contactors	Version	Contacts				DT	Screw terminals	PS*	Weight per PU approx.	DT	Cage Clamp terminals	PS*	Weight per PU approx.
		Version					Order No.				Order No.		
Type		NO	NO	NC	NC				kg				kg
Solid-state compatible auxiliary switch blocks for snapping onto the front, according to EN 50005													
Size S00													
3RT1. 1, 3RH11, 3RH14	No positively-driven operation	1	--	--	1	▶	**3RH19 11-1NF11**	1 unit	0.045		**3RH19 11-2NF11**	1 unit	0.045
		2	--	--	--	▶	**3RH19 11-1NF20**	1 unit	0.045		**3RH19 11-2NF20**	1 unit	0.045
		--	--	--	2		**3RH19 11-1NF02**	1 unit	0.045		**3RH19 11-2NF02**	1 unit	0.045
Sizes S0 ... S12													
3RT1. 2 ... 3RT1. 7	1 NO + 1 NC, solid-state compatible auxiliary switches; 1 NO + 1 NC standard aux. switches	1	1	1	1	▶	**3RH19 21-1FE22**	1 unit	0.070		**3RH19 21-2FE22**	1 unit	0.070
Solid-state compatible auxiliary switch blocks, laterally mountable, according to EN 50012													
Sizes S0 ... S12													
	• First laterally mountable auxiliary switch block (right or left), 2-pole												
3RT1. 2 ... 3RT1. 7	1 NO + 1 NC solid-state compatible auxiliary switches	1	--	--	1		**--**			▶	**3RH19 21-2DE11**	1 unit	0.050
Sizes S3 ... S12													
	• Second laterally mountable auxiliary switch block (right or left), 2-pole												
3RT1. 4 ... 3RT1. 7	1 NO + 1 NC solid-state compatible auxiliary switches	1	--	--	1		**--**			▶	**3RH19 21-2JE11**	1 unit	0.050

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

For contactors	Auxiliary contacts	Rated control supply voltage U_s [1]	Time setting range *t*	DT	Order No.	PS*	Weight per PU approx.
Type		V	s				kg
Solid-state time-delay auxiliary switch blocks for snapping onto the front, terminal designations according to DIN 46199, Part 5							
Size S00							
	ON-delay (varistor integrated)						
3RT1. 1, 3RH11[2], 3RH14	1 NO + 1 NC	24 AC/DC[3]	0.05 ... 1	►	**3RT19 16-2EJ11**	1 unit	0.090
			0.5 ... 10	►	**3RT19 16-2EJ21**	1 unit	0.090
			5 ... 100		**3RT19 16-2EJ31**	1 unit	0.090
		100 ... 127 AC[3]	0.05 ... 1		**3RT19 16-2EC11**	1 unit	0.090
			0.5 ... 10	►	**3RT19 16-2EC21**	1 unit	0.090
			5 ... 100	►	**3RT19 16-2EC31**	1 unit	0.090
		200 ... 240 AC[3]	0.05 ... 1		**3RT19 16-2ED11**	1 unit	0.090
			0.5 ... 10	►	**3RT19 16-2ED21**	1 unit	0.090
			5 ... 100	►	**3RT19 16-2ED31**	1 unit	0.090
	OFF-delay without auxiliary voltage (varistor integrated)[4]						
3RT1. 1, 3RH11[2], 3RH14	1 NO + 1 NC	24 AC/DC[3]	0.05 ... 1	►	**3RT19 16-2FJ11**	1 unit	0.090
			0.5 ... 10	►	**3RT19 16-2FJ21**	1 unit	0.090
			5 ... 100	►	**3RT19 16-2FJ31**	1 unit	0.090
		100 ... 127 AC/DC[3]	0.05 ... 1		**3RT19 16-2FK11**	1 unit	0.090
			0.5 ... 10	►	**3RT19 16-2FK21**	1 unit	0.090
			5 ... 100		**3RT19 16-2FK31**	1 unit	0.090
		200 ... 240 AC/DC[3]	0.05 ... 1		**3RT19 16-2FL11**	1 unit	0.090
			0.5 ... 10	►	**3RT19 16-2FL21**	1 unit	0.090
			5 ... 100	►	**3RT19 16-2FL31**	1 unit	0.090
	OFF-delay with auxiliary voltage						
3RT10 1 3RH11	1 CO	24 AC/DC	0.5 ... 10		**3RT19 16-2LJ21**	1 unit	0.090
		100 ... 127 AC	0.5 ... 10		**3RT19 16-2LC21**	1 unit	0.090
		200 ... 240 AC	0.5 ... 10		**3RT19 16-2LD21**	1 unit	0.090
	Wye-delta function (varistor integrated)						
3RT10 1[2]	1 NO, delayed + 1 NO, instantaneous, dead time 50 ms	24 AC/DC[3]	1.5 ... 30	►	**3RT19 16-2GJ51**	1 unit	0.090
		100 ... 127 AC[3]	1.5 ... 30		**3RT19 16-2GC51**	1 unit	0.090
		200 ... 240 AC[3]	1.5 ... 30	►	**3RT19 16-2GD51**	1 unit	0.090
Sizes S0 ... S12							
	With ON-delay						
3RT10, 3RT13, 3RT14, 3RT15	1 NO + 1 NC	24 AC/DC[5]	0.05 ... 1		**3RT19 26-2EJ11**	1 unit	0.090
			0.5 ... 10	►	**3RT19 26-2EJ21**	1 unit	0.090
			5 ... 100		**3RT19 26-2EJ31**	1 unit	0.090
		100 ... 127 AC[5]	0.05 ... 1		**3RT19 26-2EC11**	1 unit	0.090
			0.5 ... 10	►	**3RT19 26-2EC21**	1 unit	0.090
			5 ... 100		**3RT19 26-2EC31**	1 unit	0.090
		200 ... 240 AC[5]	0.05 ... 1		**3RT19 26-2ED11**	1 unit	0.090
			0.5 ... 10	►	**3RT19 26-2ED21**	1 unit	0.090
			5 ... 100		**3RT19 26-2ED31**	1 unit	0.090
	OFF-delay without auxiliary voltage[4]						
3RT10, 3RT13, 3RT14, 3RT15	1 NO + 1 NC	24 AC/DC[5]	0.05 ... 1	►	**3RT19 26-2FJ11**	1 unit	0.090
			0.5 ... 10	►	**3RT19 26-2FJ21**	1 unit	0.090
			5 ... 100	►	**3RT19 26-2FJ31**	1 unit	0.090
		100 ... 127 AC/DC[5]	0.05 ... 1		**3RT19 26-2FK11**	1 unit	0.090
			0.5 ... 10	►	**3RT19 26-2FK21**	1 unit	0.090
			5 ... 100		**3RT19 26-2FK31**	1 unit	0.090
		200 ... 240 AC/DC[5]	0.05 ... 1		**3RT19 26-2FL11**	1 unit	0.090
			0.5 ... 10		**3RT19 26-2FL21**	1 unit	0.090
			5 ... 100		**3RT19 26-2FL31**	1 unit	0.090
	Wye-delta function						
3RT10, 3RT13, 3RT14, 3RT15	1 NO, delayed + 1 NO, instantaneous, dead time 50 ms	24 AC/DC[5]	1.5 ... 30	►	**3RT19 26-2GJ51**	1 unit	0.090
		100 ... 127 AC[5]	1.5 ... 30	►	**3RT19 26-2GC51**	1 unit	0.090
		200 ... 240 AC[5]	1.5 ... 30	►	**3RT19 26-2GD51**	1 unit	0.090

3RT19 16-2....

3RT19 26-2....

[1] The AC voltages are valid for 50 and 60 Hz.

[2] Cannot be fitted onto coupling relays.

[3] The terminals for the control supply voltage are connected to the contactor by the integrated spring contacts of the solid-state time auxiliary switch above it when this switch is mounted.

[4] Setting of output contacts in as-supplied state not defined (bistable relay). Application of the control supply voltage once results in contact changeover to the correct setting.

[5] Terminals A1 and A2 for the control supply voltage of the solid-state time-delay auxiliary switch must be connected to the associated contactor by means of connecting cables.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Accessories for 3RT, 3RH contactors and contactor relays

	For contactors	Rated control supply voltage U_s	Time setting range *t*	DT	Order No.	PS*	Weight per PU approx.
	Type	V	s				kg
Solid-state time-delay blocks with semiconductor output							
	Size S00						
3RT19 16-2C...		**For mounting onto the front of contactors • ON-delay (varistor integrated)**					
	3RT1. 1, 3RH11[1] 3RH14	24 ... 66 AC/DC	0.05 ... 1		**3RT19 16-2CG11**	1 unit	0.050
			0.5 ... 10	▶	**3RT19 16-2CG21**	1 unit	0.050
			5 ... 100		**3RT19 16-2CG31**	1 unit	0.050
		90 ... 240 AC/DC	0.05 ... 1		**3RT19 16-2CH11**	1 unit	0.050
			0.5 ... 10	▶	**3RT19 16-2CH21**	1 unit	0.050
			5 ... 100	▶	**3RT19 16-2CH31**	1 unit	0.050
3RT19 16-2D...		**• OFF-delay with auxiliary voltage (varistor integrated)**					
	3RT1. 1, 3RH11[1] 3RH14	24 ... 66 AC/DC	0.05 ... 1		**3RT19 16-2DG11**	1 unit	0.060
			0.5 ... 10		**3RT19 16-2DG21**	1 unit	0.060
			5 ... 100		**3RT19 16-2DG31**	1 unit	0.060
		90 ... 240 AC/DC	0.05 ... 1		**3RT19 16-2DH11**	1 unit	0.060
			0.5 ... 10	▶	**3RT19 16-2DH21**	1 unit	0.060
			5 ... 100		**3RT19 16-2DH31**	1 unit	0.060
	Sizes S0 ... S3						
		For mounting onto coil terminals on top of the contactors • ON-delay (varistor integrated)					
3RT19 26-2C...	3RT10 2, 3RT10 3, 3RT10 4, 3RT13[2] 3RT15	24 ... 66 AC/DC	0.05 ... 1		**3RT19 26-2CG11**	1 unit	0.050
			0.5 ... 10		**3RT19 26-2CG21**	1 unit	0.050
			5 ... 100		**3RT19 26-2CG31**	1 unit	0.050
		90 ... 240 AC/DC	0.05 ... 1	▶	**3RT19 26-2CH11**	1 unit	0.050
			0.5 ... 10	▶	**3RT19 26-2CH21**	1 unit	0.050
			5 ... 100	▶	**3RT19 26-2CH31**	1 unit	0.050
		• OFF-delay with auxiliary voltage (varistor integrated)					
3RT19 26-2D...	3RT10 2, 3RT10 3, 3RT10 4, 3RT13[2] 3RT15	24 ... 66 AC/DC	0.05 ... 1		**3RT19 26-2DG11**	1 unit	0.050
			0.5 ... 10		**3RT19 26-2DG21**	1 unit	0.050
			5 ... 100		**3RT19 26-2DG31**	1 unit	0.050
		90 ... 240 AC/DC	0.05 ... 1		**3RT19 26-2DH11**	1 unit	0.050
			0.5 ... 10		**3RT19 26-2DH21**	1 unit	0.050
			5 ... 100		**3RT19 26-2DH31**	1 unit	0.050
OFF-delay devices							
3RT19 16-2B.01	3RT1. 1, 3RT1. 2, 3RH1...-1BF40	110 AC/DC			**3RT19 16-2BK01**	1 unit	0.150
	3RT1. 1, 3RT1. 2, 3RH1...-1BM40	220/230 AC/DC			**3RT19 16-2BL01**	1 unit	0.150
	3RT1. 1 ... 3RT1. 4, 3RH1...-1BB40	24 DC		▶	**3RT19 16-2BE01**	1 unit	0.150
Pneumatic delay blocks, terminal designation according to EN 50005							
3RT19 26-2P...	3RT1. 2	**For mounting onto the front side of size S0 contactors[3][4] Auxiliary contacts 1 NO and 1 NC • ON-delay**					
			0.1 ... 30		**3RT19 26-2PA01**	1 unit	0.080
			1 ... 60		**3RT19 26-2PA11**	1 unit	0.080
		• OFF-delay					
			0.1 ... 30		**3RT19 26-2PR01**	1 unit	0.080
			1 ... 60		**3RT19 26-2PR11**	1 unit	0.080
Mechanical latching blocks							
3RT19 26-3A.31	***Sizes S0 and S2***						
		For mounting on 1 contactor, contactor remains in the energized state even after a voltage failure					
	3RT1.2, 3RT1.3	24 AC/DC			**3RT19 26-3AB31**	1 unit	0.130
		110 AC/DC			**3RT19 26-3AF31**	1 unit	0.130
		230 AC/DC			**3RT19 26-3AP31**	1 unit	0.130

[1] Cannot be fitted onto coupling relays.
[2] Not to be used for 3RT10 4. and 3RT13 4. contactors with $U_s \leq 42$ V.
[3] In addition to these, no other auxiliary contacts are permitted.
[4] Versions according to DIN VDE 0116 on request.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

For contactors Type	Version	Rated control supply voltage U_s [1] AC operation V AC	DC operation V DC	DT	Order No. [2]	PS*	Weight per PU approx. kg
Surge suppressors without LED (also for Cage Clamp terminals)							
Size S00							
	For plugging onto the front side of the contactors with and without auxiliary switch blocks						
3RT1., 3RH1	**Varistors**	24 ... 48	24 ... 70	▶	**3RT19 16-1BB00**	1 unit	0.010
		48 ... 127	70 ... 150	▶	**3RT19 16-1BC00**	1 unit	0.010
		127 ... 240	150 ... 250		**3RT19 16-1BD00**	1 unit	0.010
		240 ... 400	--	▶	**3RT19 16-1BE00**	1 unit	0.010
		400 ... 600	--		**3RT19 16-1BF00**	1 unit	0.010
3RT1., 3RH1	**RC elements**	24 ... 48	24 ... 70	▶	**3RT19 16-1CB00**	1 unit	0.010
		48 ... 127	70 ... 150	▶	**3RT19 16-1CC00**	1 unit	0.010
		127 ... 240	150 ... 250	▶	**3RT19 16-1CD00**	1 unit	0.010
		240 ... 400	--	▶	**3RT19 16-1CE00**	1 unit	0.010
		400 ... 600	--	▶	**3RT19 16-1CF00**	1 unit	0.010
3RT1., 3RH1	**Noise suppression diodes**	--	12 ... 250	▶	**3RT19 16-1DG00**	1 unit	0.010
3RT1., 3RH1	**Diode assemblies** (diode and Zener diode) for DC operation	--	12 ... 250	▶	**3RT19 16-1EH00**	1 unit	0.010
Size S0							
	For fitting onto the coil terminals at top or bottom						
3RT1. 2	**Varistors**	24 ... 48	24 ... 70	▶	**3RT19 26-1BB00**	1 unit	0.025
		48 ... 127	70 ... 150	▶	**3RT19 26-1BC00**	1 unit	0.025
		127 ... 240	150 ... 250	▶	**3RT19 26-1BD00**	1 unit	0.025
		240 ... 400	--	▶	**3RT19 26-1BE00**	1 unit	0.025
		400 ... 600	--		**3RT19 26-1BF00**	1 unit	0.025
3RT1. 2	**RC elements**	24 ... 48	24 ... 70	▶	**3RT19 26-1CB00**	1 unit	0.025
		48 ... 127	70 ... 150	▶	**3RT19 26-1CC00**	1 unit	0.025
		127 ... 240	150 ... 250	▶	**3RT19 26-1CD00**	1 unit	0.025
		240 ... 400	--	▶	**3RT19 26-1CE00**	1 unit	0.025
		400 ... 600	--		**3RT19 26-1CF00**	1 unit	0.025
3RT1.2	**Diode assemblies** For DC operation						
	• Connectable at the top (e.g. for contactor with overload relay)	--	24	▶	**3RT19 26-1ER00**	1 unit	0.025
		--	30 ... 250	▶	**3RT19 26-1ES00**	1 unit	0.025
	• Connectable at the bottom (e.g. for fuseless load feeders)	--	24	▶	**3RT19 26-1TR00**	1 unit	0.025
		--	30 ... 250		**3RT19 26-1TS00**	1 unit	0.025
Sizes S2 and S3							
	For fitting onto the coil terminals at top or bottom						
3RT1. 3, 3RT1. 4	**Varistors**	24 ... 48	24 ... 70	▶	**3RT19 26-1BB00**	1 unit	0.025
		48 ... 127	70 ... 150	▶	**3RT19 26-1BC00**	1 unit	0.025
		127 ... 240	150 ... 250	▶	**3RT19 26-1BD00**	1 unit	0.025
		240 ... 400	--	▶	**3RT19 26-1BE00**	1 unit	0.025
		400 ... 600			**3RT19 26-1BF00**	1 unit	0.025
3RT1. 3[3], 3RT1. 4	**RC elements**	24 ... 48	24 ... 70	▶	**3RT19 36-1CB00**	1 unit	0.040
		48 ... 127	70 ... 150	▶	**3RT19 36-1CC00**	1 unit	0.040
		127 ... 240	150 ... 250	▶	**3RT19 36-1CD00**	1 unit	0.040
		240 ... 400	--	▶	**3RT19 36-1CE00**	1 unit	0.040
		400 ... 600	--		**3RT19 36-1CF00**	1 unit	0.040
3RT1. 3, 3RT1. 4	**Diode assemblies** For DC operation						
	• Connectable at the top (e.g. for contactor with overload relay)		24	▶	**3RT19 36-1ER00**	1 unit	0.025
			30 ... 250	▶	**3RT19 36-1ES00**	1 unit	0.025
	• Connectable at the bottom (e.g. for fuseless load feeders)		24	▶	**3RT19 36-1TR00**	1 unit	0.025
			30 ... 250		**3RT19 36-1TS00**	1 unit	0.025

3RT19 16-1DG00

3RT19 26-1B.00

3RT19 26-1B.00

3RT19 36-1C.00

[1] Can be used for AC operation for 50/60 Hz. Please inquire about further voltages.

[2] For packs of 10 units, the Order No. must be supplemented with "**Z**" and the order code "**X90**".

[3] Mountable only at the top for 3RT1.3/ with AC operation.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Accessories for 3RT, 3RH contactors and contactor relays

	For contactors	Version	Rated control supply voltage U_s [1]		Power consumption of LED at U_s	DT	Order No. [2]	PS*	Weight per PU approx.
			AC operation	DC operation					
	Type		V AC	V DC					kg
Surge suppressors without LED (also for Cage Clamp terminals)									
	Sizes S6 ... S12								
		For connecting to withdrawable coil with screw terminals with contactors with **• 3RT1...-.A... conventional operating mechanism** **• 3RT1...-.N... solid-state operating mechanism**							
 3RT19 56-1C.00	3RT1. 5, 3RT1. 6, 3RT1. 7	**RC elements**	24 ... 48	24 ... 70	--	►	**3RT19 56-1CB00**	1 unit	0.035
			48 ... 127	70 ... 150	--	►	**3RT19 56-1CC00**	1 unit	0.035
			127 ... 240	150 ... 250	--	►	**3RT19 56-1CD00**	1 unit	0.035
			240 ... 400	--	--	►	**3RT19 56-1CE00**	1 unit	0.035
			400 ... 600	--	--		**3RT19 56-1CF00**	1 unit	0.035
Surge suppressors without LED (also for Cage Clamp terminals)									
	Size S00								
		For plugging onto the front side of the contactors with and without auxiliary switch blocks							
 3RT19 16-1L.00	3RT1, 3RH1.	**Varistors**	24 ... 48	12 ... 24	10 ... 120	►	**3RT19 16-1JJ00**	1 unit	0.010
			48 ... 127	24 ... 70	20 ... 470	►	**3RT19 16-1JK00**	1 unit	0.010
			127 ... 240	70 ... 150	50 ... 700	►	**3RT19 16-1JL00**	1 unit	0.010
			--	150 ... 250	160 ... 950		**3RT19 16-1JP00**	1 unit	0.010
	3RT1, 3RH1.	**Noise suppression diodes**	--	24 ... 70	20 ... 470	►	**3RT19 16-1LM00**	1 unit	0.010
			--	50 ... 150	50 ... 700	►	**3RT19 16-1LN00**	1 unit	0.010
			--	150 ... 250	160 ... 950	►	**3RT19 16-1LP00**	1 unit	0.010

	For contactors	Version	DT	Order No.	PS*	Weight per PU approx.
	Type					kg
Additional load modules						
	Size S00 (also for Cage Clamp terminals)					
		For plugging onto the front side of the contactors with and without auxiliary switch blocks [2]				
 3RT19 16-1GA00	3RT1. 1, 3RH1.	For increasing the permissible residual current and for limiting the residual voltage. Results in safe opening of contactors with direct control via 230 V AC semiconductor outputs of SIMATIC controllers. Acts simultaneously as surge suppressor. Rated voltage: AC 50/60 Hz, 180 to 255 V. Operating range: 0.8 to 1.1 x U_s	►	**3RT19 16-1GA00**	1 unit	0.010
Coupling links for control by PLC						
	Sizes S0 ... S3					
		For mounting onto the coil terminals of the contactors				
 3RH19 24-1GP11	3RT1. 2, 3RT1. 3, 3RT1. 4	Operating range 17 to 30 V DC Power consumption at 24 V DC: 0.5 W Permissible residual current of the electronics (for 0 signal) 2.5 mA Rated operational current I_e: AC-15/AC-14 at 230 V: 3 A, DC-13 at 230 V: 0.1 A With LED for indicating switching state. With integrated varistor for damping opening surges.	►	**3RH19 24-1GP11**	1 unit	0.060
LED modules for indicating the contactor function (also for Cage Clamp terminals)						
	Sizes S0 ... S12 [3]					
 3RT19 26-1QT00 mounted to contactor	3RT1. 2, 3RT1. 3, 3RT1. 4	For snapping into the location hole of an inscription label on the front of a contactor either directly on the contactor or on the front auxiliary switch. The LED module is connected to coil terminals A1 and A2 of the contactor and indicates its energized state. Yellow LED. Rated voltage: 24 ... 240 V AC/DC, polarized. (1 pack = 5 units)		**3RT19 26-1QT00**	5 units	0.010

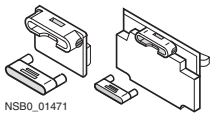
[1] Can be used for AC operation for 50/60 Hz. Please inquire about further voltages.

[2] For packs of 10 units, the Order No. must be supplemented with "**-Z**" and the order code "**X90**".

[3] For sizes S6 ... S12 the connecting leads have to be extended.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

	For contactors		Version	DT	Order No.	PS*	Weight per PU approx.
	Size	Type					kg
Auxiliary terminals, 3-pole							
3RT19 46-4F	**S3**	3RT10 4.	For connection of auxiliary and control cables to the main conductor connections (for one side)	B	**3RT19 46-4F**	1 unit	0.035
Box terminal blocks							
3RT19 5.-4G			**For round and ribbon cables**				
	S6	3RT1. 5 (3RB10 5)	Up to 70 mm² 3)	►	**3RT19 55-4G**	1 unit	0.230
			Up to 120 mm²	►	**3RT19 56-4G**	1 unit	0.260
			Auxiliary conductor connection for box terminals		**3TX7 500-0A**	1 unit	0.010
	S10/S12	3RT1. 6, 3RT1. 7 (3RB10 6)	Up to 240 mm² With auxiliary conductor connection	►	**3RT19 66-4G**	1 unit	0.676
Covers							
3RT19 36-4EA2			**Terminal covers for box terminals**				
	S2	3RT10 3	Additional touch protection to be fitted at the box terminals (2 units required per contactor)	►	**3RT19 36-4EA2**	1 unit	0.020
	S3	3RT10 4, 3RT14 4		►	**3RT19 46-4EA2**	1 unit	0.025
	S6	3RT1. 5	Length: 25 mm	►	**3RT19 56-4EA2**	1 unit	0.030
	S10/S12	3RT1. 6, 3RT1. 7	Length: 30 mm	►	**3RT19 66-4EA2**	1 unit	0.040
3RT19 46-4EA1			**Terminal covers for cable lugs and busbar connection**4)				
	S3	3RT10 4, 3RT14 4	For complying with the phase clearances and as touch protection if box terminal is removed (2 units required per contactor)	►	**3RT19 46-4EA1**	1 unit	0.040
	S6	3RT1. 5	Length: 100 mm	►	**3RT19 56-4EA1**	1 unit	0.070
	S10/S12	3RT1. 6, 3RT1. 7	Length: 120 mm	►	**3RT19 66-4EA1**	1 unit	0.130
			For busbar cover between contactor and 3RB10 overload relay or wiring module for contactor assemblies				
	S6	3RT1. 5	Length: 27 mm	►	**3RT19 56-4EA3**	1 unit	0.020
	S10/S125)	3RT1. 6, 3RT1. 7	Length: 42 mm	►	**3RT19 66-4EA3**	1 unit	0.060
			For busbar cover of the flat line connectors for reversing and wye-delta assemblies				
	S6	3RT1. 5	Length: 38 mm	►	**3RT19 56-4EA4**	1 unit	0.030
Sealable covers							
 NSB0_01471	**S00**	3RT1.1, 3RH1.6)	Sealable cover for preventing manual operation		**3RT19 16-4MA10**	5 units	0.010
	S0 ... S12	3RT1.2 ... 3RT1.7 6)	1 unit required per contactor		**3RT19 26-4MA10**	5 units	0.010

1) The links for paralleling can be reduced by one pole.

2) Sizes S00 to S2: The links for paralleling are insulated.
Size S3: A cover plate is included for touch protection. (Can only be used when the box terminal is removed.)
Sizes S6 to S12: The 3RT19 56-4EA1 (for S6) or 3RT19 66-4EA1 (for S10 and S12) cover can be used for touch protection.

3) As standard for 3RT10 54-1 contactor (55 kW).

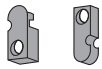
4) Also fits on contactors S6 ... S12 with box terminals.

5) The 3RT1966-4EA3 cover is required in addition for use in contactor assemblies (reversing/wye-delta).

6) Not for contactors and contactor relays with auxiliary switch block mounted onto the front.

© Siemens AG 2008

Accessories for 3RT, 3RH contactors and contactor relays

	For contactors Type	Version	DT	Order No.	PS*	Weight per PU approx. kg
Solder pin adapters for contactors						
	Size S00					
	3RT1. 1, 3RH11	Assembly kit for soldering contactors onto a printed circuit board. For 1 contactor, 1 set is required.		**3RT19 16-4KA1**	4 units	0.030
Solder pin adapters for contactors with mounted 4-pole auxiliary switch block						
	Size S00					
	3RT1. 1, 3RH11	Assembly kit for soldering contactors with an auxiliary switch block onto a printed circuit board. For 1 contactor, 1 set is required.		**3RT19 16-4KA2**	4 units	0.070
Screw adapters with screw or Cage Clamp terminals						
 NSB0_01470	***Size S0***					
	3RT1.2.	Screw adapters for easy screw fixing. 2 units required per contactor (1 pack contains 10 sets for 10 contactors)		**3RT19 26-4P**	10 units	0.010

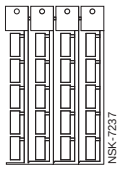
	For contactors Size	Type	Max. conductor cross-sections mm²	DT	Order No.	PS*	Weight per PU approx. kg
Links for paralleling							
3RT19 16-4BB31	**3-pole, with connection terminal** [1) 2)]						
	S00	3RT10 1	25	►	**3RT19 16-4BB31**	1 unit	0.0151
	S0	3RT10 2.	35, stranded	►	**3RT19 26-4BB31**	1 unit	10.020
	S2	3RT10 3.	95	►	**3RT19 36-4BB31**	1 unit	10.100
	3-pole, with through hole (star jumpers) [1)2)]						
	S3	3RT10 4. 3RT14 4.	185	►	**3RT19 46-4BB31**	1 unit	10.200
	S6	3RT1. 5	--	►	**3RT19 56-4BA31**	1 unit	0.1601
	S10/S12	3RT1. 6, 3RT1. 7	--	►	**3RT19 66-4BA31**	1 unit	0.5001
3RT19 36-4BB31	**4-pole, with connection terminal** [1) 2)]						
	S00	3RT1. 1	25		**3RT19 16-4BB41**	1 unit	0.0151
3RT19 56-4BA31							

1) The links for paralleling can be reduced by one pole.

2) Sizes S00 to S2: The links for paralleling are insulated.
Size S3: A cover plate is included for touch protection.
(Can only be used when the box terminal is removed.)
Sizes S6 to S12: The 3RT19 56-4EA1 (for S6) or 3RT19 66-4EA1 (for S10 and S12) cover can be used for touch protection.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

	Version	DT	Order No.	PS*	Weight per PU approx.
					kg
Insulation stop for securely holding back the conductor insulation on conductors up to 1 mm² for contactors with Cage Clamp terminals					
3RT19 16-4JA02	Insulation stop strip can be inserted in cable entry of Cage Clamp (2 strips per contactor required, can be removed in pairs) Fits into cable entries of all SIRIUS devices with Cage Clamp terminals of conductor cross-section up to 2.5 mm².		**3RT19 16-4JA02**	20 units	0.100
Tools for opening Cage Clamp terminal					
8WA2 804	For all SIRIUS devices with Cage Clamp terminals, up to max. 2.5 mm² conductor cross-section				
	• Length: approx. 175 mm; 3.5 x 0.5 (green, partially insulated)		**3WA2 880**	1 unit	0.034
	• Length: approx. 175 mm; 3.5 x 0.5 (green)		**8WA2 803**	1 unit	0.024
Blank labels					
 3R19 00-1SB10	Unit labeling plates for "SIRIUS"				
	• 10 × 7 mm, pastel turquoise		**3RT19 00-1SB10**	816 units	0.239
	• 20 × 7 mm, pastel turquoise		**3RT19 00-1SB20**	340 units	0.220
	Labels for sticking for "SIRIUS"				
	• 19 × 6 mm, pastel turquoise		**3RT19 00-1SB60**	3060 units	0.153
	• 19 × 6 mm, zinc/yellow		**3RT19 00-1SD60**	3060 units	0.120
	Computer labeling system For individual inscription of unit labeling plates		Obtainable from: **murrplastik Systemtechnik GmbH**		

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Accessories for 3TF, 3TC contactors

Selection and ordering data

For contactors Size	Type	Version	Rated control supply voltage U_s V DC	DT	Order No.	PS*	Weight per PU approx. kg
Surge suppressors[1]							
14	3TF68 and 3TF69	**Varistors**[2] For DC economy circuit; for snapping onto the side of auxiliary switches	24 ... 48		**3TX7 572-3G**	1 unit	0.080
			48 ... 127		**3TX7 572-3H**	1 unit	0.080
			127 ... 240		**3TX7 572-3J**	1 unit	0.080
Solid-state compatible auxiliary switch blocks with screw terminals							
14 **2 and 4**	3TF68 and 3TF69	For mounting onto the side of contactors. For use in dusty atmosphere and solid-state circuits with rated operational currents I_e AC-14 and DC-13 from 1 to 300 mA at 3 to 60 V. With 1 changeover contact. 2nd auxiliary switch block, left or right (replacement for 3TY6 561-1U, 3TY6 561-1V)			**3TY7 561-1UA00**	1 unit	0.060
Coupling links for control by PLC							
14	3TF68 and 3TF69	Operating range: 17 to 30 V DC. Power consumption: 0.5 W at 24 V DC. Fitted with varistor. For snapping onto the side of auxiliary switch, with surge suppression		►	**3TX7 090-0D**	1 unit	0.080
Terminal covers for protection against inadvertent contact with exposed busbar connections							
14	3TF68	For screwing onto free screw end on middle connecting bar. 2 units required per contactor. (1 set = 2 units)			**3TX7 686-0A**	1 unit	0.410
	3TF69				**3TX7 696-0A**	1 unit	0.410
Auxiliary switch blocks							
2 and 4	3TC44, 3TC48	Auxiliary switch block, left or right, 1 NO + 1 NC (replacement for 3TY6 501-1A/-1B)			**3TY6 501-1AA00**	1 unit	0.055
4	3TC48	2. auxiliary switch block left, 1 NO + 1 NC[3]			**3TY6 501-1K**	1 unit	0.055
		2. auxiliary switch block right, 1 NO + 1 NC[3]			**3TY6 501-1L**	1 unit	0.055
8 and 12	3TC52, 3TC56	Auxiliary switch block left, 1 NO + 1 NC			**3TY6 561-1A**	1 unit	0.076
		Auxiliary switch block right, 1 NO + 1 NC			**3TY6 561-1B**	1 unit	0.075
		2. auxiliary switch block left, 1 NO + 1 NC[3]			**3TY6 561-1K**	1 unit	0.075
		2. auxiliary switch block right, 1 NO + 1 NC[3]			**3TY6 561-1L**	1 unit	0.075
	3TC74	Auxiliary switch block, 4 NO + 4 NC			**3TY2 741-2J**	1 unit	0.265
	3TC78	Auxiliary switch block left, 2 NO + 2 NC			**3TY2 781-2C**	1 unit	0.186
		Auxiliary switch block right, 2 NO + 2 NC			**3TY2 781-2D**	1 unit	0.184
Contacts with fixing parts							
		In order to ensure reliable operation of the contactors, only **original replacement contacts** should be used.					
2	3TC44	(1 set = 2 moving and 2 fixed switching elements)			**3TY2 440-0A**	1 unit	0.070
4	3TC48				**3TY2 480-0A**	1 unit	0.100
8	3TC52				**3TY2 520-0A**	1 unit	0.250
12	3TC56				**3TY2 560-0A**	1 unit	0.450
	3TC74, 3TC78	Main contacts (1 set) for 3TC78: 2 sets required per contactor			**3TY2 740-0E**	1 unit	0.360
Arc chutes							
2	3TC44	1 arc chute, 2-pole			**3TY2 442-0A**	1 unit	0.170
4	3TC48				**3TY2 482-0A**	1 unit	0.500
8	3TC52				**3TY2 522-0A**	1 unit	1.200
12	3TC56				**3TY2 562-0A**	1 unit	2.130
	3TC74, 3TC78	For 3TC78: 2 units required per contactor			**3TY7 681-1G**	1 unit	0.050

3TX7 572-3.

5TY7 561-1.

3TX7

3TY6 561-1A

3TY2 520-0A

3TY2 482-0A

[1] Integrated as standard in 3TF68 and 3TF69 contactors with AC operation (varistor circuit).

[2] Includes the peak value of the alternating voltage on the DC side.

[3] Can only be mounted on AC-operated contactors.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Controls – Solid-State Switching Devices

4

Solid-State Switching Devices for Resistive Loads

Solid-State Relays

4/2 3RF21 solid-state relays, single-phase, 22.5 mm

4/3 3RF20 solid-state relays, single-phase, 45 mm

4/4 3RF22 solid-state relays, 3-phase, 45 mm

Solid-State Contactors

4/5 3RF23 solid-state contactors, single-phase

4/7 3RF24 solid-state contactors, 3-phase

Function Modules

4/8 3RF29 converters

4/8 3RF29 load monitoring and heating current monitoring

4/9 3RF29 power controllers

4/9 3RF29 power regulators

Solid-State Switching Devices for Switching Motors

Solid-State Contactors

4/10 3RF24 solid-state contactors, 3-phase

4/10 3RF24 solid-state reversing contactors, 3-phase

© Siemens AG 2008

3RF21 solid-state relays, single-phase, 22.5 mm

Overview

22.5 mm solid-state relay

With its compact design and a width of just 22.5 mm, which stays the same even at currents of up to 88 A, the 3RF21 solid-state relay offers an ultra small footprint. The logical connection method, with the power infeed from above and load connection from below, ensures tidy installation in the control cabinet.

SIRIUS solid-state relays are suitable for surface mounting on existing cooling surfaces. Mounting is quick and easy, involving just two screws. The special technology of the power semiconductor ensures there is excellent thermal contact with the heat sink. Depending on the nature of the cooler, the performance capacity reaches up to 88 A on resistive loads. The 3RF21 solid-state relays can be expanded with various function modules to adapt them to individual applications.

Selection and ordering data

3RF21 20-1AA02

3RF21 20-2AA02

3RF21 20-3AA02

Type current[1]	DT	Screw terminals[2]	PS*	Weight per PU approx.	DT	Spring-loaded terminals[3]	PS*	Weight per PU approx.	DT	Ring terminal lug connection	PS*	Weight per PU approx.
A		Order No.		kg		Order No.		kg		Order No.		kg
Zero-point switching, rated operational voltage U_e = 24 ... 230 V												
20		**3RF21 20-1AA□2**	1 unit	0.052		**3RF21 20-2AA□2**	1 unit	0.052		**3RF21 20-3AA□2**	1 unit	0.052
30		**3RF21 30-1AA□2**	1 unit	0.052		--				--		
50		**3RF21 50-1AA□2**	1 unit	0.052		**3RF21 50-2AA□2**	1 unit	0.052		**3RF21 50-3AA□2**	1 unit	0.052
70		**3RF21 70-1AA□2**	1 unit	0.052		--				--		
90		**3RF21 90-1AA□2**	1 unit	0.052		**3RF21 90-2AA□2**	1 unit	0.052		**3RF21 90-3AA□2**	1 unit	0.052
Zero-point switching, rated operational voltage U_e = 48 ... 460 V												
20		**3RF21 20-1AA□4**	1 unit	0.052		**3RF21 20-2AA□4**	1 unit	0.052		**3RF21 20-3AA□4**	1 unit	0.052
30		**3RF21 30-1AA□4**	1 unit	0.052		--				--		
50		**3RF21 50-1AA□4**	1 unit	0.052		**3RF21 50-2AA□4**	1 unit	0.052		**3RF21 50-3AA□4**	1 unit	0.052
70		**3RF21 70-1AA□4**	1 unit	0.052		--				--		
90		**3RF21 90-1AA□4**	1 unit	0.052		**3RF21 90-2AA□4**	1 unit	0.052		**3RF21 90-3AA□4**	1 unit	0.052
Zero-point switching, rated operational voltage U_e = 48 ... 600 V												
30		**3RF21 30-1AA□6**	1 unit	0.052		--				--		
50		**3RF21 50-1AA□6**	1 unit	0.052		**3RF21 50-2AA□6**	1 unit	0.052		**3RF21 50-3AA□6**	1 unit	0.052
70		**3RF21 70-1AA□6**	1 unit	0.052		--				--		
90		**3RF21 90-1AA□6**	1 unit	0.052		**3RF21 90-2AA□6**	1 unit	0.052		**3RF21 90-3AA□6**	1 unit	0.052
Order No. supplement for rated control supply voltage U_s												
24 V DC according to EN 61131-2		**0**				**0**				**0**		
110 ... 230 V AC		**2**				**2**				**2**		

Other rated control supply voltages on request.

1) The type current provides information about the performance capacity of the solid-state relay.
The actual permitted rated operational current I_e can be smaller depending on the connection method and cooling conditions.

2) Please note that this version can only be used for a rated current of up to approx. 50 A and a conductor cross-section of 10 mm².

3) Please note that the version with spring-loaded terminals can only be used for a rated current of up to approx. 20 A and a conductor cross-section of 2.5 mm². Higher currents are possible by connecting two conductors per terminal.

	Version	DT	Order No.	PS*	Weight per PU approx.
					kg
Optional accessories					
	Screwdrivers for spring-loaded connection method		**8WA2 880**	1 unit	0.034
3RF29 00-3PA88	**Terminal covers** for 3RF21 solid-state relays and 3RF23 solid-state contactors with ring terminal lug (after simple adaptation, this terminal cover can also be used for screw connections).		**3RF29 00-3PA88**	10 units	0.010

* You can order this quantity or a multiple thereof.
For other versions and units see A&D Mall.

© Siemens AG 2008

Overview

Solid-state relays, 45 mm

The solid-state relays with a width of 45 mm provide for connection of the power supply lead and the load from above. This makes it easy to replace existing solid-state relays in existing arrangements. The connection of the control cable also saves space in much the same way as the 22.5 mm design, as it is simply plugged on.

SIRIUS solid-state relays are suitable for surface mounting on existing cooling surfaces. Mounting is quick and easy, involving just two screws. The special technology of the power semiconductor ensures there is excellent thermal contact with the heat sink. Depending on the nature of the cooler, the performance capacity reaches up to 88 A on resistive loads.

Selection and ordering data

Type current[1]	DT	Screw terminals[2]	PS*	Weight per PU approx.
A		Order No.		kg
Zero-point switching, rated operational voltage U_e = 24 ... 230 V				
20		**3RF20 20-1AA□2**	1 unit	0.085
30		**3RF20 30-1AA□2**	1 unit	0.085
50		**3RF20 50-1AA□2**	1 unit	0.085
70		**3RF20 70-1AA□2**	1 unit	0.085
90		**3RF20 90-1AA□2**	1 unit	0.085
Zero-point switching, rated operational voltage U_e = 48 ... 460 V				
20		**3RF20 20-1AA□4**	1 unit	0.085
30		**3RF20 30-1AA□4**	1 unit	0.085
50		**3RF20 50-1AA□4**	1 unit	0.085
70		**3RF20 70-1AA□4**	1 unit	0.085
90		**3RF20 90-1AA□4**	1 unit	0.085
Zero-point switching, rated operational voltage U_e = 48 ... 600 V				
30		**3RF20 30-1AA□6**	1 unit	0.085
50		**3RF20 50-1AA□6**	1 unit	0.085
70		**3RF20 70-1AA□6**	1 unit	0.085
90		**3RF20 90-1AA□6**	1 unit	0.085

3RF20 20-1AA02

Order No. supplement for rated control supply voltage U_s

24 V DC according to EN 61131-2	**0**
110 ... 230 V AC	**2**

Type current[1]	DT	Screw terminals[2] / Spring-loaded terminals on auxiliary current side	PS*	Weight per PU approx.
A		Order No.		kg
Zero-point switching, rated operational voltage U_e = 24 ... 230 V				
50 (U_s = 24 V DC according to EN 61131-2)		**3RF20 50-4AA02**	1 unit	0.085

3RF20 20-1AA02

Other rated control supply voltages on request.

1) The type current provides information about the performance capacity of the solid-state relay.
The actual permitted rated operational current I_e can be smaller depending on the connection method and cooling conditions.

2) Please note that this version can only be used for a rated current of up to approx. 50 A and a conductor cross-section of 10 mm^2.

*** You can order this quantity or a multiple thereof.**
For other versions and units see A&D Mall.

© Siemens AG 2008

3RF22 solid-state relays, 3-phase, 45 mm

Overview

With its compact design, which stays the same even at currents of up to 55 A, the 3RF22 solid-state relay is the ultimate in space-saving construction, at a width of 45 mm. The logical connection method, with the power infeed from above and load connection from below, ensures tidy installation in the control cabinet.

The three-phase solid-state relays are available with

- two-phase control (suitable in particular for circuits without connection to the neutral conductor) and
- three-phase control (suitable for star circuits with connection to the neutral conductor or for applications in which the system requires all phases to be switched).

Selection and ordering data

	Type current[1]	Rated control supply voltage U_s	DT	**Screw terminals**[2]	PS*	Weight per PU approx.
	A	V		Order No.		kg
Zero-point switching Rated operational voltage U_e 48 ... 600 V						
3RF22 30-1AB45	***2-phase controlled***					
	30	4 ... 30 DC		**3RF22 30-1AB45**	1 unit	0.150
	55			**3RF22 55-1AB45**	1 unit	0.150
	3-phase controlled					
	30	4 ... 30 DC		**3RF22 30-1AC45**	1 unit	0.150
	55			**3RF22 55-1AC45**	1 unit	0.150

	Type current[1]	Rated control supply voltage U_s	DT	**Spring-loaded terminals**[3]	PS*	Weight per PU approx.
	A	V		Order No.		kg
Zero-point switching Rated operational voltage U_e 48 ... 600 V						
3RF22 30-2AB45	***2-phase controlled***					
	30	4 ... 30 DC		**3RF22 30-2AB45**	1 unit	0.150
	55			**3RF22 55-2AB45**	1 unit	0.150
	3-phase controlled					
	30	4 ... 30 DC		**3RF22 30-2AC45**	1 unit	0.150
	55			**3RF22 55-2AC45**	1 unit	0.150

	Type current[1]	Rated control supply voltage U_s	DT	**Ring terminal lug connection**	PS*	Weight per PU approx.
	A	V		Order No.		kg
Zero-point switching Rated operational voltage U_e 48 ... 600 V						
3RF22 30-3AB45	***2-phase controlled***					
	30	4 ... 30 DC		**3RF22 30-3AB45**	1 unit	0.150
	55			**3RF22 55-3AB45**	1 unit	0.150
	3-phase controlled					
	30	4 ... 30 DC		**3RF22 30-3AC45**	1 unit	0.150
	55			**3RF22 55-3AC45**	1 unit	0.150

1) The type current provides information about the performance capacity of the solid-state relay.
The actual permitted rated operational current I_e can be smaller depending on the connection method and cooling conditions.

2) Please note that the version with an M4 screw connection can only be used for a rated current of up to approx. 50 A and a conductor cross-section of 10 mm^2.

3) Please note that this version can only be used for a rated current of up to approx. 20 A and a conductor cross-section of 2.5 mm^2. Higher currents are possible by connecting two conductors per terminal.

* You can order this quantity or a multiple thereof.
For other versions and units see A&D Mall.

© Siemens AG 2008

Overview

The complete units consist of a solid-state relay plus optimized heat sink, and are therefore ready to use. They offer defined rated currents to make selection as easy as possible. Depending on the version, current strengths of up to 88 A are achieved. Like all of our solid-state switching devices, one of their particular advantages is their compact and space-saving design.

With their insulated mounting foot they can easily be snapped onto a standard mounting rail, or they can be mounted on support plates with fixing screws. This insulation enables them to be used in circuits with protective extra-low voltage (PELV) or safety extra-low voltage (SELV) in building management systems. For other applications, such as for extended personal safety, the heat sink can be grounded through a screw terminal.

Version for resistive loads, "zero-point switching"

This standard version is often used for switching space heaters on and off.

Version for inductive loads, "instantaneous switching"

In this version the solid-state contactor is specifically matched to inductive loads. Whether it is a matter of frequent actuation of the valves in a filling plant or starting and stopping small operating mechanisms in packet distribution systems, operation is carried out safely and noiselessly.

Special "Low noise" version

Thanks to a special control circuit, this special version can be used in public networks up to 16 A without any additional measures, such as interference suppressor filters. As a result, in terms of emitted interference, it conforms to limit value curve class B according to EN 60947-4-3.

Special "Short-circuit resistant" version

Skillful matching of the power semiconductor with the performance capacity of the solid-state contactor means that "short-circuit strength" can be achieved with a standard miniature circuit breaker. In combination with a B-type MCB or a conventional fuse, the result is a short-circuit resistant feeder. In order to achieve problem-free short-circuit protection by means of miniature circuit breakers, however, certain boundary conditions must be observed, e.g. not only by the short-circuit breaking response of the miniature circuit breaker but also the properties of the wiring system, such as the internal resistance of the input to the network.

Selection and ordering data

3RF23 10-1AA02

3RF23 30-1AA02

3RF23 40-1AA02

3RF23 50-3AA02

3RF23 70-3AA02

3RF23 90-3AA02

Type current[1] $I_{max.}$	DT	Screw terminals	PS*	Weight per PU approx.	DT	Spring-loaded terminals	PS*	Weight per PU approx.	DT	Ring terminal lug connection	PS*	Weight per PU approx.
A		Order No.		kg		Order No.		kg		Order No.		kg
Zero-point switching, rated operational voltage U_e = 24 ... 230 V												
10.5		**3RF23 10-1AA□2**	1 unit	0.136		**3RF23 10-2AA□2**	1 unit	0.136		**3RF23 10-3AA□2**	1 unit	0.136
20		**3RF23 20-1AA□2**	1 unit	0.204		**3RF23 20-2AA□2**	1 unit	0.204		**3RF23 20-3AA□2**	1 unit	0.204
30		**3RF23 30-1AA□2**	1 unit	0.354		--				**3RF23 30-3AA□2**	1 unit	0.354
40		**3RF23 40-1AA□2**	1 unit	0.496		--				**3RF23 40-3AA□2**	1 unit	0.496
50		**3RF23 50-1AA□2**	1 unit	0.496		--				**3RF23 50-3AA□2**	1 unit	0.496
70		--				--				**3RF23 70-3AA□2**	1 unit	0.944
88		--				--				**3RF23 90-3AA□2**	1 unit	2.600
Zero-point switching, rated operational voltage U_e = 48 ... 460 V												
10.5		**3RF23 10-1AA□4**	1 unit	0.136		**3RF23 10-2AA□4**	1 unit	0.136		**3RF23 10-3AA□4**	1 unit	0.136
20		**3RF23 20-1AA□4**	1 unit	0.204		**3RF23 20-2AA□4**	1 unit	0.204		**3RF23 20-3AA□4**	1 unit	0.204
30		**3RF23 30-1AA□4**	1 unit	0.354		--				**3RF23 30-3AA□4**	1 unit	0.354
40		**3RF23 40-1AA□4**	1 unit	0.496		--				**3RF23 40-3AA□4**	1 unit	0.496
50		**3RF23 50-1AA□4**	1 unit	0.496		--				**3RF23 50-3AA□4**	1 unit	0.496
70		--				--				**3RF23 70-3AA□4**	1 unit	0.944
88		--				--				**3RF23 90-3AA□4**	1 unit	2.600
Zero-point switching, rated operational voltage U_e = 48 ... 600 V												
10.5		**3RF23 10-1AA□6**	1 unit	0.136		**3RF23 10-2AA□6**	1 unit	0.136		**3RF23 10-3AA□6**	1 unit	0.136
20		**3RF23 20-1AA□6**	1 unit	0.204		**3RF23 20-2AA□6**	1 unit	0.204		**3RF23 20-3AA□6**	1 unit	0.204
30		**3RF23 30-1AA□6**	1 unit	0.354		--				**3RF23 30-3AA□6**	1 unit	0.354
40		**3RF23 40-1AA□6**	1 unit	0.496		--				**3RF23 40-3AA□6**	1 unit	0.496
50		**3RF23 50-1AA□6**	1 unit	0.496		--				**3RF23 50-3AA□6**	1 unit	0.496
70		--				--				**3RF23 70-3AA□6**	1 unit	0.944
88		--				--				**3RF23 90-3AA□6**	1 unit	2.600
Order No. supplement for rated control supply voltage U_s												
24 V DC according to EN 61131-2		**0**				**0**				**0**		
110 ... 230 V AC		**2**				**2**				**2**		

Other rated control supply voltages on request.

[1] The type current provides information about the performance capacity of the solid-state contactor. The actual permitted rated operational current I_e can be smaller depending on the connection method and start-up conditions.

*** You can order this quantity or a multiple thereof.**
For other versions and units see A&D Mall.

© Siemens AG 2008

3RF23 solid-state contactors, single-phase

Type current[1] I_{max}	DT	Screw terminals	PS*	Weight per PU approx.	DT	Spring-loaded terminals	PS*	Weight per PU approx.	DT	Ring terminal lug connection	PS*	Weight per PU approx.
A		Order No.		kg		Order No.		kg		Order No.		kg
Instantaneous switching, rated operational voltage U_e = 24 ... 230 V												
10.5		**3RF23 10-1BA□2**	1 unit	0.136		--				-		
20		**3RF23 20-1BA□2**	1 unit	0.204		--				-		
30		**3RF23 30-1BA□2**	1 unit	0.354		--				-		
40		**3RF23 40-1BA□2**	1 unit	0.496		--				-		
50		**3RF23 50-1BA□2**	1 unit	0.496		--				-		
70		**3RF23 70-1BA□2**	1 unit	0.944		--				**3RF23 70-3BA□2**	1 unit	0.944
88		**3RF23 90-1BA□2**	1 unit	2.600		--				**3RF23 90-3BA□2**	1 unit	2.600
Instantaneous switching, rated operational voltage U_e = 48 ... 460 V												
10.5		**3RF23 10-1BA□4**	1 unit	0.136		--				-		
20		**3RF23 20-1BA□4**	1 unit	0.204		--				-		
30		**3RF23 30-1BA□4**	1 unit	0.354		--				-		
40		**3RF23 40-1BA□4**	1 unit	0.496		--				-		
50		**3RF23 50-1BA□4**	1 unit	0.496		--				-		
70		**3RF23 70-1BA□4**	1 unit	0.944		--				**3RF23 70-3BA□4**	1 unit	0.944
88		**3RF23 90-1BA□4**	1 unit	2.600		--				**3RF23 90-3BA□4**	1 unit	2.600
Instantaneous switching, rated operational voltage U_e = 48 ... 600 V												
10.5		**3RF23 10-1BA□6**	1 unit	0.136		--				-		
20		**3RF23 20-1BA□6**	1 unit	0.204		--				-		
30		**3RF23 30-1BA□6**	1 unit	0.354		--				-		
40		**3RF23 40-1BA□6**	1 unit	0.496		--				-		
50		**3RF23 50-1BA□6**	1 unit	0.496		--				-		
70		**3RF23 70-1BA□6**	1 unit	0.944		--				**3RF23 70-3BA□6**	1 unit	0.944
88		**3RF23 90-1BA□6**	1 unit	2.600		--				**3RF23 90-3BA□6**	1 unit	2.600
Low Noise, rated operational voltage U_e = 24 ... 230 V												
20		**3RF23 20-1CA□2**	1 unit	0.204		**3RF23 20-2CA□2**	1 unit	0.204		-		
Low Noise, rated operational voltage U_e = 48 ... 460 V												
20		**3RF23 20-1CA□4**	1 unit	0.204		**3RF23 20-2CA□4**	1 unit	0.204		-		
Short-circuit resistant with B-automatic device, rated operational voltage U_e = 24 ... 230 V												
20		**3RF23 20-1DA□2**	1 unit	0.204		**3RF23 20-2DA22**	1 unit	0.204		**3RF23 20-3DA□2**	1 unit	0.204
Short-circuit resistant with B-automatic device, rated operational voltage U_e = 48 ... 460V												
20		**3RF23 20-1DA□4**	1 unit	0.204		**3RF23 20-2DA24**	1 unit	0.204		**3RF23 20-3DA□4**	1 unit	0.204

Order No. supplement for			
Rated control supply voltage U_s			
24 V DC according to EN 61131-2	**0**	**0**	**0**
110 ... 230 V AC	**2**	**2**	**2**

Other rated control supply voltages on request.

[1] The type current provides information about the performance capacity of the solid-state contactor. The actual permitted rated operational current I_e can be smaller depending on the connection method and start-up conditions.

	Version	DT	Order No.	PS*	Weight per PU approx.
					kg
	Optional accessories				
	Screwdrivers for spring-loaded connection method		**8WA2 880**	1 unit	0.034
3RF29 00-3PA88	**Terminal covers** for 3RF21 solid-state relays and 3RF23 solid-state contactors with ring terminal lug (after simple adaptation, this terminal cover can also be used for screw connections).		**3RF29 00-3PA88**	10 units	0.010

* You can order this quantity or a multiple thereof.
For other versions and units see A&D Mall.

© Siemens AG 2008

Overview

The 3-phase solid-state contactors for resistive loads up to 50 A are available with

- two-phase control (suitable in particular for circuits without connection to the neutral conductor) and
- three-phase control (suitable for star circuits with connection to the neutral conductor or for applications in which the system requires all phases to be switched)

The converter function module can be snapped onto both versions for the simple power control of AC loads by means of analog signals.

- Check the correct contactor size with the aid of the rated current diagram, taking account of the design conditions

Selection and ordering data

Zero-point switching
Rated operational voltage U_e 48 ... 600 V

3RF24 20-1AB45

Type current[1] I_{max}	Rated control supply voltage U_s	DT	Screw terminals	PS*	Weight per PU approx.	DT	Screw terminals	PS*	Weight per PU approx.
A	V		Order No.		kg		Order No.		kg
			2-phase controlled				*3-phase controlled*		
10.5	4 ... 30 DC		**3RF24 10-1AB45**	1 unit	0.320		**3RF24 10-1AC45**	1 unit	0.320
20			**3RF24 20-1AB45**	1 unit	0.400		**3RF24 20-1AC45**	1 unit	0.540
30			**3RF24 30-1AB45**	1 unit	0.540		**3RF24 30-1AC45**	1 unit	0.800
40			**3RF24 40-1AB45**	1 unit	0.800		**3RF24 40-1AC45**	1 unit	1.100
50			**3RF24 50-1AB45**	1 unit	1.100		**3RF24 50-1AC45**	1 unit	1.850
10.5	230 AC		**3RF24 10-1AB55**	1 unit	0.320		**3RF24 10-1AC55**	1 unit	0.320
20			**3RF24 20-1AB55**	1 unit	0.400		**3RF24 20-1AC55**	1 unit	0.540
30			**3RF24 30-1AB55**	1 unit	0.540		**3RF24 30-1AC55**	1 unit	0.800
40			**3RF24 40-1AB55**	1 unit	0.800		**3RF24 40-1AC55**	1 unit	1.100
50			**3RF24 50-1AB55**	1 unit	1.100		**3RF24 50-1AC55**	1 unit	1.850

Zero-point switching
Rated operational voltage U_e 48 ... 600 V

3RF24 10-2AB45

Type current[1] I_{max}	Rated control supply voltage U_s	DT	Spring-loaded terminals	PS*	Weight per PU approx.	DT	Spring-loaded terminals	PS*	Weight per PU approx.
A	V		Order No.		kg		Order No.		kg
			2-phase controlled				*3-phase controlled*		
10	4 ... 30 DC		**3RF24 10-2AB45**	1 unit	0.320		**3RF24 10-2AC45**	1 unit	0.320
20			**3RF24 20-2AB45**	1 unit	0.400		**3RF24 20-2AC45**	1 unit	0.540
10	230 AC		**3RF24 10-2AB55**	1 unit	0.320		**3RF24 10-2AC55**	1 unit	0.320
20			**3RF24 20-2AB55**	1 unit	0.400		**3RF24 20-2AC55**	1 unit	0.540

Zero-point switching
Rated operational voltage U_e 48 ... 600 V

Type current[1] I_{max}	Rated control supply voltage U_s	DT	Ring terminal lug connection	PS*	Weight per PU approx.	DT	Ring terminal lug connection	PS*	Weight per PU approx.
A	V		Order No.		kg		Order No.		kg
			2-phase controlled				*3-phase controlled*		
50	4 ... 30 DC		**3RF24 50-3AB45**	1 unit	1.100		**3RF24 50-3AC45**	1 unit	1.100
50	230 AC		**3RF24 50-3AB55**	1 unit	1.100		**3RF24 50-3AC55**	1 unit	1.100

[1] The type current provides information about the performance capacity of the solid-state contactor. The actual permitted rated operational current I_e can be smaller depending on the connection method and start-up conditions.

*** You can order this quantity or a multiple thereof.**
For other versions and units see A&D Mall.

© Siemens AG 2008

3RF29 converters
3RF29 load monitoring and heating current monitoring

Overview

Function modules for SIRIUS 3RF2 solid-state switching devices

A great variety of applications demand an expanded range of functionality. With our function modules, these requirements can be met really easily. The modules are mounted simply by clicking them into place; straight away the necessary connections are made with the solid-state relay or contactor. The plug-in connection to control the solid-state switching devices can simply remain in use.

The following function modules are available:

- Converter
- Load monitoring
- Heating current monitoring
- Power controllers
- Power regulators

With the exception of the converter, the function modules can be used only with single-phase solid-state switching devices.

Converters for 3RF2 solid-state switching devices

These modules are used to convert analog control signals, such as those output from many temperature controllers for example, into a pulse-width-modulated digital signal. The connected solid-state contactors and relays can therefore regulate the output of a load as a percentage.

Load monitoring for single-phase solid-state switching devices

Many faults can be quickly detected by monitoring a load circuit connected to the solid-state switching device, as made possible with this module. Examples include the failure of load elements (up to 6 in the basic version or up to 12 in the extended version), alloyed power semiconductors, a lack of voltage or a break in a load circuit. A fault is indicated by one or more LEDs and reported to the controller by way of a PLC-compatible output.

The principle of operation is based on permanent monitoring of the current strength. This figure is continuously compared with the reference value stored once during start-up by the simple press of a button. In order to detect the failure of one of several loads, the current difference must be 1/6 (in the basic version) or 1/12 (in the extended version) of the reference value. In the event of a fault, an output is actuated and one or more LEDs indicate the fault.

Heating current monitoring for single-phase solid-state switching devices

Many faults can be quickly detected by monitoring a load circuit connected to the solid-state switching device, as made possible with this module. Examples include the failure of up to 6 load elements, alloyed power semiconductors, a lack of voltage or a break in a load circuit. A fault is indicated by LEDs and reported to the controller by way of a relay output (NC contact).

The principle of operation is based on permanent monitoring of the current strength. This figure is continuously compared with the reference value stored once during start-up. In order to detect the failure of one of several loads, the current difference must be 1/6 of the reference value. In the event of a fault, an output is actuated and the LEDs indicate the fault.

The heating current monitoring has a teach input and therefore differs from the load monitoring. This remote teaching function enables simple adjustment to changing loads without manual intervention.

Selection and ordering data

	Rated operational current I_e	Rated operational voltage U_e	DT	**Rated control supply voltage U_s 24 V DC**	PS*	Weight per PU approx.	DT	**Rated control supply voltage U_s 24 V AC/DC**	PS*	Weight per PU approx.
	A	V		Order No.		kg		Order No.		kg
Converters										
	--	--		**--**				**3RF29 00-0EA18**	1 unit	0.040
Basic load monitoring										
	20	--		**3RF29 20-0FA08**	1 unit	0.070		**--**		

	Rated operational current I_e	Rated operational voltage U_e	DT	**Rated control supply voltage U_s 110 V AC**	PS*	Weight per PU approx.	DT	**Rated control supply voltage U_s 24 V AC/DC**	PS*	Weight per PU approx.
	A	V		Order No.		kg		Order No.		kg
Extended load monitoring										
	20	110 ... 230		**3RF29 20-0GA33**	1 unit	0.175		**3RF29 20-0GA13**	1 unit	0.175
	20	400 ... 600		**3RF29 20-0GA36**	1 unit	0.175		**3RF29 20-0GA16**	1 unit	0.175
	50	110 ... 230		**3RF29 50-0GA33**	1 unit	0.175		**3RF29 50-0GA13**	1 unit	0.175
	50	400 ... 600		**3RF29 50-0GA36**	1 unit	0.175		**3RF29 50-0GA16**	1 unit	0.175
	90	110 ... 230		**3RF29 90-0GA33**	1 unit	0.175		**3RF29 90-0GA13**	1 unit	0.175
	90	400 ... 600		**3RF29 90-0GA36**	1 unit	0.175		**3RF29 90-0GA16**	1 unit	0.175
Heating current monitoring[1]										
	16	110 ... 230		**--**				**3RF29 16-0JA13**	1 unit	0.175
	16	110 ... 230		**--**				**3RF29 16-0JA13-1KK0**	1 unit	0.175
	16	400 ... 600		**--**				**3RF29 16-0JA16-1KK0**	1 unit	0.175
	32	110 ... 230		**--**				**3RF29 32-0JA13-1KK0**	1 unit	0.175
	32	400 ... 600		**--**				**3RF29 32-0JA16**	1 unit	0.175
	32	400 ... 600		**--**				**3RF29 32-0JA16-1KK0**	1 unit	0.175

[1] Supplied without control connector. The control connector can be purchased from Phoenix Contact by quoting Order No. 1982 790 (2.5 HC/6-ST-5.08).

*** You can order this quantity or a multiple thereof.**
For other versions and units see A&D Mall.

© Siemens AG 2008

Overview

Power controllers for 3RF2 single-phase solid-state switching devices

The power controller is a function module for the autonomous power control of complex heating systems and inductive loads.

The following functions have been integrated:

- Power controller for adjusting the power of the connected load. Here, the setpoint value is set with a rotary knob on the module as a percentage with reference to the 100 % power stored as a setpoint value.
- Inrush current limitation: With the aid of an adjustable voltage ramp, the inrush current is limited by means of phase control. This is useful above all with loads such as lamps or infrared lamps which have an inrush transient current.
- Load circuit monitoring for detecting load failure, partial load faults, alloyed power semiconductors, lack of voltage or a break in the load circuit.

Power control

The power controller adjusts the power in the connected load by means of a solid-state switching device depending on the setpoint selection. It does not compensate for changes in the mains voltage or load resistance. The setpoint value can be predefined externally as a 0 to 10 V signal or internally by means of a potentiometer. Depending on the setting of the potentiometer (t_R), the control is carried out according to the principle of full-wave control or generalized phase control.

Power regulators for 3RF2 single-phase solid-state switching devices

The power regulator is a function module for the autonomous power control of complex heating systems.

The following functions have been integrated:

- Power controller with proportional-action control for adjusting the power of the connected load. Here, the setpoint value is set with a rotary knob on the module as a percentage with reference to the 100 % power stored as a setpoint value. Changes in the mains voltage or in the load resistance are compensated in this case.
- Inrush current limitation: With the aid of an adjustable voltage ramp, the inrush current is limited by means of phase control. This is useful above all with loads such as lamps which have an inrush transient current.
- Load circuit monitoring for detecting load failure, alloyed power semiconductors, lack of voltage or a break in the load circuit. Part-load monitoring is not possible. Load fluctuations are compensated.

Power control

The power regulator adjusts the power in the connected load by means of a solid-state switching device depending on the taught power and the selected setpoint. Changes in the mains voltage or in the load resistance are thus compensated by the power regulator. The setpoint value can be predefined externally as a 0 to 10 V signal or internally by means of a potentiometer. Depending on the setting of the potentiometer (t_R), the adjustment is carried out according to the principle of full-wave control or generalized phase control.

Selection and ordering data

	Rated operational current I_e	Rated operational voltage U_e	DT	Rated control supply voltage U_s 110 V AC	PS*	Weight per PU approx.	DT	Rated control supply voltage U_s 24 V AC/DC	PS*	Weight per PU approx.
	A	V		Order No.		kg		Order No.		kg
Power controllers										
	4 [1]	110 ... 230		--				**3RF29 04-0KA13-0KC0**	1 unit	0.175
	4 [2]	110 ... 230		--				**3RF29 04-0KA13-0KT0**	1 unit	0.175
	20	110 ... 230		--				**3RF29 20-0KA13**	1 unit	0.175
	20	400 ... 600		--				**3RF29 20-0KA16**	1 unit	0.175
	50	110 ... 230		--				**3RF29 50-0KA13**	1 unit	0.175
	50	400 ... 600		--				**3RF29 50-0KA16**	1 unit	0.175
	90	110 ... 230		--				**3RF29 90-0KA13**	1 unit	0.175
	90	400 ... 600		--				**3RF29 90-0KA16**	1 unit	0.175
Power regulators										
	20	110 ... 230		**3RF29 20-0HA33**	1 unit	0.175		**3RF29 20-0HA13**	1 unit	0.175
	20	400 ... 600		**3RF29 20-0HA36**	1 unit	0.175		**3RF29 20-0HA16**	1 unit	0.175
	50	110 ... 230		**3RF29 50-0HA33**	1 unit	0.175		**3RF29 50-0HA13**	1 unit	0.175
	50	400 ... 600		**3RF29 50-0HA36**	1 unit	0.175		**3RF29 50-0HA16**	1 unit	0.175
	90	110 ... 230		**3RF29 90-0HA33**	1 unit	0.175		**3RF29 90-0HA13**	1 unit	0.175
	90	400 ... 600		**3RF29 90-0HA36**	1 unit	0.175		**3RF29 90-0HA16**	1 unit	0.175

[1] During the teaching process the connected solid-state relay or contactor is not activated; i.e. no current flow takes place. No current reference value is stored. No part-load monitoring!

[2] No part-load monitoring.

	Version	DT	Order No.	PS*	Weight per PU approx.
					kg
	Optional accessories				
3RF29 00-3PA88	**Screwdrivers** for spring-loaded connection method		**8WA2 880**	1 unit	0.034
	Terminal covers for 3RF21 solid-state relays and 3RF23 solid-state contactors with ring terminal lug (after simple adaptation, this terminal cover can also be used for screw connections).		**3RF29 00-3PA88**	10 units	0.010

*** You can order this quantity or a multiple thereof.**
For other versions and units see A&D Mall.

© Siemens AG 2008

3RF24 solid-state contactors, 3-phase
3RF24 solid-state reversing contactors, 3-phase

Overview

Motor contactors

These two-phase controlled, instantaneous switching solid-state contactors in the insulting enclosure are offered in 45 mm width to 5.2 A – and in 90 mm width to 16 A. This means that it is possible to operate motors up to 7.5 kW.

Reversing contactors

The integration of four conducting paths to a reverse switch, combined in one enclosure makes this device a particularly compact solution. Compared to conventional systems, for which two contactors are required, it is possible to save up to 50 % width with the three-phase reversing contactors. Devices with 45 mm width cover motors up to 2.2 kW – and those with 90 mm width up to 3 kW.

Motor feeders

The devices can use a link module[1)] to directly connect to a circuit breaker. Direct mounting on a 3RB20 electronic overload relay[2)] is possible. Rapid-switching fuseless and fuse motor feeders can thereby be implemented in a time-saving manner.

Standards and approvals

- IEC 60947-4-3
- UL 508, CSA for North America[3)]
- CE marking for Europe
- C-Tick approval for Australia

1) For 3RA19 21-1AA00 link modules see Chapter 5.
2) For 3RB20 overload relays see Chapter 5.
3) Please note: Use overvoltage protection device; max. cut-off-voltage 6000 V; min. energy handling capability 100 J.

Selection and ordering data

Motor contactors · Instantaneous switching · Two-phase controlled

	Rated operational current I_e	Rated power at I_e and U_e	Rated control supply voltage U_s	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
	A	400 V kW	V		Order No.		Order No.		kg
Rated operational voltage U_e 48 ... 460 V									
3RF24 05-1BB	5.2	**2.2**	24 DC according to EN 61131-2		**3RF24 05-1BB04**		**3RF24 05-2BB04**	1 unit	0.250
	9.2	**4.0**			**3RF24 10-1BB04**		**3RF24 10-2BB04**	1 unit	0.380
	12.5	**5.5**			**3RF24 12-1BB04**		**3RF24 12-2BB04**	1 unit	0.380
	16	**7.5**			**3RF24 16-1BB04**		**3RF24 16-2BB04**	1 unit	0.380
	5.2	**2.2**	110 ... 230 AC		**3RF24 05-1BB24**		**3RF24 05-2BB24**	1 unit	0.250
	9.2	**4.0**			**3RF24 10-1BB24**		**3RF24 10-2BB24**	1 unit	0.380
	12.5	**5.5**			**3RF24 12-1BB24**		**3RF24 12-2BB24**	1 unit	0.380
	16	**7.5**			**3RF24 16-1BB24**		**3RF24 16-2BB24**	1 unit	0.380
Rated operational voltage U_e 48 ... 600 V									
3RF24 10-2BB	5.2	**2.2**	24 DC according to EN 61131-2		**3RF24 05-1BB06**		**3RF24 05-2BB06**	1 unit	0.250
	9.2	**4.0**			**3RF24 10-1BB06**		**3RF24 10-2BB06**	1 unit	0.380
	12.5	**5.5**			**3RF24 12-1BB06**		**3RF24 12-2BB06**	1 unit	0.380
	16	**7.5**			**3RF24 16-1BB06**		**3RF24 16-2BB06**	1 unit	0.380
	5.2	**2.2**	110 ... 230 AC		**3RF24 05-1BB26**		**3RF24 05-2BB26**	1 unit	0.250
	9.2	**4.0**			**3RF24 10-1BB26**		**3RF24 10-2BB26**	1 unit	0.380
	12.5	**5.5**			**3RF24 12-1BB26**		**3RF24 12-2BB26**	1 unit	0.380
	16	**7.5**			**3RF24 16-1BB26**		**3RF24 16-2BB26**	1 unit	0.380

Motor reversing contactors · Instantaneous switching · Two-phase controlled

	Rated operational current I_e	Rated power at I_e and U_e	Rated control supply voltage U_s	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
	A	400 V kW	V		Order No.		Order No.		kg
Rated operational voltage U_e 48 ... 460 V									
3RF24 03-1BD	3.8	**1.5**	24 DC according to EN 61131-2		**3RF24 03-1BD04**		--	1 unit	0.280
	5.4	**2.2**			**3RF24 05-1BD04**		--	1 unit	0.280
	7.4	**3.0**			**3RF24 10-1BD04**		--	1 unit	0.410
	3.8	**1.5**	110 ... 230 AC		**3RF24 03-1BD24**		--	1 unit	0.280
	5.4	**2.2**			**3RF24 05-1BD24**		--	1 unit	0.280
	7.4	**3.0**			**3RF24 10-1BD24**		--	1 unit	0.410

*** You can order this quantity or a multiple thereof.**
For other versions and units see A&D Mall.

© Siemens AG 2008

Protection Equipment

5

5/2 **Introduction**

3RV Motor Starter Protectors up to 100 A
5/4 General data
5/5 For motor protection
5/7 For motor protection with overload relay function
5/8 For starter combinations
5/9 For transformer protection
For fuse monitoring
Accessories
5/10 Mountable accessories
5/11 Busbar accessories
5/13 Rotary operating mechanisms and mounting accessories
5/14 Enclosures and front plates

Overload Relays
3RB2 Solid-State Overload Relays
5/16 3RB20, 3RB21 for standard applications
5/19 3RB22, 3RB23 for high-feature applications
5/21 Accessories
3RU1 Thermal Overload Relays
5/22 3RU11 for standard applications
5/24 Accessories

© Siemens AG 2008

Introduction

Overview

Type		3RV10	3RV11	3RV13	3RV14	3RV16	3RV16	3RV17	3RV18
3RV1 motor starter protectors/circuit breakers up to 100 A									
Uses									
System protection		✓[1]	✓[1]	--	--	--	--	✓	✓
Motor protection		✓	--	--	--	--	--	--	--
Motor protection with overload relay function		--	✓	--	--	--	--	--	--
Starter combinations		--	--	✓	--	--	--	--	--
Transformer protection		--	--	--	✓	--	--	✓	✓
Fuse monitoring		--	--	--	--	✓	--	--	--
Voltage transformer motor starter protectors for distance protection		--	--	--	--	--	✓	--	--
Size		S00, S0, S2, S3	S0, S2, S3	S0, S2, S3	S0, S2	S00	S00	S0, S3	S0
Rated current I_n									
Size S00	A	Up to12	--	--	--	Up to 0.2	Up to 3	--	--
Size S0	A	Up to 25	Up to 25	Up to 25	Up to 20	--	--	Up to 22	Up to 20
Size S2	A	Up to 50	Up to 50	Up to 50	Up to 40	--	--	--	--
Size S3	A	Up to 100	Up to 100	Up to 100	--	--	--	Up to 70	--
Rated operational voltage U_e according to IEC	V	690 AC[2]	690 AC[2]	690 AC[2]	690 AC[2]	690 AC[2]	400 AC	690 AC	690 AC
Rated frequency	Hz	50/60	50/60	50/60	50/60	50/60	$16^2/_3$ ... 60	50/60	50/60
Trip class		CLASS 10 CLASS 20	CLASS 10	--	CLASS 10	--	--	--	--
Thermal overload release	A A	0.11 ... 0.16 up to 80 ... 100	0.11 ... 0.16 up to 80 ... 100	None[3]	0.11 ... 0.16 up to 28 ... 40	0.2	1.4 ... 3	0.16 ... 70 non-adjustable	0.16 ... 20 non-adjustable
Electronic trip units A multiple of the rated current		13 times	13 times	13 times	20 times	6 times	4 ... 7 times	13 times	20 times
Short-circuit breaking capacity I_{cu} at 400 V AC	kA	50/100	50/100	50/100	50/100	100	50	[4]	[4]
Page		5/5	5/7	5/8	5/9	5/9	A&D Mall	A&D Mall	A&D Mall
Accessories									
For sizes		S00 S0 S2 S3	S0 S2 S3	S0 S2 S3	S0 S2	S00	S00	S0, S3	S0
Auxiliary switch		✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓	✓	✓	✓[5]	✓[5]
Signal switch		-- ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓	--	--	--	--
Undervoltage trip unit		✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓	✓	✓	✓	✓
Shunt trip unit		✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓	✓	✓	✓	✓
Isolator modules		-- ✓ ✓ --	✓ ✓ --	✓ ✓ --	✓ ✓	--	--	--	--
Insulated three-phase busbar systems		✓ ✓ ✓ --	-- ✓ --	✓ ✓ --	✓ ✓	✓	✓	--	--
Busbar adapters		✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓	✓	✓	--	--
Door-coupling rotary operating mechanisms		-- ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓	--	--	✓	✓
Remote motorized operating mechanisms		-- -- ✓ ✓	-- ✓ ✓	-- ✓ ✓	-- ✓	--	--	--	--
Link modules		✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓	✓	✓	--	--
Enclosures for surface mounting		✓ ✓ ✓ --	✓ ✓ --	✓ ✓ --	✓ ✓	✓	✓	--	--
Enclosures for flush mounting		✓ ✓ -- --	✓ -- --	✓ -- --	✓ --	✓	✓	--	--
Front plates		✓ ✓ ✓ ✓	✓ ✓ ✓	✓ ✓ ✓	✓ ✓	✓	✓	--	--
Infeed system		✓ ✓ -- --	-- -- --	✓ -- --	✓ --	--	--	--	--
Page		5/10 ... 5/15							

1) For symmetrical loading of the three phases.
2) With molded-plastic enclosure 500 V AC.
3) For overload protection of the motors, appropriate overload relays must be used.
4) According to UL 489 at AC 480 Y/277 V.: for size S0 50 kA, for size S3 65 kA.
5) Only lateral auxiliary switches.
✓ Has this function or can use this accessory
-- Does not have this function or cannot use this accessory

© Siemens AG 2008

Type		3RU11	3RB20	3RB21	3RB22/3RB23
Overload relays up to 630 A					
Uses					
System protection		✓[1]	✓[1]	✓[1]	✓[1]
Motor protection		✓	✓	✓	✓
Alternating current, 3-phase		✓	✓	✓	✓
Alternating current, single-phase		✓	--	--	✓
DC current		✓	--	--	--
Size of contactor		S00, S0, S2, S3	S00 ... S12	S00 ... S12	S00 ... S12
Rated operational current I_e					
Size S00 Size S0	A A	Up to 12 Up to 25	Up to 12 Up to 25	Up to 12 Up to 25	} Up to 25
Size S2 Size S3	A A	Up to 50 Up to 100	Up to 50 Up to 100	Up to 50 Up to 100	} Up to 100
Size S6 Size S10/S12, Size 14 (3TF6)	A A	-- --	Up to 200 Up to 630	Up to 200 Up to 630	Up to 200 Up to 630
Rated operational voltage U_e	V	690/1000 AC[2]	690/1000 AC[3]	690/1000 AC[3]	690/1000 AC[4]
Rated frequency	Hz	50/60	50/60	50/60	50/60
Trip class		CLASS 10	CLASS 10, CLASS 20	CLASS 5, 10, 20, 30 adjustable	CLASS 5, 10, 20, 30 adjustable
Thermal overload release	A A	0.11 ... 0.16 up to 80 ... 100	--	--	--
Solid-state overload release	A A	--	0.1 ... 0.4 up to 160 ... 630	0.1 ... 0.4 up to 160 ... 630	0.3 ... 3 up to 63 ... 630
Rating for induction motor at 400 V AC	kW kW	0.04 up to 45	0.04 ... 0.09 up to 90 ... 450	0.04 ... 0.09 up to 90 ... 450	0.09 ... 1.1 up to 37 ... 450
Page		5/22	5/16	5/16	5/19

Accessories																							
For sizes	S00	S0	S2	S3	S00	S0	S2	S3	S6	S10/ S12	S00	S0	S2	S3	S6	S10/ S12	S00	S0	S2	S3	S6	S10/ S12
Terminal brackets for stand-alone installation	✓	✓	✓	✓	✓	✓	[5]	[5]	[5]	[5]	✓	✓	[5]	[5]	[5]	[5]	[5]	[5]	[5]	[5]	[5]	[5]
Mechanical RESET	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	--	--	--	--	--	--
Cable releases for RESET	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	--	--	--	--	--	--
Electrical remote RESET	✓	✓	✓	✓	--	--	--	--	--	--	Integrated in the unit						Integrated in the unit					
Terminal covers	--	--	✓	✓	--	--	--	✓	✓	✓	--	--	--	✓	✓	✓	--	--	--	✓	✓	✓
Sealable covers for setting knobs	Integrated in the unit				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Page	5/21, 5/24																					

[1] The units are responsible in the main circuit for overload protection of the assigned electrical loads (e.g. motors), feeder cable and other switching and protection devices in the respective load feeder.

[2] Size S3 up to 1000 V AC.

[3] Size S2 (only with straight-through transformer), S3, S6, S10, S12 up to 1000 V AC.

[4] With reference to the 3RB29 .6 current measuring modules.

[5] Stand-alone installation without accessories is possible.

✓ Has this function or can use this accessory

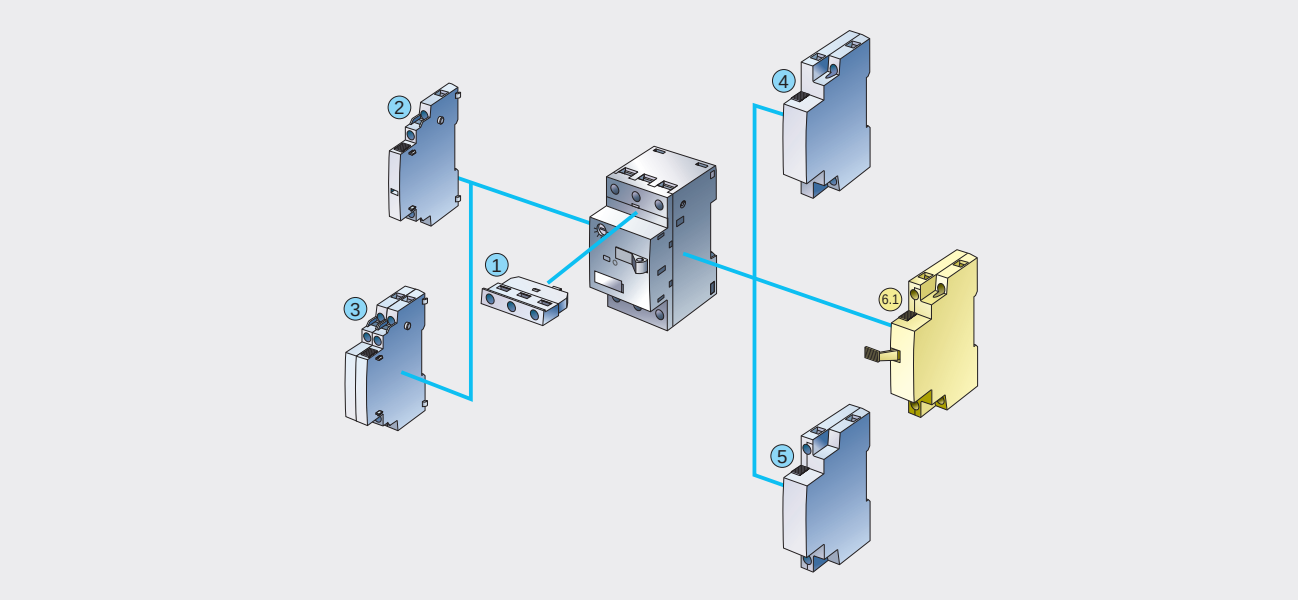
-- Does not have this function or cannot use this accessory

© Siemens AG 2008

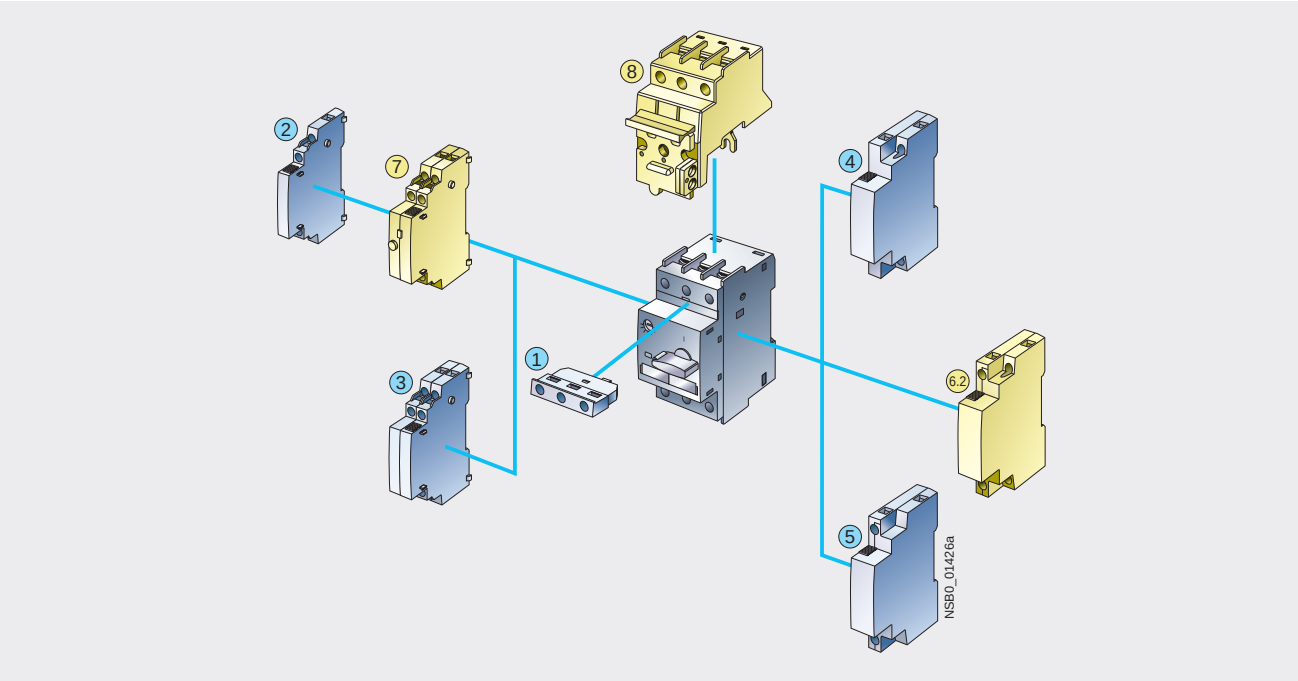
General data

Overview

S00 motor starter protectors with mountable accessories



Motor starter protectors, sizes S0, S2 or S3, with mountable accessories

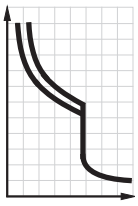


Mountable accessories for all sizes S00 ... S3	Mountable accessories	for sizes
(1) Transverse auxiliary switch (can not be used with 3RV17 and 3RV18 circuit breakers)	(6.1) Undervoltage release with leading auxiliary contacts	S00
(2) Lateral auxiliary switch with 2 contacts	(6.2) Undervoltage release with leading auxiliary contacts	S0 ... S3
(3) Lateral auxiliary switch with 4 contacts	(7) Alarm switch	S0 ... S3
(4) Shunt release	(8) Isolator module	S0 and S2
(5) Undervoltage release		

© Siemens AG 2008

Selection and ordering data

CLASS 10, without/with auxiliary switches



Rated current I_n A	Suitable for three-phase induction motors[1] with P kW	Setting range Thermal overload release ⊏ A	Instantaneous electronic trip unit $I>$ A	Short-circuit breaking capacity at 400 V AC I_{cu} kA	DT	Screw terminals Order No.	DT	Cage Clamp terminals Order No.	PS*	Weight per PU approx.[2] kg
Size S00										
0.16	0.04	0.11 ... 0.16	2.1	100		**3RV10 11-0AA1 ☐**		**3RV10 11-0AA2 ☐**	1 unit	0.233
0.2	0.06	0.14 ... 0.2	2.6	100		**3RV10 11-0BA1 ☐**		**3RV10 11-0BA2 ☐**	1 unit	0.234
0.25	0.06	0.18 ... 0.25	3.3	100		**3RV10 11-0CA1 ☐**		**3RV10 11-0CA2 ☐**	1 unit	0.234
0.32	0.09	0.22 ... 0.32	4.2	100		**3RV10 11-0DA1 ☐**		**3RV10 11-0DA2 ☐**	1 unit	0.234
0.4	0.09	0.28 ... 0.4	5.2	100		**3RV10 11-0EA1 ☐**		**3RV10 11-0EA2 ☐**	1 unit	0.236
0.5	0.12	0.35 ... 0.5	6.5	100		**3RV10 11-0FA1 ☐**		**3RV10 11-0FA2 ☐**	1 unit	0.232
0.63	0.18	0.45 ... 0.63	8.2	100		**3RV10 11-0GA1 ☐**		**3RV10 11-0GA2 ☐**	1 unit	0.234
0.8	0.18	0.55 ... 0.8	10	100		**3RV10 11-0HA1 ☐**		**3RV10 11-0HA2 ☐**	1 unit	0.237
1	0.25	0.7 ... 1	13	100		**3RV10 11-0JA1 ☐**		**3RV10 11-0JA2 ☐**	1 unit	0.235
1.25	0.37	0.9 ... 1.25	16	100		**3RV10 11-0KA1 ☐**		**3RV10 11-0KA2 ☐**	1 unit	0.281
1.6	0.55	1.1 ... 1.6	21	100		**3RV10 11-1AA1 ☐**		**3RV10 11-1AA2 ☐**	1 unit	0.283
2	0.75	1.4 ... 2	26	100		**3RV10 11-1BA1 ☐**		**3RV10 11-1BA2 ☐**	1 unit	0.282
2.5	0.75	1.8 ... 2.5	33	100		**3RV10 11-1CA1 ☐**		**3RV10 11-1CA2 ☐**	1 unit	0.284
3.2	1.1	2.2 ... 3.2	42	100		**3RV10 11-1DA1 ☐**		**3RV10 11-1DA2 ☐**	1 unit	0.285
4	1.5	2.8 ... 4	52	100		**3RV10 11-1EA1 ☐**		**3RV10 11-1EA2 ☐**	1 unit	0.284
5	1.5	3.5 ... 5	65	100		**3RV10 11-1FA1 ☐**		**3RV10 11-1FA2 ☐**	1 unit	0.386
6.3	2.2	4.5 ... 6.3	82	100		**3RV10 11-1GA1 ☐**		**3RV10 11-1GA2 ☐**	1 unit	0.288
8	3	5.5 ... 8	104	50		**3RV10 11-1HA1 ☐**		**3RV10 11-1HA2 ☐**	1 unit	0.290
10	4	7 ... 10	130	50		**3RV10 11-1JA1 ☐**		**3RV10 11-1JA2 ☐**	1 unit	0.286
12	5.5	9 ... 12	156	50		**3RV10 11-1KA1 ☐**		**3RV10 11-1KA2 ☐**	1 unit	0.282
Size S0										
0.16	0.04	0.11 ... 0.16	2.1	100		**3RV10 21-0AA1 ☐**		–	1 unit	0.300
0.2	0.06	0.14 ... 0.2	2.6	100		**3RV10 21-0BA1 ☐**		–	1 unit	0.304
0.25	0.06	0.18 ... 0.25	3.3	100		**3RV10 21-0CA1 ☐**		–	1 unit	0.302
0.32	0.09	0.22 ... 0.32	4.2	100		**3RV10 21-0DA1 ☐**		–	1 unit	0.303
0.4	0.09	0.28 ... 0.4	5.2	100		**3RV10 21-0EA1 ☐**		–	1 unit	0.303
0.5	0.12	0.35 ... 0.5	6.5	100		**3RV10 21-0FA1 ☐**		–	1 unit	0.304
0.63	0.18	0.45 ... 0.63	8.2	100		**3RV10 21-0GA1 ☐**		–	1 unit	0.305
0.8	0.18	0.55 ... 0.8	10	100		**3RV10 21-0HA1 ☐**		–	1 unit	0.370
1	0.25	0.7 ... 1	13	100		**3RV10 21-0JA1 ☐**		–	1 unit	0.368
1.25	0.37	0.9 ... 1.25	16	100		**3RV10 21-0KA1 ☐**		–	1 unit	0.369
1.6	0.55	1.1 ... 1.6	21	100		**3RV10 21-1AA1 ☐**		–	1 unit	0.371
2	0.75	1.4 ... 2	26	100		**3RV10 21-1BA1 ☐**		–	1 unit	0.371
2.5	0.75	1.8 ... 2.5	33	100		**3RV10 21-1CA1 ☐**		–	1 unit	0.372
3.2	1.1	2.2 ... 3.2	42	100		**3RV10 21-1DA1 ☐**		–	1 unit	0.375
4	1.5	2.8 ... 4	52	100		**3RV10 21-1EA1 ☐**		–	1 unit	0.370
5	1.5	3.5 ... 5	65	100		**3RV10 21-1FA1 ☐**		–	1 unit	0.376
6.3	2.2	4.5 ... 6.3	82	100		**3RV10 21-1GA1 ☐**		–	1 unit	0.374
8	3	5.5 ... 8	104	100		**3RV10 21-1HA1 ☐**		–	1 unit	0.374
10	4	7 ... 10	130	100		**3RV10 21-1JA1 ☐**		–	1 unit	0.375
12.5	5.5	9 ... 12.5	163	100		**3RV10 21-1KA1 ☐**		–	1 unit	0.374
16	7.5	11 ... 16	208	50		**3RV10 21-4AA1 ☐**		–	1 unit	0.382
20	7.5	14 ... 20	260	50		**3RV10 21-4BA1 ☐**		–	1 unit	0.376
22	11	17 ... 22	286	50		**3RV10 21-4CA1 ☐**		–	1 unit	0.378
25	11	20 ... 25	325	50		**3RV10 21-4DA1 ☐**		–	1 unit	0.382
Order No. supplement for transverse auxiliary switches										
Without					►	**0**	►	**0**		
1 NO + 1 NC					►	**5**		**5**		

[1] Guide value for 4-pole standard motors at 50 Hz 400 V AC. The actual starting and rated data of the motor to be protected must be considered when selecting the units.

[2] Weights are specified for versions with auxiliary switch.

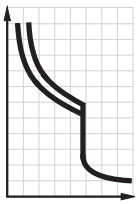
Auxiliary switches can be ordered separately (see "Mountable accessories", page 5/10).

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

For motor protection

Class 10, without auxiliary switches



Rated current I_n A	Suitable for three-phase induction motors[1] with *P* kW	Setting range Thermal overload release A	Instantaneous electronic trip unit $I>$ A	Short-circuit breaking capacity at 400 V AC I_{cu} kA	DT	Screw terminals Order No.	PS*	Weight per PU approx. kg
Size S2								
16	7.5	11 ... 16	208	50	▶	**3RV10 31-4AA10**	1 unit	1.046
20	7.5	14 ... 20	260	50	▶	**3RV10 31-4BA10**	1 unit	1.043
25	11	18 ... 25	325	50	▶	**3RV10 31-4DA10**	1 unit	1.031
32	15	22 ... 32	416	50	▶	**3RV10 31-4EA10**	1 unit	1.028
40	18.5	28 ... 40	520	50	▶	**3RV10 31-4FA10**	1 unit	1.047
45	22	36 ... 45	585	50	▶	**3RV10 31-4GA10**	1 unit	1.039
50	22	40 ... 50	650	50	▶	**3RV10 31-4HA10**	1 unit	1.027
Size S3								
40	18.5	28 ... 40	520	50	▶	**3RV10 41-4FA10**	1 unit	2.219
50	22	36 ... 50	650	50	▶	**3RV10 41-4HA10**	1 unit	2.240
63	30	45 ... 63	819	50	▶	**3RV10 41-4JA10**	1 unit	2.247
75	37	57 ... 75	975	50	▶	**3RV10 41-4KA10**	1 unit	2.253
90	45	70 ... 90	1170	50	▶	**3RV10 41-4LA10**	1 unit	2.280
100	45	80 ... 100	1235	50	▶	**3RV10 41-4MA10**	1 unit	2.295
Size S3, with increased switching capacity								
16	7.5	11 ... 16	208	100	▶	**3RV10 42-4AA10**	1 unit	2.174
20	7.5	14 ... 20	260	100	▶	**3RV10 42-4BA10**	1 unit	2.185
25	11	18 ... 25	325	100	▶	**3RV10 42-4DA10**	1 unit	2.211
32	15	22 ... 32	416	100	▶	**3RV10 42-4EA10**	1 unit	2.222
40	18.5	28 ... 40	520	100	▶	**3RV10 42-4FA10**	1 unit	2.203
50	22	36 ... 50	650	100	▶	**3RV10 42-4HA10**	1 unit	2.230
63	30	45 ... 63	819	100	▶	**3RV10 42-4JA10**	1 unit	2.255
75	37	57 ... 75	975	100	▶	**3RV10 42-4KA10**	1 unit	2.266
90	45	70 ... 90	1170	100	▶	**3RV10 42-4LA10**	1 unit	2.268
100	45	80 ... 100	1235	100	▶	**3RV10 42-4MA10**	1 unit	2.275

Class 20, without auxiliary switches

Size S2								
16	7.5	11 ... 16	208	50		**3RV10 31-4AB10**	1 unit	1.067
20	7.5	14 ... 20	260	50		**3RV10 31-4BB10**	1 unit	1.071
25	11	18 ... 25	325	50		**3RV10 31-4DB10**	1 unit	1.054
32	15	22 ... 32	416	50		**3RV10 31-4EB10**	1 unit	1.067
40	18.5	28 ... 40	520	50		**3RV10 31-4FB10**	1 unit	1.076
45	22	36 ... 45	585	50		**3RV10 31-4GB10**	1 unit	1.073
50	22	40 ... 50	650	50		**3RV10 31-4HB10**	1 unit	1.071
Size S3, with increased switching capacity								
40	18.5	28 ... 40	520	100		**3RV10 42-4FB10**	1 unit	2.222
50	22	36 ... 50	650	100		**3RV10 42-4HB10**	1 unit	2.265
63	30	45 ... 63	819	100		**3RV10 42-4JB10**	1 unit	2.278
75	37	57 ... 75	975	100		**3RV10 42-4KB10**	1 unit	2.268
90	45	70 ... 90	1170	100		**3RV10 42-4LB10**	1 unit	2.313
100	45	80 ... 100	1235	100		**3RV10 42-4MB10**	1 unit	2.322

[1] Guide value for 4-pole standard motors at 50 Hz 400 V AC. The actual starting and rated data of the motor to be protected must be considered when selecting the units.

Auxiliary switches can be ordered separately (see "Mountable accessories", page 5/10).

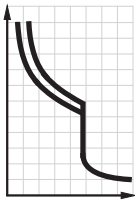
For multi-unit packing and reusable packaging, see "Appendix" --> "Ordering notes".

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

CLASS 10, with overload relay function (automatic reset), without auxiliary switches



Rated current I_n A	Suitable for three-phase induction motors[1] with *P* kW	Setting range Thermal overload release A	Instantaneous electronic trip unit $I>$ A	Short-circuit breaking capacity at 400 V AC I_{cu} kA	DT	**Screw terminals** Order No.	PS*	Weight per PU approx. kg
Size S0[2]								
0.16	0.04	0.11 ... 0.16	2.1	100		**3RV11 21-0AA10**	1 unit	0.354
0.2	0.06	0.14 ... 0.2	2.6	100		**3RV11 21-0BA10**	1 unit	0.358
0.25	0.06	0.18 ... 0.25	3.3	100		**3RV11 21-0CA10**	1 unit	0.352
0.32	0.09	0.22 ... 0.32	4.2	100		**3RV11 21-0DA10**	1 unit	0.352
0.4	0.09	0.28 ... 0.4	5.2	100		**3RV11 21-0EA10**	1 unit	0.355
0.5	0.12	0.35 ... 0.5	6.5	100		**3RV11 21-0FA10**	1 unit	0.356
0.63	0.18	0.45 ... 0.63	8.2	100		**3RV11 21-0GA10**	1 unit	0.358
0.8	0.18	0.55 ... 0.8	10	100		**3RV11 21-0HA10**	1 unit	0.421
1	0.25	0.7 ... 1	13	100		**3RV11 21-0JA10**	1 unit	0.416
1.25	0.37	0.9 ... 1.25	16	100		**3RV11 21-0KA10**	1 unit	0.426
1.6	0.55	1.1 ... 1.6	21	100		**3RV11 21-1AA10**	1 unit	0.422
2	0.75	1.4 ... 2	26	100		**3RV11 21-1BA10**	1 unit	0.427
2.5	0.75	1.8 ... 2.5	33	100		**3RV11 21-1CA10**	1 unit	0.422
3.2	1.1	2.2 ... 3.2	42	100		**3RV11 21-1DA10**	1 unit	0.428
4	1.5	2.8 ... 4	52	100		**3RV11 21-1EA10**	1 unit	0.420
5	1.5	3.5 ... 5	65	100		**3RV11 21-1FA10**	1 unit	0.429
6.3	2.2	4.5 ... 6.3	82	100		**3RV11 21-1GA10**	1 unit	0.426
8	3	5.5 ... 8	104	100		**3RV11 21-1HA10**	1 unit	0.425
10	4	7 ... 10	130	100		**3RV11 21-1JA10**	1 unit	0.428
12.5	5.5	9 ... 12.5	163	100		**3RV11 21-1KA10**	1 unit	0.426
16	7.5	11 ... 16	208	50		**3RV11 21-4AA10**	1 unit	0.436
20	7.5	14 ... 20	260	50		**3RV11 21-4BA10**	1 unit	0.430
22	11	17 ... 22	286	50		**3RV11 21-4CA10**	1 unit	0.427
25	11	20 ... 25	325	50		**3RV11 21-4DA10**	1 unit	0.432
Size S2[2]								
16	7.5	11 ... 16	208	50		**3RV11 31-4AA10**	1 unit	1.123
20	7.5	14 ... 20	260	50		**3RV11 31-4BA10**	1 unit	1.109
25	11	18 ... 25	325	50		**3RV11 31-4DA10**	1 unit	1.114
32	15	22 ... 32	416	50		**3RV11 31-4EA10**	1 unit	1.111
40	18.5	28 ... 40	520	50		**3RV11 31-4FA10**	1 unit	1.123
45	22	36 ... 45	585	50		**3RV11 31-4GA10**	1 unit	1.101
50	22	40 ... 50	650	50		**3RV11 31-4HA10**	1 unit	1.106
Size S3[2], with increased switching capacity								
16	7.5	11 ... 16	208	100		**3RV11 42-4AA10**	1 unit	2.247
20	7.5	14 ... 20	260	100		**3RV11 42-4BA10**	1 unit	2.255
25	11	18 ... 25	325	100		**3RV11 42-4DA10**	1 unit	2.284
32	15	22 ... 32	416	100		**3RV11 42-4EA10**	1 unit	2.295
40	18.5	28 ... 40	520	100		**3RV11 42-4FA10**	1 unit	2.288
50	22	36 ... 50	650	100		**3RV11 42-4HA10**	1 unit	2.320
63	30	45 ... 63	819	100		**3RV11 42-4JA10**	1 unit	2.333
75	37	57 ... 75	975	100		**3RV11 42-4KA10**	1 unit	2.368
90	45	70 ... 90	1170	100		**3RV11 42-4LA10**	1 unit	2.353
100	45	80 ... 100	1235	100		**3RV11 42-4MA10**	1 unit	2.346

[1] Guide value for 4-pole standard motors at 50 Hz 400 V AC. The actual starting and rated data of the motor to be protected must be considered when selecting the units.

[2] Accessories for mounting on the right (for series S0 to S3) and 3RV19 15 3-phase busbars (for size S0) cannot be used.

Auxiliary switches can be ordered separately (see "Mountable accessories", page 5/10).

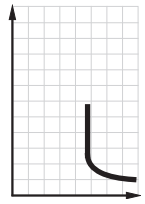
*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

For starter combinations

Selection and ordering data

Without auxiliary switches



Rated current I_n A	Suitable for three-phase induction motors[1] with *P* kW	Thermal overload release[2] A	Instantaneous electronic trip unit $I>$ A	Short-circuit breaking capacity at 400 V AC I_{cu} kA	DT	Screw terminals Order No.	PS*	Weight per PU approx. kg
Size S0								
0.16	0.04	None	2.1	100		**3RV13 21-0AC10**	1 unit	0.282
0.2	0.06	None	2.6	100		**3RV13 21-0BC10**	1 unit	0.284
0.25	0.06	None	3.3	100		**3RV13 21-0CC10**	1 unit	0.285
0.32	0.09	None	4.2	100		**3RV13 21-0DC10**	1 unit	0.282
0.4	0.09	None	5.2	100		**3RV13 21-0EC10**	1 unit	0.286
0.5	0.12	None	6.5	100		**3RV13 21-0FC10**	1 unit	0.283
0.63	0.18	None	8.2	100		**3RV13 21-0GC10**	1 unit	0.348
0.8	0.18	None	10	100		**3RV13 21-0HC10**	1 unit	0.283
1	0.25	None	13	100		**3RV13 21-0JC10**	1 unit	0.345
1.25	0.37	None	16	100		**3RV13 21-0KC10**	1 unit	0.351
1.6	0.55	None	21	100		**3RV13 21-1AC10**	1 unit	0.352
2	0.75	None	26	100		**3RV13 21-1BC10**	1 unit	0.352
2.5	0.75	None	33	100		**3RV13 21-1CC10**	1 unit	0.352
3.2	1.1	None	42	100		**3RV13 21-1DC10**	1 unit	0.353
4	1.5	None	52	100		**3RV13 21-1EC10**	1 unit	0.349
5	1.5	None	65	100		**3RV13 21-1FC10**	1 unit	0.354
6.3	2.2	None	82	100		**3RV13 21-1GC10**	1 unit	0.355
8	3	None	104	100		**3RV13 21-1HC10**	1 unit	0.354
10	4	None	130	100		**3RV13 21-1JC10**	1 unit	0.357
12.5	5.5	None	163	100		**3RV13 21-1KC10**	1 unit	0.354
16	7.5	None	208	50		**3RV13 21-4AC10**	1 unit	0.362
20	7.5	None	260	50		**3RV13 21-4BC10**	1 unit	0.357
22	11	None	286	50		**3RV13 21-4CC10**	1 unit	0.358
25	11	None	325	50		**3RV13 21-4DC10**	1 unit	0.359
Size S2								
16	7.5	None	208	50		**3RV13 31-4AC10**	1 unit	1.038
20	7.5	None	260	50		**3RV13 31-4BC10**	1 unit	1.037
25	11	None	325	50		**3RV13 31-4DC10**	1 unit	1.014
32	15	None	416	50		**3RV13 31-4EC10**	1 unit	1.018
40	18.5	None	520	50		**3RV13 31-4FC10**	1 unit	1.033
45	22	None	585	50		**3RV13 31-4GC10**	1 unit	1.040
50	22	None	650	50		**3RV13 31-4HC10**	1 unit	1.019
Size S3								
40	18.5	None	520	50		**3RV13 41-4FC10**	1 unit	2.197
50	22	None	650	50		**3RV13 41-4HC10**	1 unit	2.227
63	30	None	819	50		**3RV13 41-4JC10**	1 unit	2.244
75	37	None	975	50		**3RV13 41-4KC10**	1 unit	2.247
90	45	None	1170	50		**3RV13 41-4LC10**	1 unit	2.269
100	45	None	1235	50		**3RV13 41-4MC10**	1 unit	2.292
Size S3, with increased switching capacity								
16	7.5	None	208	100		**3RV13 42-4AC10**	1 unit	2.175
20	7.5	None	260	100		**3RV13 42-4BC10**	1 unit	2.188
25	11	None	325	100		**3RV13 42-4DC10**	1 unit	2.219
32	15	None	416	100		**3RV13 42-4EC10**	1 unit	2.208
40	18.5	None	520	100		**3RV13 42-4FC10**	1 unit	2.218
50	22	None	650	100		**3RV13 42-4HC10**	1 unit	2.218
63	30	None	819	100		**3RV13 42-4JC10**	1 unit	2.248
75	37	None	975	100		**3RV13 42-4KC10**	1 unit	2.278
90	45	None	1170	100		**3RV13 42-4LC10**	1 unit	2.266
100	45	None	1235	100		**3RV13 42-4MC10**	1 unit	2.293

[1] Guide value for 4-pole standard motors at 50 Hz 400 V AC. The actual starting and rated data of the motor to be protected must be considered when selecting the units.

[2] For overload protection of the motors, appropriate overload relays must be used.

Auxiliary switches can be ordered separately (see "Mountable accessories", page 5/10).

For multi-unit packing and reusable packaging, see "Appendix" --> "Ordering notes".

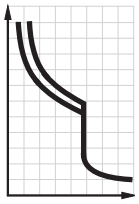
*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

For transformer protection, CLASS 10, without auxiliary switches

Motor starter protectors for the protection of transformers with high inrush current

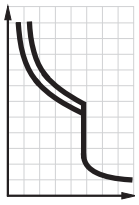


Rated current I_n A	Setting range Thermal overload release A	Instantaneous electronic trip unit $I>$ A	Short-circuit breaking capacity at 400 V AC I_{cu} kA	DT	**Screw terminals** Order No.	PS*	Weight per PU approx. kg
Size S0							
0.16	0.11 ... 0.16	3.3	100	▶	**3RV14 21-0AA10**	1 unit	0.286
0.2	0.14 ... 0.2	4.2	100	▶	**3RV14 21-0BA10**	1 unit	0.287
0.25	0.18 ... 0.25	5.2	100	▶	**3RV14 21-0CA10**	1 unit	0.286
0.32	0.22 ... 0.32	6.5	100	▶	**3RV14 21-0DA10**	1 unit	0.288
0.4	0.28 ... 0.4	8.2	100	▶	**3RV14 21-0EA10**	1 unit	0.287
0.5	0.35 ... 0.5	10	100	▶	**3RV14 21-0FA10**	1 unit	0.286
0.63	0.45 ... 0.63	13	100	▶	**3RV14 21-0GA10**	1 unit	0.290
0.8	0.55 ... 0.8	16	100	▶	**3RV14 21-0HA10**	1 unit	0.290
1	0.7 ... 1	21	100	▶	**3RV14 21-0JA10**	1 unit	0.353
1.25	0.9 ... 1.25	26	100	▶	**3RV14 21-0KA10**	1 unit	0.354
1.6	1.1 ... 1.6	33	100	▶	**3RV14 21-1AA10**	1 unit	0.353
2	1.4 ... 2	42	100	▶	**3RV14 21-1BA10**	1 unit	0.358
2.5	1.8 ... 2.5	52	100	▶	**3RV14 21-1CA10**	1 unit	0.354
3.2	2.2 ... 3.2	65	100	▶	**3RV14 21-1DA10**	1 unit	0.358
4	2.8 ... 4	82	100	▶	**3RV14 21-1EA10**	1 unit	0.354
5	3.5 ... 5	104	100	▶	**3RV14 21-1FA10**	1 unit	0.357
6.3	4.5 ... 6.3	130	100	▶	**3RV14 21-1GA10**	1 unit	0.356
8	5.5 ... 8	163	100	▶	**3RV14 21-1HA10**	1 unit	0.358
10	7 ... 10	208	100	▶	**3RV14 21-1JA10**	1 unit	0.362
12.5	9 ... 12.5	260	100	▶	**3RV14 21-1KA10**	1 unit	0.360
16	11 ... 16	286	50	▶	**3RV14 21-4AA10**	1 unit	0.365
20	14 ... 20	325	50	▶	**3RV14 21-4BA10**	1 unit	0.365
Size S2							
16	11 ... 16	325	50	▶	**3RV14 31-4AA10**	1 unit	1.029
20	14 ... 20	416	50	▶	**3RV14 31-4BA10**	1 unit	1.034
25	18 ... 25	520	50	▶	**3RV14 31-4DA10**	1 unit	1.038
32	22 ... 32	660	50	▶	**3RV14 31-4EA10**	1 unit	1.029
40	28 ... 40	836	50	▶	**3RV14 31-4FA10**	1 unit	1.039

Auxiliary switches can be ordered separately (see "Mountable accessories", page 5/10).

For multi-unit packing and reusable packaging, see "Appendix" --> "Ordering notes".

For fuse monitoring, without auxiliary switches



Rated current I_n A	Thermal overload release A	Instantaneous electronic trip unit $I>$ A	Short-circuit breaking capacity at 400 V AC I_{cu} kA	DT	**Screw terminals** Order No.	PS*	Weight per PU approx. kg
Size S00							
0.2	0.2	1.2	100	▶	**3RV16 11-0BD10**	1 unit	0.289

Note:
The auxiliary switch required for signaling (1 NO + 1 NC, transverse or lateral) must be ordered separately (see "Mountable Accessories", page 5/10).

For multi-unit packing and reusable packaging, see "Appendix" --> "Ordering notes".

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Mountable accessories

Selection and ordering data

	Type	Version	For motor starter protectors Size	DT	Screw terminals / Cage Clamp terminals Order No.	PS*	Weight per PU approx. kg
Auxiliary switches[1]							
3RV19 01-1E	**Transverse auxiliary switches** for front mounting	1 CO	S00, S0, S2, S3	▶	**3RV19 01-1D**	1 unit	0.015
		1 NO + 1 NC		▶	**3RV19 01-1E**	1 unit	0.018
		2 NO[2]		▶	**3RV19 01-1F**	1 unit	0.018
	• Solid-state compatible for front mounting[3]	1 CO	S00, S0, S2, S3		**3RV19 01-1G**	1 unit	0.016
3RV19 01-1A 3RV19 01-1J	**Lateral auxiliary switches** Mountable on left	1 NO + 1 NC	S00, S0, S2, S3	▶	**3RV19 01-1A**	1 unit	0.045
		2 NO		▶	**3RV19 01-1B**	1 unit	0.045
		2 NC		▶	**3RV19 01-1C**	1 unit	0.045
		2 NO + 2 NC			**3RV19 01-1J**	1 unit	0.083
	Covers	For transverse auxiliary switches	S00, S0, S2, S3	▶	**3RV19 01-0H**	10 units	0.006
Auxiliary switches[1]							
3RV19 01-2E	**Transverse auxiliary switches** for front mounting	1 NO + 1 NC	S00, S0, S2, S3	▶	**3RV19 01-2E**	1 unit	0.017
		2 NO		▶	**3RV19 01-2F**	1 unit	0.018
3RV19 01-2.	**Lateral auxiliary switches** mountable on left	1 NO + 1 NC	S00, S0, S2, S3	▶	**3RV19 01-2A**	1 unit	0.040
		2 NO		▶	**3RV19 01-2B**	1 unit	0.040
		2 NC		▶	**3RV19 01-2C**	1 unit	0.040
Signal switches[4] and isolator modules							
3RV19 21-1M	**Signal switches**	Separate tripped and short-circuit alarms, 1 NO + 1 NC each	S0, S2, S3	▶	**3RV19 21-1M**	1 unit	0.094
	Isolator modules	Visible isolating distance for isolating individual motor starter protectors from the network, lockable in disconnected position	S0	▶	**3RV19 28-1A**	1 unit	0.157
			S2	▶	**3RV19 38-1A**	1 unit	0.324
Auxiliary trip units[5]							
3RV19 02-1DP0	**Undervoltage trip units**	**DC**					
		24 V	S00, S0, S2, S3		**3RV19 02-1AB4**	1 unit	0.138
		AC 50 Hz / **AC 60 Hz**					
		110 V / 120 V	S00, S0, S2, S3		**3RV19 02-1AF0**	1 unit	0.134
		230 V / 240 V		▶	**3RV19 02-1AP0**	1 unit	0.131
		400 V / 440 V		▶	**3RV19 02-1AV0**	1 unit	0.127
3RV19 12-1CP0	**Undervoltage trip units with leading auxiliary contacts 2 NO**	230 V / 240 V	S00		**3RV19 12-1CP0**	1 unit	0.140
		400 V / –			**3RV19 12-1CV0**	1 unit	0.137
		230 V / 240 V	S0, S2, S3		**3RV19 22-1CP0**	1 unit	0.139
		400 V / –			**3RV19 22-1CV0**	1 unit	0.136
	Shunt trip units	**AC 50/60 Hz 100 % ON period[6]** / **AC 50/60 Hz; DC 5 s ON period[7]**					
		20 ... 24 V / 20 ... 70 V	S00, S0, S2, S3	▶	**3RV19 02-1DB0**	1 unit	0.133
		90 ... 110 V / 70 ... 190 V			**3RV19 02-1DF0**	1 unit	0.135
		200 ... 240 V / 190 ... 330 V		▶	**3RV19 02-1DP0**	1 unit	0.130
		350 ... 415 V / 330 ... 500 V			**3RV19 02-1DV0**	1 unit	0.129

1) Each motor starter protector can be fitted with one transverse and one lateral auxiliary switch. The lateral auxiliary switch with 2 NO + 2 NC is used without a transverse auxiliary switch.

2) Compatible with the following motor starter protectors:
3RV1. 1 (size S00) as of product version E01
3RV1. 2 (size S0) as of product version E04
3RV1. 3 (size S2) as of product version E04
3RV1. 4 (size S3) as of product version E04

3) For operation in dusty atmosphere and in solid-state circuits with low operating currents.

4) One signal switch can be mounted to the left of each motor starter protector.

5) One auxiliary trip unit can be mounted to the right of each motor starter protector.

6) The voltage range is valid for 100 % ON period at AC 50 Hz/60 Hz. The response voltage is at 0.9 the lower limit of the voltage range.

7) The voltage range is valid for 5 s ON period at AC 50 Hz/60 Hz and DC. The response voltage is at 0.85 the lower limit of the voltage range.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

3-phase busbars

For feeding several motor starter protectors with screw terminals, mounted side-by-side on standard mounting rails, insulated, with touch protection.

	Modular spacing	Number of motor starter protectors that can be connected: Without lateral accessories	With lateral auxiliary switch	With auxiliary trip unit	Rated current I_n at 690 V	For motor starter protectors	DT	Order No.	PS*	Weight per PU approx.
	mm				A	Size				kg
3RV19 15-1AB	45	2	--	--	63	S00, S0[1]	▶	**3RV19 15-1AB**	1 unit	0.044
		3					▶	**3RV19 15-1BB**	1 unit	0.071
		4					▶	**3RV19 15-1CB**	1 unit	0.099
		5					▶	**3RV19 15-1DB**	1 unit	0.124
3RV19 15-1BB	55	--	2	--	63	S00, S0[1]	▶	**3RV19 15-2AB**	1 unit	0.048
			3				▶	**3RV19 15-2BB**	1 unit	0.079
			4				▶	**3RV19 15-2CB**	1 unit	0.111
			5				▶	**3RV19 15-2DB**	1 unit	0.140
3RV19 15-1CB	63	--	--	2	63	S00, S0[1]	▶	**3RV19 15-3AB**	1 unit	0.052
				4			▶	**3RV19 15-3CB**	1 unit	0.120
	55	2	--	--	108	S2	▶	**3RV19 35-1A**	1 unit	0.140
		3					▶	**3RV19 35-1B**	1 unit	0.214
		4					▶	**3RV19 35-1C**	1 unit	0.295
3RV19 15-1DB	75	--	2	2	108	S2[2]		**3RV19 35-3A**	1 unit	0.161
			3	3				**3RV19 35-3B**	1 unit	0.262
			4	4				**3RV19 35-3C**	1 unit	0.369

[1] Not suitable for 3RV11 motor starter protectors with overload relay function. Common clamping of S00 and S0 motor starter protectors is not possible, due to the different modular spacings and terminal heights. The 3RV19 15-DB connector is available for connecting busbars from size S0 to size S00.

[2] Auxiliary trip units and lateral auxiliary switches cannot be used in combination.

Connecting pieces for 3-phase busbars

	Version	Modular spacing	For motor starter protectors	DT	Order No.	PS*	Weight per PU approx.
		mm	Size				kg
3RV19 15-5DB	For connecting 3-phase busbars for motor starter protectors of size S0 (left) to size S00 (right)	45	S00, S0	▶	**3RV19 15-5DB**	1 unit	0.042

Covers for connection tags

3RV19 15-6AB	Touch protection for empty positions	--	S00, S0	▶	**3RV19 15-6AB**	10 units	0.003
		--	S2	▶	**3RV19 35-6A**	5 units	0.006

3-phase feeder terminals

	Conductor cross-section: Solid or stranded	Finely stranded with end sleeve	AWG cables, solid or stranded	For motor starter protectors	DT	Order No.	PS*	Weight per PU approx.
	mm²	mm²	AWG	Size				kg
	Connection from top							
3RV19 25-5AB	2.5 ... 25	4 ... 16	12-4	S00	▶	**3RV19 15-5A**	1 unit	0.043
				S0	▶	**3RV19 25-5AB**	1 unit	0.041
	Connection from below[1]							
	2.5 ... 25	4 ... 16	12-4	S00, S0	▶	**3RV19 15-5B**	1 unit	0.110
3RV19 15-5B	**Connection from top**							
	2.5 ... 50	1.5 ... 35	14-0	S2	▶	**3RV19 35-5A**	1 unit	0.110

3-phase feeder terminals for constructing "Type E Starters"

Connection from top							
2.5 ... 25	4 ... 16	10-4	S0		**3RV19 25-5EB**	1 unit	0.055
10 ... 50	--	8-0	S2		**3RV19 35-5E**	1 unit	0.100

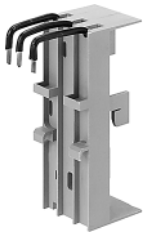
[1] This terminal is connected in place of a switch, please take the space requirement into account.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Busbar accessories

Busbar adapters



8US10 61-5DJ07

8US12 51-5MD07

For motor starter protectors Size	Rated current	Connecting cable	Adapter length	Adapter width	Rated voltage	DT	Order No.	PS*	Weight per PU approx.
	A	AWG	mm	mm	V				kg
Busbar adapters for 40 mm systems									
For flat copper profiles according to DIN 46433 Width: 12 and 15 mm Thickness: 5 and 10 mm									
S00, S0	25	12	121	45	690	▶	**8US10 51-5DJ07**	1 unit	0.106
S00, S0 + lateral auxiliary switch	25	12	121	55	690	▶	**8US10 61-5DJ07**	1 unit	0.119
S2	56	8	139	55	690	▶	**8US10 61-5FK08**	1 unit	0.231
S3	100	4	182	70	400[1]	▶	**8US11 11-4SM00**	1 unit	0.541
S3	100	4	182	72	415 ... 690[2]	▶	**8US10 11-4TM00**	1 unit	0.478
Busbar adapters for 60 mm systems									
For flat copper profiles according to DIN 46433 Width: 12 and 30 mm Thickness: 5 and 10 mm also for T and double-T special profiles									
S00, S0	25	12	182	45	690	▶	**8US12 51-5DM07**	1 unit	0.183
S2	56	8		55	690	▶	**8US12 61-5FM08**	1 unit	0.263
S3	100	4		70	400[1]	▶	**8US11 11-4SM00**	1 unit	0.541
S3	100	4		72	415 ... 690[2]		**8US12 11-4TM00**	1 unit	0.498

[1] Up to 460 V AC with max. short-circuit breaking capacity 25 kA.

[2] Short-circuit breaking capacity 415/500/525 V AC:
- up to I_n = 25 A: max. 30 kA
- up to I_n = 90 A: max. 16 kA
- up to I_n = 100 A: max. 6 kA;

Short-circuit breaking capacity 690 V AC:
- max. 12 kA.

For additional busbar adapters see "SIVACON Power Distribution Boards, Busway and Cubicle Systems" --> "Components for 8US, 8UC, 4NC Distribution Systems: 8US Busbar Systems".

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

Door-coupling rotary operating mechanisms

3RV19 26-0B

The door-coupling rotary operating mechanisms consist of a knob, a coupling driver and an extension shaft of 130/133 mm in length (5 x 5 mm). The door-coupling rotary operating mechanisms are designed to degree of protection IP65. The door interlocking prevents accidental opening of the control cabinet door in the ON position of the motor starter protector. The OFF position can be locked with up to 3 padlocks.

Type	Version	For motor starter protectors Size	DT	Order No.	PS*	Weight per PU approx. kg
Door-coupling rotary operating mechanisms, black	Extension shaft 130 mm	S0, S2, S3	▶	**3RV19 26-0B**	1 unit	0.111
	Extension shaft 330 mm		▶	**3RV19 26-0K**	1 unit	0.324
EMERGENCY-STOP door-coupling rotary operating mechanisms, red/yellow	Extension shaft 130 mm	S0, S2, S3	▶	**3RV19 26-0C**	1 unit	0.110
	Extension shaft 330 mm l		▶	**3RV19 26-0L**	1 unit	0.316

Terminals for "Self-Protected Combination Motor Controllers (Type E)" according to UL 508

3RV19 28-1H

3RT19 46-4GA07

Note: UL 508 demands for "Combination Motor Controller Type E" 1-inch clearance and 2-inch creepage distance at line side.
The following terminal blocks must be used in 3RV10 motor starter protectors of sizes S0 and S3. The 3RV10 motor starter protector in size S2 conforms with the required clearance and creepage distances without a terminal block.
Terminal blocks are not required for use according to CSA. With size S0, these terminal blocks cannot be used in combination with 3RV19.5 3-phase busbars and with size S3, they cannot be used with a transverse auxiliary switch.

Terminal blocks type E	For extended clearance and creepage distances (1 and 2 inch)	S0	▶	**3RV19 28-1H**	1 unit	0.083
		S3		**3RT19 46-4GA07**	1 unit	0.155

Auxiliary terminals

3RT19 46-4F

Auxiliary terminals, 3-pole	For connection of auxiliary and control cables to the main conductor connections (for one side)	S3		**3RT19 46-4F**	1 unit	0.033

Link modules

3RA19 11-1A

3RA19 31-1A

Electrical and mechanical connection between motor starter protector and contactor, both with screw terminals

Version	Method of operation	Size: Contactor	Size: Motor starter protectors	DT	Screw terminals Order No.	PS*	Weight per PU approx. kg
• Single-unit packaging	AC/DC	S00	S00	▶	**3RA19 11-1AA00**	1 unit	0.027
		S00	S0	▶	**3RA19 21-1DA00**	1 unit	0.028
	AC	S0	S0	▶	**3RA19 21-1AA00**	1 unit	0.037
		S2	S2	▶	**3RA19 31-1AA00**	1 unit	0.042
		S3	S3	▶	**3RA19 41-1AA00**	1 unit	0.090
	DC	S0	S0	▶	**3RA19 21-1BA00**	1 unit	0.039
		S2	S2	▶	**3RA19 31-1BA00**	1 unit	0.043
		S3	S3	▶	**3RA19 41-1BA00**	1 unit	0.089
• Multi-unit packaging	AC/DC	S00	S00	▶	**3RA19 11-1A**	10 units	0.019
		S00	S0	▶	**3RA19 21-1D**	10 units	0.021
	AC	S0	S0	▶	**3RA19 21-1A**	10 units	0.028
		S2	S2	▶	**3RA19 31-1A**	5 units	0.033
		S3	S3	▶	**3RA19 41-1A**	5 units	0.072
	DC	S0	S0	▶	**3RA19 21-1B**	10 units	0.030
		S2	S2	▶	**3RA19 31-1B**	5 units	0.034
		S3	S3	▶	**3RA19 41-1B**	5 units	0.073

Hybrid link modules

3RA19 11-2FA00

Electrical and mechanical connection between motor starter protector with screw terminals and contactor with Cage Clamp terminals

Version	Method of operation	Size: Contactor	Size: Motor starter protectors	DT	Order No.	PS*	Weight per PU approx. kg
• Single-unit packaging	AC/DC	S00	S00	▶	**3RA19 11-2FA00**	1 unit	0.038
	AC/DC	S00	S0	▶	**3RA19 21-2FA00**	1 unit	0.028
• Multi-unit packaging	AC/DC	S00	S00	▶	**3RA19 11-2F**	10 units	0.031
	AC/DC	S00	S0	▶	**3RA19 21-2F**	10 units	0.030

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Enclosures and front plates

Selection and ordering data

	Type	Degree of protection	Integrated terminals	Overall width	For motor starter protectors Size	DT	Order No.	PS*	Weight per PU approx. kg
Molded-plastic enclosures for surface mounting									
3RV19 13-1DA00	**With actuator diaphragm**	IP55	N and PE/ground	54 mm (for switch + lateral auxiliary switch)	S00	►	**3RV19 13-1CA00**	1 unit	0.296
				72 mm (for switch + lateral auxiliary switch + auxiliary trip unit)		►	**3RV19 13-1DA00**	1 unit	0.342
3RV19 23-1CA00	**With rotary operating mechanism**, lockable in 0 position	IP55	N and PE/ground	54 mm (for switch + lateral auxiliary switch)	S0	►	**3RV19 23-1CA00**	1 unit	0.332
				72 mm (for switch + lateral auxiliary switch + auxiliary trip unit)		►	**3RV19 23-1DA00**	1 unit	0.381
				82 mm (for switch + lateral auxiliary switch + auxiliary trip unit)	S2		**3RV19 33-1DA00**	1 unit	1.134
	With EMERGENCY-STOP rotary operating mechanism, lockable in 0 position	IP55	N and PE/ground	54 mm (for switch + lateral auxiliary switch)	S0	►	**3RV19 23-1FA00**	1 unit	0.329
				72 mm (for switch + lateral auxiliary switch + auxiliary trip unit)		►	**3RV19 23-1GA00**	1 unit	0.372
				82 mm (for switch + lateral auxiliary switch + auxiliary trip unit)	S2		**3RV19 33-1GA00**	1 unit	1.136
Cast aluminum enclosures for surface mounting									
3RV19 23-1DA01	**With rotary operating mechanism**, lockable in 0 position	IP65	PE[1)]	72 mm (for switch + lateral auxiliary switch + auxiliary trip unit)	S0	►	**3RV19 23-1DA01**	1 unit	1.015
	With EMERGENCY-STOP rotary operating mechanism, lockable in 0 position	IP65	PE[1)]	72 mm (for switch + lateral auxiliary switch + auxiliary trip unit)	S0		**3RV19 23-1GA01**	1 unit	1.008
Molded-plastic enclosures for flush mounting									
3RV19 13-2DA00	**With actuator diaphragm**	IP55 (front side)	N and PE/ground	72 mm (for switch + lateral auxiliary switch + auxiliary trip unit)	S00		**3RV19 13-2DA00**	1 unit	0.416
3RV19 23-2DA00	**With rotary operating mechanism**, lockable in 0 position	IP55 (front side)	N and PE/ground	72 mm (for switch + lateral auxiliary switch + auxiliary trip unit)	S0		**3RV19 23-2DA00**	1 unit	0.426
	With EMERGENCY-STOP rotary operating mechanism, lockable in 0 position	IP55 (front side)	N and PE/ground	72 mm (for switch + lateral auxiliary switch + auxiliary trip unit)	S0		**3RV19 23-2GA00**	1 unit	0.417

1) If required, an additional N terminal can be mounted (e.g. 8WA1 011-1BG11).

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Front plates

3RV19 13-4C

3RV19 23-4B + 3RV19 23-4G

Type	Degree of protection	Version	For motor starter protectors Size	DT	Order No.	PS*	Weight per PU approx. kg
Molded-plastic front plates with actuator diaphragm	IP55 (front side)	For actuating 3RV1 motor starter protectors in any enclosures, includes holder for motor starter protector.	S00		**3RV19 13-4C**	1 unit	0.216
Molded-plastic front plates with rotary operating mechanism, lockable in 0 position	IP55 (front side)	For actuation of 3RV1 motor starter protectors in any enclosure.	S0, S2, S3	►	**3RV19 23-4B**	1 unit	0.124
Molded-plastic front plates with EMERGENCY-STOP rotary operating mechanism, red/yellow, lockable in 0 position	IP55 (front side)	EMERGENCY-STOP actuation of 3RV1 motor starter protectors in any enclosure.	S0, S2, S3		**3RV19 23-4E**	1 unit	0.124
Holders for front plate For motor starter protector size S0	--	Holder is mounted on front plate, motor starter protector with and without accessories is snapped in.	S0	►	**3RV19 23-4G**	1 unit	0.188

Accessories for enclosures

Molded-plastic enclosure for surface mounting with 3RV19 13-7D

Type	Degree of protection	Version	For motor starter protectors Size	DT	Order No.	PS*	Weight per PU approx. kg
EMERGENCY-STOP mushroom buttons red/yellow For 3RV19 13-... enclosures and front plates, cannot be used in combination with locking device	IP55	Latching mushroom button, unlatch by turning	S00	►	**3RV19 13-7D**	1 unit	0.108
EMERGENCY-STOP mushroom buttons red/yellow with safety lock For 3RV19 13-... enclosures and front plates, cannot be used in combination with locking device	IP55	Latching mushroom button, unlatch with key, RONIS safety lock, lock number SB 30, supplied with 2 keys.	S00		**3RV19 13-7E**	1 unit	0.144
Locking devices For 3RV19 13-... enclosures and front plates, cannot be used in combination with EMERGENCY-STOP mushroom button	IP55	For 3 padlocks with max. 8 mm shackle diameter.	S00	►	**3RV19 13-6B**	1 unit	0.074
Spare actuator diaphragms	IP55	Diaphragm, includes holder and screws	S00		**3RV19 13-7F**	1 unit	0.023

Indicator lights

3RV19 03-5B

Type	Version	Rated control supply voltage U_s V	For motor starter protectors Size	DT	Order No.	PS*	Weight per PU approx. kg
Indicator lights For all enclosures and front plates	With glow lamp and colored lenses red, green, yellow, orange and clear	110 ... 120	S00, S0, S2		**3RV19 03-5B**	1 unit	0.027
		220 ... 240			**3RV19 03-5C**	1 unit	0.026
		380 ... 415			**3RV19 03-5E**	1 unit	0.026
		480 ... 500			**3RV19 03-5G**	1 unit	0.027

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

3RB2 solid-state overload relays with screw terminals or spring-loaded terminals on auxiliary current side for direct mounting[1)2)] and stand-alone installation[2)3)], Class 10

Features and technical specifications:

- Overload protection, phase failure protection and unbalance protection
- Internal power supply
- Auxiliary contacts 1 NO + 1 NC
- Manual and automatic RESET
- Switch position indicator
- TEST function and self-monitoring

	Size contactor[4)]	Rating for induction motor rated value[5)]	Set current value of the inverse-time delayed overload release	Short-circuit protection with fuse[6)]	DT	**Screw terminals** (on auxiliary current side)	DT	**Spring-loaded terminals** (on auxiliary current side)	PS*	Weight per PU approx.
		kW	A			Order No.		Order No.		kg
Size S00[1)]										
3RB20 16-1RB0	S00	0.04 … 0.09	0.1 … 0.4	1	▶	**3RB20 16-1RB0**		**3RB20 16-1RD0**	1 unit	0.200
		0.12 … 0.37	0.32 … 1.25	2	▶	**3RB20 16-1NB0**		**3RB20 16-1ND0**	1 unit	0.200
		0.55 … 1.5	1 … 4	10	▶	**3RB20 16-1PB0**		**3RB20 16-1PD0**	1 unit	0.200
		1.1 … 5.5	3 … 12	20	▶	**3RB20 16-1SB0**		**3RB20 16-1SD0**	1 unit	0.200
Size S0[1)]										
3RB20 16-1RB0	S0	0.04 … 0.09	0.1 … 0.4	1	▶	**3RB20 26-1RB0**		**3RB20 26-1RD0**	1 unit	0.220
		0.12 … 0.37	0.32 … 1.25	2	▶	**3RB20 26-1NB0**		**3RB20 26-1ND0**	1 unit	0.220
		0.55 … 1.5	1 … 4	10	▶	**3RB20 26-1PB0**		**3RB20 26-1PD0**	1 unit	0.220
		1.1 … 5.5	3 … 12	20	▶	**3RB20 26-1SB0**		**3RB20 26-1SD0**	1 unit	0.220
		3 … 11	6 … 25	35	▶	**3RB20 26-1QB0**		**3RB20 26-1QD0**	1 unit	0.220
Size S2[1)3)7)]										
3RB20 36-1UB0	S2	3 … 11	6 … 25	63	▶	**3RB20 36-1QB0**		**3RB20 36-1QD0**	1 unit	0.360
					▶	**3RB20 36-1QW1**		**3RB20 36-1QX1**	1 unit	0.230
		7.5 … 22	12.5 … 50	80	▶	**3RB20 36-1UB0**		**3RB20 36-1UD0**	1 unit	0.360
					▶	**3RB20 36-1UW1**		**3RB20 36-1UX1**	1 unit	0.230
Size S3[1)3)7)]										
3RB20 46-1ED0	S3	7.5 … 22	12.5 … 50	160	▶	**3RB20 46-1UB0**		**3RB20 46-1UD0**	1 unit	0.560
		11 … 45	25 … 100	315	▶	**3RB20 46-1EB0**		**3RB20 46-1ED0**	1 unit	0.560
					▶	**3RB20 46-1EW1**		**3RB20 46-1EX1**	1 unit	0.450
Size S6[2)7)]										
3RB20 56-1FW2	S6 with busbar connection	22 … 90	50 … 200	315	▶	**3RB20 56-1FC2**		**3RB20 56-1FF2**	1 unit	1.030
	S6 with box terminal				▶	**3RB20 56-1FW2**		**3RB20 56-1FX2**	1 unit	0.690
Size S10/S12[2)]										
3RB20 66-1GF2	S10/S12 and size 14 (3TF68/3TF69)	22 … 110	55 … 250	400	▶	**3RB20 66-1GC2**		**3RB20 66-1GF2**	1 unit	1.820
		90 … 450	160 … 630	800	▶	**3RB20 66-1MC2**		**3RB20 66-1MF2**	1 unit	1.820

1) The relays with an Order No. ending with **"0"** are designed for direct mounting. With the matching terminal brackets (see Accessories) the sizes S00 and S0 can also be installed as stand-alone units.

2) The relays with an Order No. ending with **"2"** are designed for direct mounting and stand-alone installation. For 3TF68/3TF69 contactors, direct mounting is not possible.

3) The relays with an Order No. ending with **"1"** are designed for stand-alone installation.

4) Observe maximum rated operational current of the devices.

5) Guide value for 4-pole standard motors at 50 Hz 400 V AC. The actual starting and rated data of the motor to be protected must be considered when selecting the units.

6) Maximum fuse for overload relay, type of coordination 2, gL/gG operational class. For fuse values in conjunction with contactors see Technical Specifications, Short-Circuit Protection with Fuses for Motor Feeders.

7) The relays with an Order No. with **"W"** or **"X"** in the last but one position are equipped with a straight-through transformer.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RB2 solid-state overload relays with screw terminals or spring-loaded terminals on auxiliary current side for direct mounting[1)2)] and stand-alone installation[2)3)], Class 20

Features and technical specifications:

- Overload protection, phase failure protection and unbalance protection
- Internal power supply
- Auxiliary contacts 1 NO + 1 NC
- Manual and automatic RESET
- Switch position indicator
- TEST function and self-monitoring

	Size contactor[4)]	Rating for induction motor rated value[5)]	Set current value of the inverse-time delayed overload release	Short-circuit protection with fuse[6)]	DT	**Screw terminals** (on auxiliary current side)	DT	**Spring-loaded terminals** (on auxiliary current side)	PS*	Weight per PU approx.
		kW	A			Order No.		Order No.		kg
Size S00[1)]										
3RB20 16-2RB0	S00	0.04 … 0.09	0.1 … 0.4	1	►	**3RB20 16-2RB0**		**3RB20 16-2RD0**	1 unit	0.200
		0.12 … 0.37	0.32 … 1.25	2	►	**3RB20 16-2NB0**		**3RB20 16-2ND0**	1 unit	0.200
		0.55 … 1.5	1 … 4	10	►	**3RB20 16-2PB0**		**3RB20 16-2PD0**	1 unit	0.200
		1.1 … 5.5	3 … 12	20	►	**3RB20 16-2SB0**		**3RB20 16-2SD0**	1 unit	0.200
Size S0[1)]										
3RB20 26-2QD0	S0	0.04 … 0.09	0.1 … 0.4	1	►	**3RB20 26-1RD0**		**3RB20 26-1RD0**	1 unit	0.220
		0.12 … 0.37	0.32 … 1.25	2	►	**3RB20 26-1ND0**		**3RB20 26-1ND0**	1 unit	0.220
		0.55 … 1.5	1 … 4	10	►	**3RB20 26-1PD0**		**3RB20 26-1PD0**	1 unit	0.220
		1.1 … 5.5	3 … 12	20	►	**3RB20 26-1SD0**		**3RB20 26-1SD0**	1 unit	0.220
		3 … 11	6 … 25	35	►	**3RB20 26-1QD0**		**3RB20 26-1QD0**	1 unit	0.220
Size S2[1)3)7)]										
3RB20 36-2UB0	S2	3 … 11	6 … 25	63	►	**3RB20 36-2QB0**		**3RB20 36-2QD0**	1 unit	0.360
					►	**3RB20 36-2QW1**		**3RB20 36-2QX1**	1 unit	0.230
		7.5 … 22	12.5 … 50	80	►	**3RB20 36-2UB0**		**3RB20 36-2UD0**	1 unit	0.360
					►	**3RB20 36-2UW1**		**3RB20 36-2UX1**	1 unit	0.230
Size S3[1)3)7)]										
3RB20 46-2ED0	S3	7.5 … 22	12.5 … 50	160	►	**3RB20 46-2UB0**		**3RB20 46-2UD0**	1 unit	0.560
		11 … 45	25 … 100	315	►	**3RB20 46-2EB0**		**3RB20 46-2ED0**	1 unit	0.560
					►	**3RB20 46-2EW1**		**3RB20 46-2EX1**	1 unit	0.450
Size S6[2)7)]										
3RB20 56-2FW2	S6 with busbar connection	22 … 90	50 … 200	315	►	**3RB20 56-2FC2**		**3RB20 56-2FF2**	1 unit	1.030
	S6 with box terminal				►	**3RB20 56-2FW2**		**3RB20 56-2FX2**	1 unit	0.690
Size S10/S12[2)]										
3RB20 66-2MC2	S10/S12 and size 14 (3TF68/3TF69)	22 … 110	55 … 250	400	►	**3RB20 66-2GC2**		**3RB20 66-2GF2**	1 unit	1.820
		90 … 450	160 … 630	800	►	**3RB20 66-2MC2**		**3RB20 66-2MF2**	1 unit	1.820

1) The relays with an Order No. ending with **"0"** are designed for direct mounting. With the matching terminal brackets (see Accessories) the sizes S00 and S0 can also be installed as stand-alone units.

2) The relays with an Order No. ending with **"2"** are designed for direct mounting and stand-alone installation. For 3TF68/3TF69 contactors, direct mounting is not possible.

3) The relays with an Order No. ending with **"1"** are designed for stand-alone installation.

4) Observe maximum rated operational current of the devices.

5) Guide value for 4-pole standard motors at 50 Hz 400 V AC. The actual starting and rated data of the motor to be protected must be considered when selecting the units.

6) Maximum fuse for overload relay, type of coordination 2, gL/gG operational class. For fuse values in conjunction with contactors see Technical Specifications, Short-Circuit Protection with Fuses for Motor Feeders.

7) The relays with an Order No. with **"W"** or **"X"** in the last but one position are equipped with a straight-through transformer.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RB20, 3RB21 for standard applications

3RB2 solid-state overload relays with screw terminals or spring-loaded terminals on auxiliary current side for direct mounting[1)2)] and stand-alone installation[2)3)], Class 5, 10, 20 and 30 adjustable

Features and technical specifications:

- Overload protection, phase failure protection and unbalance protection
- Internal ground-fault detection, activatable
- Internal power supply
- Auxiliary contacts 1 NO + 1 NC
- Manual and automatic RESET
- Electrical remote RESET integrated
- Switch position indicator
- TEST function and self-monitoring

	Size contactor[4)]	Rating for induction motor rated value[5)]	Set current value of the inverse-time delayed overload release	Short-circuit protection with fuse[6)]	DT	**Screw terminals** (on auxiliary current side)	DT	**Spring-loaded terminals** (on auxiliary current side)	PS*	Weight per PU approx.
		kW	A			Order No.		Order No.		kg
Size S00[1)]										
3RB21 13-4RB0	S00	0.04 … 0.09	0.1 … 0.4	1	►	**3RB21 13-4RB0**		**3RB21 13-4RD0**	1 unit	0.200
		0.12 … 0.37	0.32 … 1.25	2	►	**3RB21 13-4NB0**		**3RB21 13-4ND0**	1 unit	0.200
		0.55 … 1.5	1 … 4	10	►	**3RB21 13-4PB0**		**3RB21 13-4PD0**	1 unit	0.200
		1.1 … 5.5	3 … 12	20	►	**3RB21 13-4SB0**		**3RB21 13-4SD0**	1 unit	0.200
Size S0[1)]										
3RB21 23-4QD0	S0	0.04 … 0.09	0.1 … 0.4	1	►	**3RB21 23-4RB0**		**3RB21 23-4RD0**	1 unit	0.220
		0.12 … 0.37	0.32 … 1.25	2	►	**3RB21 23-4NB0**		**3RB21 23-4ND0**	1 unit	0.220
		0.55 … 1.5	1 … 4	10	►	**3RB21 23-4PB0**		**3RB21 23-4PD0**	1 unit	0.220
		1.1 … 5.5	3 … 12	20	►	**3RB21 23-4SB0**		**3RB21 23-4SD0**	1 unit	0.220
		3 … 11	6 … 25	35	►	**3RB21 23-4QB0**		**3RB21 23-4QD0**	1 unit	0.220
Size S2[1)3)7)]										
3RB21 33-4UB0	S2	3 … 11	6 … 25	63	►	**3RB21 33-4QB0**		**3RB21 33-4QD0**	1 unit	0.360
					►	**3RB21 33-4QW1**		**3RB21 33-4QX1**	1 unit	0.230
		7.5 … 22	12.5 … 50	80	►	**3RB21 33-4UB0**		**3RB21 33-4UD0**	1 unit	0.360
					►	**3RB21 33-4UW1**		**3RB21 33-4UX1**	1 unit	0.230
Size S3[1)3)7)]										
3RB21 43-4ED0	S3	7.5 … 22	12.5 … 50	160	►	**3RB21 43-4UB0**		**3RB21 43-4UD0**	1 unit	0.560
		11 … 45	25 … 100	315	►	**3RB21 43-4EB0**		**3RB21 43-4ED0**	1 unit	0.560
					►	**3RB21 43-4EW1**		**3RB21 43-4EX1**	1 unit	0.450
Size S6[2)7)]										
3RB21 53-4FC2	S6 With busbar connection	22 … 90	50 … 200	315	►	**3RB21 53-4FC2**		**3RB21 53-4FF2**	1 unit	1.030
	S6 With box terminal				►	**3RB21 53-4FW2**		**3RB21 53-4FX2**	1 unit	0.690
Size S10/S12[2)]										
3RB21 63-4MC2	S10/S12 and size 14 (3TF68/ 3TF69)	22 … 110	55 … 250	400	►	**3RB21 63-4GC2**		**3RB21 63-4GF2**	1 unit	1.820
		90 … 450	160 … 630	800	►	**3RB21 63-4MC2**		**3RB21 63-4MF2**	1 unit	1.820

1) The relays with an Order No. ending with **"0"** are designed for direct mounting. With the matching terminal brackets (see Accessories) the sizes S00 and S0 can also be installed as stand-alone units.

2) The relays with an Order No. ending with **"2"** are designed for direct mounting and stand-alone installation. For 3TF68/3TF69 contactors, direct mounting is not possible.

3) The relays with an Order No. ending with **"1"** are designed for stand-alone installation.

4) Observe maximum rated operational current of the devices.

5) Guide value for 4-pole standard motors at 50 Hz 400 V AC. The actual starting and rated data of the motor to be protected must be considered when selecting the units.

6) Maximum fuse for overload relay, type of coordination 2, gL/gG operational class. For fuse values in conjunction with contactors see Technical Specifications, Short-Circuit Protection with Fuses for Motor Feeders.

7) The relays with an Order No. with **"W"** or **"X"** in the last but one position are equipped with a straight-through transformer.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

3RB22/3RB23 solid-state overload relays for full motor protection for stand-alone installation, CLASS 5, 10, 20 and 30 adjustable, with screw terminals or spring-loaded terminals

Features and technical specifications:

- Overload protection, phase failure protection and unbalance protection
- External power supply 24 ... 240 V AC/DC
- Auxiliary contacts 2 NO +2 NC
- Manual and automatic RESET
- Electrical remote RESET integrated
- 4 LEDs for operating and status displays
- TEST function and self-monitoring
- Internal ground-fault detection with function expansion module
- Screw terminals or spring-loaded terminals for auxiliary, control and sensor circuits
- Input for PTC sensor circuit
- Analog output with function expansion module

	Size of contactor	Version	DT	**Screw terminals**	DT	**Spring-loaded terminals**	PS*	Weight per PU approx.
				Order No.		Order No.		kg
Evaluation modules								
3RB2. 83-4AA1	S00 ... S12	Monostable	►	**3RB22 83-4AA1**		**3RB22 83-4AC1**	1 unit	0.300
		Bistable	►	**3RB23 83-4AA1**		**3RB23 83-4AC1**	1 unit	0.300
3RB2. 83-4AC1								

	Size of contactor	Version	DT	Order No.	PS*	Weight per PU approx.
						kg
Function expansion modules						
		For plugging into evaluation module (1 unit)				
3RB29 85	S00 ... S12	**Analog Basic 1 modules**[1)] Analog output DC 4 ... 20 mA, with overload warning	►	**3RB29 85-2AA0**	1 unit	0.030
		Analog Basic 1 GF modules[1)2)] Analog output DC 4 ... 20 mA, with internal ground fault detection and overload warning	►	**3RB29 85-2AA1**	1 unit	0.030
		Analog Basic 2 GF modules[1)2)] Analog output DC 4 ... 20 mA, with internal ground fault detection and ground-fault signaling	►	**3RB29 85-2AB1**	1 unit	0.030
		Basic 1 GF modules[2)] with internal ground fault detection and overload warning	►	**3RB29 85-2CA1**	1 unit	0.030
		Basic 2 GF modules[2)] with internal ground fault detection and ground-fault signaling	►	**3RB29 85-2CB1**	1 unit	0.030

Note: Analog input modules, e.g. SM 331, must be configured for 4-wire measuring transducers. In this case the analog input module must not supply current to the analog output of the 3RB22/ 3RB23 relay.

1) The analog signal DC 4 ... 20 mA can be used for operating rotary coil instruments or for feeding into analog inputs of programmable logic controllers.

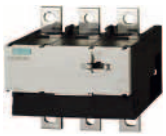
2) The following information on ground-fault protection refers to sinusoidal residual currents at 50/60 Hz:
- With a motor current of between 0.3 and 2 times the set current Ie the unit will trip at a ground-fault current equal to 30% of the set current.
- With a motor current of between 2 and 8 times the set current Ie the unit will trip at a ground-fault current equal to 15% of the set current.
- The response delay amounts to between 0.5 and 1 second.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RB22, 3RB23 for high-feature applications

Current measuring modules for direct mounting[1] and stand-alone installation[1)2)]

	Size of contactor[3]	Rating for induction motor rated value[4]	Set current value of the inverse-time delayed overload release	Short-circuit protection with fuse, type of coordination 2, gL/gG operational class[5]	DT	Order No.	PS*	Weight per PU approx.
		kW	A					kg
Size S00/S0[2)6)]								
3RB29 06-2.G1	S00/S0	0.09 … 1.1	0.3 … 3	20	►	**3RB29 06-2BG1**	1 unit	0.100
		1.1 … 11	2.4 … 25	63	►	**3RB29 06-2DG1**	1 unit	0.150
Size S2/S3[2)6)]								
3RB29 06-2JG1	S2/S3	5.5 … 45	10 … 100	315	►	**3RB29 06-2JG1**	1 unit	0.350
Size S6[1)6)]								
3RB29 56-2TG2	S6 with busbar connection	11 … 90	20 … 200	315	►	**3RB29 56-2TH2**	1 unit	1.000
	S6 with box terminals				►	**3RB29 56-2TG2**	1 unit	0.600
Size S10/S12[1)]								
 3RB29 66-2WH2	S10/S12 and size 14 (3TF68/ 3TF69)	37 … 450	63 … 630	800	►	**3RB29 66-2WH2**	1 unit	1.750

Note: The connecting cable between the current measuring module and the evaluation module is not included in the scope of supply; please order separately.

1) The current measuring modules with an Order No. ending with **"2"** are designed for direct mounting and stand-alone installation. For 3TF68/3TF69 contactors, direct mounting is not possible.

2) The current measuring modules with an Order No. ending with **"1"** are designed for stand-alone installation.

3) Observe maximum rated operational current of the devices.

4) Guide value for 4-pole standard motors at 50 Hz 400 V AC. The actual starting and rated data of the motor to be protected must be considered when selecting the units.

5) Maximum fuse for overload relay, type of coordination 2. For fuse values in conjunction with contactors, see Technical Specifications, Short-Circuit Protection with Fuses for Motor Feeders.

6) The modules with an Order No. with **"G"** in the last but one position are equipped with a straight-through transformer.

Accessories

	Size of contactor	Version	DT	Order No.	PS*	Weight per PU approx.
						kg
Connecting cables (essential accessory)						
3RB29 87-2.		For connection between evaluation module and current measuring module				
	S00 ... S3	• Length 0.1 m (only for mounting of the evaluation module directly onto the current measuring module)	►	**3RB29 87-2B**	1 unit	0.010
	S00 ... S12	• Length 0.5 m	►	**3RB29 87-2D**	1 unit	0.020
Push-in lugs						
3RP19 03	–S00 ... S12	For screw fixing of 3RB22/3RB23 overload relays	►	**3RP19 03**	10 units	0.002
3RB19 00-0B	S00 ... S3	For screw fixing of 3RB29 06 current measuring modules (2 units are required per module)	►	**3RB19 00-0B**	10 units	0.100

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

	Version	Can be used for	Size	DT	Order No.	PS*	Weight per PU approx. kg
Terminal brackets for stand-alone installation[1)]							
3RB29 .3-0AA1	For separate mounting of the overload relays; screw and snap-on mounting onto TH 35 standard mounting rail	3RB20, 3RB21	S00	▶	**3RB29 13-0AA1**	1 unit	0.060
			S0	▶	**3RB29 23-0AA1**	1 unit	0.080
Mechanical RESET[2)]							
3RU19 00-1A with pushbutton and extension plunger	**Resetting plungers, holders and formers**	3RB20, 3RB21	S00 ... S10/S12	▶	**3RU19 00-1A**	1 unit	0.038
	Pushbuttons with extended stroke (12 mm), IP65, Ø 22 mm				**3SB30 00-0EA11**	1 unit	0.021
	Extension plungers For compensation of the distance between a pushbutton and the unlatching button of the relay				**3SX1 335**	1 unit	0.004
Cable releases with holder for RESET[2)]							
3RU19 00-1.	For Ø 6.5 mm holes in the control panel; max. control panel thickness 8 mm	3RB20, 3RB21	S00 ... S10/S12				
	• Length 400 mm			▶	**3RU19 00-1B**	1 unit	0.063
	• Length 600 mm			▶	**3RU19 00-1C**	1 unit	0.073
Sealable covers							
	For covering the setting knobs	3RB20, 3RB21	S00 ... S10/S12	▶	**3RB29 84-0**	10 units	0.020
	For covering the setting knobs	3RB22, 3RB23	–	▶	**3RB29 84-2**	10 units	0.050
Terminal covers							
3RT19 46-4EA1	**Covers for cable lugs and busbar connections**						
	• Length 55 mm[2)]	3RB2	S3	▶	**3RT19 46-4EA1**	1 unit	0.040
	• Length 100 mm	3RB2	S6	▶	**3RT19 56-4EA1**	1 unit	0.070
	• Length 120 mm	3RB2	S10/S12	▶	**3RT19 66-4EA1**	1 unit	0.130
	Covers for box terminals						
	• Length 20.6 mm[2)]	3RB2	S2	▶	**3RT19 36-4EA2**	1 unit	0.020
	• Length 20.8 mm[2)]	3RB2	S3	▶	**3RT19 46-4EA2**	1 unit	0.025
	• Length 25 mm	3RB2	S6	▶	**3RT19 56-4EA2**	1 unit	0.030
	• Length 30 mm	3RB2	S10/S12	▶	**3RT19 66-4EA2**	1 unit	0.040
3RT19 36-4EA2 The figures show mounting on the contactor	**Covers for screw terminals** between contactor and overload relay, without box terminals (1 unit required per combination)	3RB2	S6	▶	**3RT19 56-4EA3**	1 unit	0.020
		3RB2	S10/S12	▶	**3RT19 66-4EA3**	1 unit	0.060

1) Only for 3RB20/3RB21.

2) Only for 3RB20/3RB21. The accessories are identical to those of the 3RU11 thermal overload relays.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RU11 for standard applications

Selection and ordering data

3RU11 thermal overload relays with screw terminals on the auxiliary current side for direct mounting[1] and stand-alone installation[2], CLASS 10

Features and technical specifications:
- Overload and phase failure protection
- Auxiliary contacts 1 NO + 1 NC
- Manual and automatic RESET
- Switch position indicator
- TEST function
- STOP button
- Integrated, sealable cover

	Size contactor[3]	Rating for induction motor rated value[4]	Set current value of the inverse-time delayed overload release	Short-circuit protection with fuse[5]	DT	Screw terminals, direct mounting	DT	Screw terminals, stand-alone installation	PS*	Weight per PU approx.
		kW	A	A		Order No.		Order No.		kg
Size S00										
3RU11 16-..B0	S00	0.04	0.11 ... 0.16	0.5	▶	**3RU11 16-0AB0**		**3RU11 16-0AB1**	1 unit	0.180
		0.06	0.14 ... 0.2	1	▶	**3RU11 16-0BB0**		**3RU11 16-0BB1**	1 unit	0.180
		0.06	0.18 ... 0.25	1	▶	**3RU11 16-0CB0**		**3RU11 16-0CB1**	1 unit	0.180
		0.09	0.22 ... 0.32	1.6	▶	**3RU11 16-0DB0**		**3RU11 16-0DB1**	1 unit	0.180
		0.09	0.28 ... 0.4	2	▶	**3RU11 16-0EB0**	▶	**3RU11 16-0EB1**	1 unit	0.180
		0.12	0.35 ... 0.5	2	▶	**3RU11 16-0FB0**	▶	**3RU11 16-0FB1**	1 unit	0.180
		0.18	0.45 ... 0.63	2	▶	**3RU11 16-0GB0**	▶	**3RU11 16-0GB1**	1 unit	0.180
		0.18	0.55 ... 0.8	4	▶	**3RU11 16-0HB0**	▶	**3RU11 16-0HB1**	1 unit	0.180
		0.25	0.7 ... 1	4	▶	**3RU11 16-0JB0**	▶	**3RU11 16-0JB1**	1 unit	0.180
		0.37	0.9 ... 1.25	4	▶	**3RU11 16-0KB0**	▶	**3RU11 16-0KB1**	1 unit	0.180
		0.55	1.1 ... 1.6	6	▶	**3RU11 16-1AB0**	▶	**3RU11 16-1AB1**	1 unit	0.180
		0.75	1.4 ... 2	6	▶	**3RU11 16-1BB0**	▶	**3RU11 16-1BB1**	1 unit	0.180
		0.75	1.8 ... 2.5	10	▶	**3RU11 16-1CB0**	▶	**3RU11 16-1CB1**	1 unit	0.180
		1.1	2.2 ... 3.2	10	▶	**3RU11 16-1DB0**	▶	**3RU11 16-1DB1**	1 unit	0.180
		1.5	2.8 ... 4	16	▶	**3RU11 16-1EB0**	▶	**3RU11 16-1EB1**	1 unit	0.180
		1.5	3.5 ... 5	20	▶	**3RU11 16-1FB0**	▶	**3RU11 16-1FB1**	1 unit	0.180
		2.2	4.5 ... 6.3	20	▶	**3RU11 16-1GB0**	▶	**3RU11 16-1GB1**	1 unit	0.180
		3	5.5 ... 8	25	▶	**3RU11 16-1HB0**	▶	**3RU11 16-1HB1**	1 unit	0.180
		4	7 ... 10	35	▶	**3RU11 16-1JB0**	▶	**3RU11 16-1JB1**	1 unit	0.180
3RU11 16-..B1		5.5	9 ... 12	35	▶	**3RU11 16-1KB0**	▶	**3RU11 16-1KB1**	1 unit	0.180
Size S0										
3RU11 26-..B0	S0	0.75	1.8 ... 2.5	10	▶	**3RU11 26-1CB0**		--	1 unit	0.190
		1.1	2.2 ... 3.2	10	▶	**3RU11 26-1DB0**		--	1 unit	0.190
		1.5	2.8 ... 4	16	▶	**3RU11 26-1EB0**		--	1 unit	0.190
		1.5	3.5 ... 5	20	▶	**3RU11 26-1FB0**		--	1 unit	0.190
		2.2	4.5 ... 6.3	20	▶	**3RU11 26-1GB0**		--	1 unit	0.190
		3	5.5 ... 8	25	▶	**3RU11 26-1HB0**		--	1 unit	0.190
		4	7 ... 10	35	▶	**3RU11 26-1JB0**		--	1 unit	0.190
		5.5	9 ... 12.5	35	▶	**3RU11 26-1KB0**		--	1 unit	0.190
		7.5	11 ... 16	40	▶	**3RU11 26-4AB0**	▶	**3RU11 26-4AB1**	1 unit	0.240
		7.5	14 ... 20	50	▶	**3RU11 26-4BB0**	▶	**3RU11 26-4BB1**	1 unit	0.240
		11	17 ... 22	63	▶	**3RU11 26-4CB0**	▶	**3RU11 26-4CB1**	1 unit	0.240
		11	20 ... 25	63	▶	**3RU11 26-4DB0**	▶	**3RU11 26-4DB1**	1 unit	0.240
Size S2										
3RU11 36-..B0	S2	3	5.5 ... 8	25	▶	**3RU11 36-1HB0**		--	1 unit	0.320
		4	7 ... 10	35	▶	**3RU11 36-1JB0**		--	1 unit	0.320
		5.5	9 ... 12.5	35	▶	**3RU11 36-1KB0**		--	1 unit	0.320
		7.5	11 ... 16	40	▶	**3RU11 36-4AB0**		--	1 unit	0.320
		7.5	14 ... 20	50	▶	**3RU11 36-4BB0**		--	1 unit	0.320
		11	18 ... 25	63	▶	**3RU11 36-4DB0**		--	1 unit	0.320
		15	22 ... 32	80	▶	**3RU11 36-4EB0**	▶	**3RU11 36-4EB1**	1 unit	0.480
		18.5	28 ... 40	80	▶	**3RU11 36-4FB0**	▶	**3RU11 36-4FB1**	1 unit	0.480
		22	36 ... 45	100	▶	**3RU11 36-4GB0**	▶	**3RU11 36-4GB1**	1 unit	0.480
		22	40 ... 50	100	▶	**3RU11 36-4HB0**	▶	**3RU11 36-4HB1**	1 unit	0.480
Size S3										
3RU11 46-..B0	S3	11	18 ... 25	63	▶	**3RU11 46-4DB0**		--	1 unit	0.550
		15	22 ... 32	80	▶	**3RU11 46-4EB0**		--	1 unit	0.550
		18.5	28 ... 40	80	▶	**3RU11 46-4FB0**		--	1 unit	0.550
		22	36 ... 50	125	▶	**3RU11 46-4HB0**		--	1 unit	0.550
		30	45 ... 63	125	▶	**3RU11 46-4JB0**	▶	**3RU11 46-4JB1**	1 unit	0.810
		37	57 ... 75	160	▶	**3RU11 46-4KB0**	▶	**3RU11 46-4KB1**	1 unit	0.810
		45	70 ... 90	160	▶	**3RU11 46-4LB0**	▶	**3RU11 46-4LB1**	1 unit	0.810
		45	80 ... 100[6]	200	▶	**3RU11 46-4MB0**	▶	**3RU11 46-4MB1**	1 unit	0.810

1) With the suitable terminal brackets (see "Accessories", page 5/24), the 3RU11 overload relays for direct mounting can also be installed as stand-alone units.

2) Sizes S00 to S3 for screw and snap-on mounting onto TH 35 standard mounting rails, size S3 also for TH 75 standard mounting rails.

3) Observe maximum rated operational current of the devices.

4) Guide value for 4-pole standard motors at 50 Hz 400 V AC. The actual starting and rated data of the motor to be protected must be considered when selecting the units.

5) Maximum protection by fuse for overload relay, type of coordination 2. For fuse values in conjunction with contactors, see Technical Information LV 1 T. "Technical specifications", --> "Short-circuit protection with fuses/motor starter protectors for motor feeders".

6) For overload relays > 100 A, see 3RB2.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RU11 thermal overload relays with Cage Clamp terminals for direct mounting[1] and stand-alone installation[2], CLASS 10

Features and technical specifications:
- Overload and phase failure protection
- Auxiliary contacts 1 NO + 1 NC
- Manual and automatic RESET
- Switch position indicator
- TEST function
- STOP button
- Integrated, sealable cover

	Size of contactor[3]	Rating for induction motor rated value[4]	Set current value of the inverse-time delayed overload release	Short-circuit protection with fuse, type of coordination 2, gL/gG operational class[5]	DT	Cage Clamp terminals	PS*	Weight per PU approx.
		kW	A	A		Order No.		kg
Size S00 for stand-alone installation[6]								
3RU11 16-..C1	S00	0.04	0.11 ... 0.16	0.5		**3RU11 16-0AC1**	1 unit	0.190
		0.06	0.14 ... 0.2	1		**3RU11 16-0BC1**	1 unit	0.190
		0.06	0.18 ... 0.25	1		**3RU11 16-0CC1**	1 unit	0.190
		0.09	0.22 ... 0.32	1.6		**3RU11 16-0DC1**	1 unit	0.190
		0.09	0.28 ... 0.4	2		**3RU11 16-0EC1**	1 unit	0.190
		0.12	0.35 ... 0.5	2		**3RU11 16-0FC1**	1 unit	0.190
		0.18	0.45 ... 0.63	2	►	**3RU11 16-0GC1**	1 unit	0.190
		0.18	0.55 ... 0.8	4	►	**3RU11 16-0HC1**	1 unit	0.190
		0.25	0.7 ... 1	4	►	**3RU11 16-0JC1**	1 unit	0.190
		0.37	0.9 ... 1.25	4	►	**3RU11 16-0KC1**	1 unit	0.190
		0.55	1.1 ... 1.6	6	►	**3RU11 16-1AC1**	1 unit	0.190
		0.75	1.4 ... 2	6	►	**3RU11 16-1BC1**	1 unit	0.190
		0.75	1.8 ... 2.5	10	►	**3RU11 16-1CC1**	1 unit	0.190
		1.1	2.2 ... 3.2	10	►	**3RU11 16-1DC1**	1 unit	0.190
		1.5	2.8 ... 4	16	►	**3RU11 16-1EC1**	1 unit	0.190
		1.5	3.5 ... 5	20	►	**3RU11 16-1FC1**	1 unit	0.190
		2.2	4.5 ... 6.3	20	►	**3RU11 16-1GC1**	1 unit	0.190
		3	5.5 ... 8	25	►	**3RU11 16-1HC1**	1 unit	0.190
		4	7 ... 10	35	►	**3RU11 16-1JC1**	1 unit	0.190
		5.5	9 ... 12	35	►	**3RU11 16-1KC1**	1 unit	0.190
Size S0 for direct mounting[1,7]								
3RU11 16-..D0	S0	0.75	1.8 ... 2.5	10		**3RU11 26-1CD0**	1 unit	0.190
		1.1	2.2 ... 3.2	10		**3RU11 26-1DD0**	1 unit	0.190
		1.5	2.8 ... 4	16		**3RU11 26-1ED0**	1 unit	0.190
		1.5	3.5 ... 5	20		**3RU11 26-1FD0**	1 unit	0.190
		2.2	4.5 ... 6.3	20		**3RU11 26-1GD0**	1 unit	0.190
		3	5.5 ... 8	25		**3RU11 26-1HD0**	1 unit	0.190
		4	7 ... 10	35		**3RU11 26-1JD0**	1 unit	0.190
		5.5	9 ... 12.5	35		**3RU11 26-1KD0**	1 unit	0.190
		7.5	11 ... 16	40	►	**3RU11 26-4AD0**	1 unit	0.190
		7.5	14 ... 20	50	►	**3RU11 26-4BD0**	1 unit	0.190
		11	17 ... 22	63	►	**3RU11 26-4CD0**	1 unit	0.190
		11	20 ... 25	63	►	**3RU11 26-4DD0**	1 unit	0.190
Size S2 for direct mounting[1,7]								
3RU11 36-..D0	S2	3	5.5 ... 8	25		**3RU11 36-1HD0**	1 unit	0.320
		4	7 ... 10	35		**3RU11 36-1JD0**	1 unit	0.320
		5.5	9 ... 12.5	35		**3RU11 36-1KD0**	1 unit	0.320
		7.5	11 ... 16	40		**3RU11 36-4AD0**	1 unit	0.320
		7.5	14 ... 20	50		**3RU11 36-4BD0**	1 unit	0.320
		11	18 ... 25	63		**3RU11 36-4DD0**	1 unit	0.320
		15	22 ... 32	80	►	**3RU11 36-4ED0**	1 unit	0.320
		18.5	28 ... 40	80	►	**3RU11 36-4FD0**	1 unit	0.320
		22	36 ... 45	100	►	**3RU11 36-4GD0**	1 unit	0.320
		22	40 ... 50	100	►	**3RU11 36-4HD0**	1 unit	0.320
Size S3 for direct mounting[1,7]								
3RU11 46-..D0	S3	11	18 ... 25	63		**3RU11 46-4DD0**	1 unit	0.550
		15	22 ... 32	80		**3RU11 46-4ED0**	1 unit	0.550
		18.5	28 ... 40	80		**3RU11 46-4FD0**	1 unit	0.550
		22	36 ... 50	125		**3RU11 46-4HD0**	1 unit	0.550
		30	45 ... 63	125	►	**3RU11 46-4JD0**	1 unit	0.550
		37	57 ... 75	160	►	**3RU11 46-4KD0**	1 unit	0.550
		45	70 ... 90	160	►	**3RU11 46-4LD0**	1 unit	0.550
		45	80 ... 100	200	►	**3RU11 46-4MD0**	1 unit	0.550

1) With the suitable terminal brackets (see Accessories) the 3RU11 overload relays for direct mounting can also be installed as stand-alone units.

2) Size S00 for screw and snap-on mounting onto TR35 standard mounting rail.

3) Observe maximum rated operational current of the devices.

4) Guide value for 4-pole standard motors at 50 Hz 400 V AC. The actual starting and rated data of the motor to be protected must be considered when selecting the units.

5) Maximum fuse for overload relay, type of coordination 2. For fuse values in conjunction with contactors, see "Technical Specifications" --> "Short-circuit protection with fuses/motor starter protectors for motor feeders".

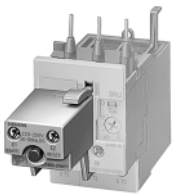
6) Auxiliary and main conductor connections with Cage Clamp terminals.

7) Auxiliary conductor connections with Cage Clamp terminals and main conductor connections with screw terminals.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

	Version	Size	DT	Order No.	PS*	Weight per PU approx. kg
Terminal brackets for stand-alone installation						
3RU19 .6-3AA01	For separate mounting of overload relays; screw and snap-on mounting onto TH35 standard mounting rail; size S3 also for TH75 standard mounting rail	S00	►	**3RU19 16-3AA01**	1 unit	0.060
		S0	►	**3RU19 26-3AA01**	1 unit	0.080
		S2	►	**3RU19 36-3AA01**	1 unit	0.180
		S3	►	**3RU19 46-3AA01**	1 unit	0.280
Mechanical RESET[1]						
3RU19 00-1A with pushbutton and extension plunger	**Resetting plungers, holders and formers**	S00 ... S10/S12	►	**3RU19 00-1A**	1 unit	0.038
	Pushbuttons with extended stroke (12 mm), IP65, Ø 22 mm			**3SB30 00-0EA11**	1 unit	0.020
	Extension plungers For compensation of the distance between a pushbutton and the unlatching button of the relay			**3SX1 335**	1 unit	0.004
Cable releases with holder for RESET[1]						
3RU19 00-1.	For Ø 6.5 mm holes in the control panel; max. control panel thickness 8 mm	S00 ... S10/S12				
	• Length 400 mm		►	**3RU19 00-1B**	1 unit	0.063
	• Length 600 mm		►	**3RU19 00-1C**	1 unit	0.073
Modules for remote RESET, electrical						
 3RU19 00-2A.71	Operating range 0.85 ... 1.1 x U_s, power consumption AC 80 VA, DC 70 W, ON period 0.2 ... 4 s, switching frequency 60/h	S00 ...S3	►	**3RU19 00-2AB71**	1 unit	0.066
			►	**3RU19 00-2AF71**	1 unit	0.067
			►	**3RU19 00-2AM71**	1 unit	0.066
Terminal covers[1]						
3RT19 46-4EA1	**Covers for cable lugs and busbar connections**					
	• Length 55 mm[1]	S3	►	**3RT19 46-4EA1**	1 unit	0.040
	Covers for box terminals					
	• Length 20.6 mm[1]	S2	►	**3RT19 36-4EA2**	1 unit	0.020
	• Length 20.8 mm[1]	S3	►	**3RT19 46-4EA2**	1 unit	0.025
3RT19 36-4EA2 The figures show mounting on the contactor						

[1] The accessories are identical to those of the 3RB2 solid-state overload relays.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Load Feeders, Motor Starters and Soft Starters

6

3RW Soft Starters
6/2 General data
6/3 3RW30 for standard applications
6/4 3RW40 for standard applications
6/6 3RW44 for High-Feature applications

3RA Fuseless Load Feeders
3RA11 Direct-On-Line Starters
6/9 For snapping onto standard mounting rail or for screw fixing
6/11 For busbar systems
3RA12 Reversing Starters
6/13 For snapping onto standard mounting rail or for screw fixing
Accessories
6/15 For direct-on-line and reversing starters
Infeed System
6/19 3RV19 infeed system

3RA71 Load Feeders with Safety Integrated
6/22 Fuseless load feeders
Fused load feeders

ET 200 Motor Starters
6/24 ET 200S motor starters
6/26 ET 200pro motor starters

3RE Encapsulated Starters
6/27 3RE10 direct-on-line starters
3RE13 reversing starters

© Siemens AG 2008

General data

Overview

The advantages of the SIRIUS soft starters at a glance:

- Soft starting and smooth ramp-down[1)]
- Stepless starting
- Reduction of current peaks
- Avoidance of mains voltage fluctuations during starting
- Reduced load on the power supply network
- Reduction of the mechanical load in the operating mechanism
- Considerable space savings and reduced wiring compared with conventional starters
- Maintenance-free switching
- Very easy handling
- Fits perfectly in the SIRIUS modular system

		SIRIUS 3RW30 Standard applications	SIRIUS 3RW40 Standard applications	SIRIUS 3RW44 High-Feature applications
Rated current up to 40 °C	A	3 ... 100	12.5 ... 432	29 ... 1214
Rated operational voltage	V	200 ... 575	200 ... 600	200 ... 690
Motor rating at 400 V • Inline circuit • Inside-delta circuit	 kW kW	 1.1 ... 55 --	 5.5 ... 250 --	 15 ... 710 22 ... 1200
Temperature range	°C	-25 ... +60	-25 ... +60	0 ... +60
Soft starting/ramp-down		✔[1)]	✔	✔
Voltage ramp		✔	✔	✔
Starting/stopping voltage	%	40 ... 100	40 ... 100	20 ... 100
Starting and ramp-down time	s	0 ... 20	0 ... 20	1 ... 360
Torque control		--	--	✔
Starting/stopping torque	%	--	--	20 ... 100
Torque limit	%	--	--	20 ... 200
Ramp time	s	--	--	1 ... 360
Integral bypass contact system		✔[2)]	✔	✔
Intrinsic device protection		--	✔	✔
Motor overload protection		--	✔	✔
Thermistor motor protection		--	✔[3)]	✔
Integrated remote RESET		--	✔[4)]	✔
Adjustable current limiting		--	✔	✔
Inside-delta circuit		--	--	✔
Breakaway pulse		--	--	✔
Creep speed in both directions of rotation		--	--	✔
Pump ramp-down		--	--	✔[5)]
DC braking		--	--	✔[5) 6)]
Combined braking		--	--	✔[5) 6)]
Motor heating		--	--	✔
Communication		--	--	With PROFIBUS DP (optional)
External display and operator module		--	--	(optional)
Operating measured value display		--	--	✔
Error logbook		--	--	✔
Event list		--	--	✔
Slave pointer function		--	--	✔
Trace function		--	--	✔[7)]
Programmable control inputs and outputs		--	--	✔
Number of parameter sets		1	1	3
Parameterization software (Soft Starter ES)		--	--	✔
Power semiconductors (thyristors)		2 controlled phases	2 controlled phases	3 controlled phases
Spring-loaded terminals		✔ (only 3RW30 03)	✔	✔
Screw terminals		✔	✔	✔
UL/CSA		✔[8)]	✔	✔
CE marking		✔	✔	✔
Soft starting under heavy starting conditions		--	--	✔[5)]
Configuring support		Win-Soft Starter, the electronic selection slider ruler, Technical Assistance ++49 911 895 5900		

✔ Function is available; -- Function is not available.

1) Only soft starting available for 3RW30 ..-1AA12 and 3RW31.
2) Not available for 3RW30 03.
3) Optional up to size S3 (device variant).
4) Available for 3RW40 2. to 3RW40 4.; optional for 3RW40 5. and 3RW40 7..
5) Calculate soft starter and motor with size allowance where required.
6) Not possible in inside-delta circuit.
7) Trace function with Soft Starter ES software.
8) For 3RW30 03 up to 230 V.

More information can be found on the Internet at http://www.siemens.com/softstarter

© Siemens AG 2008

Selection and ordering data

3RW30 03-2CB54

3RW30 25-1AB14

3RW30 35-1AB14

3RW30 35-1AA12

Rated operational voltage U_e	Ambient temperature 40 °C: Rated operational current I_e	Rated power of induction motors for rated operational voltage U_e 115 V	230 V	400 V	500 V	Ambient temperature 50 °C: Rated operational current I_e	Rated power of induction motors for rated operational voltage U_e 115 V	200 V	230 V	460 V	575 V	Size	DT	Order No.	PS*	Weight per PU approx.
V	A	kW	kW	kW	W	A	hp	hp	hp	hp	hp					kg
Soft starters for easy starting conditions and high switching frequency																
200 ... 400	3	--	0.55	1.1	--	2.6	--	0.5	0.5	--	--	22.5 mm	▶	**3RW30 03-□CB54**	1 unit	0.207
	Order No. supplement for connection types															
	With screw terminals													**1**		
	With spring-loaded terminals													**2**		
Soft starters for three-phase asynchronous motors																
200 ... 460	6	--	1.5	3	--	4.8	--	1	1	3	--	**S00**	▶	**3RW30 14-1CB□4**	1 unit	0.314
	9	--	2.2	4	--	7.8	--	2	2	5	--	**S00**	▶	**3RW30 16-1CB□4**	1 unit	0.314
	12.5	--	3	5.5	--	11	--	3	3	7.5	--	**S0**	▶	**3RW30 24-1AB□4**	1 unit	0.490
	16	--	4	7.5	--	14	--	3	3	10	--	**S0**	▶	**3RW30 25-1AB□4**	1 unit	0.493
	25	--	5.5	11	--	21	--	5	5	15	--	**S0**	▶	**3RW30 26-1AB□4**	1 unit	0.489
	32	--	7.5	15	--	27	--	7.5	7.5	20	--	**S2**	▶	**3RW30 34-1AB□4**	1 unit	0.794
	38	--	11	18.5	--	32	--	10	10	25	--	**S2**	▶	**3RW30 35-1AB□4**	1 unit	0.779
	45	--	15	22	--	38	--	10	15	30	--	**S2**	▶	**3RW30 36-1AB□4**	1 unit	0.791
	63	--	18.5	30	--	54	--	15	20	40	--	**S3**	▶	**3RW30 44-1AB□4**	1 unit	1.667
	75	--	22	37	--	64	--	20	25	50	--	**S3**	▶	**3RW30 45-1AB□4**	1 unit	1.806
	100	--	30	55	--	85	--	25	30	60	--	**S3**	▶	**3RW30 46-1AB□4**	1 unit	1.813
460 ... 575	12.5	--	--	--	7.5	11	--	--	--	7.5	10	**S0**		**3RW30 24-1AB□5**	1 unit	0.490
	16	--	--	--	11	14	--	--	--	10	10	**S0**		**3RW30 25-1AB□5**	1 unit	0.489
	25	--	--	--	15	21	--	--	--	15	20	**S0**		**3RW30 26-1AB□5**	1 unit	0.489
	32	--	--	--	18.5	27	--	--	--	20	25	**S2**		**3RW30 34-1AB□5**	1 unit	0.791
	38	--	--	--	22	32	--	--	--	25	30	**S2**		**3RW30 35-1AB□5**	1 unit	0.793
	45	--	--	--	30	38	--	--	--	30	40	**S2**		**3RW30 36-1AB□5**	1 unit	0.792
	63	--	--	--	37	54	--	--	--	40	50	**S3**		**3RW30 44-1AB□5**	1 unit	1.669
	75	--	--	--	55	64	--	--	--	50	60	**S3**		**3RW30 45-1AB□5**	1 unit	1.811
	100	--	--	--	70	85	--	--	--	60	75	**S3**		**3RW30 46-1AB□5**	1 unit	1.806
	Order No. supplement for rated control supply voltage U_s															
	24 V AC/DC													**0**		
	110 ... 230 V AC/DC													**1**		

Note:
Selection of the soft starter depends on the rated motor current.

The SIRIUS 3RW3 solid-state soft starters are designed for easy starting conditions. $J_{Load} < 10 \times J_{Motor}$.

In the event of deviating conditions or increased switching frequency, it may be necessary to choose a larger device. Siemens recommends the use of the selection and simulation program Win-Soft Starter.

	For soft starters Type	Size	Version	DT	Order No.	PS*	Weight per PU approx. kg
Accessories							
3RW39 26-8A	3RW3 . 2.	**S0**	**Fans** to increase switching frequency and for device mounting in positions different from the normal position. The fan is snapped into the enclosure from below. With internal soft starter power supply. During operation (control input "IN" at potential A1), the fan is running. After a stop, the fan continues to run for about another 60 minutes.	▶	**3RW39 26-8A**	1 unit	0.008
3RW39 36-8A	3RW30 3. and 3RW30 4.	**S2** and **S3**		▶	**3RW39 36-8A**	1 unit	0.030

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RW40 for standard applications

Selection and ordering data

3RW40 28-1BB14

3RW40 38-1BB14

3RW40 47-1BB14

Ambient temperature 40 °C				Ambient temperature 50 °C					Size	DT	Order No.	PS*	Weight per PU approx.
Rated operational current I_e	Rated power of induction motors for rated operational voltage U_e			Rated operational current I_e	Rated power of induction motors for rated operational voltage U_e								
	230 V	400 V	500 V		200 V	230 V	460 V	575 V					
A	kW	kW	kW	A	hp	hp	hp	hp					kg
Inline circuit, rated operational voltage 200 ... 480 V[1]													
12.5	3	**5.5**	--	11	3	3	**7.5**	--	**S0[2]**		**3RW40 24-□BB□4**	1 unit	0.770
25	5.5	**11**	--	23	5	5	**15**	--			**3RW40 26-□BB□4**	1 unit	0.770
32	7.5	**15**	--	29	7.5	7.5	**20**	--			**3RW40 27-□BB□4**	1 unit	0.770
38	11	**18.5**	--	34	10	10	**25**	--			**3RW40 28-□BB□4**	1 unit	0.770
45	11	**22**	--	42	10	15	**30**	--	**S2**		**3RW40 36-□BB□4**	1 unit	1.350
63	18.5	**30**	--	58	15	20	**40**	--			**3RW40 37-□BB□4**	1 unit	1.350
72	22	**37**	--	62	20	20	**40**	--			**3RW40 38-□BB□4**	1 unit	1.350
80	22	**45**	--	73	20	25	**50**	--	**S3**		**3RW40 46-□BB□4**	1 unit	1.900
106	30	**55**	--	98	30	30	**75**	--			**3RW40 47-□BB□4**	1 unit	1.900
Inline circuit, rated operational voltage 400 ... 600 V													
12.5	--	5.5	**7.5**	11	--	--	7.5	**10**	**S0[2]**		**3RW40 24-□BB□5**	1 unit	0.770
25	--	11	**15**	23	--	--	15	**20**			**3RW40 26-□BB□5**	1 unit	0.770
32	--	15	**18.5**	29	--	--	20	**25**			**3RW40 27-□BB□5**	1 unit	0.770
38	--	18.5	**22**	34	--	--	25	**30**			**3RW40 28-□BB□5**	1 unit	0.770
45	--	22	**30**	42	--	--	30	**40**	**S2**		**3RW40 36-□BB□5**	1 unit	1.350
63	--	30	**37**	58	--	--	40	**50**			**3RW40 37-□BB□5**	1 unit	1.350
72	--	37	**45**	62	--	--	40	**60**			**3RW40 38-□BB□5**	1 unit	1.350
80	--	45	**55**	73	--	--	50	**60**	**S3**		**3RW40 46-□BB□5**	1 unit	1.900
106	--	55	**75**	98	--	--	75	**75**			**3RW40 47-□BB□5**	1 unit	1.900

Order No. supplement for connection types

- With spring-loaded terminals[2] — **2**
- With screw terminals — **1**

Order No. supplement for rated control supply voltage U_s

- 24 V AC/DC — **0**
- 110 ... 230 V AC/DC — **1**

[1] Soft starter with screw terminals: delivery time class ► (preferred type).
[2] Soft starter in size S0 with spring-loaded terminals: Price on request.

Note:
Selection of the soft starter depends on the rated motor current.

The SIRIUS 3RW40 solid-state soft starters are designed for easy starting conditions. $J_{Load} < 10 \times J_{Motor}$. In the event of deviating conditions or increased switching frequency, it may be necessary to choose a larger device. Siemens recommends the use of the selection and simulation program Win-Soft Starter. For information about rated currents for ambient temperatures > 40 °C, see technical specifications (see Technical Information LV 1 T).

Spare parts

	For soft starters Type	Size	Version Rated control supply voltage U_s	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
										kg
Fans (to increase switching frequency and for device mounting in positions different from the normal position)										
	3RW40 2.	**S0**		►	**3RW49 28-8VB00**		1	1 unit	131	0.010
	3RW40 3., 3RW40 4.	**S2, S3**		►	**3RW49 47-8VB00**		1	1 unit	131	0.020

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

3RW40 76-6BB44

3RW40 76-6BB44

Ambient temperature 40 °C				Ambient temperature 50 °C					Size	DT	Order No.	PS*	Weight per PU approx.
Rated operational current I_e	Rated power of induction motors for rated operational voltage U_e			Rated operational current I_e	Rated power of induction motors for rated operational voltage U_e								
	230 V	400 V	500 V		200 V	230 V	460 V	575 V					
A	kW	kW	kW	A	hp	hp	hp	hp					kg
Inline circuit, rated operational voltage 200 ... 460 V[1)]													
134	37	**75**	--	117	30	40	**75**	--	**S6**		**3RW40 55-□BB□4**	1 unit	4.900
162	45	**90**	--	145	40	50	**100**	--			**3RW40 56-□BB□4**	1 unit	6.900
230	75	**132**	--	205	60	75	**150**	--	**S12**		**3RW40 73-□BB□4**	1 unit	8.900
280	90	**160**	--	248	75	100	**200**	--			**3RW40 74-□BB□4**	1 unit	8.900
356	110	**200**	--	315	100	125	**250**	--			**3RW40 75-□BB□4**	1 unit	8.900
432	132	**250**	--	385	125	150	**300**	--			**3RW40 76-□BB□4**	1 unit	8.900
Inline circuit, rated operational voltage 400 ... 600 V													
134	--	75	**90**	117	--	--	75	**100**	**S6**		**3RW40 55-□BB□5**	1 unit	4.900
162	--	90	**110**	145	--	--	100	**150**			**3RW40 56-□BB□5**	1 unit	6.900
230	--	132	**160**	205	--	--	150	**200**	**S12**		**3RW40 73-□BB□5**	1 unit	8.900
280	--	160	**200**	248	--	--	200	**250**			**3RW40 74-□BB□5**	1 unit	8.900
356	--	200	**250**	315	--	--	250	**300**			**3RW40 75-□BB□5**	1 unit	8.900
432	--	250	**315**	385	--	--	300	**400**			**3RW40 76-□BB□5**	1 unit	8.900

Order No. supplement for connection types

- With spring-loaded terminals **2**
- With screw terminals **6**

Order No. supplement for the rated control supply voltage U_s[3)]

- 115 V AC **3**
- 230 V AC **4**

1) Soft starter with screw terminals: delivery time class ► (preferred type).

2) Control by way of the internal 24 V DC supply and direct control by means of PLC possible.

Note:
Selection of the soft starter depends on the rated motor current.

The SIRIUS 3RW40 solid-state soft starters are designed for easy starting conditions. $J_{Load} < 10 \times J_{Motor}$. In the event of deviating conditions or increased switching frequency, it may be necessary to choose a larger device. Siemens recommends the use of the selection and simulation program Win-Soft Starter. For information about rated currents for ambient temperatures > 40 °C, see technical specifications (see Technical Information LV 1 T).

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RW44 for High-Feature applications

Selection and ordering data

3RW44 27-1BC44

3RW44 36-6BC44

3RW44 47-6BC44

3RW44 58-6BC44

3RW44 66-6BC44

Ambient temperature 40 °C						Ambient temperature 50 °C					DT	Order No.	PS*	Weight per PU approx.
Rated operational current I_e	Rated power of induction motors for rated operational voltage U_e					Rated operational current I_e	Rated power of induction motors for rated operational voltage U_e							
	230 V	400 V	500 V	690 V	1000 V		200 V	230 V	460 V	575 V				
A	kW	kW	kW	kW	kW	A	hp	hp	hp	hp				kg
Inline circuit, rated operational voltage 200 ... 460 V[1]														
29	5.5	**15**	--	--	--	26	7.5	7.5	**15**	--		**3RW44 22-□BC□4**	1 unit	6.500
36	7.5	**18.5**	--	--	--	32	10	10	**20**	--		**3RW44 23-□BC□4**	1 unit	6.500
47	11	**22**	--	--	--	42	10	15	**25**	--		**3RW44 24-□BC□4**	1 unit	6.500
57	15	**30**	--	--	--	51	15	15	**30**	--		**3RW44 25-□BC□4**	1 unit	6.500
77	18.5	**37**	--	--	--	68	20	20	**50**	--		**3RW44 26-□BC□4**	1 unit	6.500
93	22	**45**	--	--	--	82	25	25	**60**	--		**3RW44 27-□BC□4**	1 unit	6.500
Order No. supplement for connection types														
• With spring-loaded terminals												**3**		
• With screw terminals												**1**		
113	30	**55**	--	--	--	100	30	30	**75**	--		**3RW44 34-□BC□4**	1 unit	7.900
134	37	**75**	--	--	--	117	30	40	**75**	--		**3RW44 35-□BC□4**	1 unit	7.900
162	45	**90**	--	--	--	145	40	50	**100**	--		**3RW44 36-□BC□4**	1 unit	7.900
203	55	**110**	--	--	--	180	50	60	**125**	--		**3RW44 43-□BC□4**	1 unit	11.500
250	75	**132**	--	--	--	215	60	75	**150**	--		**3RW44 44-□BC□4**	1 unit	11.500
313	90	**160**	--	--	--	280	75	100	**200**	--		**3RW44 45-□BC□4**	1 unit	11.500
356	110	**200**	--	--	--	315	100	125	**250**	--		**3RW44 46-□BC□4**	1 unit	11.500
432	132	**250**	--	--	--	385	125	150	**300**	--		**3RW44 47-□BC□4**	1 unit	11.500
551	160	**315**	--	--	--	494	150	200	**400**	--		**3RW44 53-□BC□4**	1 unit	50.000
615	200	**355**	--	--	--	551	150	200	**450**	--		**3RW44 54-□BC□4**	1 unit	50.000
693	200	**400**	--	--	--	615	200	250	**500**	--		**3RW44 55-□BC□4**	1 unit	50.000
780	250	**450**	--	--	--	693	200	250	**600**	--		**3RW44 56-□BC□4**	1 unit	50.000
880	250	**500**	--	--	--	780	250	300	**700**	--		**3RW44 57-□BC□4**	1 unit	50.000
970	315	**560**	--	--	--	850	300	350	**750**	--		**3RW44 58-□BC□4**	1 unit	50.000
1076	355	**630**	--	--	--	970	350	400	**850**	--		**3RW44 65-□BC□4**	1 unit	78.000
1214	400	**710**	--	--	--	1076	350	450	**950**	--		**3RW44 66-□BC□4**	1 unit	78.000
Order No. supplement for connection types														
• With spring-loaded terminals												**2**		
• With screw terminals												**6**		
Order No. supplement for the rated control supply voltage U_s[2]														
• 115 V AC													**3**	
• 230 V AC													**4**	

[1] 3RW44 2 soft starters. ... 3RW44 4. with screw terminals: delivery time class ► (preferred type).

[2] Control by way of the internal 24 V DC supply and direct control by means of PLC possible.

Note:
Soft starter selection depends on the rated motor current.

The 3RW44 solid-state soft starters are designed for normal starting (Class 10). (Inertia load of the overall operating mechanism $J_{Load} < 10 \times J_{Motor}$; starting current 350 % x I_e for 20 s similar load). For any other conditions of use, the devices should be selected using the Win-Soft Starter selection and simulation program. See Technical Specifications for information about rated currents for ambient temperatures > 40 °C and switching frequency.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RW44 for High-Feature applications

3RW44 27-1BC44

3RW44 36-6BC44

3RW44 47-6BC44

3RW44 58-6BC44

3RW44 66-6BC44

Ambient temperature 40 °C						Ambient temperature 50 °C					Order No.	PS*	Weight per PU approx.
Rated operational current I_e [1]	Rated power of induction motors for rated operational voltage U_e					Rated operational current I_e	Rated power of nduction motors for rated operational voltage U_e						
	230 V	400 V	500 V	690 V	1000 V		200 V	230 V	460 V	575 V			
A	kW	kW	kW	kW	kW	A	hp	hp	hp	hp			kg
Inside-delta circuit, rated operational voltage 200 ... 460 V[2]													
50	15	**22**	--	--	--	45	10	15	**30**	--	**3RW44 22-□BC□4**	1 unit	6.500
62	18.5	**30**	--	--	--	55	15	20	**40**	--	**3RW44 23-□BC□4**	1 unit	6.500
81	22	**45**	--	--	--	73	20	25	**50**	--	**3RW44 24-□BC□4**	1 unit	6.500
99	30	**55**	--	--	--	88	25	30	**60**	--	**3RW44 25-□BC□4**	1 unit	6.500
133	37	**75**	--	--	--	118	30	40	**75**	--	**3RW44 26-□BC□4**	1 unit	6.500
161	45	**90**	--	--	--	142	40	50	**100**	--	**3RW44 27-□BC□4**	1 unit	6.500
Order No. supplement for connection types													
• With spring-loaded terminals											**3**		
• With screw terminals											**1**		
196	55	**110**	--	--	--	173	50	60	**125**	--	**3RW44 34-□BC□4**	1 unit	7.900
232	75	**132**	--	--	--	203	60	75	**150**	--	**3RW44 35-□BC□4**	1 unit	7.900
281	90	**160**	--	--	--	251	75	100	**200**	--	**3RW44 36-□BC□4**	1 unit	7.900
352	110	**200**	--	--	--	312	100	125	**250**	--	**3RW44 43-□BC□4**	1 unit	11.500
433	132	**250**	--	--	--	372	125	150	**300**	--	**3RW44 44-□BC□4**	1 unit	11.500
542	160	**315**	--	--	--	485	150	200	**400**	--	**3RW44 45-□BC□4**	1 unit	11.500
617	200	**355**	--	--	--	546	150	200	**450**	--	**3RW44 46-□BC□4**	1 unit	11.500
748	250	**400**	--	--	--	667	200	250	**600**	--	**3RW44 47-□BC□4**	1 unit	11.500
954	315	**560**	--	--	--	856	300	350	**750**	--	**3RW44 53-□BC□4**	1 unit	50.000
1065	355	**630**	--	--	--	954	350	400	**850**	--	**3RW44 54-□BC□4**	1 unit	50.000
1200	400	**710**	--	--	--	1065	350	450	**950**	--	**3RW44 55-□BC□4**	1 unit	50.000
1351	450	**800**	--	--	--	1200	450	500	**1050**	--	**3RW44 56-□BC□4**	1 unit	50.000
1524	500	**900**	--	--	--	1351	450	600	**1200**	--	**3RW44 57-□BC□4**	1 unit	50.000
1680	560	**1000**	--	--	--	1472	550	650	**1300**	--	**3RW44 58-□BC□4**	1 unit	50.000
1864	630	**1100**	--	--	--	1680	650	750	**1500**	--	**3RW44 65-□BC□4**	1 unit	78.000
2103	710	**1200**	--	--	--	1864	700	850	**1700**	--	**3RW44 66-□BC□4**	1 unit	78.000
Order No. supplement for connection types													
• With spring-loaded terminals											**2**		
• With screw terminals											**6**		
Order No. supplement for the rated control supply voltage U_s[3]													
• 115 V AC												**3**	
• 230 V AC												**4**	

[1] In the selection table, the unit rated current I_e refers to the induction motor's rated operational current in the inside-delta circuit. The actual current of the device is approx. 58 % of this value.

[2] 3RW44 2 soft starters. ... 3RW44 4. with screw terminals: delivery time class ► (preferred type),

[3] Control by way of the internal 24 V DC supply and direct control by means of PLC possible.

Note:
Soft starter selection depends on the rated motor current.

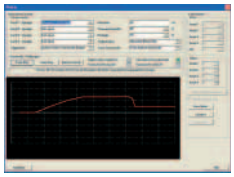
The 3RW44 solid-state soft starters are designed for normal starting (Class 10). (Inertia load of the overall operating mechanism $J_{Load} < 10 \times J_{Motor}$; starting current 350 % x I_e for 20 s similar load). For any other conditions of use, the devices should be selected using the Win-Soft Starter selection and simulation program. See Technical Specifications for information about rated currents for ambient temperatures > 40 °C and switching frequency.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RW44 for High-Feature applications

Accessories

	For soft starters Type	Version	DT	Order No.	PS*	Weight per PU approx. kg
Soft Starter ES 2006 PC communication programs						
 3ZS1 313-1CC10-0YA0	**Soft Starter ES 2006 Smart** Parameterization and service software for SIRIUS 3RW44 soft starters for parameterizing through the system interface on the device Runs on PC/PG under Windows 2000/XP Without PC cable Type of delivery: CD, single license		►	**3ZS13 13-1CC10-0YA0**	1 unit	0.230
	Soft Starter ES 2006 Professional Parameterization and service software for SIRIUS 3RW44 soft starters for parameterizing through the system interface on the device and PROFIBUS DP interface (optional PROFIBUS communication module required) Runs on PC/PG under Windows 2000/XP Without PC cable Type of delivery: CD, single license		►	**3ZS13 13-2CC10-0YA0**	1 unit	0.230
PC cables						
 3UF7 940-0AA00-0	**For PC/PG communication with SIRIUS 3RW44 soft starters** Through the system interface, for connecting to the serial interface of the PC/PG			**3UF7 940-0AA00-0**	1 unit	0.150
PROFIBUS communication modules						
 3RW49 00-0KC00	Modules can be plugged into the soft starters for integrating the starters in the PROFIBUS network with DPV1 slave functionality. On Y-link the soft starter has only DPV0 slave functionality.			**3RW49 00-0KC00**	1 unit	0.320
External displays and operator modules						
 3RW49 00-0AC00	For indicating and operating the functions provided by the soft starter using an externally mounted display and operator module (e.g. in the control cabinet door)		►	**3RW49 00-0AC00**	1 unit	0.320
	Connection cables From the device interface (serial) of the 3RW44 soft starter to the external display and operator module					
	• Length 0.5 m, flat			**3UF7 932-0AA00-0**	1 unit	0.020
	• Length 0.5 m, round			**3UF7 932-0BA00-0**	1 unit	0.050
	• Length 1.0 m, round			**3UF7 937-0BA00-0**	1 unit	0.100
	• Length 2.5 m, round			**3UF7 933-0BA00-0**	1 unit	0.150
Box terminal blocks for soft starters						
 3RT19	**Box terminal blocks**					
	3RW44 2.	Included in the scope of supply				
	3RW44 3.	• Up to 70 mm²	►	**3RT19 55-4G**	1 unit	0.230
		• Up to 120 mm²	►	**3RT19 56-4G**	1 unit	0.260
	3RW44 4.	• Up to 240 mm²	►	**3RT19 66-4G**	1 unit	0.676
Fans						
 3RW49	**Fans**					
	3RW40 5., 3RW44 2. and 3RW44 3.	115 V AC	►	**3RW49 36-8VX30**	1 unit	0.300
		230 V AC	►	**3RW49 36-8VX40**	1 unit	0.300
	3RW40 7., 3RW44 4.	115 V AC	►	**3RW49 47-8VX30**	1 unit	0.500
		230 V AC	►	**3RW49 47-8VX40**	1 unit	0.500
	3RW44 5.	115 V AC	►	**3RW49 57-8VX30**	1 unit	0.800
		230 V AC	►	**3RW49 57-8VX40**	1 unit	0.800

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

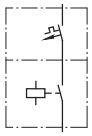
Selection and ordering data

3RA11 10

3RA11 20

3RA11 30

Direct start



Rated control supply voltage AC 50 Hz 230 V[1] for 35 mm standard mounting rail or screw fixing

- The motor starter protector and contactor are mechanically and electrically connected by means of the link module
- As from size S2 with standard mounting rail adapter[2] for mechanical reinforcement
- Auxiliary switches[3] on the motor starter protector and the contactor can be easily fitted due to the modular system (on contactor size S00: 1 NO integrated)

Size	Standard induction motor 4-pole at -400 V AC[4] Standard output P	Motor current (guide value) I	Setting range for thermal overload release	Consisting of the following single devices: Motor starter protector	+ Contactor	+ Link module + Standard mounting rail adapter[1]	DT	Fuseless load feeders Order No.	PS*	Weight per PU approx.
	kW	A	A							kg
Type of coordination 2 at I_q = 50 kA/100 kA at 400 V (compatible with type of coordination 1)										
S00	0.06	0.2	0.14 ... 0.2	3RV10 11-0BA10	3RT10 15-1AP01	3RA19 11-1AA00		**3RA11 10-0BA15-1AP0**	1 unit	0.454
	0.06	0.2	0.18 ... 0.25	3RV10 11-0CA10		+		**3RA11 10-0CA15-1AP0**	1 unit	0.450
	0.09	0.3	0.22 ... 0.32	3RV10 11-0DA10		5)		**3RA11 10-0DA15-1AP0**	1 unit	0.450
	0.09	0.3	0.28 ... 0.4	3RV10 11-0EA10				**3RA11 10-0EA15-1AP0**	1 unit	0.452
	0.12	0.4	0.35 ... 0.5	3RV10 11-0FA10				**3RA11 10-0FA15-1AP0**	1 unit	0.450
	0.18	0.6	0.45 ... 0.63	3RV10 11-0GA10				**3RA11 10-0GA15-1AP0**	1 unit	0.448
	0.18	0.6	0.55 ... 0.8	3RV10 11-0HA10				**3RA11 10-0HA15-1AP0**	1 unit	0.446
	0.25	0.8	0.7 ... 1	3RV10 11-0JA10				**3RA11 10-0JA15-1AP0**	1 unit	0.451
	0.37	1.1	0.9 ... 1.25	3RV10 11-0KA10				**3RA11 10-0KA15-1AP0**	1 unit	0.495
	0.55	1.5	1.1 ... 1.6	3RV10 11-1AA10				**3RA11 10-1AA15-1AP0**	1 unit	0.502
	0.75	1.9	1.4 ... 2	3RV10 11-1BA10				**3RA11 10-1BA15-1AP0**	1 unit	0.490
S0	0.75	1.9	1.8 ... 2.5	3RV10 21-1CA10	3RT10 24-1AP00	3RA19 21-1AA00		**3RA11 20-1CA24-0AP0**	1 unit	0.720
	1.1	2.7	2.2 ... 3.2	3RV10 21-1DA10		+		**3RA11 20-1DA24-0AP0**	1 unit	0.720
	1.5	3.6	2.8 ... 4	3RV10 21-1EA10		5)		**3RA11 20-1EA24-0AP0**	1 unit	0.710
	1.5	3.6	3.5 ... 5	3RV10 21-1FA10				**3RA11 20-1FA24-0AP0**	1 unit	0.723
	2.2	4.9	4.5 ... 6.3	3RV10 21-1GA10				**3RA11 20-1GA24-0AP0**	1 unit	0.717
	3	6.5	5.5 ... 8	3RV10 21-1HA10				**3RA11 20-1HA24-0AP0**	1 unit	0.730
	4	8.5	7 ... 10	3RV10 21-1JA10	3RT10 26-1AP00			**3RA11 20-1JA26-0AP0**	1 unit	0.720
	5.5	11.5	9 ... 12.5	3RV10 21-1KA10				**3RA11 20-1KA26-0AP0**	1 unit	0.725
	7.5	15.5	11 ... 16	3RV10 21-4AA10				**3RA11 20-4AA26-0AP0**	1 unit	0.720
	7.5	15.5	14 ... 20	3RV10 21-4BA10				**3RA11 20-4BA26-0AP0**	1 unit	0.722
S2	11	22	18 ... 25	3RV10 31-4DA10	3RT10 34-1AP00	3RA19 31-1AA00		**3RA11 30-4DB34-0AP0**	1 unit	2.070
	15	29	22 ... 32	3RV10 31-4EA10		+		**3RA11 30-4EB34-0AP0**	1 unit	2.083
	18.5	35	28 ... 40	3RV10 31-4FA10	3RT10 35-1AP00	3RA19 32-1AA00		**3RA11 30-4FB35-0AP0**	1 unit	2.126
	22	41	36 ... 45	3RV10 31-4GA10	3RT10 36-1AP00			**3RA11 30-4GB36-0AP0**	1 unit	2.130
	22	41	40 ... 50	3RV10 31-4HA10				**3RA11 30-4HB36-0AP0**	1 unit	2.091
S3	30	55	45 ... 63	3RV10 41-4JA10	3RT10 44-1AP00	3RA19 41-1AA00		Size S3 is only available for self-assembly.		
	37	66	57 ... 75	3RV10 41-4KA10	3RT10 45-1AP00	+				
	45	80	70 ... 90	3RV10 41-4LA10	3RT10 46-1AP00	3RA19 42-1AA00				
	45	80	80 ... 100	3RV10 41-4MA10						
Type of coordination 1 at I_q = 50 kA at 400 V (the motor starter protector is compatible with type of coordination 2)										
	0.75	1.9	1.4 ... 2					For load feeders for lower outputs see type of coordination 2.		
S00	0.75	1.9	1.8 ... 2.5	3RV10 11-1CA10	3RT10 15-1AP01	3RA19 11-1AA00		**3RA11 10-1CA15-1AP0**	1 unit	0.497
	1.1	2.7	2.2 ... 3.2	3RV10 11-1DA10		+		**3RA11 10-1DA15-1AP0**	1 unit	0.498
	1.5	3.6	2.8 ... 4	3RV10 11-1EA10		5)		**3RA11 10-1EA15-1AP0**	1 unit	0.500
	1.5	3.6	3.5 ... 5	3RV10 11-1FA10				**3RA11 10-1FA15-1AP0**	1 unit	0.501
	2.2	4.9	4.5 ... 6.3	3RV10 11-1GA10				**3RA11 10-1GA15-1AP0**	1 unit	0.508
	3	6.5	5.5 ... 8	3RV10 11-1HA10				**3RA11 10-1HA15-1AP0**	1 unit	0.508
	4	8.5	7 ... 10	3RV10 11-1JA10	3RT10 16-1AP01			**3RA11 10-1JA16-1AP0**	1 unit	0.493
	5.5	11.5	9 ... 12	3RV10 11-1KA10	3RT10 17-1AP01			**3RA11 10-1KA17-1AP0**	1 unit	0.500
S0	7.5	15.5	11 ... 16	3RV10 21-4AA10	3RT10 25-1AP00	3RA19 21-1AA00		**3RA11 20-4AA25-0AP0**	1 unit	0.729
	7.5	15.5	14 ... 20	3RV10 21-4BA10		+		**3RA11 20-4BA25-0AP0**	1 unit	0.724
	11	22	17 ... 22	3RV10 21-4CA10	3RT10 26-1AP00	5)		**3RA11 20-4CA26-0AP0**	1 unit	0.721
	11	22	18 ... 25	3RV10 21-4DA10	3RT10 26-1AP00			**3RA11 20-4DA26-0AP0**	1 unit	0.729
S2	15	29	22 ... 32					For load feeders for higher outputs see type of coordination 2.		
	18.5	35	28 ... 40							
	22	41	36 ... 45							

1) Size S00 also suitable for 60 Hz.
2) Standard mounting rail adapter is also suitable for screw fixing.
3) For auxiliary switches see Accessories, page 6/15.
4) Selection depends on the concrete startup and rated data of the protected motor.
5) Screw fixing with 1 push-in lug each per load feeder is possible; see Accessories, page 6/18.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RA11 Direct-On-Line Starters

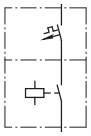
For snapping onto standard mounting rails or for screw fixing

3RA11 10

3RA11 20

3RA11 30

Direct start



Rated control supply voltage 24 V DC for 35 mm standard mounting rail or screw fixing

- The motor starter protector and contactor are mechanically and electrically connected by means of the link module
- As from size S2 with standard mounting rail adapter[1] for mechanical reinforcement
- Auxiliary switches[2] on the motor starter protector and the contactor can be easily fitted due to the modular system (on contactor size S00: 1 NO integrated)

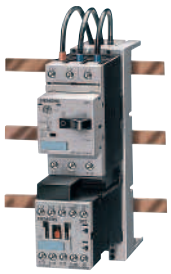
Size	Standard induction motor 4-pole at -400 V AC[3] Standard output P	Motor current (guide value) I	Setting range for thermal overload release	Consisting of the following single devices: Motor starter protector	+ Contactor	+ Link module + Standard mounting rail adapter	DT	Fuseless load feeders Order No.	PS*	Weight per PU approx.
	kW	A	A							kg
Type of coordination 2 at I_q = 50 kA/100 kA at 400 V (compatible with type of coordination 1)										
S00	0.06	0.2	0.14 ... 0.2	3RV10 11-0BA10	3RT10 15-1BB41	3RA19 11-1AA00		**3RA11 10-0BA15-1BB4**	1 unit	0.510
	0.06	0.2	0.18 ... 0.25	3RV10 11-0CA10		+		**3RA11 10-0CA15-1BB4**	1 unit	0.512
	0.09	0.3	0.22 ... 0.32	3RV10 11-0DA10		4)		**3RA11 10-0DA15-1BB4**	1 unit	0.505
	0.09	0.3	0.28 ... 0.4	3RV10 11-0EA10				**3RA11 10-0EA15-1BB4**	1 unit	0.508
	0.12	0.4	0.35 ... 0.5	3RV10 11-0FA10				**3RA11 10-0FA15-1BB4**	1 unit	0.500
	0.18	0.6	0.45 ... 0.63	3RV10 11-0GA10				**3RA11 10-0GA15-1BB4**	1 unit	0.505
	0.18	0.6	0.55 ... 0.8	3RV10 11-0HA10				**3RA11 10-0HA15-1BB4**	1 unit	0.513
	0.25	0.85	0.7 ... 1	3RV10 11-0JA10				**3RA11 10-0JA15-1BB4**	1 unit	0.508
	0.37	1.1	0.9 ... 1.25	3RV10 11-0KA10				**3RA11 10-0KA15-1BB4**	1 unit	0.556
	0.55	1.5	1.1 ... 1.6	3RV10 11-1AA10				**3RA11 10-1AA15-1BB4**	1 unit	0.553
	0.75	1.9	1.4 ... 2	3RV10 11-1BA10				**3RA11 10-1BA15-1BB4**	1 unit	0.554
S0	0.75	1.9	1.8 ... 2.5	3RV10 21-1CA10	3RT10 24-1BB40	3RA19 21-1BA00		**3RA11 20-1CA24-0BB4**	1 unit	0.947
	1.1	2.7	2.2 ... 3.2	3RV10 21-1DA10		+		**3RA11 20-1DA24-0BB4**	1 unit	0.940
	1.5	3.6	2.8 ... 4	3RV10 21-1EA10		4)		**3RA11 20-1EA24-0BB4**	1 unit	0.945
	1.5	3.6	3.5 ... 5	3RV10 21-1FA10				**3RA11 20-1FA24-0BB4**	1 unit	0.951
	2.2	4.9	4.5 ... 6.3	3RV10 21-1GA10				**3RA11 20-1GA24-0BB4**	1 unit	0.948
	3	6.5	5.5 ... 8	3RV10 21-1HA10				**3RA11 20-1HA24-0BB4**	1 unit	0.960
	4	8.5	7 ... 10	3RV10 21-1JA10	3RT10 26-1BB40			**3RA11 20-1JA26-0BB4**	1 unit	0.951
	5.5	11.5	9 ... 12.5	3RV10 21-1KA10				**3RA11 20-1KA26-0BB4**	1 unit	0.940
	7.5	15.5	11 ... 16	3RV10 21-4AA10				**3RA11 20-4AA26-0BB4**	1 unit	0.959
	7.5	15.5	14 ... 20	3RV10 21-4BA10				**3RA11 20-4BA26-0BB4**	1 unit	0.950
S2	11	22	18 ... 25	3RV10 31-4DA10	3RT10 34-1BB40	3RA19 31-1BA00		**3RA11 30-4DB34-0BB4**	1 unit	2.700
	15	29	22 ... 32	3RV10 31-4EA10		+		**3RA11 30-4EB34-0BB4**	1 unit	2.700
	18.5	35	28 ... 40	3RV10 31-4FA10	3RT10 35-1BB40	3RA19 32-1AA00		**3RA11 30-4FB35-0BB4**	1 unit	2.730
	22	41	36 ... 45	3RV10 31-4GA10	3RT10 36-1BB40			**3RA11 30-4GB36-0BB4**	1 unit	2.699
	22	41	40 ... 50	3RV10 31-4HA10				**3RA11 30-4HB36-0BB4**	1 unit	2.696
S3	30	55	45 ... 63	3RV10 41-4JA10	3RT10 44-1BB40	3RA19 41-1BA00		Size S3 is only available for self-assembly.		
	37	67	57 ... 75	3RV10 41-4KA10	3RT10 45-1BB40	+				
	45	80	70 ... 90	3RV10 41-4LA10	3RT10 46-1BB40	3RA19 42-1AA00				
	45	80	80 ... 100	3RV10 41-4MA10						
Type of coordination 1 at I_q = 50 kA at 400 V (the motor starter protector is compatible with type of coordination 2)										
	0.75	1.9	1.4 ... 2					For load feeders for lower outputs see type of coordination 2.		
S00	0.75	1.9	1.8 ... 2.5	3RV10 11-1CA10	3RT10 15-1BB41	3RA19 11-1AA00		**3RA11 10-1CA15-1BB4**	1 unit	0.563
	1.1	2.7	2.2 ... 3.2	3RV10 11-1DA10		+		**3RA11 10-1DA15-1BB4**	1 unit	0.555
	1.5	3.6	2.8 ... 4	3RV10 11-1EA10		4)		**3RA11 10-1EA15-1BB4**	1 unit	0.555
	1.5	3.6	3.5 ... 5	3RV10 11-1FA10				**3RA11 10-1FA15-1BB4**	1 unit	0.567
	2.2	4.9	4.5 ... 6.3	3RV10 11-1GA10				**3RA11 10-1GA15-1BB4**	1 unit	0.558
	3	6.5	5.5 ... 8	3RV10 11-1HA10				**3RA11 10-1HA15-1BB4**	1 unit	0.560
	4	8.5	7 ... 10	3RV10 11-1JA10	3RT10 16-1BB41			**3RA11 10-1JA16-1BB4**	1 unit	0.555
	5.5	11.5	9 ... 12	3RV10 11-1KA10	3RT10 17-1BB41			**3RA11 10-1KA17-1BB4**	1 unit	0.560
S0	7.5	15.5	11 ... 16	3RV10 21-4AA10	3RT10 25-1BB40	3RA19 21-1BA00		**3RA11 20-4AA25-0BB4**	1 unit	0.960
	7.5	15.5	14 ... 20	3RV10 21-4BA10		+		**3RA11 20-4BA25-0BB4**	1 unit	0.952
	11	22	17 ... 22	3RV10 21-4CA10	3RT10 26-1BB40	4)		**3RA11 20-4CA26-0BB4**	1 unit	0.961
	11	22	18 ... 25	3RV10 21-4DA10				**3RA11 20-4DA26-0BB4**	1 unit	0.960
S2	15	29	22 ... 32					For load feeders for higher outputs see type of coordination 2.		
	18.5	35	28 ... 40							
	22	41	36 ... 45							

1) Standard mounting rail adapter is also suitable for screw fixing.
2) For auxiliary switches see Accessories, page 6/15.
3) Selection depends on the concrete startup and rated data of the protected motor.
4) Screw fixing with 1 push-in lug each per load feeder is possible; see Accessories, page 6/18.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

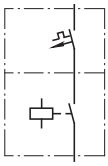
Selection and ordering data



3RA1110

3RA1120

Direct start



Rated control supply voltage AC 50 Hz 230 V[1] for 40 and 60 mm busbar systems

- The motor starter protector and contactor are mechanically and electrically connected by means of the link module
- Auxiliary switches[2] on the motor starter protector and the contactor can be easily fitted due to the modular system (on contactor size S00: 1 NO integrated)

Size	Standard induction motor 4-pole at 400 V AC[3] Standard output P	Motor current (guide value) I	Setting range for thermal overload release	Consisting of the following single devices: Motor starter protector	+ Contactor	+ Link module + Busbar adapter	DT	Fuseless load feeders Order No.	PS*	Weight per PU approx.
	kW	A	A							kg
Type of coordination 2 at I_q = 50 kA at 400 V (compatible with type of coordination 1)										
S00	0.06	0.2	0.14 ... 0.2	3RV10 11-0BA10	3RT10 15-1AP01	3RA19 11-1AA00		**3RA11 10-0B □15-1AP0**	1 unit	0.790
	0.06	0.2	0.18 ... 0.25	3RV10 11-0CA10		+		**3RA11 10-0C □15-1AP0**	1 unit	0.702
	0.09	0.3	0.22 ... 0.32	3RV10 11-0DA10		40 mm		**3RA11 10-0D □15-1AP0**	1 unit	0.675
	0.09	0.3	0.28 ... 0.4	3RV10 11-0EA10		8US10 51-5DM07		**3RA11 10-0E □15-1AP0**	1 unit	0.670
	0.12	0.4	0.35 ... 0.5	3RV10 11-0FA10		or 60 mm		**3RA11 10-0F □15-1AP0**	1 unit	0.680
	0.18	0.6	0.45 ... 0.63	3RV10 11-0GA10		8US12 51-5DM07		**3RA11 10-0G □15-1AP0**	1 unit	0.670
	0.18	0.6	0.55 ... 0.8	3RV10 11-0HA10				**3RA11 10-0H □15-1AP0**	1 unit	0.670
	0.25	0.85	0.7 ... 1	3RV10 11-0JA10				**3RA11 10-0J □15-1AP0**	1 unit	0.667
	0.37	1.1	0.9 ... 1.25	3RV10 11-0KA10				**3RA11 10-0K □15-1AP0**	1 unit	0.715
	0.55	1.5	1.1 ... 1.6	3RV10 11-1AA10				**3RA11 10-1A □15-1AP0**	1 unit	0.715
	0.75	1.9	1.4 ... 2	3RV10 11-1BA10				**3RA11 10-1B □15-1AP0**	1 unit	0.715
S0	0.75	1.9	1.8 ... 2.5	3RV10 21-1CA10	3RT10 24-1AP00	3RA19 21-1AA00		**3RA11 20-1C □24-0AP0**	1 unit	0.939
	1.1	2.7	2.2 ... 3.2	3RV10 21-1DA10		+		**3RA11 20-1D □24-0AP0**	1 unit	0.940
	1.5	3.6	2.8 ... 4	3RV10 21-1EA10		40 mm		**3RA11 20-1E □24-0AP0**	1 unit	0.940
	1.5	3.6	3.5 ... 5	3RV10 21-1FA10		8US10 51-5DM07		**3RA11 20-1F □24-0AP0**	1 unit	0.927
	2.2	5.2	4.5 ... 6.3	3RV10 21-1GA10		or 60 mm		**3RA11 20-1G □24-0AP0**	1 unit	0.927
	3	6.8	5.5 ... 8	3RV10 21-1HA10		8US12 51-5DM07		**3RA11 20-1H □24-0AP0**	1 unit	0.931
	4	9	7 ... 10	3RV10 21-1JA10	3RT10 26-1AP00			**3RA11 20-1J □26-0AP0**	1 unit	0.935
	5.5	11.5	9 ... 12.5	3RV10 21-1KA10				**3RA11 20-1K □26-0AP0**	1 unit	0.936
	7.5	15.5	11 ... 16	3RV10 21-4AA10				**3RA11 20-4A □26-0AP0**	1 unit	0.940
	7.5	15.5	14 ... 20	3RV10 21-4BA10				**3RA11 20-4B □26-0AP0**	1 unit	0.943
S2	11	22	18 ... 25	3RV10 31-4DA10	3RT10 34-1AP00	3RA19 31-1AA00		Size S2 is only available for self-assembly.		
	15	29	22 ... 32	3RV10 31-4EA10		+ 40 mm				
	18.5	35	28 ... 40	3RV10 31-4FA10	3RT10 35-1AP00	8US10 61-5FP08				
	22	41	36 ... 45	3RV10 31-4GA10	3RT10 36-1AP00	or 60 mm				
	22	41	40 ... 50	3RV10 31-4HA10		8US12 61-5FP08				
S3	30	55	45 ... 63	3RV10 41-4JA10	3RT10 44-1AP00	3RA19 41-1AA00		For size S3, a busbar adapter is not necessary.		
	37	67	57 ... 75	3RV10 41-4KA10	3RT10 45-1AP00					
	45	80	70 ... 90	3RV10 41-4LA10	3RT10 46-1AP00					
	45	80	80 ... 100	3RV10 41-4MA10						
Type of coordination 1 at I_q = 50 kA at 400 V (the motor starter protector is compatible with type of coordination 2)										
	0.75	1.9	1.4 ... 2					For load feeders for lower outputs see type of coordination 2.		
S00	0.75	1.9	1.8 ... 2.5	3RV10 11-1CA10	3RT10 15-1AP01	3RA19 11-1AA00		**3RA11 10-1C □15-1AP0**	1 unit	0.714
	1.1	2.7	2.2 ... 3.2	3RV10 11-1DA10		+		**3RA11 10-1D □15-1AP0**	1 unit	0.716
	1.5	3.6	2.8 ... 4	3RV10 11-1EA10		40 mm		**3RA11 10-1E □15-1AP0**	1 unit	0.715
	1.5	3.6	3.5 ... 5	3RV10 11-1FA10		8US10 51-5DM07		**3RA11 10-1F □15-1AP0**	1 unit	0.717
	2.2	4.9	4.5 ... 6.3	3RV10 11-1GA10		or 60 mm		**3RA11 10-1G □15-1AP0**	1 unit	0.502
	3	6.5	5.5 ... 8	3RV10 11-1HA10		8US12 51-5DM07		**3RA11 10-1H □15-1AP0**	1 unit	0.695
	4	8.5	7 ... 10	3RV10 11-1JA10	3RT10 16-1AP01			**3RA11 10-1J □16-1AP0**	1 unit	0.650
	5.5	11.5	9 ... 12	3RV10 11-1KA10	3RT10 17-1AP01			**3RA11 10-1K □17-1AP0**	1 unit	0.717
S0	7.5	15.5	11 ... 16	3RV10 21-4AA10	3RT10 25-1AP00	3RA19 21-1AA00		**3RA11 20-4A □25-0AP0**	1 unit	0.940
	7.5	15.5	14 ... 20	3RV10 21-4BA10		+		**3RA11 20-4B □25-0AP0**	1 unit	0.939
	11	22	17 ... 22	3RV10 21-4CA10	3RT10 26-1AP00	40 mm		**3RA11 20-4C □26-0AP0**	1 unit	0.935
	11	22	18 ... 25	3RV10 21-4DA10		8US10 51-5DM07		**3RA11 20-4D □26-0AP0**	1 unit	0.937
						or 60 mm 8US12 51-5DM07				
S2	15	29	22 ... 32					For load feeders for higher outputs see type of coordination 2.		
	18.5	35	28 ... 40							
	22	41	36 ... 45							

Order No. supplement for busbar center-to-center clearance

40 mm	**C**
60 mm	**D**

[1] Size S00 also suitable for 60 Hz.

[2] For auxiliary switches see Accessories, page 6/15.

[3] Selection depends on the concrete startup and rated data of the protected motor.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

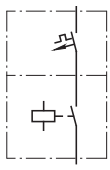
3RA11 Direct-On-Line Starters

For busbar systems

3RA1110

3RA1120

Direct start



Rated control supply voltage 24 V DC for 40 and 60 mm busbar systems

- The motor starter protector and contactor are mechanically and electrically connected by means of the link module
- Auxiliary switches[1] on the motor starter protector and the contactor can be easily fitted due to the modular system (on contactor size S00: 1 NO integrated)

Size	Standard induction motor 4-pole at 400 V AC[2] Standard output P	Motor current (guide value) I	Setting range for thermal overload release	Consisting of the following single devices: Motor starter protector	+ Contactor	+ Link module + Busbar adapter	DT	Fuseless load feeders Order No.	PS*	Weight per PU approx.
	kW	A	A							kg
Type of coordination 2 at I_q = 50 kA at 400 V (compatible with type of coordination 1)										
S00	0.06	0.2	0.14 ... 0.2	3RV10 11-0BA10	3RT10 15-1BB41	3RA19 11-1AA00		**3RA11 10-0B □15-1BB4**	1 unit	0.730
	0.06	0.2	0.18 ... 0.25	3RV10 11-0CA10		+		**3RA11 10-0C □15-1BB4**	1 unit	0.720
	0.09	0.3	0.22 ... 0.32	3RV10 11-0DA10		40 mm		**3RA11 10-0D □15-1BB4**	1 unit	0.711
	0.09	0.3	0.28 ... 0.4	3RV10 11-0EA10		8US10 51-5DM07		**3RA11 10-0E □15-1BB4**	1 unit	0.716
	0.12	0.4	0.35 ... 0.5	3RV10 11-0FA10		or 60 mm		**3RA11 10-0F □15-1BB4**	1 unit	0.720
	0.18	0.6	0.45 ... 0.63	3RV10 11-0GA10		8US12 51-5DM07		**3RA11 10-0G □15-1BB4**	1 unit	0.728
	0.18	0.6	0.55 ... 0.8	3RV10 11-0HA10				**3RA11 10-0H □15-1BB4**	1 unit	0.714
	0.25	0.8	0.7 ... 1	3RV10 11-0JA10				**3RA11 10-0J □15-1BB4**	1 unit	0.724
	0.37	1.1	0.9 ... 1.25	3RV10 11-0KA10				**3RA11 10-0K □15-1BB4**	1 unit	0.780
	0.55	1.5	1.1 ... 1.6	3RV10 11-1AA10				**3RA11 10-1A □15-1BB4**	1 unit	0.767
	0.75	1.9	1.4 ... 2	3RV10 11-1BA10				**3RA11 10-1B □15-1BB4**	1 unit	0.764
S0	0.75	1.9	1.8 ... 2.5	3RV10 21-1CA10	3RT10 24-1BB40	3RA19 21-1BA00		**3RA11 20-1C □24-0BB4**	1 unit	1.158
	1.1	2.7	2.2 ... 3.2	3RV10 21-1DA10		+		**3RA11 20-1D □24-0BB4**	1 unit	1.133
	1.5	3.6	2.8 ... 4	3RV10 21-1EA10		40 mm		**3RA11 20-1E □24-0BB4**	1 unit	1.132
	1.5	3.6	3.5 ... 5	3RV10 21-1FA10		8US10 51-5DM07		**3RA11 20-1F □24-0BB4**	1 unit	1.160
	2.2	4.9	4.5 ... 6.3	3RV10 21-1GA10		or 60 mm		**3RA11 20-1G □24-0BB4**	1 unit	1.165
	3	6.5	5.5 ... 8	3RV10 21-1HA10		8US12 51-5DM07		**3RA11 20-1H □24-0BB4**	1 unit	1.170
	4	8.5	7 ... 10	3RV10 21-1JA10	3RT10 26-1BB40			**3RA11 20-1J □26-0BB4**	1 unit	1.167
	5.5	11.5	9 ... 12.5	3RV10 21-1KA10				**3RA11 20-1K □26-0BB4**	1 unit	1.163
	7.5	15.5	11 ... 16	3RV10 21-4AA10				**3RA11 20-4A □26-0BB4**	1 unit	1.172
	7.5	15.5	14 ... 20	3RV10 21-4BA10				**3RA11 20-4B □26-0BB4**	1 unit	1.168
S2	11	22	18 ... 25	3RV10 31-4DA10	3RT10 34-1BB40	3RA19 31-1BA00		Size S2 is only available for self-assembly.		
	15	29	22 ... 32	3RV10 31-4EA10		+ 40 mm				
	18.5	35	28 ... 40	3RV10 31-4FA10	3RT10 35-1BB40	8US10 61-5FP08				
	22	41	36 ... 45	3RV10 31-4GA10	3RT10 36-1BB40	or 60 mm				
	22	41	40 ... 50	3RV10 31-4HA10		8US12 61-5FP08				
S3	30	55	45 ... 63	3RV10 41-4JA10	3RT10 44-1BB40	3RA19 41-1BA00		For size S3, a busbar adapter is not necessary.		
	37	67	57 ... 75	3RV10 41-4KA10	3RT10 45-1BB40	+				
	45	80	70 ... 90	3RV10 41-4LA10	3RT10 46-1BB40	not available				
	45	80	80 ... 100	3RV10 41-4MA10						
Type of coordination 1 at I_q = 50 kA at 400 V (the motor starter protector is compatible with type of coordination 2)										
	0.75	1.9	1.4 ... 2					For load feeders for lower outputs see type of coordination 2.		
S00	0.75	1.9	1.8 ... 2.5	3RV10 11-1CA10	3RT10 15-1BB41	3RA19 11-1AA00		**3RA11 10-1C □15-1BB4**	1 unit	0.784
	1.1	2.7	2.2 ... 3.2	3RV10 11-1DA10		+		**3RA11 10-1D □15-1BB4**	1 unit	0.775
	1.5	3.6	2.8 ... 4	3RV10 11-1EA10		40 mm		**3RA11 10-1E □15-1BB4**	1 unit	0.781
	1.5	3.6	3.5 ... 5	3RV10 11-1FA10		8US10 51-5DM07		**3RA11 10-1F □15-1BB4**	1 unit	0.782
	2.2	5.2	4.5 ... 6.3	3RV10 11-1GA10		or 60 mm		**3RA11 10-1G □15-1BB4**	1 unit	0.780
	3	6.8	5.5 ... 8	3RV10 11-1HA10		8US12 51-5DM07		**3RA11 10-1H □15-1BB4**	1 unit	0.770
	4	9	7 ... 10	3RV10 11-1JA10	3RT10 16-1BB41			**3RA11 10-1J □16-1BB4**	1 unit	0.774
	5.5	11.5	9 ... 12	3RV10 11-1KA10	3RT10 17-1BB41			**3RA11 10-1K □17-1BB4**	1 unit	0.772
S0	7.5	15.5	11 ... 16	3RV10 21-4AA10	3RT10 25-1BB40	3RA19 21-1BA00		**3RA11 20-4A □25-0BB4**	1 unit	1.177
	7.5	15.5	14 ... 20	3RV10 21-4BA10		+		**3RA11 20-4B □25-0BB4**	1 unit	1.163
	11	22	17 ... 22	3RV10 21-4CA10	3RT10 26-1BB40	40 mm		**3RA11 20-4C □26-0BB4**	1 unit	1.164
	11	22	18 ... 25	3RV10 21-4DA10		8US10 51-5DM07		**3RA11 20-4D □26-0BB4**	1 unit	1.175
						or 60 mm				
						8US12 51-5DM07				
S3	15	29	22 ... 32					For load feeders for higher outputs see type of coordination 2.		
	18.5	35	28 ... 40							
	22	41	36 ... 45							

Order No. supplement for busbar center-to-center clearance

40 mm	**C**
60 mm	**D**

[1] For auxiliary switches see Accessories, page 6/15.

[2] Selection depends on the concrete startup and rated data of the protected motor.

*** You can order this quantity or a multiple thereof. For other units and versions see A&D Mall.**

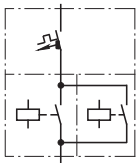
© Siemens AG 2008

Selection and ordering data

3RA12 10

3RA12 20

Reversing duty



Rated control supply voltage AC 50 Hz 230 V[1] for 35 mm standard mounting rail or screw fixing

- The motor starter protector and contactor are mechanically and electrically connected by means of the link module
- As from size S0 with standard mounting rail adapter[2] for mechanical reinforcement
- Auxiliary switches[3] on the motor starter protector and the contactor can be easily fitted due to the modular system
- Complete unit always with electrical and mechanical interlock

Size	Standard induction motor 4-pole at 400 V AC[4] Standard output P	Motor current (guide value) I	Setting range for thermal overload release	Consisting of the following single devices: Motor starter protector	+ 2 contactors	+ Link module + Assembly kit RH[2][5]	DT	Fuseless load feeders Order No.	PS*	Weight per PU approx.
	kW	A	A							kg
Type of coordination 2 at I_q = 50 kA/100 kA at 400 V (compatible with type of coordination 1)										
S00	0.06	0.2	0.14 ... 0.2	3RV10 11-0BA10	3RT10 15-1AP02	3RA19 11-1AA00		**3RA12 10-0BA15-0AP0**	1 unit	0.717
	0.06	0.2	0.18 ... 0.25	3RV10 11-0CA10		+		**3RA12 10-0CA15-0AP0**	1 unit	0.700
	0.09	0.3	0.22 ... 0.32	3RV10 11-0DA10		3RA19 13-2A[6]		**3RA12 10-0DA15-0AP0**	1 unit	0.700
	0.09	0.3	0.28 ... 0.4	3RV10 11-0EA10				**3RA12 10-0EA15-0AP0**	1 unit	0.720
	0.12	0.4	0.35 ... 0.5	3RV10 11-0FA10				**3RA12 10-0FA15-0AP0**	1 unit	0.708
	0.18	0.6	0.45 ... 0.63	3RV10 11-0GA10				**3RA12 10-0GA15-0AP0**	1 unit	0.717
	0.18	0.6	0.55 ... 0.8	3RV10 11-0HA10				**3RA12 10-0HA15-0AP0**	1 unit	0.710
	0.25	0.85	0.7 ... 1	3RV10 11-0JA10				**3RA12 10-0JA15-0AP0**	1 unit	0.710
	0.37	1.1	0.9 ... 1.25	3RV10 11-0KA10				**3RA12 10-0KA15-0AP0**	1 unit	0.755
	0.55	1.5	1.1 ... 1.6	3RV10 11-1AA10				**3RA12 10-1AA15-0AP0**	1 unit	0.765
	0.75	1.9	1.4 ... 2	3RV10 11-1BA10				**3RA12 10-1BA15-0AP0**	1 unit	0.765
S0	0.75	1.9	1.8 ... 2.5	3RV10 21-1CA10	3RT10 24-1AP00	3RA19 21-1AA00		**3RA12 20-1CB24-0AP0**	1 unit	1.400
	1.1	2.7	2.2 ... 3.2	3RV10 21-1DA10		+		**3RA12 20-1DB24-0AP0**	1 unit	1.394
	1.5	3.6	2.8 ... 4	3RV10 21-1EA10		3RA19 23-1B[7]		**3RA12 20-1EB24-0AP0**	1 unit	1.385
	1.5	3.6	3.5 ... 5	3RV10 21-1FA10				**3RA12 20-1FB24-0AP0**	1 unit	1.387
	2.2	4.9	4.5 ... 6.3	3RV10 21-1GA10				**3RA12 20-1GB24-0AP0**	1 unit	1.390
	3	6.5	5.5 ... 8	3RV10 21-1HA10				**3RA12 20-1HB24-0AP0**	1 unit	1.389
	4	8.5	7 ... 10	3RV10 21-1JA10	3RT10 26-1AP00			**3RA12 20-1JB26-0AP0**	1 unit	1.389
	5.5	11.5	9 ... 12.5	3RV10 21-1KA10				**3RA12 20-1KB26-0AP0**	1 unit	1.386
	7.5	15.5	11 ... 16	3RV10 21-4AA10				**3RA12 20-4AB26-0AP0**	1 unit	1.408
	7.5	15.5	14 ... 20	3RV10 21-4BA10				**3RA12 20-4BB26-0AP0**	1 unit	1.400
S2	11	22	18 ... 25	3RV10 31-4DA10	3RT10 34-1AP00	3RA19 31-1AA00		Size S2 is only available for self-assembly.		
	15	29	22 ... 32	3RV10 31-4EA10		+				
	18.5	35	28 ... 40	3RV10 31-4FA10	3RT10 35-1AP00	3RA19 33-1B[7]				
	22	41	36 ... 45	3RV10 31-4GA10	3RT10 36-1AP00					
	22	41	40 ... 50	3RV10 31-4HA10						
S3	30	55	45 ... 63	3RV10 41-4JA10	3RT10 44-1AP00	3RA19 41-1AA00		Size S3 is only available for self-assembly.		
	37	67	57 ... 75	3RV10 41-4KA10	3RT10 45-1AP00	+				
	45	80	70 ... 90	3RV10 41-4LA10	3RT10 46-1AP00	3RA19 43-1B[7]				
	45	80	80 ... 100	3RV10 41-4MA10						
Type of coordination 1 at I_q = 50 kA at 400 V (the motor starter protector is compatible with type of coordination 2)										
	0.75	1.9	1.4 ... 2					For load feeders for lower outputs see type of coordination 2.		
S00	0.75	1.9	1.8 ... 2.5	3RV10 11-1CA10	3RT10 15-1AP02	3RA19 11-1AA00		**3RA12 10-1CA15-0AP0**	1 unit	0.755
	1.1	2.7	2.2 ... 3.2	3RV10 11-1DA10		+		**3RA12 10-1DA15-0AP0**	1 unit	0.760
	1.5	3.6	2.8 ... 4	3RV10 11-1EA10		3RA19 13-2A[6]		**3RA12 10-1EA15-0AP0**	1 unit	0.764
	1.5	3.6	3.5 ... 5	3RV10 11-1FA10				**3RA12 10-1FA15-0AP0**	1 unit	0.766
	2.2	5.2	4.5 ... 6.3	3RV10 11-1GA10				**3RA12 10-1GA15-0AP0**	1 unit	0.760
	3	6.8	5.5 ... 8	3RV10 11-1HA10				**3RA12 10-1HA15-0AP0**	1 unit	0.755
	4	9	7 ... 10	3RV10 11-1JA10	3RT10 16-1AP02			**3RA12 10-1JA16-0AP0**	1 unit	0.761
	5.5	11.5	9 ... 12	3RV10 11-1KA10	3RT10 17-1AP02			**3RA12 10-1KA17-0AP0**	1 unit	0.760
S0	7.5	15.5	11 ... 16	3RV10 21-4AA10	3RT10 25-1AP00			**3RA12 20-4AB25-0AP0**	1 unit	1.397
	7.5	15.5	14 ... 20	3RV10 21-4BA10		3RA19 21-1AA00		**3RA12 20-4BB25-0AP0**	1 unit	1.385
	11	22	17 ... 22	3RV10 21-4CA10	3RT10 26-1AP00	+		**3RA12 20-4CB26-0AP0**	1 unit	1.400
	11	22	20 ... 25	3RV10 21-4DA10		3RA19 23-1B[7]		**3RA12 20-4DB26-0AP0**	1 unit	1.420
S3	15	29	22 ... 32					For load feeders for higher outputs see type of coordination 2.		
	18.5	35	28 ... 40							
	22	41	36 ... 45							

1) Size S00 also suitable for 60 Hz.
2) Assembly kit for standard mounting rail adapter also suitable for screw fixing.
3) For auxiliary switches see Accessories, page 6/15.
4) Selection depends on the concrete startup and rated data of the protected motor.
5) RH = Reversing duty for standard rail mounting.
6) Wiring kit necessary, see Accessories, page 6/16. Screw fixing with 1 push-in lug each per load feeder is possible; see Accessories, page 6/18.
7) Mechanical locking device must be ordered separately; see Accessories, page 6/16.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

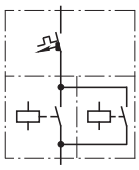
3RA12 Reversing Starters

For snapping onto standard mounting rails or for screw fixing

3RA12 10

3RA12 20

Reversing duty



Rated control supply voltage 24 V DC for 35 mm standard mounting rail or screw fixing

- The motor starter protector and contactor are mechanically and electrically connected by means of the link module
- As from size S0 with standard mounting rail adapter[1] for mechanical reinforcement
- Auxiliary switches[2] on the motor starter protector and the contactor can be easily fitted due to the modular system
- Complete unit always with electrical and mechanical interlock

Size	Standard induction motor 4-pole at 400 V AC[3] Standard output P	Motor current (guide value) I	Setting range for thermal overload release	Consisting of the following single devices: Motor starter protector	+ 2 contactors	+ Link module + Assembly kit RH[1)4)]	DT	Fuseless load feeders Order No.	PS*	Weight per PU approx.
	kW	A	A							kg
Type of coordination 2 at I_q = 50 kA/100 kA at 400 V (compatible with type of coordination 1)										
S00	0.06	0.2	0.14 ... 0.2	3RV10 11-0BA10	3RT10 15-1BB42	3RA19 11-1AA00		**3RA12 10-0BA15-0BB4**	1 unit	0.832
	0.06	0.2	0.18 ... 0.25	3RV10 11-0CA10		+		**3RA12 10-0CA15-0BB4**	1 unit	0.830
	0.09	0.3	0.22 ... 0.32	3RV10 11-0DA10		3RA19 13-2A[5)]		**3RA12 10-0DA15-0BB4**	1 unit	0.826
	0.09	0.3	0.28 ... 0.4	3RV10 11-0EA10				**3RA12 10-0EA15-0BB4**	1 unit	0.833
	0.12	0.4	0.35 ... 0.5	3RV10 11-0FA10				**3RA12 10-0FA15-0BB4**	1 unit	0.824
	0.18	0.6	0.45 ... 0.63	3RV10 11-0GA10				**3RA12 10-0GA15-0BB4**	1 unit	0.835
	0.18	0.6	0.55 ... 0.8	3RV10 11-0HA10				**3RA12 10-0HA15-0BB4**	1 unit	0.830
	0.25	0.8	0.7 ... 1	3RV10 11-0JA10				**3RA12 10-0JA15-0BB4**	1 unit	0.830
	0.37	1.1	0.9 ... 1.25	3RV10 11-0KA10				**3RA12 10-0KA15-0BB4**	1 unit	0.878
	0.55	1.5	1.1 ... 1.6	3RV10 11-1AA10				**3RA12 10-1AA15-0BB4**	1 unit	0.880
	0.75	1.9	1.4 ... 2	3RV10 11-1BA10				**3RA12 10-1BA15-0BB4**	1 unit	0.875
S0	0.75	1.9	1.8 ... 2.5	3RV10 21-1CA10	3RT10 24-1BB40	3RA19 21-1BA00		**3RA12 20-1CB24-0BB4**	1 unit	1.847
	1.1	2.7	2.2 ... 3.2	3RV10 21-1DA10		+		**3RA12 20-1DB24-0BB4**	1 unit	1.855
	1.5	3.6	2.8 ... 4	3RV10 21-1EA10		3RA19 23-1B[6)]		**3RA12 20-1EB24-0BB4**	1 unit	1.852
	1.5	3.6	3.5 ... 5	3RV10 21-1FA10				**3RA12 20-1FB24-0BB4**	1 unit	1.856
	2.2	4.9	4.5 ... 6.3	3RV10 21-1GA10				**3RA12 20-1GB24-0BB4**	1 unit	1.848
	3	6.5	5.5 ... 8	3RV10 21-1HA10				**3RA12 20-1HB24-0BB4**	1 unit	1.851
	4	8.5	7 ... 10	3RV10 21-1JA10	3RT10 26-1BB40			**3RA12 20-1JB26-0BB4**	1 unit	1.854
	5.5	11.5	9 ... 12.5	3RV10 21-1KA10				**3RA12 20-1KB26-0BB4**	1 unit	1.858
	7.5	15.5	11 ... 16	3RV10 21-4AA10				**3RA12 20-4AB26-0BB4**	1 unit	1.863
	7.5	15.5	14 ... 20	3RV10 21-4BA10				**3RA12 20-4BB26-0BB4**	1 unit	1.852
S2	11	22	18 ... 25	3RV10 31-4DA10	3RT10 34-1BB40	3RA19 31-1BA00		Size S2 is only available for self-assembly.		
	15	29	22 ... 32	3RV10 31-4EA10		+				
	18.5	35	28 ... 40	3RV10 31-4FA10	3RT10 35-1BB40	3RA19 33-1B[6)]				
	22	41	36 ... 45	3RV10 31-4GA10	3RT10 36-1BB40					
	22	41	40 ... 50	3RV10 31-4HA10						
S3	30	55	45 ... 63	3RV10 41-4JA10	3RT10 44-1BB40	3RA19 41-1BA00		Size S3 is only available for self-assembly.		
	37	66	57 ... 75	3RV10 41-4KA10	3RT10 45-1BB40	+				
	45	80	70 ... 90	3RV10 41-4LA10	3RT10 46-1BB40	3RA19 43-1B[6)]				
	45	80	80 ...100	3RV10 41-4MA10						
Type of coordination 1 at I_q = 50 kA at 400 V (the motor starter protector is compatible with type of coordination 2)										
	0.75	1.9	1.4 ... 2					For load feeders for lower outputs see type of coordination 2.		
S00	0.75	1.9	1.8 ... 2.5	3RV10 11-1CA10	3RT10 15-1BB42	3RA19 11-1AA00		**3RA12 10-1CA15-0BB4**	1 unit	0.883
	1.1	2.7	2.2 ... 3.2	3RV10 11-1DA10		+		**3RA12 10-1DA15-0BB4**	1 unit	0.882
	1.5	3.6	2.8 ... 4	3RV10 11-1EA10		3RA19 13-2A[5)]		**3RA12 10-1EA15-0BB4**	1 unit	0.879
	1.5	3.6	3.5 ... 5	3RV10 11-1FA10				**3RA12 10-1FA15-0BB4**	1 unit	0.881
	2.2	4.9	4.5 ... 6.3	3RV10 11-1GA10				**3RA12 10-1GA15-0BB4**	1 unit	0.888
	3	6.5	5.5 ... 8	3RV10 11-1HA10				**3RA12 10-1HA15-0BB4**	1 unit	0.890
	4	8.5	7 ... 10	3RV10 11-1JA10	3RT10 16-1BB42			**3RA12 10-1JA16-0BB4**	1 unit	0.882
	5.5	11.5	9 ... 12	3RV10 11-1KA10	3RT10 17-1BB42			**3RA12 10-1KA17-0BB4**	1 unit	0.872
S0	7.5	15.5	11 ... 16	3RV10 21-4AA10	3RT10 25-1BB40	3RA19 21-1BA00		**3RA12 20-4AB25-0BB4**	1 unit	1.857
	7.5	15.5	14 ... 20	3RV10 21-4BA10		+		**3RA12 20-4BB25-0BB4**	1 unit	1.853
	11	22	17 ... 22	3RV10 21-4CA10	3RT10 26-1BB40	3RA19 23-1B[6)]		**3RA12 20-4CB26-0BB4**	1 unit	1.858
	11	22	20 ... 25	3RV10 21-4DA10				**3RA12 20-4DB26-0BB4**	1 unit	1.860
S3	15	29	22 ... 32					For load feeders for higher outputs see type of coordination 2.		
	18.5	35	28 ... 40							
	22	41	36 ... 45							

1) Assembly kit for standard mounting rail adapter also suitable for screw fixing.
2) For auxiliary switches see Accessories, page 6/15.
3) Selection depends on the concrete startup and rated data of the protected motor.
4) RH = Reversing duty for standard rail mounting.
5) Wiring kit necessary, see Accessories, page 6/16. Screw fixing with 1 push-in lug each per load feeder is possible; see Accessories, page 6/18.
6) Mechanical locking device must be ordered separately; see Accessories, page 6/16.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

	For motor starter protector Size	For contactor Size	Version		DT	Order No.	PS*	Weight per PU approx. kg
Motor starter protectors[1]								
3RV19 01-1E			**Auxiliary switches**					
	S00 ... S3	--	Transverse	1 CO	▶	**3RV19 01-1D**	1 unit	0.015
			Transverse	1 NO + 1 NC	▶	**3RV19 01-1E**	1 unit	0.018
3RV19 01-1A	S00 ... S3	--	Laterally mountable	1 NO + 1 NC	▶	**3RV19 01-1A**	1 unit	0.045
	S00 ... S3	--	**Undervoltage trip units** AC 50 Hz 230 V		▶	**3RV19 02-1AP0**	1 unit	0.131
	S00 ... S3	--	**Shunt trip units** AC 50 Hz 230 V		▶	**3RV19 02-1DP0**	1 unit	0.130
Contactors[2]								
			Snap-on auxiliary switch blocks					
			Connection from below					
3RH19 11-1BA..	--	S00	1-pole	1 NO	▶	**3RH19 11-1BA10**	1 unit	0.015
				1 NC	▶	**3RH19 11-1BA01**	1 unit	0.015
	--	S00	2-pole	1 NO + 1 NC	▶	**3RH19 11-1MA11**	1 unit	0.045
				2 NO	▶	**3RH19 11-1MA20**	1 unit	0.045
	--	S0 ... S3		1 NO + 1 NC	▶	**3RH19 21-1MA11**	1 unit	0.075
				2 NO	▶	**3RH19 21-1MA20**	1 unit	0.075
				2 NC	▶	**3RH19 21-1MA02**	1 unit	0.075
			Connection from 2 sides					
3RH19 11-1F...	--	S00	4-pole	2 NO + 2 NC	▶	**3RH19 11-1FA22**	1 unit	0.060
	--	S0 ... S3	1-pole	1 NO	▶	**3RH19 21-1CA10**	1 unit	0.020
				1 NC	▶	**3RH19 21-1CA01**	1 unit	0.020
	--	S0 ... S3	4-pole	2 NO + 2 NC	▶	**3RH19 21-1FA22**	1 unit	0.075

[1] See also Protection Equipment: 3RV motor starter protectors.
[2] See also Controls: Contactors and Contactor Assemblies.

	For contactors Type	Version	Rated control supply voltage U_s V AC[1]	V DC	DT	Order No.[2]	PS*	Weight per PU approx. kg
Surge suppressors without LED								
	Size S00							
		For plugging onto the front side of the contactors with and without auxiliary switch blocks						
3RT19 16-1DG00	3RT1.	**Varistors**	24 ... 48	24 ... 70	▶	**3RT19 16-1BB00**	1 unit	0.010
			127 ... 240	150 ... 250		**3RT19 16-1BD00**	1 unit	0.010
	3RT1.	**RC elements**	24 ... 48	24 ... 70	▶	**3RT19 16-1CB00**	1 unit	0.010
			127 ... 240	150 ... 250	▶	**3RT19 16-1CD00**	1 unit	0.010
	3RT1.	**Noise suppression diodes**	--	12 ... 250	▶	**3RT19 16-1DG00**	1 unit	0.010
	3RT1.	**Diode assemblies** (diode and Zener diode) for DC operation and short break times	--	12 ... 250	▶	**3RT19 16-1EH00**	1 unit	0.010
	Size S0							
		For fitting onto the coil terminals at top or bottom						
3RT19 26-1B.00	3RT10 2	**Varistors**	24 ... 48	24 ... 70	▶	**3RT19 26-1BB00**	1 unit	0.025
			127 ... 240	150 ... 250	▶	**3RT19 26-1BD00**	1 unit	0.025
	3RT10 2	**RC elements**	24 ... 48	24 ... 70	▶	**3RT19 26-1CB00**	1 unit	0.025
			127 ... 240	150 ... 250	▶	**3RT19 26-1CD00**	1 unit	0.025
	3RT10 2	**Diode assemblies** For DC operation and short break times, connectable at the bottom	--	24	▶	**3RT19 26-1TR00**	1 unit	0.025
			--	30 ... 250		**3RT19 26-1TS00**	1 unit	0.025
	Sizes S2 and S3							
		For fitting onto the coil terminals at top or bottom						
3RT19 36-1C.00	3RT10 3, 3RT10 4	**Varistors**	24 ... 48	24 ... 70	▶	**3RT19 26-1BB00**	1 unit	0.025
			127 ... 240	150 ... 250	▶	**3RT19 26-1BD00**	1 unit	0.025
	3RT10 3, 3RT10 4	**RC elements**	24 ... 48	24 ... 70	▶	**3RT19 36-1CB00**	1 unit	0.040
			127 ... 240	150 ... 250	▶	**3RT19 36-1CD00**	1 unit	0.040
	3RT10 3, 3RT10 4	**Diode assemblies** For DC operation and short break times, connectable at the bottom	--	24	▶	**3RT19 36-1TR00**	1 unit	0.025
			--	30 ... 250		**3RT19 36-1TS00**	1 unit	0.025

[1] Can be used for AC operation for 50/60 Hz. For other versions and units see A&D Mall.

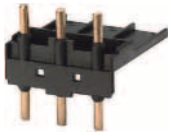
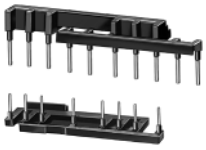
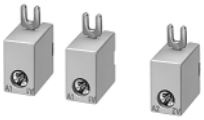
[2] For packs of 10 or 5 units **"-Z"** and order code **"X90"** must be added to the Order No.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Accessories

For direct-on-line and reversing starters

	For motor starter protector Size	For contactor Size	Version	DT	Order No.	PS*	Weight per PU approx. kg
Link modules							
3RA19 11-1A			Electrical and mechanical link between motor starter protector and contactor.				
	Single-unit packaging		Actuating voltage of contactor				
	S00	S00	AC and DC	▶	**3RA19 11-1AA00**	1 unit	0.027
	S0	S00		▶	**3RA19 21-1DA00**	1 unit	0.028
3RA19 21-1A	S0	S0	AC	▶	**3RA19 21-1AA00**	1 unit	0.037
	S2	S2		▶	**3RA19 31-1AA00**	1 unit	0.042
	S3	S3		▶	**3RA19 41-1AA00**	1 unit	0.090
	S0	S0	DC	▶	**3RA19 21-1BA00**	1 unit	0.039
	S2	S2		▶	**3RA19 31-1BA00**	1 unit	0.043
	S3	S3		▶	**3RA19 41-1BA00**	1 unit	0.089
	Multi-unit packaging		Actuating voltage of contactor				
 3RA19 31-1A	S00	S00	AC and DC	▶	**3RA19 11-1A**	10 units	0.019
	S0	S00		▶	**3RA19 21-1D**	10 units	0.021
	S0	S0	AC	▶	**3RA19 21-1A**	10 units	0.028
	S2	S2		▶	**3RA19 31-1A**	5 units	0.033
	S3	S3		▶	**3RA19 41-1A**	5 units	0.072
	S0	S0	DC	▶	**3RA19 21-1B**	10 units	0.030
	S2	S2		▶	**3RA19 31-1B**	5 units	0.034
	S3	S3		▶	**3RA19 41-1B**	5 units	0.073
Hybrid link modules							
3RA19 21-2FA00	Screw terminals	Cage Clamp terminals	Electrical and mechanical connection between motor starter protector with screw terminals and contactor with Cage Clamp terminals				
	Single-unit packaging		Actuating voltage of contactor				
	S00	S00	AC and DC	▶	**3RA19 11-2FA00**	1 unit	0.038
	S0	S00		▶	**3RA19 21-2FA00**	1 unit	0.028
	Multi-unit packaging		Actuating voltage of contactor				
	S00	S00	AC and DC	▶	**3RA19 11-2F**	10 units	0.031
	S0	S00		▶	**3RA19 21-2F**	10 units	0.030
Wiring kits							
 3RA19 13-2A			**Reversing duty** Electrical and mechanical link for reversing contactors. Can be combined with link module.				
	--	S00	For size S00: optionally with integrated electrical and mechanical locking.	▶	**3RA19 13-2A**	1 unit	0.040
		S0	For sizes S0 to S3: mechanical locking device must be ordered separately.	▶	**3RA19 23-2A**	1 unit	0.060
		S2		▶	**3RA19 33-2A**	1 unit	0.120
		S3		▶	**3RA19 43-2A**	1 unit	0.300
			Wye-delta starting				
	--	S00	Electrical and mechanical link for three contactors of same size	▶	**3RA19 13-2B**	1 unit	0.050
		S0		▶	**3RA19 23-2B**	1 unit	0.060
		S2		▶	**3RA19 33-2B**	1 unit	0.070
		S3		▶	**3RA19 43-2B**	1 unit	0.160
Mechanical interlocks							
3RA19 24-2B	--	S0, S2, S3	For reversing contactors, laterally fittable with 1 auxiliary contact (1 NC) each per contactor.	▶	**3RA19 24-2B**	1 unit	0.060
Coil repeat terminals							
 3RA19 23-3B	--	S0, S2, S3	For A1 and A2 of the reversing contactors (one set contains 10 x A1 and 5 x A2)		**3RA19 23-3B**	1 unit	0.080

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

	For motor starter protector Size	For contactor Size	Version	DT	Order No.	PS*	Weight per PU approx. kg
Standard mounting rail adapters							
3RA19 32 3RA19 22	***Single-unit packaging***						
	S00, S0	S00, S0	For mechanical fixing of motor starter protector and contactor; for snapping onto standard mounting rail or for screw fixing	▶	**3RA19 22-1AA00**	1 unit	0.104
	S2	S2		▶	**3RA19 32-1AA00**	1 unit	0.202
	S3	S3		▶	**3RA19 42-1AA00**	1 unit	0.264
	Multi-unit packaging						
	S00, S0	S00, S0		▶	**3RA19 22-1A**	5 units	0.095
	S2	S2		▶	**3RA19 32-1A**	5 units	0.187
	S3	S3		▶	**3RA19 42-1A**	5 units	0.238
Side modules							
3RA19 02	S00 ... S3	S00 ... S3	For standard mounting rail adapter 10 mm wide, 96 mm long, for widening standard mounting rail adapters. Sizes S00 to S2: 2 units required. Size S3: 3 units required	▶	**3RA19 02-1B**	10 units	0.009
Assembly kits (RH) for reversing duty for standard mounting rails							
3RA19 33-1B	S0	S0	Also suitable for screw fixing. Consisting of: Wiring kit, standard mounting rail adapters, side modules. Link modules must be ordered separately. The mechanical locking device must also be ordered separately.		**3RA19 23-1B**	1 unit	0.288
	S2	S2			**3RA19 33-1B**	1 unit	0.557
	S3	S3			**3RA19 43-1B**	1 unit	0.818
Accessories, adapters and link modules for Cage Clamp terminals							
3RA19 11-2A + 8US10 51-5CM47	S00	--	**Link modules, Cage Clamp** Electrical connection between motor starter protector and contactor (1 pack = 10 units)	▶	**3RA19 11-2A**	10 units	0.016
	S00	--	**Link modules, Cage Clamp, with mechanical connections** Mechanical and electrical connection between motor starter protector and contactor (1 pack = 10 units)	▶	**3RA19 11-2E**	10 units	0.028
		--	**Standard mounting rail adapters** for Cage Clamp with 2 standard mounting rails, one is movable, 45 mm wide	▶	**3RA19 22-1L**	5 units	0.413
		--	**Busbar adapters** 45 mm wide, 182 mm long, adapted for Cage Clamp motor starter protectors. 40 mm	▶	**8US10 51-5CM47**	1 unit	0.193
		--	60 mm	▶	**8US12 51-5CM47**	1 unit	0.190
			If there is an additional contactor, a further standard mounting rail must be fitted.				
3RA19 11-2E		--	**Standard mounting rails 35 mm**, plastic, including fixing screws (1 pack = 10 units)		**8US19 98-7CA15**	10 units	0.009

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Accessories

For direct-on-line and reversing starters

	For motor starter protector	For contactor	Version	Busbar center-to-center clearance	DT	Order No.	PS*	Weight per PU approx.
	Size	Size		mm				kg
Push-in lugs for screw fixing								
3RB19 00-0B	S00, S0	--	For 3RV1 motor starter protectors: 2 units required per contactor For 3RA1 fuseless load feeders: 1 unit required per contactor For AS-Interface device holder: 2 units required per contactor (1 pack = 10 units)		▶	**3RB19 00-0B**	10 units	0.100
Busbar adapters								
8US12 51-5DM07	S00, S0	S00, S0	45 mm wide, 182 mm long; for busbars	40	▶	**8US10 51-5DM07**	1 unit	0.184
				60	▶	**8US12 51-5DM07**	1 unit	0.183
	S2	S2	55 mm wide, 242 mm long; including screw and spacer	40	▶	**8US10 61-5FP08**	1 unit	0.308
				60	▶	**8US12 61-5FP08**	1 unit	0.292
Device holders								
8US12 50-5AM00	S00, S0	S00, S0	With standard mounting rail, without connecting cables, 45 mm wide, 182 mm long; for busbars	40	▶	**8US10 50-5AM00**	1 unit	0.182
				60	▶	**8US12 50-5AM00**	1 unit	0.158
	S0	S0	55 mm wide, 182 mm long	40	▶	**8US10 60-5AM00**	1 unit	0.197
				60	▶	**8US12 60-5AM00**	4 units	0.202
	S2	S2	55 mm wide, 242 mm long; including screw and spacer	60	▶	**8US12 60-5AP00**	1 unit	0.243
Side modules								
8US19 98-2BM00	--	--	Including connecting plates for widening busbar adapters or device holders, 13.5 mm wide, 182 mm long			**8US19 98-2BM00**	4 units	0.036
Assembly kits (RS) for reversing duty for 40 mm and 60 mm busbar systems								
	S00, S0 S0 S2	S00 S0 S2	Consisting of wiring kit, busbar adapter, device holder, and side module.	40		**3RA19 13-1C** **3RA19 23-1C** **3RA19 33-1C**	1 unit 1 unit 1 unit	0.433 0.472 0.738
	S00, S0 S0 S2	S00 S0 S2	Link modules and mechanical locking devices to be ordered separately. Only for size S00 is mechanical locking always included.	60		**3RA19 13-1D** **3RA19 23-1D** **3RA19 33-1D**	1 unit 1 unit 1 unit	0.431 0.475 0.743

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview

The 3RV19 infeed system is a convenient means of energy supply and distribution for a group of several motor starter protectors or complete load feeders with a screw or spring-type connection up to size S0.

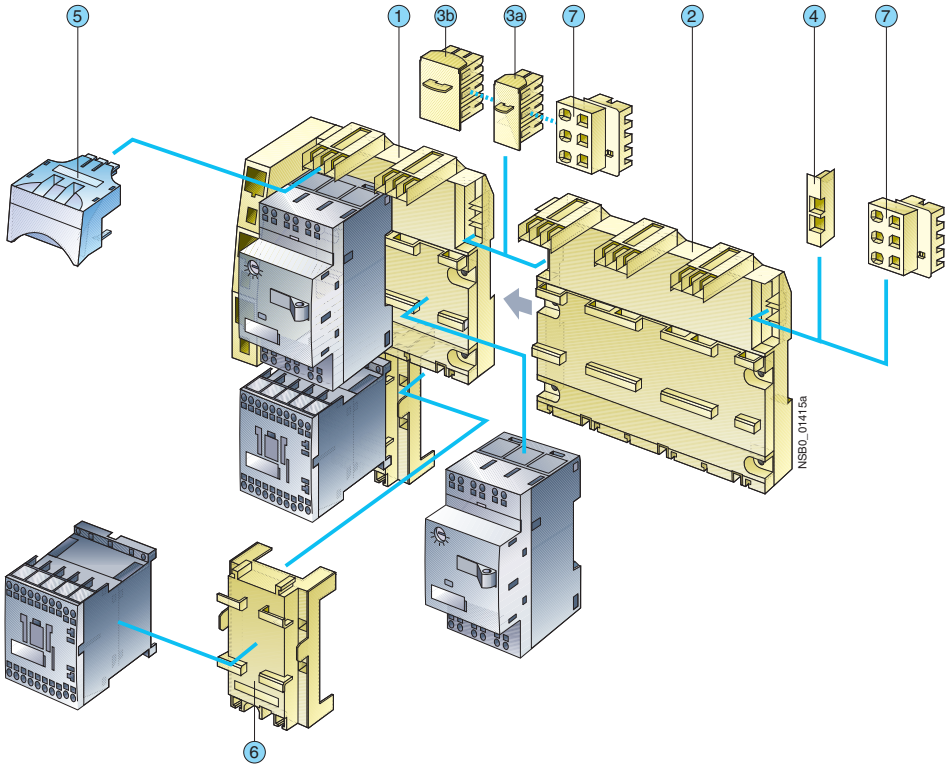
The devices with spring-type connections are available in the SIRIUS modular system up to 5.5 kW at 400 V AC. The motor starter protectors and load feeders with screw terminals for sizes S00 and S0 can also be integrated in the system at the same time.

The system is based on a basic module complete with a lateral incoming unit (3-phase busbar with infeed). This infeed with spring-loaded terminals is mounted on the right or left depending on the version and can be supplied with a maximum conductor cross-section of 25 mm^2 (with end sleeve). A basic module has two sockets onto each of which a motor starter protector can be snapped.

Expansion modules are available for extending the system (3-phase busbars for system expansion). The individual modules are connected through an expansion plug.

The electrical connection between the 3-phase busbars and the motor starter protectors is implemented through plug-in connectors. The complete system can be mounted on a TH 35 standard mounting rail to EN 60715 and can be expanded as required up to a maximum current carrying capacity of 80 A.

The system is mounted extremely quickly and easily thanks to the simple plug-in technique. Thanks to the lateral infeed, the system also saves space in the control cabinet. The additional overall height required for the infeed unit is only 30 mm. The alternative infeed possibilities on each side offer a high degree of flexibility for configuring the control cabinet: Infeed on left-hand or right-hand side, ring infeed or infeed on one side and loop-through from the other side to supply further loads are all possible. A terminal block with spring-type connections in combination with a standard mounting rail enables the integration of not only SIRIUS motor starter protectors but also single-phase, 2-phase and 3-phase components such as 5SY miniature circuit breakers or SIRIUS relay components.

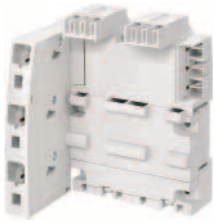


1. 3-phase busbar with infeed
2. 3-phase busbar for system expansion
3a. Expansion plug
3b. Extra-wide expansion plug
4. End cover
5. Plug-in connector
6. Contactor base
7. Terminal block

© Siemens AG 2008

3RV19 infeed systems

Selection and ordering data

	Type	Version	For motor starter protector Size	DT	Order No.	PS*	Weight per PU approx. kg
3-phase busbars with infeed							
 3RV19 17-1A	**3-phase busbars with infeed** Incl. end cover 3RV19 17-6A	For 2 motor starter protectors with infeed from the left	S00 (Cage Clamp)[1], S00, S0 (screw)		**3RV19 17-1A**	1 unit	0.438
		For 2 motor starter protectors with infeed from the right	S00 (Cage Clamp)[1], S00, S0 (screw)		**3RV19 17-1E**	1 unit	0.438
3-phase busbars for system expansion							
3RV19 17-4B	**3-phase busbars** Incl. 3RV19 17-5BA00 expansion plug	For 2 motor starter protectors	S00 (Cage Clamp)[1], S00, S0 (screw)		**3RV19 17-4A**	1 unit	0.261
		For 3 motor starter protectors	S00 (Cage Clamp)[1], S00, S0 (screw)		**3RV19 17-4B**	1 unit	0.364
Plug-in connectors							
3RV19 17-5AA00	**Plug-in connectors** To make contact with the motor starter protectors	Single-unit packaging	S00 (Cage Clamp)[1]		**3RV19 17-5AA00**	1 unit	0.053
		Multi-unit packaging	S00 (Cage Clamp)[1]		**3RV19 17-5A**	10 units	0.048
3RV19 27-5AA00		Single-unit packaging	S00 (screw)		**3RV19 17-5CA00**	1 unit	0.040
		Multi-unit packaging	S00 (screw)		**3RV19 17-5C**	10 units	0.036
		Single-unit packaging	S0 (screw)		**3RV19 27-5AA00**	1 unit	0.040
		Multi-unit packaging	S0 (screw)		**3RV19 27-5A**	10 units	0.036

[1] Compatible with the following motor starter protectors: 3RV10 11-...2. (size S00, Cage Clamp) product version E03 and upwards.

	Type	Version	For contactors Size	DT	Order No.	PS*	Weight per PU approx. kg
Contactor bases							
3RV19 17-7A	**Contactor bases** For mounting direct-on-line or reversing starters	Single-unit packaging	S00		**3RV19 17-7AA00**	1 unit	0.042
		Multi-unit packaging	S00		**3RV19 17-7A**	10 units	0.048

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

	Type	Version	DT	Order No.	PS*	Weight per PU approx. kg
Terminal blocks						
3RV19 17-5D	**Terminal blocks** For integration of single-phase, 2-phase and 3-phase components	Single-unit packaging		**3RV19 17-5D**	1 unit	0.050
45 mm standard mounting rails						
3RV19 17-7B	**45 mm standard mounting rails** For mounting onto 3-phase busbar	Single-unit packaging		**3RV19 17-7B**	1 unit	0.261
Extra-wide expansion plugs						
3RV19 17-5E	**Extra-wide expansion plugs** As accessory	Single-unit packaging		**3RV19 17-5E**	1 unit	0.050
Expansion plugs						
3RV19 17-5BA00	**Expansion plugs**[1] As spare part	Single-unit packaging		**3RV19 17-5BA00**	1 unit	0.035
End covers						
3RV19 17-6A	**End covers**[2] As spare part	Multi-unit packaging		**3RV19 17-6A**	10 units	0.500

[1] The expansion plug is included in the scope of supply of the 3RV19 17-4 3-phase busbars for system expansion.

[2] The end cover is included in the scope of supply of the 3RV19 17-1 3-phase busbars with infeed system.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Fuseless load feeders
Fused load feeders

Application

The 3RA71 safety load feeders are offered for direct start. They are available with actuating voltages of 230 V 50/60 Hz (Category 3) and 24 V DC (Categories 3 and 4). Depending on the external circuit, choice of actuator and its position on the machine, Categories 3 or 4 according to EN 954-1 or SIL 2 or 3 (Safety Integrity Level) according to IEC 61508 can be achieved.

Similarly the product range of safety load feeders contains expansion units with and without time delays. These expansion units can only be used in combination with a basic unit. Load feeders can be configured in Stop Category 1 thanks to expansion units with time delays from 0.05 to 3 s, or 0.5 to 30 s.

Types of coordination
EN 60947-4-1 (VDE 0660 Part 102) and IEC 60947-4-1 make a distinction between two different types of coordination, which are designated type of coordination "1" and type of coordination "2".

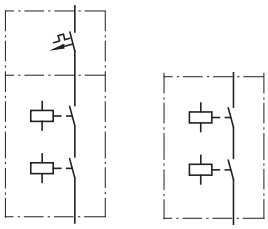
- Type of coordination "2" There must be no damage to the overload release or to any other component after a short-circuit has been cleared. The 3RA71 fuseless load feeder can resume operation without needing to be renewed. At most, it is permissible to weld the contactor contacts if they can be disconnected easily without any significant deformation. Classification of a machine in categories according to EN 954-1.

Selection and ordering data

Rated control supply voltage AC 50/60 Hz 230 V for mounting onto 35 mm standard mounting rail

- Motor starter protectors, contactors and safety electronics pre-wired and certified up to Category 3 according to EN 954-1
- Auxiliary switches on the motor starter protector and the contactor can be easily fitted thanks to the SIRIUS modular system

Direct start



Size	Standard induction motor[1] 4-pole at 400 V AC Rated power *P*	Motor current *I*	Setting range for thermal overload release	DT	**Basic units Category 3** Order No.	PS*	Weight per PU approx.
	kW	A	A				kg
Type of coordination 2 at I_q = 50 kA at 400 V (compatible with type of coordination 1)							
Fuseless load feeders							
S00	0.04	0.16	0.11 … 0.16		**3RA71 01-0AA17-0AL2**	1 unit	1.200
	0.06	0.2	0.14 … 0.2		**3RA71 01-0BA17-0AL2**	1 unit	1.200
	0.06	0.2	0.18 … 0.25		**3RA71 01-0CA17-0AL2**	1 unit	1.200
	0.09	0.3	0.22 … 0.32		**3RA71 01-0DA17-0AL2**	1 unit	1.200
	0.09	0.3	0.28 … 0.4		**3RA71 01-0EA17-0AL2**	1 unit	1.200
	0.12	0.4	0.35 … 0.5		**3RA71 01-0FA17-0AL2**	1 unit	1.200
	0.18	0.6	0.45 … 0.63		**3RA71 01-0GA17-0AL2**	1 unit	1.200
	0.25	0.8	0.55 … 0.8		**3RA71 01-0HA17-0AL2**	1 unit	1.200
	0.25	0.8	0.7 … 1		**3RA71 01-0JA17-0AL2**	1 unit	1.200
	0.37	1.1	0.9 … 1.25		**3RA71 01-0KA17-0AL2**	1 unit	1.200
	0.55	1.5	1.1 … 1.6		**3RA71 01-1AA17-0AL2**	1 unit	1.200
	0.75	1.9	1.4 … 2		**3RA71 01-1BA17-0AL2**	1 unit	1.200
S0	0.75	1.9	1.8 … 2.5		**3RA71 02-1CA26-0AL2**	1 unit	1.200
	1.1	2.7	2.2 … 3.2		**3RA71 02-1DA26-0AL2**	1 unit	1.200
	1.5	3.6	2.8 … 4		**3RA71 02-1EA26-0AL2**	1 unit	1.200
	1.5	3.6	3.5 … 5		**3RA71 02-1FA26-0AL2**	1 unit	1.200
	2.2	5.2	4.5 … 6.3		**3RA71 02-1GA26-0AL2**	1 unit	1.200
	3	6.8	5.5 … 8		**3RA71 02-1HA26-0AL2**	1 unit	1.200
	4	9	7 … 10		**3RA71 02-1JA26-0AL2**	1 unit	1.200
	5.5	11.5	9 … 12.5		**3RA71 02-1KA26-0AL2**	1 unit	1.200
	7.5	15.5	11 … 16		**3RA71 02-4AA26-0AL2**	1 unit	1.200
	7.5	15.5	14 … 20		**3RA71 02-4BA26-0AL2**	1 unit	1.200
	7.5	15.5	17 … 22		**3RA71 02-4CA26-0AL2**	1 unit	1.200
Fused load feeders							
• For the separate mounting of contactors with fuses							
S0	11	22.5	--		**3RA71 00-5AA26-0AL2**	1 unit	1.200

3RA71 02

3RA71 00

[1] Selection depends on the correct startup and rated data of the protected motor.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Rated control supply voltage 24 V DC
for mounting onto 35 mm standard mounting rail

- Motor starter protectors, contactors and safety electronics pre-wired and certified up to Category 4 according to EN 954-1.
- Auxiliary switches on the motor starter protector and the contactor can be easily fitted thanks to the SIRIUS modular system,
- Expansion units for multiple load feeders in one safety circuit.

Size	Standard induction motor[1] 4-pole at 400 V AC Rated power P	Motor current I	Setting range for thermal overload release	DT	**Basic units Category 3**	PS*	Weight per PU approx.	DT	**Basic units Category 4**	PS*	Weight per PU approx.
	kW	A	A		Order No.		kg		Order No.		kg
Type of coordination 2 for I_q = 50 kA at 400 V											
Fuseless load feeders											
S00	0.06	0.2	0.11 ... 0.16		**3RA71 01-0AA17-0AB4**	1 unit	0.820		**3RA71 11-0AA17-0AB4**	1 unit	0.820
	0.06	0.2	0.14 ... 0.2		**3RA71 01-0BA17-0AB4**	1 unit	0.820		**3RA71 11-0BA17-0AB4**	1 unit	0.820
	0.06	0.2	0.18 ... 0.25		**3RA71 01-0CA17-0AB4**	1 unit	0.820		**3RA71 11-0CA17-0AB4**	1 unit	0.820
	0.09	0.3	0.22 ... 0.32		**3RA71 01-0DA17-0AB4**	1 unit	0.820		**3RA71 11-0DA17-0AB4**	1 unit	0.820
	0.09	0.3	0.28 ... 0.4		**3RA71 01-0EA17-0AB4**	1 unit	0.820		**3RA71 11-0EA17-0AB4**	1 unit	0.820
	0.12	0.4	0.35 ... 0.5		**3RA71 01-0FA17-0AB4**	1 unit	0.820		**3RA71 11-0FA17-0AB4**	1 unit	0.820
	0.18	0.6	0.45 ... 0.63		**3RA71 01-0GA17-0AB4**	1 unit	0.820		**3RA71 11-0GA17-0AB4**	1 unit	0.820
	0.25	0.8	0.55 ... 0.8		**3RA71 01-0HA17-0AB4**	1 unit	0.820		**3RA71 11-0HA17-0AB4**	1 unit	0.820
	0.25	0.8	0.7 ... 1		**3RA71 01-0JA17-0AB4**	1 unit	0.820		**3RA71 11-0JA17-0AB4**	1 unit	0.820
	0.37	1.1	0.9 ... 1.25		**3RA71 01-0KA17-0AB4**	1 unit	0.820		**3RA71 11-0KA17-0AB4**	1 unit	0.820
	0.55	1.5	1.1 ... 1.6		**3RA71 01-1AA17-0AB4**	1 unit	0.820		**3RA71 11-1AA17-0AB4**	1 unit	0.820
	0.75	1.9	1.4 ... 2		**3RA71 01-1BA17-0AB4**	1 unit	0.820		**3RA71 11-1BA17-0AB4**	1 unit	0.820
S0	0.75	2.7	1.8 ... 2.5		**3RA71 02-1CA26-0AB4**	1 unit	1.200		**3RA71 12-1CA26-0AB4**	1 unit	1.200
	1.1	2.7	2.2 ... 3.2		**3RA71 02-1DA26-0AB4**	1 unit	1.200		**3RA71 12-1DA26-0AB4**	1 unit	1.200
	1.5	3.6	2.8 ... 4		**3RA71 02-1EA26-0AB4**	1 unit	1.200		**3RA71 12-1EA26-0AB4**	1 unit	1.200
	1.5	3.6	3.5 ... 5		**3RA71 02-1FA26-0AB4**	1 unit	1.200		**3RA71 12-1FA26-0AB4**	1 unit	1.200
	2.2	5.2	4.5 ... 6.3		**3RA71 02-1GA26-0AB4**	1 unit	1.200		**3RA71 12-1GA26-0AB4**	1 unit	1.200
	3	6.8	5.5 ... 8		**3RA71 02-1HA26-0AB4**	1 unit	1.200		**3RA71 12-1HA26-0AB4**	1 unit	1.200
	4	9.0	7 ... 10		**3RA71 02-1JA26-0AB4**	1 unit	1.200		**3RA71 12-1JA26-0AB4**	1 unit	1.200
	5.5	11.5	9 ... 12.5		**3RA71 02-1KA26-0AB4**	1 unit	1.200		**3RA71 12-1KA26-0AB4**	1 unit	1.200
	7.5	15.5	11 ... 16		**3RA71 02-4AA26-0AB4**	1 unit	1.200		**3RA71 12-4AA26-0AB4**	1 unit	1.200
	7.5	15.5	14 ... 20		**3RA71 02-4BA26-0AB4**	1 unit	1.200		**3RA71 12-4BA26-0AB4**	1 unit	1.200
	7.5	15.5	17 ... 22		**3RA71 02-4CA26-0AB4**	1 unit	1.200		**3RA71 12-4CA26-0AB4**	1 unit	1.200
Fused load feeders											
S0	11	22.5	– [4]		**3RA71 00-5AA26-0AB4**	1 unit	1.200		**3RA71 10-5AA26-0AB4**	1 unit	1.200

Size	Standard induction motor[1] 4-pole at 400 V AC Rated power P	Motor current I	Setting range for thermal overload release	DT	**Expansion units[2]**	PS*	Weight per PU approx.	DT	**Expansion units, time-delayed 0.05 ... 3 s[2][3]**	PS*	Weight per PU approx.
	kW	A	A		Order No.		kg		Order No.		kg
Type of coordination 2 for I_q = 50 kA at 400 V											
Fuseless load feeders											
S00	0.06	0.2	0.11 ... 0.16		**3RA71 21-0AA17-0AB4**	1 unit	1.200		**3RA71 31-0AA17-0AB4**	1 unit	0.820
	0.06	0.2	0.14 ... 0.2		**3RA71 21-0BA17-0AB4**	1 unit	1.200		**3RA71 31-0BA17-0AB4**	1 unit	0.820
	0.06	0.2	0.18 ... 0.25		**3RA71 21-0CA17-0AB4**	1 unit	1.200		**3RA71 31-0CA17-0AB4**	1 unit	0.820
	0.09	0.3	0.22 ... 0.32		**3RA71 21-0DA17-0AB4**	1 unit	1.200		**3RA71 31-0DA17-0AB4**	1 unit	0.820
	0.09	0.3	0.28 ... 0.4		**3RA71 21-0EA17-0AB4**	1 unit	1.200		**3RA71 31-0EA17-0AB4**	1 unit	0.820
	0.12	0.4	0.35 ... 0.5		**3RA71 21-0FA17-0AB4**	1 unit	1.200		**3RA71 31-0FA17-0AB4**	1 unit	0.820
	0.18	0.6	0.45 ... 0.63		**3RA71 21-0GA17-0AB4**	1 unit	1.200		**3RA71 31-0GA17-0AB4**	1 unit	0.820
	0.25	0.8	0.55 ... 0.8		**3RA71 21-0HA17-0AB4**	1 unit	1.200		**3RA71 31-0HA17-0AB4**	1 unit	0.820
	0.25	0.8	0.7 ... 1		**3RA71 21-0JA17-0AB4**	1 unit	1.200		**3RA71 31-0JA17-0AB4**	1 unit	0.820
	0.37	1.1	0.9 ... 1.25		**3RA71 21-0KA17-0AB4**	1 unit	1.200		**3RA71 31-0KA17-0AB4**	1 unit	0.820
	0.55	1.5	1.1 ... 1.6		**3RA71 21-1AA17-0AB4**	1 unit	1.200		**3RA71 31-1AA17-0AB4**	1 unit	0.820
	0.75	1.9	1.4 ... 2		**3RA71 21-1BA17-0AB4**	1 unit	1.200		**3RA71 31-1BA17-0AB4**	1 unit	0.820
S0	0.75	2.7	1.8 ... 2.5		**3RA71 22-1CA26-0AB4**	1 unit	1.200		**3RA71 32-1CA26-0AB4**	1 unit	1.200
	1.1	2.7	2.2 ... 3.2		**3RA71 22-1DA26-0AB4**	1 unit	1.200		**3RA71 32-1DA26-0AB4**	1 unit	1.200
	1.5	3.6	2.8 ... 4		**3RA71 22-1EA26-0AB4**	1 unit	1.200		**3RA71 32-1EA26-0AB4**	1 unit	1.200
	1.5	3.6	3.5 ... 5		**3RA71 22-1FA26-0AB4**	1 unit	1.200		**3RA71 32-1FA26-0AB4**	1 unit	1.200
	2.2	5.2	4.5 ... 6.3		**3RA71 22-1GA26-0AB4**	1 unit	1.200		**3RA71 32-1GA26-0AB4**	1 unit	1.200
	3	6.8	5.5 ... 8		**3RA71 22-1HA26-0AB4**	1 unit	1.200		**3RA71 32-1HA26-0AB4**	1 unit	1.200
	4	9.0	7 ... 10		**3RA71 22-1JA26-0AB4**	1 unit	1.200		**3RA71 32-1JA26-0AB4**	1 unit	1.200
	5.5	11.5	9 ... 12.5		**3RA71 22-1KA26-0AB4**	1 unit	1.200		**3RA71 32-1KA26-0AB4**	1 unit	1.200
	7.5	15.5	11 ... 16		**3RA71 22-4AA26-0AB4**	1 unit	1.200		**3RA71 32-4AA26-0AB4**	1 unit	1.200
	7.5	15.5	14 ... 20		**3RA71 22-4BA26-0AB4**	1 unit	1.200		**3RA71 32-4BA26-0AB4**	1 unit	1.200
	7.5	15.5	17 ... 22		**3RA71 22-4CA26-0AB4**	1 unit	1.200		**3RA71 32-4CA26-0AB4**	1 unit	1.200
Fused load feeders											
S0	11	22.5	– [4]		**3RA71 20-5AA26-0AB4**	1 unit	1.200		**3RA71 30-5AA26-0AB4**	1 unit	1.200

[1] Selection depends on the correct startup and rated data of the protected motor.

[2] The maximum achievable category according to EN 954-1 corresponds to that of the basic unit. The category also depends on the external circuit, the command device selected and their physical location on the machine. Compliance with the standards and regulations for safety at the machine is essential.

[3] Delay time 0.5 ... 30 s see A&D Mall, delay time 5 ... 300 s on request.

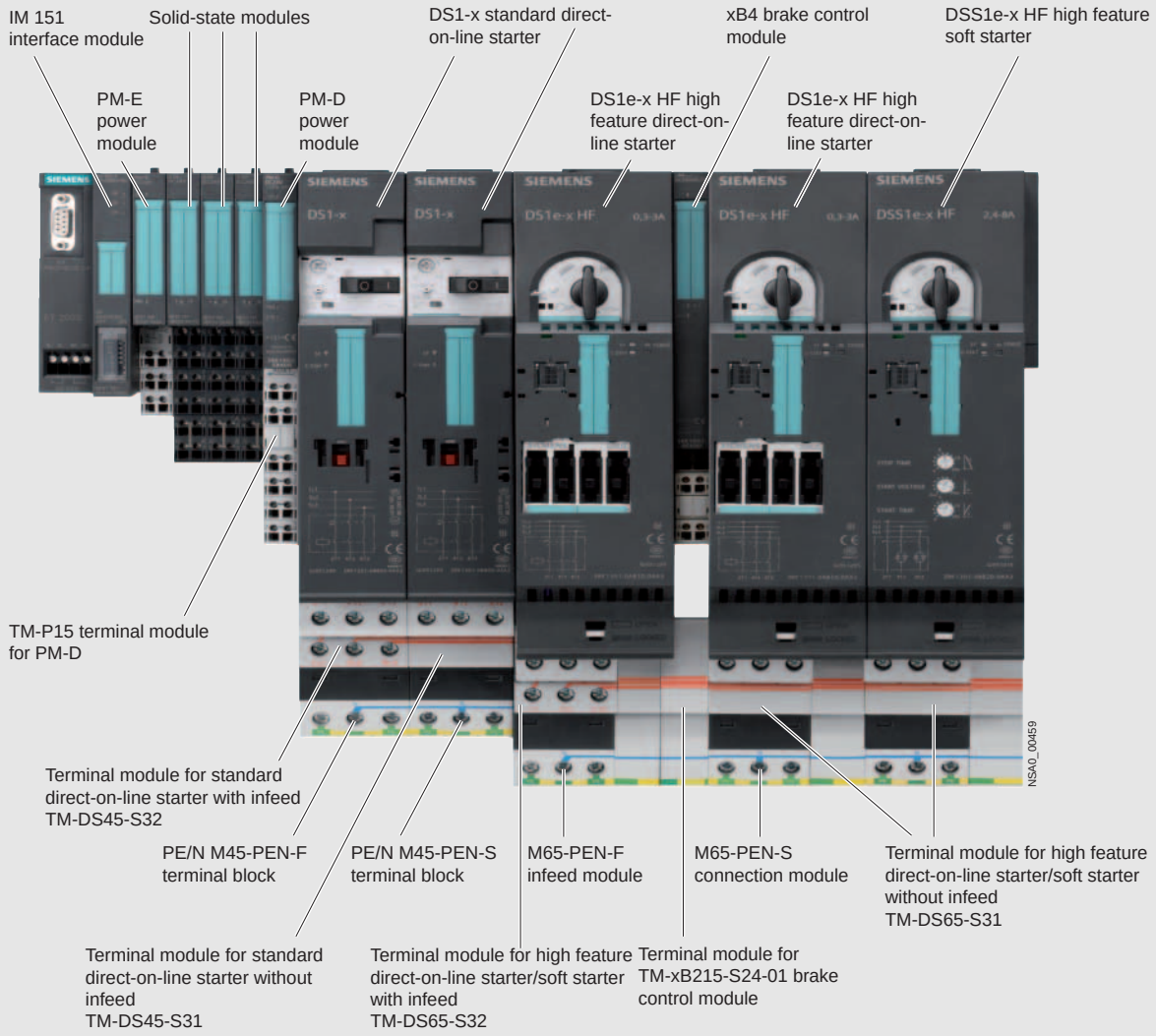
[4] Fused load feeder without motor starter protector. A motor starter protector or fuse must be installed separately.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

ET 200S motor starters

Overview



Interplay of ET 200S motor starter components

© Siemens AG 2008

Application

With the ET 200S motor starters, any AC loads can be protected and switched. The communications interface makes them ideal for operation in distributed control cabinets or control enclosures.

As the motor starters are completely factory-wired, power control cabinets can be assembled far more quickly and compactly. Configuration is made easier by the fine modular structure. When using the ET 200S motor starters, the list of parts per load feeder is reduced to two main items: The passive terminal module and the motor starter. This makes the ET 200S ideal for modular machine concepts as well.

Expansions are easily possible through the subsequent adding of terminal modules. With their modular terminal design (10 mm^2) the latter also do away with the distribution wiring otherwise
required. Through the permanent wiring and the hot swapping function (disconnection and connection during operation) a motor starter can be replaced within seconds if necessary. The motor starters are therefore recommendable in particular for applications with special demands on availability. The possibility of expanding the motor starters with brake control modules xB1-xB4 means that motors with 24 V DC brakes (xB1, xB3) as well as motors with 500 V DC brakes (xB2, xB4) can be controlled. The 24 V DC brakes have an external supply and can be vented independently of the switching state of the motor starter. By contrast the 500 V DC brakes mostly have a direct supply from the terminal board of the motor through a rectifier module and therefore cannot be vented when the motor starter is switched off. These brakes cannot be used in combination with the DSS1e-x motor starter (soft starter).

The outputs of the brake control modules can be used alternatively for other purposes, e.g. for controlling DC valves. With two locally acting inputs optionally available on the brake control modules (xB3, xB4) and another two on the control module of the High-Feature motor starter it is possible to realize autonomous special functions which work independently of the bus and the higher-level control system, e.g. as a quick stop on gate valve controls. In parallel with this, the states of these inputs are signaled to the control system.

As the result of the selective protection concept with solid-state overload evaluation and the use of SIRIUS switchgear size S0, additional advantages are realized on the High-Feature motor starters – advantages which soon make themselves positively felt particularly in manufacturing processes with high plant stoppage costs:

- Only two versions up to 7.5 kW
- All settings can be parameterized by bus
- Separate overload and short-circuit signals
- Overload can be acknowledged by remote reset
- Current unbalance monitoring
- Stall protection
- Emergency start function in the event of overload
- Current value transmission by bus
- Current limit monitoring
- Class 10 or 20 can be parameterized
- Type of coordination "2" (still functional after short-circuit with magnitude of 50 kA)
- Very high contact endurance

More information can be found at
http://mall.automation.siemens.com

© Siemens AG 2008

ET 200pro motor starters

Overview

Motor starters

- Only two versions up to 5.5 kW
- All settings can be parameterized by bus
- Comprehensive diagnostic signals
- Overload can be acknowledged by remote reset
- Current unbalance monitoring
- Stall protection
- Emergency start function in the event of overload
- Current value transmission by bus
- Current limit monitoring
- Direct-on-line or reversing starters
- Power bus can be plugged in using the new HAN Q4/2 plug-in connectors
- Conductor cross-sections up to 6 x 4 mm^2
- 25 A per segment (power looped through using jumper plug)
- In the Standard and High Feature versions (with 4 DI onBoard)
- Electromechanical switching and electronic switching
- Electronic starter for direct activation or with integrated smooth-starter function
- Supplied with 400 V AC brake contact as an option

Isolator module

The isolator module with switch disconnector function is used for safe disconnection of the 400 V operational voltage during repair work in the plant and provides an integrated group fusing function (i.e. additional group short-circuit protection for all subsequently supplied motor starters).

Depending on the power distribution concept, all stations can be equipped with an isolator module as an option.

Safety applications

Safety local isolator module

With the Safety local modules
- safety local isolator module and
- 400 V disconnecting module

it is possible to achieve safety category 4/SIL 3 with an appropriate connection.

Safety Solution PROFIsafe

With the Safety PROFIsafe modules
- F-Switch and
- 400 V disconnecting modules

it is also possible to achieve safety category 4/SIL 3 with an appropriate connection.

Benefits

ET 200pro motor starters provide the following advantages:
- High flexibility thanks to a modular and compact design
- Little variance among all motor starter versions (2 units up to 5.5 kW)
- Extensive parameterization using STEP 7 HW-Config
- Increase of plant availability through fast replacement of units (easy mounting and plug-in technology)
- Extensive diagnostics and information for preventive maintenance
- Parameterizable inputs for local control functions (High Feature)
- Cabinet-free construction thanks to high degree of protection IP65

Application

With the ET 200pro motor starters, any AC loads can be protected and switched. They are an integral part of ET 200pro and have the high degree of protection IP65. This makes them ideal for operation in modular, distributed peripherals without control cabinets or control enclosures.

The ET 200pro motor starters are available both with mechanical as well as electronic contacts.

The ET 200pro electromechanical starters are offered as direct (DSe/DSe) and reversing starters (RSe/RSe) in the High Feature version with the following equipment:
- 4 digital inputs
- Device versions with or without control for externally fed brakes with 400 V AC
- With expanded parameterization capabilities.

The ET 200pro electronic starters are offered as direct (DSe/DSe) and reversing starters (RSe/RSe) in the High Feature version with the following equipment:
- 4 digital inputs
- With soft-start and smooth ramp-down function
- With the deactivated smooth start function as an electronic starter for applications with a high level of switching frequency
- Device versions with or without control for externally fed brakes with 400 V AC
- With expanded parameterization capabilities.

As the result of the protection concept with solid-state overload evaluation and the use of SIRIUS controls size S00, additional advantages are realized on the standard and High Feature motor starters - advantages which soon make themselves positively felt particularly in manufacturing processes with high plant stoppage costs:

- Configuration is made easier by the fine modular structure. When using the ET 200pro motor starters, the list of parts per load feeder is reduced to two main units: the bus module and the motor starter. This makes the ET 200pro ideal for modular machine concepts or solutions for conveying systems and in machine-tool building.
- Expansions are easily possible through the subsequent adding of modules. The innovative plug-in technology also does away with the wiring needed up to now. Through the hot swapping function (disconnection and connection during operation) a motor starter can be replaced within seconds if necessary, without having to shut down the ET 200pro station and with it the process in the plant. The motor starters are therefore recommendable in particular for applications with special demands on availability. Storage costs are optimized in addition by the low level of variance (2 units up to 5.5 kW).

More information can be found at
http://mall.automation.siemens.com

© Siemens AG 2008

Overview

The 3RE1 encapsulated starters with high degree of protection IP65 are used for switching and for the inverse-time delayed protection of load feeders up to 22 kW at 400 V AC.

The starters are available as direct-on-line starters for motors with a single direction of rotation and as reversing starters for motors with two directions of rotation.

Switching is performed by a 3RT10 contactor. Overload protection is achieved with a 3RU11 thermal overload relay or a 3RB10 solid-state overload relay with wide setting range. The overload relay must be ordered separately and is easy to mount directly on the contactor.

Selection and ordering data

	Size	Rated data Utilization category AC-2/AC-3 T_u: up to + 35 °C		Rated control supply voltage U_s		DT	Screw terminals	PS*	Weight per PU approx.
		Operational current I_e at 400 V	Output of induction motors at 400 V/50 Hz				Order No.		
		A	kW	V	At Hz				kg
Direct-on-line starters including contactor									
3RE10 10	S00	12	5.5	230 AC	50 / 60		**3RE10 10-8XC17-0AP0**	1 unit	0.510
				400 AC	50 / 60		**3RE10 10-8XC17-0AV0**	1 unit	0.510
	S0	17	7.5	230 AC	50		**3RE10 20-8XC25-0AP0**	1 unit	0.830
				400 AC	50		**3RE10 20-8XC25-0AV0**	1 unit	0.810
		25	11	230 AC	50		**3RE10 20-8XC26-0AP0**	1 unit	0.830
				400 AC	50		**3RE10 20-8XC26-0AV0**	1 unit	0.810
Reversing starters including contactor assembly									
3RE13 10	S00	12	5.5	230 AC	50 / 60		**3RE13 10-8XC17-0AP0**	1 unit	1.000
				400 AC	50 / 60		**3RE13 10-8XC17-0AV0**	1 unit	2.460

Accessories

For customer assembly of encapsulated starters

	Version	For contactor Overload relay	DT	Order No.	PS*	Weight per PU approx.
		Size				kg
Enclosures for direct-on-line starters						
3RE19 23-1CB2	**Molded-plastic enclosures for surface mounting**					
	Degree of protection IP65, with actuators, with metric cable gland					
	• With PE terminal	S00		**3RE19 13-1CB1**	1 unit	0.320
	• With N and PE terminals	S0		**3RE19 23-1CB2**	1 unit	0.450
	• With N and PE terminals	S2		**3RE19 33-1CB3**	1 unit	1.000
Enclosures for reversing starters						
3RE19 23-2CB3	**Molded-plastic enclosures for surface mounting**					
	Degree of protection IP65, with actuators, with metric cable gland					
	• With N and PE terminals	S00/S0		**3RE19 13-2CB3**	1 unit	1.020

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Notes

© Siemens AG 2008

Monitoring and Control Devices

7

SIMOCODE 3UF Motor Management and Control Devices
7/2 SIMOCODE pro 3UF7 motor management and control devices

LOGO! Logic Modules
7/6 LOGO! Modular
Ch. 11 LOGO! Power

3RP Timing Relays
7/8 3RP15 timing relays in industrial enclosure, 22.5 mm
7/10 3RP20 timing relays, 45 mm
7/11 3RP15, 3RP20 timing relays – Accessories

Monitoring Relays
3UG Monitoring Relays for Electrical and Additional Measurements
7/12 Line monitoring
7/13 Voltage and current monitoring
Power factor and active current monitoring
7/14 Insulation monitoring for ungrounded networks
Residual-current monitoring relays
7/15 Level monitoring
Speed monitoring
3RS10, 3RS11 Temperature Monitoring Relays
7/16 Relays, analogically adjustable
Relays, digitally adjustable
3RN1 Thermistor Motor Protection
7/17 For PTC sensors

3TK28 Safety Relays
7/18 With electronic enabling circuits
7/19 With relay enabling circuits

Interface Converters
7/20 3RS17 interface converters

© Siemens AG 2008

SIMOCODE pro 3UF7 motor management and control devices

Overview

SIMOCODE pro is a flexible, modular motor management system for motors with constant speeds in the low-voltage performance range. It optimizes the connection between I&C and motor feeder, increases plant availability and allows significant savings to be made for start-up, operation and maintenance of a system.

When SIMOCODE pro is installed in the low-voltage switchboard, it is the intelligent interface between the higher-level automation system and the motor feeder and includes the following:

- Multifunctional, solid-state full motor protection which is independent of the automation system
- Flexible software instead of hardware for the motor control
- Detailed operating, service and diagnostics data
- Open communication through PROFIBUS DP, the standard for fieldbus systems

SIMOCODE ES is the software package for SIMOCODE pro parameterization, start-up and diagnostics.

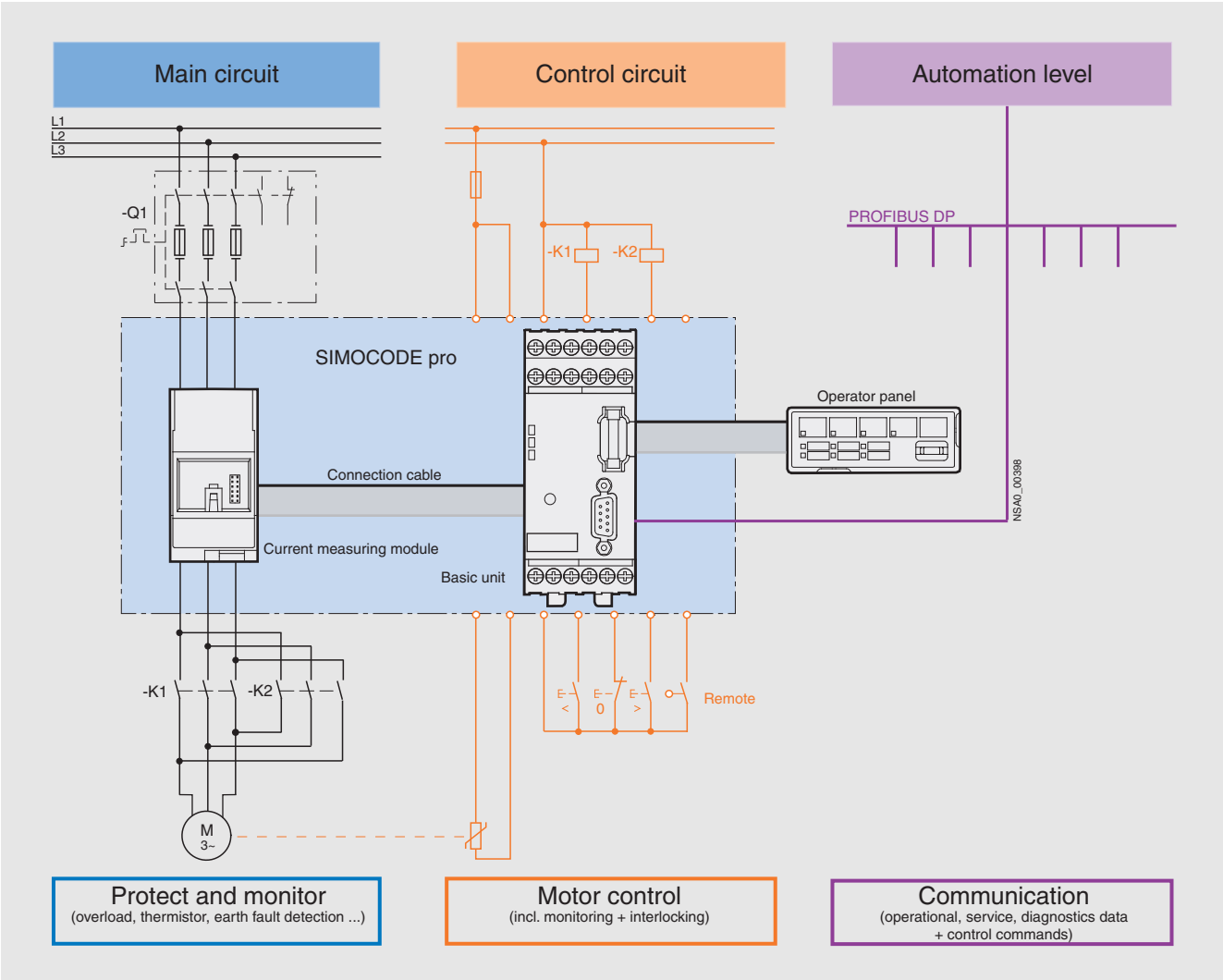
Multifunctional, solid-state full motor protection for rated motor currents up to 820 A

SIMOCODE pro offers comprehensive protection of the motor feeder by means of a combination of different, multi-step and delayable protection and monitoring functions:

- Inverse-time delayed solid-state overload protection (Class 5 ... 40)
- Thermistor motor protection
- Phase failure/unbalance protection
- Stall protection
- Monitoring of adjustable limit values for the motor current
- Voltage and power monitoring
- Monitoring of the power factor (motor idling/load shedding)
- Ground-fault monitoring
- Temperature monitoring, e.g. over PT100/PT1000
- Monitoring of operating hours, downtime and number of starts etc.

Recording of measuring curves

SIMOCODE pro can record measuring curves and therefore is able, for example, to present the progression of motor current during motor start-up.



SIMOCODE pro combines all the necessary functions for the motor feeder in a compact system.

© Siemens AG 2008

Application

SIMOCODE pro is often used for automated processes where plant downtimes are very expensive (e.g. steel or cement industry) and where it is important to prevent plant downtimes through detailed operational, service and diagnostics data or to localize the fault very quickly in the event of a fault.

SIMOCODE pro is modular and space-saving and suited especially for operation in motor control centers in the process industry and for power plant technology.

SIMOCODE pro is also suitable for protecting and controlling motors with types of protection EEX e/d according to ATEX guideline 94/9/EC in areas subject to explosion hazards.

Selection and ordering data

	Version	Current setting	Width	DT	Screw terminals	PS*	Weight per PU approx.
		A	mm		Order No.		kg
SIMOCODE pro							
3UF7 000-1A.00-0	**SIMOCODE pro C, basic units 1,** PROFIBUS DP interface, 12 Mbit/s, RS 485, 4 I/3 O freely assignable, input for thermistor connection, monostable relay outputs, rated control supply voltage U_S:						
	• 24 V DC				**3UF7 000-1AB00-0**	1 unit	0.350
	• 110 ... 240 V AC/DC				**3UF7 000-1AU00-0**	1 unit	0.350
3UF7 010-1A.00-0	**SIMOCODE pro V, basic units 2,** PROFIBUS DP interface, 12 Mbit/s, RS 485 4 I/3 O freely assignable, input for thermistor connection, monostable relay outputs, rated control supply voltage U_S:						
	• 24 V DC				**3UF7 010-1AB00-0**	1 unit	0.350
	• 110 ... 240 V AC/DC				**3UF7 010-1AU00-0**	1 unit	0.350
3UF7 100-1AA00-0	**Current measuring modules**						
	Straight-through transformers						
		0.3 ... 3	45		**3UF7 100-1AA00-0**	1 unit	0.100
		2.4 ... 25	45		**3UF7 101-1AA00-0**	1 unit	0.150
		10 ... 100	55		**3UF7 102-1AA00-0**	1 unit	0.350
		20 ... 200	120		**3UF7 103-1AA00-0**	1 unit	0.600
	Busbar connection						
		20 ... 200	120		**3UF7 103-1BA00-0**	1 unit	1.000
		63 ... 630	145		**3UF7 104-1BA00-0**	1 unit	1.750
3UF7 110-1AA00-0	**Current/voltage measuring modules** Voltage measuring up to 690 V						
	Straight-through transformers						
		0.3 ... 3	45		**3UF7 110-1AA00-0**	1 unit	0.150
		2.4 ... 25	45		**3UF7 111-1AA00-0**	1 unit	0.200
		10 ... 100	55		**3UF7 112-1AA00-0**	1 unit	0.400
		20 ... 200	120		**3UF7 113-1AA00-0**	1 unit	0.700
	Busbar connection						
		20 ... 200	120		**3UF7 113-1BA00-0**	1 unit	1.000
		63 ... 630	145		**3UF7 114-1BA00-0**	1 unit	1.750
3UF7 200-1AA00-0	**Operator panels** Installation in control cabinet door or front plate, for plugging into basic unit, 10 LEDs for status indication and user-assignable buttons for controlling the motor				**3UF7 200-1AA00-0**	1 unit	0.100
3UF7 210-1AA00-0	**Operator panels with display for SIMOCODE pro V**[1] Installation in control cabinet door or front plate, for plugging into basic unit 2, 7 LEDs for status indication and user-assignable buttons for controlling the motor, multilingual display, e.g. for indication of measured values, status information or fault messages				**3UF7 210-1AA00-0**	1 unit	0.150

[1] Only possible with basic unit 2, product version E03 and higher (from 12/2006).

7

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

SIMOCODE pro 3UF7
motor management and control devices

	Version		DT	Screw terminals	PS*	Weight per PU approx.
				Order No.		kg
Expansion modules						
Caution: *Expansion modules can only be used in combination with basic unit 2!* *A total of up to 5 expansion modules can be connected in any order to one basic unit. When an operator panel with display and/or a decoupling module is used, more restrictions on the number of expansion modules connectable per basic unit must be observed!*						
 3UF7 300-1AU00-0	**Digital modules** 4 binary inputs and 2 relay outputs, up to 2 digital modules can be connected per basic unit 2					
	Relay outputs	Input voltage				
	Monostable	24 V DC		**3UF7 300-1AB00-0**	1 unit	0.150
		110 ... 240 V AC/DC		**3UF7 300-1AU00-0**	1 unit	0.150
	Bistable	24 V DC		**3UF7 310-1AB00-0**	1 unit	0.150
		110 ... 240 V AC/DC		**3UF7 310-1AU00-0**	1 unit	0.150
 3UF7 400-1AA00-0	**Analog modules**[1)] 2 inputs (passive) for input and 1 output for output of 0/4 ...20 mA signals, max. 1 analog module can be connected per basic unit 2.			**3UF7 400-1AA00-0**	1 unit	0.150
 3UF7 500-1AA00-0	**Ground-fault modules**[1)] 1 Input for connecting a 3UL22 summation current transformer, up to 1 ground-fault module can be connected per basic unit 2			**3UF7 500-1AA00-0**	1 unit	0.150
 3UF7 700-1AA00-0	**Temperature modules**[1)] 3 inputs for connecting up to 3 analog temperature sensors, up to 1 temperature module can be connected for each basic unit 2			**3UF7 700-1AA00-0**	1 unit	0.150
Decoupling modules						
 3UF7 150-1AA00-0	**Decoupling modules** For connecting upstream from a current/voltage measuring module on the system interface when using voltage detection in non-grounded networks			**3UF7 150-1AA00-0**	1 unit	0.150

[1)] Only possible with basic unit 2, product version E02 and higher (from April 2005).

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Accessories

	Version	DT	Order No.	PS*	Weight per PU approx.
Connection cables (essential accessory)					
3UF7 932-0AA00-0	**Connection cables** In different lengths for connecting basic unit, current measuring module, current/voltage measuring module, operator panel or expansion modules:				
	• Length 0.025 m (flat) Note: Only suitable for connecting basic unit 2 to its expansion modules or for connecting expansion modules to each other; only when the front plates finish at the same height!		**3UF7 930-0AA00-0**	1 unit	0.010
	• Length 0.1 m (flat)		**3UF7 931-0AA00-0**	1 unit	0.010
	• Length 0.5 m (flat)		**3UF7 932-0AA00-0**	1 unit	0.020
	• Length 1.0 m (round)		**3UF7 937-0BA00-0**	1 unit	0.100
	• Length 2.5 m (round)		**3UF7 933-0BA00-0**	1 unit	0.150
PC cables					
	For PC/PG communication with SIMOCODE pro through the system interface, for connecting to the serial interface of the PC/PG		**3UF7 940-0AA00-0**	1 unit	0.150
Memory modules					
	For parameterizing SIMOCODE pro without a PC/PG The memory module enables the complete parameter assignment of a system to be saved and transferred to a new system, e.g. when a device is replaced, without the need for additional aids or detailed knowledge of the the system interface		**3UF7 900-0AA00-0**	1 unit	0.010
Addressing plugs					
	For assigning the PROFIBUS addresses without using a PC/PG on SIMOCODE pro through the system interface		**3UF7 910-0AA00-0**	1 unit	0.030
Door adapters					
	For external connection of the system interface outside, for example, a control cabinet		**3UF7 920-0AA00-0**	1 unit	0.030
Push-in lugs					
	For screw fixing e.g. on mounting plate, 2 units required per device				
	can be used with 3UF7 1.0, 3UF7 1.1 and 3UF7 1.2		**3RB19 00-0B**	10 units	0.100
	can be used with 3UF7 0, 3UF7 3, 3UF7 4, 3UF7 5 and 3UF7 7	►	**3RP19 03**	10 units	0.002
SIMOCODE ES					
3ZS1 312-1CC10-0YA0	**Parameterization and service software for SIMOCODE pro** Executes on PC/PG under Windows 2000/XP, without PC cable Type of delivery: CD, single license Versions:				
	• **SIMOCODE ES Smart** for parameterizing through the system interface on the device		**3ZS1 312-1CC10-0YA0**	1 unit	0.230
	• **SIMOCODE ES Professional** for parameterizing through PROFIBUS or the system interface on the device, including STEP 7 object manager		**3ZS1 312-2CC10-0YA0**	1 unit	0.230
	• **SIMOCODE ES Graphic**, optional expansion of SIMOCODE ES Smart/Professional with a graphical editor for ergonomic and user-friendly parameterization by means of Drag & Drop		**3ZS1 312-3CC10-0YA0**	1 unit	0.230

7

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

LOGO! Modular

Selection and ordering data

	Version	DT	Screw terminals	PS*	Weight per PU approx.
			Order No.		kg
LOGO! Modular basic variants with display					
6ED1 052-1HB00-0BA5	**LOGO! logic modules 24** Supply voltage 24 V DC, 8 digital inputs 24 V DC, of which 2 can be used as analog inputs (0 to 10 V), 4 digital outputs 24 V DC, 0.3 A		**6ED1 052-1CC00-0BA5**	1 unit	0.191
	LOGO! 12/24RC logic modules Supply voltage 12/24 V DC, 8 digital inputs 12/24 V DC, of which 2 can be used as analog inputs (0 to 10 V), 4 relay outputs 10 A, integrated time switch		**6ED1 052-1MD00-0BA5**	1 unit	0.228
	LOGO! 24RC logic modules Supply voltage 24 V AC/DC, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integrated time switch		**6ED1 052-1HB00-0BA5**	1 unit	0.231
	LOGO! 230RC logic modules Supply voltage 115/230 V AC/DC, 8 digital inputs 115/230 V AC/DC, 4 relay outputs 10 A, integrated time switch		**6ED1 052-1FB00-0BA5**	1 unit	0.232
LOGO! Modular Pure versions, without display and keyboard					
6ED1 052-2FB00-0BA5	**LOGO! logic modules 24o** Supply voltage 24 V DC, 8 digital inputs 24 V DC, of which 2 can be used as analog inputs (0 to 10 V), 4 digital outputs 24 V DC, 0.3 A		**6ED1 052-2CC00-0BA5**	1 unit	0.175
	LOGO! 12/24RCo logic modules Supply voltage 12/24 V DC, 8 digital inputs 12/24 V DC, of which 2 can be used as analog inputs (0 to 10 V), 4 relay outputs 10 A, integrated time switch		**6ED1 052-2MD00-0BA5**	1 unit	0.213
	LOGO! 24RCo logic modules Supply voltage 24 V AC/DC, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integrated time switch		**6ED1 052-2HB00-0BA5**	1 unit	0.220
	LOGO! 230RCo logic modules Supply voltage 115/230 V AC/DC, 8 digital inputs 115/230 V AC/DC, 4 relay outputs 10 A, integrated time switch		**6ED1 052-2FB00-0BA5**	1 unit	0.217
LOGO! Modular expansion modules					
6ED1 055-1CB00-0BA0	**LOGO! DM8 24** Supply voltage 24 V DC, 4 digital inputs 24 V DC, 4 digital outputs 24 V DC, 0.3 A		**6ED1 055-1CB00-0BA0**	1 unit	0.122
	LOGO! DM16 24 Supply voltage 24 V DC, 8 digital inputs 24 V DC, 8 digital outputs 24 V DC, 0.3 A		**6ED1 055-1CB10-0BA0**	1 unit	0.122
	LOGO! DM8 12/24R Supply voltage 12/24 V DC, 4 digital inputs 12/24 V DC, 4 relay outputs 5 A		**6ED1 055-1MB00-0BA1**	1 unit	0.157
	LOGO! DM8 24R Supply voltage 24 V AC/DC, 4 digital inputs 24 V AC/DC, 4 relay outputs 5 A		**6ED1 055-1HB00-0BA0**	1 unit	0.158
	LOGO! DM16 24R Supply voltage 24 V DC, 8 digital inputs 24 V DC, 8 relay outputs 5 A		**6ED1 055-1NB10-0BA0**	1 unit	0.159
	LOGO! DM8 230R Supply voltage 115/230 V AC/DC, 4 digital inputs 115/230 V AC/DC, 4 relay outputs 5 A		**6ED1 055-1FB00-0BA1**	1 unit	0.159
	LOGO! DM16 230R Supply voltage 115/230 V AC/DC, 8 digital inputs 115/230 V AC/DC, 8 relay outputs 5 A		**6ED1 055-1FB10-0BA0**	1 unit	0.159
	LOGO! AM2 Supply voltage 12/24 V DC, 2 analog inputs 0 to 10 V or 0 to 20 mA, 10 bit resolution		**6ED1 055-1MA00-0BA0**	1 unit	0.119
	LOGO! AM2 PT 100 Supply voltage 12/24 V DC, 2 analog inputs Pt100, temperature range -50 °C to 200 °C		**6ED1 055-1MD00-0BA0**	1 unit	0.120
	LOGO! AM2 AQ Supply voltage 24 V DC, 2 analog outputs 0 to 10 V		**6ED1 055-1MM00-0BA0**	1 unit	0.120

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

	Version	DT	Screw terminals	PS*	Weight per PU approx.
			Order No.		kg
Communication modules					
6BK1 700-0BA00-0AA1	**LOGO! CM EIB KNX communication modules** For connection to *EIB*, supply voltage 24 V DC		**6BK1 700-0BA00-0AA1**	1 unit	0.107
	AS-Interface connections for LOGO! AS-Interface slave, supply voltage 24 V DC 4 virtual inputs, 4 virtual outputs		**3RK1 400-0CE10-0AA2**	1 unit	0.107
LOGO! Contact					
6ED1 057-4CA00-0AA0	**LOGO! Contact** Switching module for direct switching (hum-free) of resistive loads up to 20 A and motors up to 4 kW • Switching voltage 24 V • Switching voltage 230 V		 **6ED1 057-4CA00-0AA0** **6ED1 057-4EA00-0AA0**	 1 unit 1 unit	 0.160 0.160

For LOGO!Power power supplies see Chapter 11.

Accessories

	Version	DT	Order No.	PS*	Weight per PU approx.
					kg
	LOGO! manuals • German • English • French • Spanish • Italian		 **6ED1 050-1AA00-0AE6** **6ED1 050-1AA00-0BE6** **6ED1 050-1AA00-0CE6** **6ED1 050-1AA00-0DE6** **6ED1 050-1AA00-0EE6**	 1 unit 1 unit 1 unit 1 unit 1 unit	 0.450 0.401 0.400 0.406 0.402
	LOGO! memory cards For copying, with know-how protection		**6ED1 056-5CA00-0BA0**	1 unit	0.004
	LOGO! Soft Comfort V5.0 For programming on the PC in LAD/FBD; runs on Windows 98 SE and higher, Linux, MAC OSX; on CD-ROM		**6ED1 058-0BA01-0YA0**	1 unit	0.101
	LOGO! Soft Comfort Upgrade from V1.0 to V5.0		**6ED1 058-0CA01-0YE0**	1 unit	0.098
	LOGO! PC cables For transferring programs between LOGO! and PC		**6ED1 057-1AA00-0BA0**	1 unit	0.159
	LOGO! News Box, 12/24 V Contains LOGO! 12/24RC, LOGO! PC cable, LOGO!Soft Comfort, Tips&Tricks manual, screwdriver, information material • German • English		 **6ED1 057-3BA00-0AA4** **6ED1 057-3BA00-0BA4**	 1 unit 1 unit	 2.200 2.200
	LOGO! News Box, 230 V Contains LOGO! 230RC, LOGO! PC cable, LOGO!Soft Comfort, Tips&Tricks manual, screwdriver, information material • German • English		 **6ED1 057-3AA01-0AA0** **6ED1 057-3AA01-0BA0**	 1 unit 1 unit	 2.200 2.340

7

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RP15 timing relays in industrial enclosure, 22.5 mm

Selection and ordering data

Solid-state timing relays for general use in control systems and mechanical engineering with:

- 1 changeover contact or 2 changeover contacts
- Single or selectable time setting ranges
- Switch position indication by LED
- Voltage indication by LED

Version	Time setting range *t* adjustable by rotary switch to	Rated control supply voltage U_s AC 50/60 Hz V	DC V	DT	Screw terminals Order No.	DT	Spring-loaded terminals Order No.	PS*	Weight per PU approx. kg
3RP15 05 timing relays, multifunction, 15 time setting ranges									
The functions can be adjusted by means of rotary switches. Insert labels can be used to adjust different functions of the 3RP15 05 timing relay clearly and unmistakably. The corresponding labels can be ordered as an accessory. The same potential must be applied to terminals A. and B.[1]									
With LED and									
1 CO contact, 8 functions[1]	0.05 ... 1 s	--	12		**3RP15 05-1AA40**		**--**	1 unit	0.125
	0.15 ... 3 s	24/100 ... 127	24	▶	**3RP15 05-1AQ30**		**3RP15 05-2AQ30**	1 unit	0.140
	0.5 ... 10 s	24/200 ... 240	24	▶	**3RP15 05-1AP30**		**3RP15 05-2AP30**	1 unit	0.141
	1.5 ... 30 s	24 ... 240[3]	24 ... 240[3]	▶	**3RP15 05-1AW30**		**3RP15 05-2AW30**	1 unit	0.136
2 CO contacts, 16 functions[1]	0.05 ... 1 min	24/100 ... 127	24	▶	**3RP15 05-1BQ30**		**3RP15 05-2BQ30**	1 unit	0.162
	5 ... 100 s	24/200 ... 240	24	▶	**3RP15 05-1BP30**		**3RP15 05-2BP30**	1 unit	0.161
	0.15 ... 3 min	24 ... 240[3]	24 ... 240[3]	▶	**3RP15 05-1BW30**		**3RP15 05-2BW30**	1 unit	0.168
	0.5 ... 10 min	400 ... 440	-		**3RP15 05-1BT20**		**--**	1 unit	0.169
	1.5 ... 30 min								
2 CO contacts, positively driven and hard gold-plated. 8 functions[4][5]	0.05 ... 1 h	24 ... 240	24 ... 240	▶	**3RP15 05-1RW30**		**3RP15 05-2RW30**	1 unit	0.169
	5 ... 100 min								
	0.15 ... 3 h								
	0.5 ... 10 h								
	1.5 ... 30 h								
	5 ... 100 h								
	∞[2]								
3RP15 1. timing relays, ON-delay, 1 time setting range									
With LED and 1 CO contact	0.5 ... 10 s	24/100 ... 127	24	▶	**3RP15 11-1AQ30**		**3RP15 11-2AQ30**	1 unit	0.108
		24/200 ... 240	24	▶	**3RP15 11-1AP30**		**3RP15 11-2AP30**	1 unit	0.108
	1.5 ... 30 s	24/100 ... 127	24	▶	**3RP15 12-1AQ30**		**3RP15 12-2AQ30**	1 unit	0.107
		24/200 ... 240	24	▶	**3RP15 12-1AP30**		**3RP15 12-2AP30**	1 unit	0.104
	5 ... 100 s	24/100 ... 127	24	▶	**3RP15 13-1AQ30**		**3RP15 13-2AQ30**	1 unit	0.107
		24/200 ... 240	24	▶	**3RP15 13-1AP30**		**3RP15 13-2AP30**	1 unit	0.108
3RP15 25 timing relays, ON-delay, 15 time setting ranges									
With LED and									
1 CO contact	0.05 ... 1 s	24/100 ... 127	24	▶	**3RP15 25-1AQ30**		**3RP15 25-2AQ30**	1 unit	0.109
	0.15 ... 3 s	24/200 ... 240	24	▶	**3RP15 25-1AP30**		**3RP15 25-2AP30**	1 unit	0.104
2 CO contacts	0.5 ... 10 s	42 ... 48/60	42 ... 48/ 60[6]		**3RP15 25-1BR30**		**--**	1 unit	0.152
	1.5 ... 30 s	24/100 ... 127	24	▶	**3RP15 25-1BQ30**		**3RP15 25-2BQ30**	1 unit	0.152
	0.05 ... 1 min	24/200 ... 240[6]	24	▶	**3RP15 25-1BP30**		**3RP15 25-2BP30**	1 unit	0.155
	5 ... 100 s	24 ... 240	24 ... 240[3]	▶	**3RP15 25-1BW30**		**3RP15 25-2BW30**	1 unit	0.159
	0.15 ... 3 min								
	0.5 ... 10 min								
	1.5 ... 30 min								
	0.05 ... 1 h								
	5 ... 100 min								
	0.15 ... 3 h								
	0.5 ... 10 h								
	1.5 ... 30 h								
	5 ... 100 h								
	∞[2]								
3RP15 27 timing relays, ON-delay, two-wire design, 4 time setting ranges									
1 NO contact (semiconductor)	0.05 ... 1 s	24 ... 66	24...66[6]		**3RP15 27-1EC30**		**3RP15 27-2EC30**	1 unit	0.099
	0.2 ... 4 s	90 ... 240	90...240[3]	▶	**3RP15 27-1EM30**		**3RP15 27-2EM30**	1 unit	0.100
	1.5 ... 30 s								
	12 ... 240 s								

3RP15 05-1B...

3RP15 1.-1A...

3RP15 25.-1A...

3RP15 27-1E...

1) For functions see 3RP19 01-0 label set, page 7/11.

2) With switch position ∞, no timing. For test purposes (ON/OFF function) on site. Relay is constantly on when activated, or relay remains constantly off when activated. Depending on which function is set.

3) Operating range 0.7 to 1.1 x U_s.

4) Positively driven: NC and NO are never closed simultaneously; contact gap ≥ 0.5 mm is ensured, minimum make-break capacity 12 V, 3 mA.

5) The changeover contacts are actuated simultaneously, as a result of which only 8 functions are selectable (no wye-delta, no instantaneous contact).

6) Operating range 0.8 to 1.1 x U_s.

*** You can order this quantity or a multiple thereof. For other units and versions see A&D Mall.**

© Siemens AG 2008

3RP15 timing relays in industrial enclosure, 22.5 mm

Solid-state timing relays for general use in control systems and mechanical engineering with

- 1 changeover contact or 2 changeover contacts
- Single or selectable time setting ranges
- Switch position indication by LED
- Voltage indication by LED

	Version	Time setting range *t* adjustable by rotary switch to	Rated control supply voltage U_s AC 50/60 Hz V	DC V	DT	Screw terminals Order No.	DT	Spring-loaded terminals Order No.	PS*	Weight per PU approx. kg
3RP15 3. timing relays, OFF-delay, with auxiliary voltage, 1 time setting range										
3RP15 3.-1A...	With LED and 1 CO contact	0.5 ... 10 s	24/100 ... 127	24		**3RP15 31-1AQ30**		**3RP15 31-2AQ30**	1 unit	0.140
			24/200 ... 240	24	▶	**3RP15 31-1AP30**		**3RP15 31-2AP30**	1 unit	0.140
	The same potential must be applied to terminals A and B	1.5 ... 30 s	24/100 ... 127	24		**3RP15 32-1AQ30**		**3RP15 32-2AQ30**	1 unit	0.138
			24/200 ... 240	24	▶	**3RP15 32-1AP30**		**3RP15 32-2AP30**	1 unit	0.139
		5 ... 100 s	24/100 ... 127	24		**3RP15 33-1AQ30**		**3RP15 33-2AQ30**	1 unit	0.139
			24/200 ... 240	24	▶	**3RP15 33-1AP30**		**3RP15 33-2AP30**	1 unit	0.140
3RP15 40 timing relays, OFF-delay, without auxiliary voltage, 7 time setting ranges[1]										
3RP15 40-1A...	With LED and									
	1 CO contact	0.05 ... 1 s	24	24 [2]	▶	**3RP15 40-1AB30**		**3RP15 40-2AB30**	1 unit	0.116
		0.15 ... 3 s	100 ... 127	100...127[3]	▶	**3RP15 40-1AJ30**		**3RP15 40-2AJ30**	1 unit	0.119
		0.3 ... 6 s	200 ... 240	200...240[3]	▶	**3RP15 40-1AN30**		**3RP15 40-2AN30**	1 unit	0.120
	2 CO contacts	0.5 ... 10 s 1.5 ... 30 s 3 ... 60 s 5 ... 100 s	24	24 [2]	▶	**3RP15 40-1BB30**		**3RP15 40-2BB30**	1 unit	0.159
			100 ... 127	100...127[3]		**3RP15 40-1BJ30**		**3RP15 40-2BJ30**	1 unit	0.161
			200 ... 240	200...240[3]	▶	**3RP15 40-1BN30**		**3RP15 40-2BN30**	1 unit	0.161
3RP15 55 timing relays, clock-pulse relay, 15 time setting ranges										
3RP15 55-1A...	With LED and 1 CO contact	0.05 ... 1 s 0.15 ... 3 s 0.5 ... 10 s 1.5 ... 30 s 0.05 ... 1 min 5 ... 100 s 0.15 ... 3 min 0.5 ... 10 min 1.5 ... 30 min 0.05 ... 1 h 5 ... 100 min 0.15 ... 3 h 0.5 ... 10 h 1.5 ... 30 h 5 ... 100 h ∞[4]	42 ... 48/60	42...48/ 60[5]		**3RP15 55-1AR30**		**3RP15 55-2AR30**	1 unit	0.111
			24/100 ... 127	24	▶	**3RP15 55-1AQ30**		**3RP15 55-2AQ30**	1 unit	0.111
			24/200 ... 240	24	▶	**3RP15 55-1AP30**		**3RP15 55-2AP30**	1 unit	0.111
3RP15 60 timing relays, wye-delta function[6], dead interval 50 ms and overtravel time, 1 time setting range										
3RP15 60-1S...	3 NO contacts[3] (common contact root terminal 17)	Wye-delta 1 ... 20 s, overtravel time (idling) 30 ... 600 s	24/100 ... 127	24		**3RP15 60-1SQ30**		**--**	1 unit	0.172
			24/200 ... 240	24	▶	**3RP15 60-1SP30**		**3RP15 60-2SP30**	1 unit	0.175
3RP15 7. timing relays, wye-delta function[6], dead interval 50 ms, 1 time setting range										
3RP15 7.-1N...	1 NO contact instantaneous and 1 NO contact delayed (common contact root terminal 17)	1 ... 20 s	24/100 ... 127	24	▶	**3RP15 74-1NQ30**		**--**	1 unit	0.113
			24/200 ... 240	24	▶	**3RP15 74-1NP30**		**3RP15 74-2NP30**	1 unit	0.113
			200 ... 240/ 380 ...440	--		**3RP15 74-1NM20**		**3RP15 74-2NM20**	1 unit	0.113
		3 ... 60 s	24/100 ... 127	24	▶	**3RP15 76-1NQ30**		**3RP15 76-2NQ30**	1 unit	0.112
			24/200 ... 240	24	▶	**3RP15 76-1NP30**		**3RP15 76-2NP30**	1 unit	0.113
			200 ... 240/ 380 ...440	-		**3RP15 76-1NM20**		**3RP15 76-2NM20**	1 unit	0.113

[1] Setting of output contacts in as-supplied state not defined (bistable relay). Application of the control voltage once results in contact changeover to the correct setting.

[2] Operating range 0.7 to 1.25 x U_s.

[3] Operating range 0.85 to 1.1 x U_s.

[4] With switch position ∞, no timing. For test purposes (ON/OFF function) on site. For dead time "infinite", the relay is always off. For pulse time "infinite", the relay is always on.

[5] Operating range 0.8 to 1.1 x U_s.

[6] For example circuit see Technical Information LV 1 T, "Schematics".

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3RP20 timing relays, 45 mm

Selection and ordering data

Multifunction

The functions can be adjusted by means of rotary switches[1]. Insert labels can be used to adjust different functions of the 3RP20 05 timing relay clearly and unmistakably.

The corresponding labels can be ordered as an accessory. The same potential must be applied to terminals A. and B.

	Version	Time setting range *t*	Rated control supply voltage U_s AC 50-60 Hz V	Rated control supply voltage U_s DC V	DT	Screw terminals Order No.	DT	Spring-loaded terminals Order No.	PS*	Weight per PU approx. kg
3RP20 05 timing relays, multifunction, 15 time setting ranges										
3RP20 05-1BW30	With LED and 1 CO contact, 8 functions[1)2)]	0.05 ... 1 s 0.15 ... 3 s 0.5 ... 10 s 1.5 ... 30 s 0.05 ... 1 min 5 ... 100 s 0.15 ... 3 min 0.5 ... 10 min 1.5 ... 30 min 0.05 ... 1 h 5 ... 100 min 0.15 ... 3 h 0.5 ... 10 h 1.5 ... 30 h 5 ... 100 h ∞[3)]	24/100 ... 127 24/200 ... 240	24 24	► ►	**3RP20 05-1AQ30** **3RP20 05-1AP30**	►	**3RP20 05-2AQ30** **3RP20 05-2AP30**	1 unit 1 unit	0.120 0.121
	With LED and 2 CO contacts, 16 functions[1)]		24 ... 240[4)]	24 ... 240[5)]	►	**3RP20 05-1BW30**		**3RP20 05-2BW30**	1 unit	0.131
3RP20 25. timing relays, ON-delay, 15 time setting ranges										
3RP20 25-1AP30	With LED and 1 CO contact[2)]	0.05 ... 1 s 0.15 ... 3 s 0.5 ... 10 s 1.5 ... 30 s 0.05 ... 1 min 5 ... 100 s 0.15 ... 3 min 0.5 ... 10 min 1.5 ... 30 min 0.05 ... 1 h 5 ... 100 min 0.15 ... 3 h 0.5 ... 10 h 1.5 ... 30 h 5 ... 100 h ∞[3)]	24/100 ... 127 24/200 ... 240	24 24	► ►	**3RP20 25-1AQ30** **3RP20 25-1AP30**	► ►	**3RP20 25-2AQ30** **3RP20 25-2AP30**	1 unit 1 unit	0.110 0.108

1) For functions see 3RP19 01-0 label set, page 7/11.

2) Units with safe electrical isolation.

3) With switch position ∞, no timing. For test purposes (ON/OFF function) on site. Relay is constantly on when activated, or relay remains constantly off when activated. Depending on which function is set.

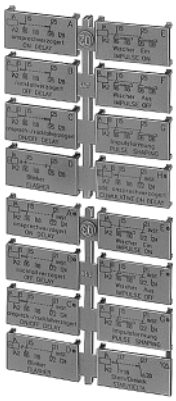
4) Operating range 0.8 ... 1.1 x U_s.

5) Operating range 0.7 ... 1.1 x U_s.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

	Version	Function	Identification letter	Application	DT	Order No.	PS*	Weight per PU approx.
								kg
Label sets								
	Accessory for 3RP15 05 (not included in the scope of supply). The label set offers the possibility of labeling timing relays with the set function in English and German.							
3RP19 01-0A	1 label set (1 unit) with 8 functions	With ON-delay	A	For devices with 1 CO contact and 3RP15 05-. RW30	►	**3RP19 01-0A**	5 units	0.003
		OFF-delay with auxiliary voltage	B					
		ON-delay and OFF-delay with auxiliary voltage	C					
		Flashing, starting with interval	D					
		Passing make contact	E					
		Passing break contact with auxiliary voltage	F					
		Pulse-forming with auxiliary voltage	G					
		Additive ON-delay with auxiliary voltage	H					
 3RP19 01-0B	1 label set (1 unit) with 16 functions	With ON-delay	A	3RP15, 3RP20 with 2 changeover contacts	►	**3RP19 01-0B**	5 units	0.006
		OFF-delay with auxiliary voltage	B					
		ON-delay and OFF-delay with auxiliary voltage	C					
		Flashing, starting with interval	D					
		Passing make contact	E					
		Passing break contact with auxiliary voltage	F					
		Pulse-forming with auxiliary voltage	G					
		Additive ON-delay with auxiliary voltage and instantaneous contact	H•					
		ON-delay and instantaneous contact	A•					
		OFF-delay with auxiliary voltage and instantaneous contact	B•					
		ON-delay and OFF-delay with auxiliary voltage and instantaneous contact	C•					
		Flashing, starting with interval, and instantaneous contact	D•					
		Passing make contact and instantaneous contact	E•					
		Passing break contact with auxiliary voltage and instantaneous contact	F•					
		Pulse-forming with auxiliary voltage and instantaneous contact	G•					
		Wye-delta function	Y∆					
Blank labels								
	Blank labels, 20 x 7 mm, pastel turquoise[1]					**3RT19 00-1SB20**	340 units	22.000
Covering caps and push-in lugs for 3RP15								
3RP19 03	**Push-in lugs** For screw fixing (2 units are required for each device)			3RP15	►	**3RP19 03**	10 units	0.002
3RP19 02	**Sealable covers** For securing against unauthorized adjustment of setting knobs			3RP15	►	**3RP19 02**	5 units	0.004

[1] Computer labeling system for individual labeling of unit labeling plates available from:
murrplastik Systemtechnik GmbH.

7

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3UG Monitoring Relays for Electrical and Additional Measurements

Line monitoring

Selection and ordering data

Hysteresis	Under-voltage detection	Over-voltage detection	ON-delay	Tripping delay	Version of auxiliary contacts	Rated control supply voltage U_s [1]	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
								Order No.		Order No.		
			s	s	CO contact	V						kg
Monitoring of phase sequence												
Auto-RESET												
--	No	No	--	--	1	160 … 260 AC		**3UG45 11-1AN20**		**3UG45 11-2AN20**	1 unit	0.147
					2			**3UG45 11-1BN20**		**3UG45 11-2BN20**	1 unit	0.147
					1	320 … 500 AC		**3UG45 11-1AP20**		**3UG45 11-2AP20**	1 unit	0.147
					2			**3UG45 11-1BP20**		**3UG45 11-2BP20**	1 unit	0.147
					1	420 … 690 AC		**3UG45 11-1AQ20**		**3UG45 11-2AQ20**	1 unit	0.147
					2			**3UG45 11-1BQ20**		**3UG45 11-2BQ20**	1 unit	0.147
Monitoring of phase sequence, phase failure and phase unbalance												
Auto-RESET, closed-circuit principle, unbalance threshold 10 %												
--	No	No	--	--	1	160 … 690 AC		**3UG45 12-1AR20**		**3UG45 12-2AR20**	1 unit	0.147
					2			**3UG45 12-1BR20**		**3UG45 12-2BR20**	1 unit	0.147
Monitoring of phase sequence, phase failure, unbalance and undervoltage												
Analogically adjustable, Auto-RESET, closed-circuit principle, fixed unbalance threshold 20 %												
5 % of set value	Yes	No	--	0.1 … 20	2	160 … 690 AC		**3UG45 13-1BR20**		**3UG45 13-2BR20**	1 unit	0.147
Digitally adjustable, auto or manual RESET, open-circuit or closed-circuit principle, unbalance threshold 5 ... 20 %												
Adjustable 1 ... 20 V	Yes	No	0.1 ... 20	0.1 … 20	2	160 … 690 AC		**3UG46 14-1BR20**		**3UG46 14-2BR20**	1 unit	0.147
Monitoring of phase sequence, phase failure, overvoltage and undervoltage												
Digitally adjustable, Auto-RESET or manual RESET, open-circuit or closed-circuit principle												
Adjustable 1 ... 20 V	Yes	Yes	--	0.1 … 20 [2]	2 [2]	160 … 690 AC		**3UG46 15-1CR20**		**3UG46 15-2CR20**	1 unit	0.147
Monitoring of phase sequence, phase and N conductor failure, overvoltage and undervoltage												
Digitally adjustable, Auto-RESET or manual RESET, open-circuit or closed-circuit principle												
Adjustable 1 ... 20 V	Yes	Yes	--	0.1 … 20 [2]	2 [2]	160 … 690 AC		**3UG46 16-1CR20**		**3UG46 16-2CR20**	1 unit	0.147
Automatic correction of the direction of rotation in case of wrong phase sequence, phase failure, phase unbalance, overvoltage and undervoltage												
Digitally adjustable, auto or manual RESET, open-circuit or closed-circuit principle, unbalance threshold 5...20 %												
Adjustable 1 ... 20 V	Yes	Yes	--	0.1 … 20	2 [3]	160 … 690 AC		**3UG46 17-1CR20**		**3UG46 17-2CR20**	1 unit	0.147
Automatic correction of the direction of rotation in case of wrong phase sequence, phase and N conductor failure, phase unbalance, overvoltage and undervoltage												
Digitally adjustable, auto or manual RESET, open-circuit or closed-circuit principle, unbalance threshold 5...20 %												
Adjustable 1 ... 20 V	Yes	Yes	--	0.1 … 20	2 [3]	160 … 690 AC		**3UG46 18-1CR20**		**3UG46 18-2CR20**	1 unit	0.147

[1] Absolute limit values.

[2] 1 CO contact each and 1 tripping delay time each for U_{min} and U_{max}.

[3] 1 CO contact each for power system fault and phase sequence correction.

* You can order this quantity or a multiple thereof.
For other versions and units see A&D Mall.

© Siemens AG 2008

Selection and ordering data

Measuring range	Hysteresis	Rated control supply voltage U_s	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
V	V	V		Order No.		Order No.		kg
Voltage monitoring, internal power supply without auxiliary voltage, on-delay and tripping delay can be adjusted separately 0.1 ... 20 s								
Digitally adjustable, LCD display, Auto-RESET or manual RESET, open-circuit or closed-circuit principle, 1 CO contact								
17 … 275 AC/DC	0.1...150	17 … 275 AC/DC		**3UG46 33-1AL30**		**3UG46 33-2AL30**	1 unit	0.147
Voltage monitoring, supplied from an external auxiliary voltage, tripping delay adjustable 0.1 ... 20 s								
Digitally adjustable, LCD display, Auto-RESET or manual RESET, open-circuit or closed-circuit principle, 1 CO contact								
0.1 … 60 AC/DC	0.1...30	24 AC/DC		**3UG46 31-1AA30**		**3UG46 31-2AA30**	1 unit	0.147
10 … 600 AC/DC	0.1...300			**3UG46 32-1AA30**		**3UG46 32-2AA30**	1 unit	0.147
0.1 … 60 AC/DC	0.1...30	24 … 240 AC/DC		**3UG46 31-1AW30**		**3UG46 31-2AW30**	1 unit	0.147
10 … 600 AC/DC	0.1...300			**3UG46 32-1AW30**		**3UG46 32-2AW30**	1 unit	0.147

3UG46 31-2AA30

Measuring range	Hysteresis	Rated control supply voltage U_s	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
		V		Order No.		Order No.		kg
Monitoring of undercurrent and overcurrent, on-delay and tripping delay can be adjusted separately 0.1 ... 20 s								
Digitally adjustable, LCD display, Auto-RESET or manual RESET, open-circuit or closed-circuit principle, 1 CO contact								
AC/DC 3 … 500 mA	0.1 ... 250 mA	24 AC/DC[1)]		**3UG46 21-1AA30**		**3UG46 21-2AA30**	1 unit	0.147
AC/DC 0.05 … 10 A	0.01 ... 5 A			**3UG46 22-1AA30**		**3UG46 22-2AA30**	1 unit	0.147
AC/DC 3 … 500 mA	0.1 ... 250 mA	24 … 240 AC/DC[2)]		**3UG46 21-1AW30**		**3UG46 21-2AW30**	1 unit	0.147
AC/DC 0.05 … 10 A	0.01 ... 5 A			**3UG46 22-1AW30**		**3UG46 22-2AW30**	1 unit	0.147

3UG46 21-2AA30

1) No electrical isolation. Load supply voltage 24 V.

2) Electrical isolation between control circuit and measuring circuit. Load supply voltage for safe isolation max. 300 V, for simple isolation max. 500 V.

Measuring range: For power factor	Measuring range: For active current I_{res}	Hysteresis: For power factor	Hysteresis: For active current I_{res}	Rated control supply voltage U_s	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
P.f.	A	P.f.	A	V		Order No.		Order No.		kg
Power factor and active current monitoring with internal power supply for overshoot, undershoot or window monitoring										
Digitally adjustable, LCD display, upper and lower threshold value can be adjusted separately, ON-delay 0 ... 99 s, OFF-delay 0.1 ... 20 s, 1 changeover contact each for undershoot/overshoot										
0.1 ... 0.99	0.2 ... 10	0.1	0.1 ... 2	90 ... 690 AC		**3UG46 41-1CS20**		**3UG46 41-2CS20**	1 unit	0.147

Accessories

For inscription labels, push-in lugs and covers for 3UG45 and 3UG46 monitoring relays see page 7/11.

*** You can order this quantity or a multiple thereof.**
For other versions and units see A&D Mall.

© Siemens AG 2008

Selection and ordering data

Insulation monitoring

	Version	Measuring range U_e	Rated control supply voltage U_s AC 50/60 Hz / DC	DT	**Screw terminals**	PS*	Weight per PU approx.
			V		Order No.		kg
Insulation monitoring for ungrounded AC networks (IT networks)							
3UG30 81-1AK20	1 CO contact, 2 LEDs Auto reset function with hysteresis or storage of the tripping operation Test function with test button on the front and over terminal connections	1 ... 110 kΩ (2 measuring ranges, steplessly adjustable)	115 / 230 AC		**3UG30 81-1AK20**	1 unit	0.327
			24 ... 240 AC/DC		**3UG30 81-1AW30**	1 unit	0.242
Insulation monitoring for ungrounded DC networks							
3UG30 82-1AW30	1 CO contact, 3 LEDs Auto reset function with hysteresis or storage of the tripping operation Test function with test buttons on the front for L+ and L-and over terminal connections	10 ... 110 kΩ (steplessly adjustable)	24 ... 240 AC/DC		**3UG30 82-1AW30**	1 unit	0.233
Accessories							
	Sealable, transparent covers				**3UG32 08-1A**	1 unit	0.010

Residual-current monitoring relays

Standard rail mounting
Width 22.5 mm
Relay for monitoring residual currents
For 3UL22 summation current transformers with rated residual current $I_{\Delta n}$ 0.3 ... 40 A

- Digitally adjustable with three buttons, illuminated LCD
- Adjustable limit value and warning threshold
- Permanent display of actual value and tripping state
- 1 CO contact each for limit violation and warning threshold

	Display range	Setting range	Hysteresis Limit value	Warning value	ON / tripping delay time	Rated control supply voltage U_s 2)	DT	**Screw terminals** Order No.	PS*	Weight per PU approx.
	A	A	A	A	s	V				kg
	10 ... 120 % of $I_{\Delta n}$	10 ... 100 % of $I_{\Delta n}$	LSB 1) up to 50 % of $I_{\Delta n}$	5 % of $I_{\Delta n}$	0.1 ... 20	90 ... 690		**3UG46 24-1CS20**	1 unit	0.147

	Display range	Setting range	Hysteresis Limit value	Warning value	ON / tripping delay time	Rated control supply voltage U_s 2)	DT	**Spring-loaded terminals** Order No.	PS*	Weight per PU approx.
	A	A	A	A	s	V				kg
	10 ... 120 % of $I_{\Delta n}$	10 ... 100 % of $I_{\Delta n}$	LSB 1) up to 50 % of $I_{\Delta n}$	5 % of $I_{\Delta n}$	0.1 ... 20	90 ... 690		**3UG46 24-2CS20**	1 unit	0.130

1) LSB: smallest adjustable value, transformer-dependent, ≤ 1 % of $I_{\Delta n}$.
2) Absolute limit values.

* You can order this quantity or a multiple thereof.
For other versions and units see A&D Mall.

© Siemens AG 2008

Selection and ordering data

Level monitoring

3UG4501-1AA30

Sensitivity	Tripping delay time	Rated control supply voltage U_s AC/DC	DT	**Screw terminals** Order No.	PS*	Weight per PU approx.
kΩ	s	V				kg
2 ... 200	0.5 ... 10	24[1)] 24 ... 240		**3UG45 01-1AA30** **3UG45 01-1AW30**	1 unit 1 unit	0.110 0.120

Sensitivity	Tripping delay time	Rated control supply voltage U_s AC/DC	DT	**Spring-loaded terminals** Order No.	PS*	Weight per PU approx.
kΩ	s	V				kg
2 ... 200	0.5 ... 10	24[1)] 24 ... 240		**3UG45 01-2AA30** **3UG45 01-2AW30**	1 unit 1 unit	0.110 0.120

[1)] The rated control supply voltage and the measuring circuit are not electrically isolated.

Version	Sensitivity AC 50/60 Hz	Rated control supply voltage U_s AC 50/60 Hz	DT	**Screw terminals**	PS*	Weight per PU approx.
Level monitoring sensors (essential accessory) Screw-in gland: width A/F 22, 3/8 inch thread, max. operating temperature 90 °C, max. operating pressure 10 bar, PVC connecting cable: 3 x 0.5 mm², 2 m long						
Wire electrode, 500 mm long, with Teflon insulation (PTFE)						
• For 2-point liquid level control in an insulating tank. One electrode each for the min. and max. value and a common reference electrode.		3-pole	►	**3UG32 07-3A**	1 unit	0.254
• Application: For alarm indication in the event of overflow or low level and for 2-point liquid-level control, when the conductive tank is used as the reference electrode.		2-pole	►	**3UG32 07-2A**	1 unit	0.230
Bow electrode, for lateral fitting, with Teflon insulation (PTFE)						
• The small footprint due to lateral fitting makes it ideal for use in small containers and pipes, as a leak monitor and level monitor or for warning of water entering an enclosure.		2-pole	►	**3UG32 07-2B**	1 unit	0.128
• As a maximum value electrode for lateral fitting or for alarm indication in conductive tanks or pipes.		1-pole	►	**3UG32 07-1B**	1 unit	0.122
• For high flow velocities or for alarm indication in conductive tanks or pipes.		1-pole		**3UG32 07-1C**	1 unit	0.144

3UG32 07-3A

3UG32 07-2B

3UG32 07-1C

Speed monitoring

3UG4615-1CR20

Measuring range	Hysteresis	ON-delay time	Tripping delay time	Pulses per revolution	Rated control supply voltage U_s AC/DC	DT	**Screw terminals** Order No.	PS*	Weight per PU approx.
rpm	rpm	s	s		V				kg
0.1 ... 2200	OFF, 0.1 ... 99.9	0 ... 900	0.1 ... 99.9	1 ... 10	24[1)] 24 ... 240		**3UG46 51-1AA30** **3UG46 51-1AW30**	1 unit 1 unit	0.120 0.130

Measuring range	Hysteresis	ON-delay time	Tripping delay time	Pulses per revolution	Rated control supply voltage U_s AC/DC	DT	**Spring-loaded terminals** Order No.	PS*	Weight per PU approx.
rpm	rpm	s	s		V				kg
0.1 ... 2200	OFF, 0.1 ... 99.9	0 ... 900	0.1 ... 99.9	1 ... 10	24[1)] 24 ... 240		**3UG46 51-2AA30** **3UG46 51-2AW30**	1 unit 1 unit	0.120 0.130

*** You can order this quantity or a multiple thereof.**
For other versions and units see A&D Mall.

© Siemens AG 2008

3RS10, 3RS11 Temperature Monitoring Relays

Relays, analogically adjustable
Relays, digitally adjustable

Selection and ordering data

Analogically adjustable evaluation units with one or two threshold values

- 1 threshold value and 1 hysteresis from 2 to 20 %, adjustable
- On units with 2 threshold values (from 2 to 20 %, adjustable), the second threshold value has a fixed hysteresis of 5 %.
- Setting accuracy of ±5 % is sufficient.

	Sensor	Function	Measuring range	Rated control supply voltage U_s	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
				AC 50-60 Hz		Order No.		Order No.		
			°C	V						kg
Analogically adjustable, 1 threshold value, width 22.5 mm; closed-circuit principle; without memory; 1 NO + 1 NC										
3RS10 00-1CD10	PT100 (resistance sensor)	Overshoot	- 50 … + 50	24 AC/DC		**3RS10 00-1CD00**		**3RS10 00-2CD00**	1 unit	0.150
				110/230 AC		**3RS10 00-1CK00**		**3RS10 00-2CK00**	1 unit	0.190
			0 … + 200	24 AC/DC		**3RS10 00-1CD20**		**3RS10 00-2CD20**	1 unit	0.145
				110/230 AC		**3RS10 00-1CK20**		**3RS10 00-2CK20**	1 unit	0.186
		Undershoot	- 50 … + 50	24 AC/DC		**3RS10 10-1CD00**		--	1 unit	0.150
				110/230 AC		**3RS10 10-1CK00**		--	1 unit	0.186
			0 … + 200	24 AC/DC		**3RS10 10-1CD20**		--	1 unit	0.150
				110/230 AC		**3RS10 10-1CK20**		--	1 unit	0.191
	Type J (thermoelement)	Overshoot	0 … + 600	24 AC/DC		**3RS11 00-1CD30**		--	1 unit	0.149
				110/230 AC		**3RS11 00-1CK30**		--	1 unit	0.190
	Type K (thermoelement)	Overshoot	0 … + 600	24 AC/DC		**3RS11 01-1CD30**		--	1 unit	0.150
				110/230 AC		**3RS11 01-1CK30**		--	1 unit	0.190
			+ 500 … + 1000	24 AC/DC		**3RS11 01-1CD40**		--	1 unit	0.150
				110/230 AC		**3RS11 01-1CK40**		--	1 unit	0.190
Analogically adjustable for warning and disconnection (2 threshold values), width 22.5 mm, open/closed-circuit principle switchable; without memory; 1 NO + 1 CO										
3RS11 21-1DD40	PT100 (resistance sensor)	Overshoot	- 50 … + 50	24 AC/DC		**3RS10 20-1DD00**		--	1 unit	0.166
				24 … 240 AC/DC		**3RS10 20-1DW00**		--	1 unit	0.175
			0 … + 200	24 AC/DC		**3RS10 20-1DD20**		--	1 unit	0.166
				24 … 240 AC/DC		**3RS10 20-1DW20**		**3RS10 20-2DW20**	1 unit	0.175
		Undershoot	-50 … + 50	24 AC/DC		**3RS10 30-1DD00**		--	1 unit	0.165
				24 … 240 AC//DC		**3RS10 30-1DW00**		--	1 unit	0.174
			0 … + 200	24 AC/DC		**3RS10 30-1DD20**		**3RS10 30-2DD20**	1 unit	0.163
				24 … 240 AC/DC		**3RS10 30-1DW20**		--	1 unit	0.173

Digitally adjustable evaluation units with sensor monitoring

The following parameters can be adjusted:

- Sensor type
- 2 threshold values $\vartheta 1$, $\vartheta 2$
- 1 hysteresis; applies to both thresholds (0 ... 99 K)
- 1 delay time; applies to both thresholds (0 ... 999 s)
- Open/closed-circuit principle switchable
- Manual/remote RESET
- Function: Overshoot or undershoot or window monitoring

	Sensor	Measuring range (measuring range limit depends on the sensor)	Rated control supply voltage U_s	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
			AC 50-60 Hz		Order No.		Order No.		
			V						kg
Digitally adjustable, 2 threshold values, width 45 mm; 1 CO + 1 CO + 1 NO, memory function possible with external jumper. Device parameters are non-volatile									
3RS10 40-1GD50	PT100/1000; KTY83/84; NTC (resistance sensors)[1]	- 50 … + 500 °C	24 AC/DC		**3RS10 40-1GD50**		**3RS10 40-2GD50**	1 unit	0.317
			24 … 240 AC/DC		**3RS10 40-1GW50**		**3RS10 40-2GW50**	1 unit	0.329
		- 50 … + 932 °F	24 AC/DC		**3RS20 40-1GD50**		**3RS20 40-2GD50**	1 unit	0.189
			24 … 240 AC/DC		**3RS20 40-1GW50**		**3RS20 40-2GW50**	1 unit	0.186
	TYPE J, K, T, E, N (thermoelement)	- 99 … + 999 °C	24 AC/DC		**3RS11 40-1GD60**		**3RS11 40-2GD60**	1 unit	0.318
			24 … 240 AC/DC		**3RS11 40-1GW60**		**3RS11 40-2GW60**	1 unit	0.329
		- 99 … + 1830 °F	24 AC/DC		**3RS21 40-1GD60**		**3RS21 40-2GD60**	1 unit	0.317
			24 … 240 AC/DC		**3RS21 40-1GW60**		**3RS21 40-2GW60**	1 unit	0.317
Digitally adjustable, 2 threshold values, width 45 mm; 1 CO + 1 CO + 1 NO, tripping state and device parameters are non-volatile									
	PT100/1000; KTY83/84; NTC (resistance sensors)[1]	- 50 … + 750 °C	24 AC/DC		**3RS10 42-1GD70**		**3RS10 42-2GD70**	1 unit	0.317
			24 … 240 AC/DC		**3RS10 42-1GW70**		**3RS10 42-2GW70**	1 unit	0.331
	TYPE J, K, T, E, N, R, S, B (thermoelement)	- 99 … +1800 °C	24 AC/DC		**3RS11 42-1GD80**		**3RS11 42-2GD80**	1 unit	0.318
			24 … 240 AC/DC		**3RS11 42-1GW80**		**3RS11 42-2GW80**	1 unit	0.329

[1] NTC type: B57227-K333-A1 (100 °C: 1.8 kΩ; 25 °C: 32.762 kΩ).

*** You can order this quantity or a multiple thereof. For other versions and units see A&D Mall.**

© Siemens AG 2008

Selection and ordering data

Thermistor motor protection relays for PTC thermistors (Type A PTCs)

- Monostable version with closed-circuit principle, triggers in the event of control supply voltage failure.
- ATEX approval
- 3RN10 13-.BW01: bistable version, does not trigger in the event of control supply voltage failure.
- All devices except for 24 V AC/DC feature electrical isolation.

RESET	Contacts	Rated control supply voltage U_s 50/60 Hz	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
		V		Order No.		Order No.		kg
Compact signal evaluation units, width 22.5 mm, 1 LED								
Terminal A1 is jumpered with the root of the changeover contact								
Auto	1 CO	24 AC/DC	▶	**3RN10 00-1AB00**		**3RN10 00-2AB00**	1 unit	0.114
		110 AC		**3RN10 00-1AG00**		**3RN10 00-2AG00**	1 unit	0.157
		230 AC	▶	**3RN10 00-1AM00**		**3RN10 00-2AM00**	1 unit	0.156
Standard evaluation units, width 22.5 mm, 2 LEDs								
Auto	1 NO + 1 NC	24 AC/DC	▶	**3RN10 10-1CB00**	▶	**3RN10 10-2CB00**	1 unit	0.134
		110 AC	▶	**3RN10 10-1CG00**		**3RN10 10-2CG00**	1 unit	0.174
		230 AC	▶	**3RN10 10-1CM00**		**3RN10 10-2CM00**	1 unit	0.175
		24 … 240 AC/DC	▶	**3RN10 10-1CW00**		**3RN10 10-2CW00**	1 unit	0.146
	2 CO	24 AC/DC		**3RN10 10-1BB00**		**3RN10 10-2BB00**	1 unit	0.162
		110 AC		**3RN10 10-1BG00**		**3RN10 10-2BG00**	1 unit	0.213
		230 DC		**3RN10 10-1BM00**		**3RN10 10-2BM00**	1 unit	0.213
	2 CO, gold-plated	24 AC/DC		**3RN10 10-1GB00**		**3RN10 10-2GB00**	1 unit	0.154
Manual/remote[1]	1 NO + 1 NC	24 AC/DC	▶	**3RN10 11-1CB00**		**3RN10 11-2CB00**	1 unit	0.147
		110/230 AC	▶	**3RN10 11-1CK00**		**3RN10 11-2CK00**	1 unit	0.188
Short-circuit detection for sensor circuit								
Manual/remote[1]	2 CO	24 AC/DC		**3RN10 11-1BB00**		**3RN10 11-2BB00**	1 unit	0.163
		110 AC		**3RN10 11-1BG00**		**3RN10 11-2BG00**	1 unit	0.214
		230 AC		**3RN10 11-1BM00**		**3RN10 11-2BM00**	1 unit	0.212
	2 CO, gold-plated	24 AC/DC		**3RN10 11-1GB00**		**3RN10 11-2GB00**	1 unit	0.165
Non-volatile[2]								
Manual/auto/remote	1 NO + 1 NC	24 AC/DC	▶	**3RN10 12-1CB00**		**3RN10 12-2CB00**	1 unit	0.148
		110/230 AC	▶	**3RN10 12-1CK00**		**3RN10 12-2CK00**	1 unit	0.188
Non-volatile[2], short-circuit detection in sensor circuit								
Manual/auto/remote	2 CO	24 AC/DC		**3RN10 12-1BB00**		**3RN10 12-2BB00**	1 unit	0.164
		110 AC		**3RN10 12-1BG00**		**3RN10 12-2BG00**	1 unit	0.214
		230 AC		**3RN10 12-1BM00**		**3RN10 12-2BM00**	1 unit	0.216
	2 CO, gold-plated	24 AC/DC		**3RN10 12-1GB00**		**3RN10 12-2GB00**	1 unit	0.155
Non-volatile[2], short-circuit and open-circuit detection and indication in sensor circuit; wide-range voltage with screw terminal with safe isolation								
Manual/auto/remote	2 CO	24 AC/DC	▶	**3RN10 13-1BB00**		**3RN10 13-2BB00**	1 unit	0.160
		24 … 240 AC/DC	▶	**3RN10 13-1BW10**		**3RN10 13-2BW00**	1 unit	0.172
	2 CO, gold-plated	24 … 240 AC/DC		**3RN10 13-1GW10**		**3RN10 13-2GW00**	1 unit	0.168
Evaluation units for 2 sensor circuits, warning and disconnection, width 22.5 mm, 3 LEDs								
Test/RESET button, non-volatile[2]								
Manual/auto/remote	1 NO + 1 CO	24 … 240 AC/DC	▶	**3RN10 22-1DW00**		**3RN10 22-2DW00**	1 unit	0.173
Evaluation units for 6 sensor circuits, multiple motor protection, width 45 mm, 8 LEDs								
Test/RESET button, non-volatile[2]								
Manual/auto/remote	1 NO + 1 NC	24 … 240 AC/DC	▶	**3RN10 62-1CW00**		**3RN10 62-2CW00**	1 unit	0.296
Bistable evaluation units, width 22.5 mm								
Test / RESET button, non-volatile[2], short-circuit and open-circuit detection and indication in sensor circuit								
Manual/auto/remote	2 CO	24 … 240 AC/DC	▶	**3RN10 13-1BW01**		**3RN10 13-2BW01**	1 unit	0.169

3RN10 11-1BB00

3RN10 13-1BB00

[1] The unit can be reset with the RESET button or by disconnecting the control supply voltage.

[2] For more information on protection against voltage failure see Technical Information LV 1 T.

Version	For type	DT	Order No.	PS*	Weight per PU approx.
					kg
Accessories					
Push-in lugs for screw fixing, 2 units required per standard enclosure 22.5 or 45 mm.	3RN1, 3RS1	▶	**3RP19 03**	10 units	0.002
Blank labels, 20 x 7 mm, pastel turquoise			**3RT19 00-1SB20**	340 units	22.000

*** You can order this quantity or a multiple thereof.**
For other versions and units see A&D Mall.

© Siemens AG 2008

With electronic enabling circuits

Selection and ordering data

Rated control supply voltages U_S 24 V DC and AC 50/60 Hz, 115 V, 230 V

Enabling circuit, floating		Enabling circuit, electronic		Signaling circuit	Achievable category according to EN 954-1	Rated control supply voltage U_S	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
Stop category 0	Stop category 1	Stop category 0	Stop category 1			V		Order No.		Order No.		kg
Safety relays, with electronic enabling circuits, for EMERGENCY-STOP and protective doors												
Basic units												
--	--	2[1]	--	--	3	24 DC		**3TK28 40-1BB40**		**3TK28 40-2BB40**	1 unit	0.180
Basic units												
--	--	2	--	--	4	24 DC		**3TK28 41-1BB40**		**3TK28 41-2BB40**	1 unit	0.166
Basic units t_v												
--	--	1	1, A[2]	--	4	24 DC		**3TK28 42-1BB41**		**3TK28 42-2BB41**	1 unit	0.168
			1, B[2]					**3TK28 42-1BB42**		**3TK28 42-2BB42**	1 unit	0.166
			1, C[2]					**3TK28 42-1BB44**		**3TK28 42-2BB44**	1 unit	0.166

3TK28 41-1

3TK28 42-1

[1] The outputs are only safe in conjunction with external actuators with positively-driven contacts.

[2] t_v = OFF-delay; A = 0.05 ... 3 s; B = 0.5 ... 30 s; C = 5 ... 300 s.

Rated control supply voltage U_S	OFF-delay t_v	DT	Screw terminals	DT	Screw terminals	PS*	Weight per PU approx.
V	s		Order No.		Order No.		kg
Rated control supply voltage U_S 24 V DC							
3TK28 45 multi-function units "automatic and monitored start"							
24 DC	--		**3TK28 45-1HB40**		**3TK28 45-2HB40**	1 unit	0.350
3TK28 45 multi-function units t_v"automatic and monitored start"							
24 DC	0.05 ... 3		**3TK28 45-1HB41**		**3TK28 45-2HB41**	1 unit	0.350
	0.5 ... 30		**3TK28 45-1HB42**		**3TK28 45-2HB42**	1 unit	0.350
	5 ... 300		**3TK28 45-1HB44**		**3TK28 45-2HB44**	1 unit	0.350
3TK28 45 multi-function units "monitored start"							
24 DC	--		**3TK28 45-1DB40**		**3TK28 45-2DB40**	1 unit	0.350
3TK28 45 multi-function units t_v"monitored start"							
24 DC	0.05 ... 3		**3TK28 45-1DB41**		**3TK28 45-2DB41**	1 unit	0.350
	0.5 ... 30		**3TK28 45-1DB42**		**3TK28 45-2DB42**	1 unit	0.350
	5 ... 300		**3TK28 45-1DB44**		**3TK28 45-2DB44**	1 unit	0.350
3TK28 45 multi-function units "OK button"							
24 DC	--		**3TK28 45-1EB40**		**3TK28 45-2EB40**	1 unit	0.350
3TK28 45 multi-function units t_v"OK button"							
24 DC	0.05 ... 3		**3TK28 45-1EB41**		**3TK28 45-2EB41**	1 unit	0.350
	0.5 ... 30		**3TK28 45-1EB42**		**3TK28 45-2EB42**	1 unit	0.350
	5 ... 300		**3TK28 45-1EB44**		**3TK28 45-2EB44**	1 unit	0.350
3TK28 45 multi-function units t_v"spring-locked tumbler"							
24 DC	0.05 ... 3		**3TK28 45-1FB41**		**3TK28 45-2FB41**	1 unit	0.350
	0.5 ... 30		**3TK28 45-1FB42**		**3TK28 45-2FB42**	1 unit	0.350
	5 ... 300		**3TK28 45-1FB44**		**3TK28 45-2FB44**	1 unit	0.350
3TK28 45 multi-function units t_v"magnet-locked tumbler"							
24 DC	0.05 ... 3		**3TK28 45-1GB41**		**3TK28 45-2GB41**	1 unit	0.350
	0.5 ... 30		**3TK28 45-1GB42**		**3TK28 45-2GB42**	1 unit	0.350
	5 ... 300		**3TK28 45-1GB44**		**3TK28 45-2GB44**	1 unit	0.350

3TK28 45-1HB40

3TK28 45-1DB40

3TK28 45-1DB41

* You can order this quantity or a multiple thereof.
For other versions and units see A&D Mall.

© Siemens AG 2008

Selection and ordering data

Rated control supply voltages U_S 24 V DC and AC 50/60 Hz, 24 V, 115 V, 230 V

	Enabling contacts	Signaling contacts	Achievable category according to EN 954-1	Rated control supply voltage U_S	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
				V		Order No.		Order No.		kg
Basic units for EMERGENCY-STOP and protective doors										
3TK28 21-1 to 3TK28 24-1	**Autostart**									
	3 NO	1 NC	3	24 AC/DC	▶	**3TK28 21-1CB30**	▶	**3TK28 21-2CB30**	1 unit	0.276
	2 NO	--	4	24 AC/DC	▶	**3TK28 22-1CB30**		**3TK28 22-2CB30**	1 unit	0.271
	Monitored start									
	2 NO	--	4	24 AC/DC	▶	**3TK28 23-1CB30**		**3TK28 23-2CB30**	1 unit	0.271
	Autostart									
	2 NO	--	3	24 AC/DC	▶	**3TK28 24-1CB30**		**3TK28 24-2CB30**	1 unit	0.254
				24 DC	▶	**3TK28 24-1BB40**	▶	**3TK28 24-2BB40**	1 unit	0.249
				115 AC		**3TK28 24-1AJ20**		**3TK28 24-2AJ20**	1 unit	0.294
				230 AC	▶	**3TK28 24-1AL20**		**3TK28 24-2AL20**	1 unit	0.288
3TK28 25-1	**Autostart/Monitored start**									
	3 NO	2 NC	4	24 DC	▶	**3TK28 25-1BB40**	▶	**3TK28 25-2BB40**	1 unit	0.423
				24 AC		**3TK28 25-1AB20**		**3TK28 25-2AB20**	1 unit	0.421
				115 AC	▶	**3TK28 25-1AJ20**		**3TK28 25-2AJ20**	1 unit	0.519
				230 AC	▶	**3TK28 25-1AL20**		**3TK28 25-2AL20**	1 unit	0.516
	3TK28 26 basic units									
	4 NO	1 NC + 2 HL	4	24 DC	▶	**3TK28 26-1BB40**		**3TK28 26-1BB40**	1 unit	0.350
	4 NO	2 NC		24 ... 240	▶	**3TK28 26-1CW30**		**3TK28 26-1CW30**	1 unit	0.350
	Monitored start									
	OFF-delay, t_v = 0.5 ... 30 s									
	2 NO + 2 NO	1 NC	4	24 DC	▶	**3TK28 27-1BB40**	▶	**3TK28 27-2BB40**	1 unit	0.495
				24 AC		**3TK28 27-1AB20**		**3TK28 27-2AB20**	1 unit	0.500
				115 AC		**3TK28 27-1AJ20**		**3TK28 27-2AJ20**	1 unit	0.650
				230 AC		**3TK28 27-1AL20**		**3TK28 27-2AL20**	1 unit	0.650
3TK28 27-1 and 3TK28 28-1	**Monitored start**									
	OFF-delay, t_v = 0.05 ... 3 s									
	2 NO + 2 NO	1 NC	4	24 DC	▶	**3TK28 27-1BB41**		**3TK28 27-2BB41**	1 unit	0.495
				24 AC		**3TK28 27-1AB21**		**3TK28 27-2AB21**	1 unit	0.500
				115 AC	▶	**3TK28 27-1AJ21**		**3TK28 27-2AJ21**	1 unit	0.650
				230 AC	▶	**3TK28 27-1AL21**		**3TK28 27-2AL21**	1 unit	0.650
	Autostart									
	OFF-delay, t_v = 0.5 ... 30 s									
	2 NO + 2 NO	1 NC	4	24 DC	▶	**3TK28 28-1BB40**	▶	**3TK28 28-2BB40**	1 unit	0.500
				24 AC		**3TK28 28-1AB20**		**3TK28 28-2AB20**	1 unit	0.500
				115 AC		**3TK28 28-1AJ20**		**3TK28 28-2AJ20**	1 unit	0.650
				230 AC		**3TK28 28-1AL20**		**3TK28 28-2AL20**	1 unit	0.650
	Autostart									
	OFF-delay, t_v = 0.05 ... 3 s									
	2 NO + 2 NO	1 NC	4	24 DC	▶	**3TK28 28-1BB41**	▶	**3TK28 28-2BB41**	1 unit	0.500
				24 AC		**3TK28 28-1AB21**		**3TK28 28-2AB21**	1 unit	0.500
				115 AC		**3TK28 28-1AJ21**		**3TK28 28-2AJ21**	1 unit	0.657
				230 AC		**3TK28 28-1AL21**		**3TK28 28-2AL21**	1 unit	0.650
Expansion units										
3TK28 30-1	**For expansion of the contacts for the safety relays** (1 enabling contact of the basic unit is required for connecting to the basic unit)									
	4 NO	--	As basic unit	24 AC/DC	▶	**3TK28 30-1CB30**	▶	**3TK28 30-2CB30**	1 unit	0.267
				115 AC		**3TK28 30-1AJ20**		**3TK28 30-2AJ20**	1 unit	0.306
				230 AC		**3TK28 30-1AL20**		**3TK28 30-2AL20**	1 unit	0.306

For multi-unit packaging see Appendix.

*** You can order this quantity or a multiple thereof.**
For other versions and units see A&D Mall.

© Siemens AG 2008

3RS17 interface converters

Selection and ordering data

All converters except the passive single interface converters have a yellow LED for indicating "Power on".

	Inputs	Outputs	Width	Rated control supply voltage U_s	Electrical isolation	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
							Order No.		Order No.		
			mm	V							kg
Single interface converters, active											
	0 ... 10 V	0 ... 10 V	6.2	24 AC/DC	2 paths		**3RS17 00-1AD00**		**3RS17 00-2AD00**	1 unit	0.053
		0 ... 20 mA	6.2	24 AC/DC	2 paths		**3RS17 00-1CD00**		**3RS17 00-2CD00**	1 unit	0.052
		4 ... 20 mA	6.2	24 AC/DC	2 paths		**3RS17 00-1DD00**		**3RS17 00-2DD00**	1 unit	0.052
	0 ... 20 mA	0 ... 10 V	6.2	24 AC/DC	2 paths		**3RS17 02-1AD00**		**3RS17 02-2AD00**	1 unit	0.052
		0 ... 20 mA	6.2	24 AC/DC	2 paths		**3RS17 02-1CD00**		**3RS17 02-2CD00**	1 unit	0.052
		4 ... 20 mA	6.2	24 AC/DC	2 paths		**3RS17 02-1DD00**		**3RS17 02-2DD00**	1 unit	0.052
	4 ... 20 mA	0 ... 10 V	6.2	24 AC/DC	2 paths		**3RS17 03-1AD00**		**3RS17 03-2AD00**	1 unit	0.052
		0 ... 20 mA	6.2	24 AC/DC	2 paths		**3RS17 03-1CD00**		**3RS17 03-2CD00**	1 unit	0.052
		4 ... 20 mA	6.2	24 AC/DC	2 paths		**3RS17 03-1DD00**		**3RS17 03-2DD00**	1 unit	0.053
Switchable multi-range converters, active											
	0 ... 10 V, 0 ... 20 mA, 4 ... 20 mA, switchable	0 ... 10 V, 0 ... 20 mA, 4 ... 20 mA, switchable	6.2	24 AC/DC	2 paths		**3RS17 05-1FD00**		**3RS17 05-2FD00**	1 unit	0.053
			17.5	24 … 240 AC/DC	3 paths		**3RS17 05-1FW00**		**3RS17 05-2FW00**	1 unit	0.090
	0 ... 10 V, 0 ... 20 mA, 4 ... 20 mA, switchable	0 ... 50 Hz, 0 ... 100 Hz, 0 ... 1 kHz, 0 ... 10 kHz, switchable	6.2	24 AC/DC	2 paths		**3RS17 05-1KD00**		**3RS17 05-2KD00**	1 unit	0.053
			17.5	24 … 240 AC/DC	3 paths		**3RS17 05-1KW00**		**3RS17 05-2KW00**	1 unit	0.099
Switchable universal converters, active, with 16 input ranges and 3 output ranges											
	0 ... 60 mV, 0 ... 100 mV, 0 ... 300 mV, 0 ... 500 mV, 0 ... 1 V, 0 ... 2 V, 0 ... 5 V, 0 ... 10 V, 0 ... 20 V, 2 ... 10 V, 0 ... 5 mA, 0 ... 10 mA, 0 ... 20 mA, 4 ... 20 mA, +/-5 mA, +/-20 mA, switchable	0 ... 10 V, 0 ... 20 mA, 4 ... 20 mA, switchable	17.5	24 AC/DC	2 paths		**3RS17 06-1FD00**		**3RS17 06-2FD00**	1 unit	0.082
					3 paths		**3RS17 06-1FE00**		**3RS17 06-2FE00**	1 unit	0.082
				24 … 240 AC/DC	3 paths		**3RS17 06-1FW00**		**3RS17 06-2FW00**	1 unit	0.090
Switchable multi-range converters, active, with manual/automatic switch and single potentiometer as manual analog signal transmitter											
	0 ... 10 V, 0 ... 20 mA, 4 ... 20 mA, switchable	0 ... 10 V, 0 ... 20 mA, 4 ... 20 mA, switchable	17.5	24 AC/DC	2 paths		**3RS17 25-1FD00**		**3RS17 25-2FD00**	1 unit	0.085
				24 … 240 AC/DC	3 paths		**3RS17 25-1FW00**		**3RS17 25-2FW00**	1 unit	0.102

	Inputs	Outputs	Width	Number of channels	Electrical isolation	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
							Order No.		Order No.		
			mm								kg
Single interface converters, passive											
	0/4 ... 20 mA	0/4 ... 20 mA	6.2	1	2 paths		**3RS17 20-1ET00**		**3RS17 20-2ET00**	1 unit	0.049
			12.5	1	2 paths		**3RS17 21-1ET00**		**3RS17 21-2ET00**	1 unit	0.059
				2	2 paths		**3RS17 22-1ET00**		**3RS17 22-2ET00**	1 unit	0.070

*** You can order this quantity or a multiple thereof.**
For other versions and units see A&D Mall.

© Siemens AG 2008

Detecting Devices

8

8/2 **Introduction**

3SE5 Position Switches
8/4 General data
8/6 Plastic enclosures
Enclosure width 31 mm according to EN 50047
8/10 Metal enclosures
Enclosure width 40 mm according to EN 50041
8/14 Open-type position switches
8/15 Accessories and spare parts
With Separate Actuator
8/17 Plastic enclosures
Metal enclosures
With Tumbler
8/19 General data
8/21 Plastic enclosures, up to 1300 N with locking force
8/22 Metal enclosures, up to 2600 N with locking force
Hinge Switches
8/23 Plastic enclosures
Metal enclosures
Explosion-Proof (ATEX)
8/24 Metal enclosures

3SF1 AS-Interface Position Switches
8/25 General data
8/26 Plastic enclosures
Metal enclosures
With Separate Actuator
8/27 General data
8/28 Plastic enclosures
Metal enclosures
With Tumbler
8/29 General data
8/30 Plastic enclosures
Metal enclosures
Hinge Switches
8/31 Plastic enclosures
Metal enclosures

3SE6 Magnetically Operated Switches
8/32 Magnetic monitoring systems

© Siemens AG 2008

Introduction

Overview

3SE5 23., 3SF1 234

3SE5 24., 3SF1 244

3SE5 11., 3SF1 114

3SE5 12., 3SF1 124

3SE5 232, 3SF1 2.4

3SE5 112, 3SF1 1.4

3SE5 250

	Position switches, standard				Hinge switches		Open-type
Enclosures							
Plastic	✔	✔	--	--	✔	--	✔
Metal	--	--	✔	✔	--	✔	--
Dimensions (W x H x D) in mm	31 × 68 × 33	50 × 53 × 33	40 × 78 × 38	56 × 78 × 38	31 × 68 × 33	40 × 78 × 38	30 × 48,5 × 20
Degree of protection	IP65	IP66/IP67	IP66/IP67	IP66/IP67	IP65	IP66/IP67	IP10 or IP20
Standards IEC 60947-5-1	Mounting and operating points accord-ing to EN 50047	Operating points accord-ing to EN 50047	Mounting and operating points accord-ing to EN 50041	Operating points accord-ing to EN 50041	Mounting and operating points accord-ing to EN 50047	Mounting and operating points accord-ing to EN 50041	Mounting and operating points accord-ing to EN 50047
Approvals	CE, UL, CSA, CCC[1)]				CE, UL, CSA, CCC[1)]		
Contact blocks							
2 slow-action contacts	1 NO + 1 NC, 2 NO		1 NO + 1 NC, 2 NO		--		1 NO + 1 NC
2 snap-action contacts	1 NO + 1 NC		1 NO + 1 NC		1 NO + 1 NC		1 NO + 1 NC
• With make-before-break	1 NO + 1 NC		1 NO + 1 NC		--		--
2 snap-action contacts, short stroke	1 NO + 1 NC		✔		✔		✔
2 snap-action contacts with 2 × 2 mm contact gap	1 NO + 1 NC		✔		✔		✔
3 slow-action contacts	1 NO + 2 NC		1 NO + 2 NC		✔		1 NO + 2 NC
3 snap-action contacts	1 NO + 2 NC		1 NO + 2 NC		1 NO + 2 NC		1 NO + 2 NC
Special features							
LED status display	✔		✔		✔		--
Increased corrosion protection	✔		✔		✔		--
Explosion protection (ATEX)	--		✔		--	✔	--
ASIsafe integrated	✔		✔		✔		--
Electrical specifications							
Insulation voltage U_i	400 V		400 V		400 V		400 V
Continuous thermal current I_{the}	6 A		6 A		6 A		6 A
Terminals							
Cable entry	1 × M20 × 1.5	2 × M20 × 1.5	1 × M20 × 1.5	3 × M20 × 1.5	1 × M20 × 1.5	1 × M20 × 1.5	--
M12 plug, 4- or 5-pole	✔	✔	✔	✔	✔	✔	--
Plug, 6-pole + PE	--	--	✔	✔	--	--	--
Actuators							
Rounded plungers and roller plungers	✔		✔		--		✔
Roller and angular roller levers	✔		✔		--		--
Spring rods	✔		✔		--		--
Twist levers and rod actuators	✔		✔		--		--
Fork levers	--		✔		--		--
Hinges for mounting	--		--		✔		--
Page							
Complete units	8/6	A & D Mall	8/10	A & D Mall	8/23	8/23	8/14
Modular system	8/8	A & D Mall	8/12	A & D Mall	--	--	--
ASIsafe	8/26	8/26	8/26	8/26	8/31	8/31	--
ATEX	--	--	8/24	8/24	A & D Mall	A & D Mall	--

✔ Available

-- Not available

1) Submitted.

© Siemens AG 2008

	3SE5 232, 3SE5 242, 3SF1 2.4	3SE5 112, 3SE5 122, 3SF1 1.4	3SE5 322, 3SE5 312, 3SF1 3.4	3SE6
	Position switches with separate actuator		**Position switches with tumbler**	**Magnetically operated switches**
Enclosures				
Plastic	✔	--	✔	✔
Metal	--	✔	✔	--
Dimensions (W x H x D) in mm	31 × 68 × 33, 50 × 53 × 33	40 × 78 × 38, 56 × 78 × 38	54 × 185 × 44	M30 × 44, 19 × 33 × 13, 25 × 88 × 13
Degree of protection	IP65, IP66/IP67	IP66/IP67	IP66/IP67	IP67
Standards IEC 60947-5-1	Mounting according to EN 50047	Mounting according to EN 50041	EN 1088, GS-ET 19	Category 3 according to EN 954-1
Approvals	CE, TÜV, UL, CSA, CCC[1)]		CE, TÜV, UL, CSA, CCC[1)]	CE, UL, CSA
Contact blocks				
2 slow-action contacts	1 NO + 1 NC		--	--
2 snap-action contacts	--		--	--
3 slow-action contacts	1 NO + 2 NC		--	--
3 snap-action contacts	--		--	--
6 slow-action contacts	--		2 × (1 NO + 2 NC)	--
Reed contacts	--		--	1 NO + 1 NC, 2 NC
Special features				
LED status display	✔		✔	--
Increased corrosion protection	✔		✔	--
Explosion protection (ATEX)	✔		--	--
ASIsafe integrated	✔		✔	--
Electrical specifications				
Insulation voltage U_i	400 V		400 V	--
Continuous thermal current I_{the}	6 A		6 A	--
Terminals				
Cable entry	1 × M20 × 1.5, 2 × M20 × 1.5	1 × M20 × 1.5, 3 × M20 × 1.5	3 × M20 × 1.5	--
M12 plug, 4 or 5-pole	✔	✔	✔	✔
Molded cables	--	--	--	✔
AS-Interface	✔	✔	✔	✔ (through I/O module)
Actuator				
Separate actuator	✔		✔	--
Page				
Complete units	8/17	8/18	8/21, 8/22	--
Modular system	--	--	--	8/33
ASIsafe	8/28	8/28	8/30	8/33
ATEX	--	A & D Mall	--	--

✔ Available
-- Not available
1) Submitted.

© Siemens AG 2008

General data

Overview

Position switches in the innovative SIRIUS 3SE5 series are modern in design, compact, modular and simple to connect.

Complete units

Popular versions of the position switches in standard enclosures are available as complete units.

Position switches with plastic and metal enclosures

Modular system

The 3SE5 series features a new modular system comprising different sizes of the basic switch and an actuator which must be ordered separately. Thanks to the modular construction of the switch the user can select the right solution for his application from numerous versions and install it himself in a very short time. The short delivery times of the modules enable fast replacement and thus ensure high plant availability.

Examples of selection options in the modular system

Design

Enclosure sizes

The 3SE5 switches are available in five different enclosure sizes:

- Open-type position switch IP20 or IP10
- Plastic enclosures according to EN 50047 (31 mm wide), 1 cable entry
- Plastic enclosures (50 mm wide), 2 cable entries
- Metal enclosures according to EN 50041 (40 mm wide), 1 cable entry
- Metal enclosures (56 mm wide), 3 cable entries

The following items are available in addition from the 3SE2 series:

- Plastic enclosure according to EN 50041, 40 mm wide
- Metal enclosures with 3 or 4 contacts, 56 mm wide

Enclosure versions

Various basic switches can be selected for the 3SE5 series:

- With switching elements with two or three contacts (screw terminal) designed as slow-action or snap-action contacts
- Optional LED status display
- With mounted four or five-pole M12 connector socket (available for the wide enclosures as an accessory for self-assembly)
- With 6-pole connector socket + PE on the metal enclosures
- With increased corrosion protection
- Metal enclosures for explosion protection (ATEX) (see page 8/24)
- AS-Interface version with integrated ASIsafe electronics for all enclosure designs (see page 8/25)

Actuator variants

The following actuator variants are available:

- Rounded plunger
- Roller plunger
- Roller lever
- Angular roller lever
- Spring rod
- Twist levers and rod actuators
- Fork lever

The actuator rollers are available with various materials and diameters.

Positive opening ➔

The NC contacts of the switch are forced open mechanically, positively-driven and reliably by the plunger. This is referred to as "positive opening".

Contact reliability

The new contact blocks ensure an extremely high contact stability. This applies even when the devices are switching low voltages and currents, e.g. 1 mA at 5 V DC

Optional LED indicators

The enclosures can be supplied with an LED signaling indicator (1 × green + 1 × yellow). This is the first time that optical signaling equipment is also available for small standard enclosures according to EN 50047. The LED signaling indicators are available in all common voltages (24 V DC and 230 V AC)

© Siemens AG 2008

Options

On the following pages you will find selection tables for complete units as well as components of the modular system.

The complete units are indicated in the selection and ordering data by green backgrounds.

The modular system is indicated in the selection and ordering data by orange backgrounds.

Using the modular system you can assemble switch variants which are not available as complete units. Each complete unit can also be supplied as a module.

- Basic enclosure with teflon plunger
- Version with increased corrosion protection
- Version with 2 LEDs
- Version with M12 connector socket or 6-pole + PE
- Version with M12 connector socket and with 2 LEDs

For the plastic enclosures with a width of 31 and 50 mm the basic switches are designed as complete units with rounded plunger (according to standard).

Complete units

Ordering example

Required:

- Position switch according to EN 50047 in a plastic enclosure
- Contact block with slow-action contacts 1 NO + 1 NC
- Angular roller lever, metal lever and plastic roller

To be ordered:

	Version	Order No.
Complete units • Enclosure width 31 mm		
	Angular roller lever **With metal lever and plastic roller 13 mm** Slow-action contacts 1 NO + 1 NC	**3SE5 232-0BF10**

Modular system

Ordering example 1

Required:

- Position switch according to EN 50047 in a plastic enclosure
- Contact block with slow-action contacts 1 NO + 1 NC
- Angular roller lever, metal lever and plastic roller

To be ordered separately:

	Version	Order No.
Basic switches • Enclosure width 31 mm		
	With teflon plungers Slow-action contacts 1 NO + 1 NC	**3SE5 232-0BC05**
		+
Actuators		
	Angular roller levers Metal lever, plastic roller	**3SE5 000-0AF10**

Ordering example 2

Required:

- Position switch according to EN 50047 in a plastic enclosure
- Contact block with slow-action contacts 1 NO + 1 NC
- Twist lever, high-grade steel lever and plastic roller

To be ordered separately:

	Version	Order No.
Basic switches • Enclosure width 31 mm		
	With teflon plunger Slow-action contacts 1 NO + 1 NC	**3SE5 232-0BC05**
		+
Twist actuators		
	Twist actuators (without lever)	**3SE5 000-0AK00**
	Twist levers High-grade steel lever, plastic roller	**3SE5 000-0AA31**

© Siemens AG 2008

Plastic enclosures
Enclosure width 31 mm according to EN 50047

Selection and ordering data

Complete units

2 or 3 contacts · Degree of protection IP65 · Cable entry M20 × 1.5

	Version	Contacts	LEDs	DT	Complete units	PS*	Weight per PU approx.
					Order No.		kg
Complete units[1] • Enclosure width 31 mm							
	Rounded plungers, type B according to EN 50047						
	With teflon plunger						
	Slow-action contacts	1 NO + 1 NC	--	➔ ►	**3SE5 232-0BC05**	1 unit	0.065
	Snap-action contacts	1 NO + 1 NC	--	➔	**3SE5 232-0CC05**	1 unit	0.065
	Snap-action contacts • Integrated[2]	1 NO + 1 NC	--	➔ ►	**3SE5 232-0HC05**	1 unit	0.065
	Snap-action contacts • Short-stroke, integrated[2]	1 NO + 1 NC	--	➔	**3SE5 232-0FC05**	1 unit	0.065
	Snap-action contacts • 2 × 2 mm contact gap	1 NO + 1 NC	--	➔	**3SE5 232-0GC05**	1 unit	0.065
	Slow-action contacts	1 NO + 2 NC	--	➔	**3SE5 232-0KC05**	1 unit	0.070
	Snap-action contacts	1 NO + 2 NC	--	➔	**3SE5 232-0LC05**	1 unit	0.075
	With increased corrosion protection						
	Slow-action contacts	1 NO + 1 NC	--	➔	**3SE5 232-0BC05-1CA0**	1 unit	0.065
	Snap-action contacts	1 NO + 1 NC	--	➔	**3SE5 232-0CC05-1CA0**	1 unit	0.065
	Slow-action contacts	1 NO + 2 NC	--	➔	**3SE5 232-0KC05-1CA0**	1 unit	0.065
	Snap-action contacts	1 NO + 2 NC	--	➔	**3SE5 232-0LC05-1CA0**	1 unit	0.065
	With M12 connector socket, 4-pole						
	Slow-action contacts	1 NO + 1 NC	--	➔	**3SE5 234-0BC05-1AC4**	1 unit	0.070
	Snap-action contacts • Integrated[2]	1 NO + 1 NC	--	➔	**3SE5 234-0HC05-1AC4**	1 unit	0.070
	Slow-action contacts	2 NC	--	➔	**3SE5 234-0KC05-1AE0**	1 unit	0.070
	Snap-action contacts	2 NC	--	➔	**3SE5 234-0LC05-1AE0**	1 unit	0.110
	With 2 LEDs, yellow/green						
	Slow-action contacts	1 NO + 2 NC	24 V DC	➔	**3SE5 232-1KC05**	1 unit	0.070
	Snap-action contacts	1 NO + 2 NC	24 V DC	➔	**3SE5 232-1LC05**	1 unit	0.070
	Slow-action contacts	1 NO + 2 NC	230 V AC	➔	**3SE5 232-3KC05**	1 unit	0.060
	Snap-action contacts	1 NO + 2 NC	230 V AC	➔	**3SE5 232-3LC05**	1 unit	0.070
	With M12 connector socket, 5-pole, and 2 LEDs						
	Slow-action contacts	1 NO + 1 NC	24 V DC	➔	**3SE5 234-1BC05-1AF3**	1 unit	0.070
	Snap-action contacts	1 NO + 1 NC	24 V DC	➔	**3SE5 234-1CC05-1AF3**	1 unit	0.070
	Roller plungers, type C according to EN 50047						
	With plastic roller 10 mm						
	Slow-action contacts	1 NO + 1 NC	--	➔	**3SE5 232-0BD03**	1 unit	0.060
	Snap-action contacts • Integrated[2]	1 NO + 1 NC	--	➔	**3SE5 232-0HD03**	1 unit	0.060
	Slow-action contacts	1 NO + 2 NC	--	➔	**3SE5 232-0KD03**	1 unit	0.060
	Snap-action contacts	1 NO + 2 NC	--	➔	**3SE5 232-0LD03**	1 unit	0.075
	With M12 connector socket, 4-pole						
	Snap-action contacts, integrated[1]	1 NO + 1 NC	--	➔	**3SE5 234-0HD03-1AC4**	1 unit	0.070
	Roller plungers with central fixing						
	Snap-action contacts • Integrated[2]	1 NO + 1 NC	--	➔	**3SE5 232-0HD10**	1 unit	0.090
	Slow-action contacts	1 NO + 2 NC	--	➔	**3SE5 232-0KD10**	1 unit	0.090

Rounded plunger

With 2 LEDs

Roller plunger

Roller plunger with central fixing

➔ Positive opening according to IEC 60947-5-1, Appendix K.

[1] Popular versions.

[2] Subsequent replacement of contact blocks is not possible.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Plastic enclosures
Enclosure width 31 mm according to EN 50047

2 or 3 contacts · Degree of protection IP65 · Cable entry M20 × 1.5

Version	Contacts	LEDs	DT	Complete units	PS*	Weight per PU approx.
				Order No.		kg
Complete units[1] • Enclosure width 31 mm						
Roller levers, type E according to EN 50047						
With metal lever and plastic roller 13 mm						
Slow-action contacts	1 NO + 1 NC	--	➔	**3SE5 232-0BE10**	1 unit	0.065
Snap-action contacts • Integrated[2]	1 NO + 1 NC	--	➔ ▶	**3SE5 232-0HE10**	1 unit	0.065
Slow-action contacts	1 NO + 2 NC	--	➔	**3SE5 232-0KE10**	1 unit	0.065
Snap-action contacts	1 NO + 2 NC	--	➔	**3SE5 232-0LE10**	1 unit	0.075
With M12 connector socket, 4-pole						
Snap-action contacts • Integrated[2]	1 NO + 1 NC	--	➔	**3SE5 234-0HE10-1AC4**	1 unit	0.075
Angular roller levers						
With metal lever and plastic roller 13 mm						
Slow-action contacts	1 NO + 1 NC	--	➔	**3SE5 232-0BF10**	1 unit	0.070
Snap-action contacts • Integrated[2]	1 NO + 1 NC	--	➔ ▶	**3SE5 232-0HF10**	1 unit	0.070
Slow-action contacts	1 NO + 2 NC	--	➔	**3SE5 232-0KF10**	1 unit	0.080
Snap-action contacts	1 NO + 2 NC	--	➔	**3SE5 232-0LF10**	1 unit	0.070
Spring rods						
Length 142.5 mm, with plastic plunger 50 mm						
Snap-action contacts • Integrated[2]	1 NO + 1 NC	--		**3SE5 232-0HR01**	1 unit	0.095
Twist levers, type A according to EN 50047						
With metal lever 21 mm and plastic roller 19 mm						
Slow-action contacts	1 NO + 1 NC	--	➔	**3SE5 232-0BK21**	1 unit	0.085
Snap-action contacts • Integrated[2]	1 NO + 1 NC	--	➔	**3SE5 232-0HK21**	1 unit	0.085
Slow-action contacts	1 NO + 2 NC	--	➔	**3SE5 232-0KK21**	1 unit	0.100
Snap-action contacts	1 NO + 2 NC	--	➔	**3SE5 232-0LK21**	1 unit	0.100
With M12 connector socket, 4-pole						
Snap-action contacts • Integrated[2]	1 NO + 1 NC	--	➔	**3SE5 234-0HK21-1AC4**	1 unit	0.095
Twist levers, adjustable length						
With metal lever with grid hole and plastic roller 19 mm						
Snap-action contacts • Integrated[2]	1 NO + 1 NC	--	➔	**3SE5 232-0HK60**	1 unit	0.100
With metal lever and plastic roller 19 mm						
Slow-action contacts	1 NO + 1 NC	--		**3SE5 232-0BK50**	1 unit	0.115
Snap-action contacts • Integrated[2]	1 NO + 1 NC	--	▶	**3SE5 232-0HK50**	1 unit	0.115
Snap-action contacts	1 NO + 2 NC	--		**3SE5 232-0LK50**	1 unit	0.120
Rod actuators						
With aluminum rod, length 200 mm						
Snap-action contacts • Integrated[2]	1 NO + 1 NC	--		**3SE5 232-0HK80**	1 unit	0.110
With spring bar, length 200 mm						
Snap-action contacts • Integrated[2]	1 NO + 1 NC	--		**3SE5 232-0HK82**	1 unit	0.100

Roller lever

Angular roller lever

Spring rod

Twist levers

Twist lever, adjustable length

Rod actuator

➔ Positive opening according to IEC 60947-5-1, Appendix K.

1) Popular versions.

2) Subsequent replacement of contact blocks is not possible.

Note: If the device you require is not available as a complete unit, see "Modular System" on the next page.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Plastic enclosures
Enclosure width 31 mm according to EN 50047

Modular system

2 or 3 contacts · Degree of protection IP65 · Cable entry M20 × 1.5

	Version	Contacts	LEDs	DT	Modular system	PS*	Weight per PU approx.
					Order No.		kg
Basic switches • Enclosure width 31 mm (with rounded plunger[1])							
Basic switch	**With teflon plunger**						
	Slow-action contacts	1 NO + 1 NC	--	➔ ►	**3SE5 232-0BC05**	1 unit	0.065
	Snap-action contacts	1 NO + 1 NC	--	➔	**3SE5 232-0CC05**	1 unit	0.065
	Snap-action contacts • Integrated[2]	1 NO + 1 NC	--	➔ ►	**3SE5 232-0HC05**	1 unit	0.065
	Snap-action contacts • Short-stroke, integrated[2]	1 NO + 1 NC	--	➔	**3SE5 232-0FC05**	1 unit	0.065
	Snap-action contacts • 2 × 2 mm contact gap	1 NO + 1 NC	--	➔	**3SE5 232-0GC05**	1 unit	0.065
	Slow-action contacts	1 NO + 2 NC	--	➔	**3SE5 232-0KC05**	1 unit	0.070
	Snap-action contacts	1 NO + 2 NC	--	➔	**3SE5 232-0LC05**	1 unit	0.075
With increased corrosion protection	**With increased corrosion protection[3]**						
	Slow-action contacts	1 NO + 1 NC	--	➔	**3SE5 232-0BC05-1CA0**	1 unit	0.065
	Snap-action contacts	1 NO + 1 NC	--	➔	**3SE5 232-0CC05-1CA0**	1 unit	0.065
	Slow-action contacts	1 NO + 2 NC	--	➔	**3SE5 232-0KC05-1CA0**	1 unit	0.065
	Snap-action contacts	1 NO + 2 NC	--	➔	**3SE5 232-0LC05-1CA0**	1 unit	0.065
With M12 plug	**With M12 plug, 4-pole**						
	Slow-action contacts	1 NO + 1 NC	--	➔	**3SE5 234-0BC05-1AC4**	1 unit	0.070
	Snap-action contacts • Integrated[2]	1 NO + 1 NC	--	➔	**3SE5 234-0HC05-1AC4**	1 unit	0.070
	Slow-action contacts	2 NC	--	➔	**3SE5 234-0KC05-1AE0**	1 unit	0.070
	Snap-action contacts	2 NC	--	➔	**3SE5 234-0LC05-1AE0**	1 unit	0.110
With 2 LEDs	**With 2 LEDs, yellow/green**						
	Slow-action contacts	1 NO + 2 NC	24 V DC	➔	**3SE5 232-1KC05**	1 unit	0.070
	Snap-action contacts	1 NO + 2 NC	24 V DC	➔	**3SE5 232-1LC05**	1 unit	0.070
	Slow-action contacts	1 NO + 2 NC	230 V AC	➔	**3SE5 232-3KC05**	1 unit	0.060
	Snap-action contacts	1 NO + 2 NC	230 V AC	➔	**3SE5 232-3LC05**	1 unit	0.070
With M12 plug· and 2 LEDs	**With M12 connector socket, 5-pole, and 2 LEDs**						
	Slow-action contacts	1 NO + 1 NC	24 V DC	➔	**3SE5 234-1BC05-1AF3**	1 unit	0.070
	Snap-action contacts	1 NO + 1 NC	24 V DC	➔	**3SE5 234-1CC05-1AF3**	1 unit	0.070

➔ Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

1) On the plastic version the basic switch is a complete unit with rounded plunger.

2) Subsequent replacement of contact blocks is not possible.

3) Use corresponding high-grade steel lever.

Note: For selection aid, see page 8/5.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Plastic enclosures
Enclosure width 31 mm according to EN 50047

	Version	Diameter	DT	Modular system	PS*	Weight per PU approx.
		mm		Order No.		kg
Operating mechanisms						
Roller plunger	**Roller plungers, type C according to EN 50047**					
	Plastic rollers	10	➔	**3SE5 000-0AD03**	1 unit	0.010
	High-grade steel rollers	10	➔	**3SE5 000-0AD04**	1 unit	0.010
With central fixing	**Roller plungers with central fixing**					
	Plastic rollers	10	➔	**3SE5 000-0AD10**	1 unit	0.035
	High-grade steel rollers	10	➔	**3SE5 000-0AD11**	1 unit	0.030
Roller lever	**Roller levers, type E according to EN 50047**					
	Metal lever, plastic roller	13	➔	**3SE5 000-0AE10**	1 unit	0.015
	Metal lever, high-grade steel roller	13	➔	**3SE5 000-0AE11**	1 unit	0.020
	High-grade steel lever, plastic roller	13	➔	**3SE5 000-0AE12**	1 unit	0.010
	High-grade steel lever, high-grade steel roller	13	➔	**3SE5 000-0AE13**	1 unit	0.055
Angular roller lever	**Angular roller levers**					
	Metal lever, plastic roller	13	➔	**3SE5 000-0AF10**	1 unit	0.015
	Metal lever, high-grade steel roller	13	➔	**3SE5 000-0AF11**	1 unit	0.013
	High-grade steel lever, plastic roller	13	➔	**3SE5 000-0AF12**	1 unit	0.015
	High-grade steel lever, high-grade steel roller	13	➔	**3SE5 000-0AF13**	1 unit	0.020
Spring rod	**Spring rods** (to be used with snap-action contacts only)					
	Plastic plunger					
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)			**3SE5 000-0AR01**	1 unit	0.060
	• Length 76 mm (spring 23.5 mm, plunger 10 mm)			**3SE5 000-0AR03**	1 unit	0.020
	• Length 242.5 mm (spring 150 mm, plunger 50 mm)			**3SE5 000-0AR04**	1 unit	0.040
	High-grade steel plunger					
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)			**3SE5 000-0AR02**	1 unit	0.040
Twist actuators						
Part-turn actuator	**Twist actuators**, plastic (without lever)					
	Switching right and/or left, adjustable		➔	**3SE5 000-0AK00**	1 unit	0.025
	Levers for twist actuators					
	Twist levers, type A according to EN 50047					
Twist lever	Metal lever, plastic roller	19	➔	**3SE5 000-0AA21**	1 unit	0.010
	Metal lever, high-grade steel roller	19	➔	**3SE5 000-0AA22**	1 unit	0.025
	Metal lever, roller with ball bearing	19	➔	**3SE5 000-0AA23**	1 unit	0.020
	Metal lever, plastic roller	30	➔	**3SE5 000-0AA25**	1 unit	0.010
	High-grade steel lever, plastic roller	19	➔	**3SE5 000-0AA31**	1 unit	0.015
	High-grade steel lever, high-grade steel roller	19	➔	**3SE5 000-0AA32**	1 unit	0.022
Twist lever, adjustable length	**Twist levers, adjustable length, with grid hole**					
	Metal lever, plastic roller	19	➔	**3SE5 000-0AA60**	1 unit	0.025
	Metal lever, high-grade steel roller	19	➔	**3SE5 000-0AA61**	1 unit	0.040
	Metal lever, rubber roller	50	➔	**3SE5 000-0AA68**	1 unit	0.045
	High-grade steel lever, plastic roller	19	➔	**3SE5 000-0AA62**	1 unit	0.025
	High-grade steel lever, high-grade steel roller	19	➔	**3SE5 000-0AA63**	1 unit	0.040
Rod actuator	**Twist levers, adjustable length**					
	Metal lever, plastic roller	19		**3SE5 000-0AA50**	1 unit	0.025
	Metal lever, high-grade steel roller	19		**3SE5 000-0AA51**	1 unit	0.035
	Metal lever, plastic roller	30		**3SE5 000-0AA55**	1 unit	0.025
	Metal lever, rubber roller	50		**3SE5 000-0AA58**	1 unit	0.040
	High-grade steel lever, plastic roller	19		**3SE5 000-0AA52**	1 unit	0.025
	High-grade steel lever, high-grade steel roller	19		**3SE5 000-0AA53**	1 unit	0.035
	Rod actuators					
	Aluminum rod, length 200 mm	6		**3SE5 000-0AA80**	1 unit	0.070
	Spring bar, length 200 mm	6		**3SE5 000-0AA81**	1 unit	0.030
	Plastic rod, length 200 mm	6		**3SE5 000-0AA82**	1 unit	0.020

➔ Positively driven actuator, necessary in safety circuits.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Metal enclosures
Enclosure width 40 mm according to EN 50041

Selection and ordering data

Complete units

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

	Version	Contacts	LEDs	DT	Complete units	PS*	Weight per PU approx.
					Order No.		kg
Complete units[1] • Enclosure width 40 mm							
Rounded plunger	***Rounded plungers, type B according to EN 50041***						
	With high-grade steel plungers and 3 mm overtravel						
	Slow-action contacts	1 NO + 1 NC	--	⊖	**3SE5 112-0BC02**	1 unit	0.290
	Snap-action contacts	1 NO + 1 NC	--	⊖ ▶	**3SE5 112-0CC02**	1 unit	0.290
	Slow-action contacts	1 NO + 2 NC	--	⊖	**3SE5 112-0KC02**	1 unit	0.300
	Snap-action contacts	1 NO + 2 NC	--	⊖	**3SE5 112-0LC02**	1 unit	0.300
Roller plunger	***Roller plungers, type C according to EN 50041***						
	With high-grade steel roller 13 mm						
	Slow-action contacts	1 NO + 1 NC	--	⊖	**3SE5 112-0BD02**	1 unit	0.310
	Snap-action contacts	1 NO + 1 NC	--	⊖ ▶	**3SE5 112-0CD02**	1 unit	0.310
	Slow-action contacts	1 NO + 2 NC	--	⊖	**3SE5 112-0KD02**	1 unit	0.320
	Snap-action contacts	1 NO + 2 NC	--	⊖	**3SE5 112-0LD02**	1 unit	0.320
	With M12 connector socket, 5-pole, and 2 LEDs						
	Snap-action contacts	1 NO + 1 NC	24 V DC	⊖	**3SE5 114-1CD02-1AF3**	1 unit	0.320
Roller lever	***Roller levers***						
	With metal lever and plastic roller 22 mm						
	Slow-action contacts	1 NO + 1 NC	--	⊖	**3SE5 112-0BE01**	1 unit	0.300
	Snap-action contacts	1 NO + 1 NC	--	⊖ ▶	**3SE5 112-0CE01**	1 unit	0.300
	Slow-action contacts	1 NO + 2 NC	--	⊖	**3SE5 112-0KE01**	1 unit	0.310
	Snap-action contacts	1 NO + 2 NC	--	⊖	**3SE5 112-0LE01**	1 unit	0.310
Angular roller lever	***Angular roller levers***						
	With metal lever and plastic roller 22 mm						
	Slow-action contacts	1 NO + 1 NC	--	⊖	**3SE5 112-0BF01**	1 unit	0.310
	Snap-action contacts	1 NO + 1 NC	--	⊖	**3SE5 112-0CF01**	1 unit	0.310
	Snap-action contacts	1 NO + 2 NC	--	⊖	**3SE5 112-0LF01**	1 unit	0.320
Spring rod	***Spring rods***						
	Length 142.5 mm, with plastic plunger 50 mm						
	Snap-action contacts	1 NO + 1 NC	--	▶	**3SE5 112-0CR01**	1 unit	0.315

⊖ Positive opening according to IEC 60947-5-1, Appendix K.

[1] Popular versions.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Metal enclosures
Enclosure width 40 mm according to EN 50041

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

	Version	Contacts	LEDs	DT	Complete units	PS*	Weight per PU approx.
					Order No.		kg
Complete units[1] • Enclosure width 40 mm							
Twist lever	***Twist levers, type A according to EN 50041***						
	With metal lever 27 mm and plastic roller 19 mm						
	Slow-action contacts	1 NO + 1 NC	--	➔	**3SE5 112-0BH01**	1 unit	0.345
	Snap-action contacts	1 NO + 1 NC	--	➔ ►	**3SE5 112-0CH01**	1 unit	0.345
	Slow-action contacts	1 NO + 2 NC	--	➔	**3SE5 112-0KH01**	1 unit	0.355
	Snap-action contacts	1 NO + 2 NC	--	➔	**3SE5 112-0LH01**	1 unit	0.355
	With M12 connector socket, 5-pole						
	Snap-action contacts	1 NO + 1 NC	--	➔	**3SE5 114-0CH01-1AC5**	1 unit	0.350
	With M12 connector socket, 5-pole, and 2 LEDs						
	Snap-action contacts	1 NO + 1 NC	24 V DC	➔	**3SE5 114-1CH01-1AF3**	1 unit	0.355
Twist lever, adjustable length, with grid hole	**With metal lever 27 mm and high-grade steel roller 19 mm**						
	Slow-action contacts	1 NO + 1 NC	--	➔	**3SE5 112-0BH02**	1 unit	0.355
	Snap-action contacts	1 NO + 1 NC	--	➔	**3SE5 112-0CH02**	1 unit	0.355
	Twist levers, adjustable length						
	With metal lever with grid hole and plastic roller 19 mm						
	Slow-action contacts	1 NO + 1 NC	--	➔	**3SE5 112-0BH60**	1 unit	0.360
	Snap-action contacts	1 NO + 1 NC	--	➔ ►	**3SE5 112-0CH60**	1 unit	0.360
	Snap-action contacts	1 NO + 2 NC	--	➔	**3SE5 112-0LH60**	1 unit	0.370
Twist lever, adjustable length	**With metal lever and plastic roller 19 mm**						
	Slow-action contacts	1 NO + 1 NC	--		**3SE5 112-0BH50**	1 unit	0.360
	Snap-action contacts	1 NO + 1 NC	--	►	**3SE5 112-0CH50**	1 unit	0.360
	Snap-action contacts	1 NO + 2 NC	--		**3SE5 112-0LH50**	1 unit	0.370
	With metal lever and high-grade steel roller 19 mm						
	Snap-action contacts	1 NO + 1 NC	--		**3SE5 112-0CH51**	1 unit	0.370
Fork lever	***Fork levers, latching***						
	With metal lever and 2 plastic rollers 19 mm						
	Snap-action contacts	1 NO + 1 NC	--	➔	**3SE5 112-0CT11**	1 unit	0.360
Rod actuator	***Rod actuators, type D according to EN 50041***						
	With aluminum rod, length 200 mm						
	Snap-action contacts	1 NO + 1 NC	--	►	**3SE5 112-0CH80**	1 unit	0.300
	With plastic rod, length 200 mm						
	Snap-action contacts	1 NO + 1 NC	--	►	**3SE5 112-0CH82**	1 unit	0.300

➔ Positive opening according to IEC 60947-5-1, Appendix K.

[1] Popular versions.

Note: If the device you require is not available as a complete unit, see "Modular System" on the next page.

8

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Metal enclosures
Enclosure width 40 mm according to EN 50041

Modular system

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

	Version	Contacts	LEDs	DT	Modular system Order No.	PS*	Weight per PU approx. kg
Basic switches • Enclosure width 40 mm							
Basic switch	**With M20 × 1.5 connecting thread**						
	Slow-action contacts	1 NO + 1 NC	--	➔	**3SE5 112-0BA00**	1 unit	0.260
	Snap-action contacts	1 NO + 1 NC	--	➔	**3SE5 112-0CA00**	1 unit	0.260
	Slow-action contacts	1 NO + 2 NC	--	➔	**3SE5 112-0KA00**	1 unit	0.270
	Snap-action contacts	1 NO + 2 NC	--	➔	**3SE5 112-0LA00**	1 unit	0.270
With increased corrosion protection	**With increased corrosion protection**[1]						
	Slow-action contacts	1 NO + 1 NC	--	➔	**3SE5 112-0BA00-1CA0**	1 unit	0.260
	Snap-action contacts	1 NO + 1 NC	--	➔	**3SE5 112-0CA00-1CA0**	1 unit	0.260
	Slow-action contacts	1 NO + 2 NC	--	➔	**3SE5 112-0KA00-1CA0**	1 unit	0.270
	Snap-action contacts	1 NO + 2 NC	--	➔	**3SE5 112-0LA00-1CA0**	1 unit	0.270
With M12 plug	**With M12 connector socket, 5-pole**						
	Slow-action contacts	1 NO + 1 NC	--	➔	**3SE5 114-0BA00-1AC5**	1 unit	0.270
	Snap-action contacts	1 NO + 1 NC	--	➔	**3SE5 114-0CA00-1AC5**	1 unit	0.270
	Slow-action contacts	2 NC	--	➔	**3SE5 114-0KA00-1AE1**	1 unit	0.280
	Snap-action contacts	2 NC	--	➔	**3SE5 114-0LA00-1AE1**	1 unit	0.280
With connector socket, 6-pole	**With connector socket, 6-pole + PE**						
	Slow-action contacts	1 NO + 2 NC	--	➔	**3SE5 115-0KA00-1AD1**	1 unit	0.280
	Snap-action contacts	1 NO + 2 NC	--	➔	**3SE5 115-0LA00-1AD1**	1 unit	0.280
	With connector socket, 6-pole + PE and quick-release device						
	Snap-action contacts	1 NO + 1 NC	--	➔	**3SE5 115-0CA00-1AD0**	1 unit	0.350
With 2 LEDs	**With 2 LEDs, yellow/green**						
	Slow-action contacts	1 NO + 2 NC	24 V DC	➔	**3SE5 112-1KA00**	1 unit	0.280
	Snap-action contacts	1 NO + 2 NC	24 V DC	➔	**3SE5 112-1LA00**	1 unit	0.280
	Slow-action contacts	1 NO + 2 NC	230 V AC	➔	**3SE5 112-3KA00**	1 unit	0.280
	Snap-action contacts	1 NO + 2 NC	230 V AC	➔	**3SE5 112-3LA00**	1 unit	0.280
With M12 plug and 2 LEDs	**With M12 connector socket, 5-pole, and 2 LEDs**						
	Slow-action contacts	1 NO + 1 NC	24 V DC	➔	**3SE5 114-1BA00-1AF3**	1 unit	0.280
	Snap-action contacts	1 NO + 1 NC	24 V DC	➔	**3SE5 114-1CA00-1AF3**	1 unit	0.280
With connector socket, 6-pole, and 2 LEDs	**With connector socket, 6-pole + PE, and 2 LEDs**						
	Slow-action contacts	1 NO + 1 NC	24 V DC	➔	**3SE5 115-1BA00-1AF2**	1 unit	0.290
	Snap-action contacts	1 NO + 1 NC	24 V DC	➔	**3SE5 115-1CA00-1AF2**	1 unit	0.290
	Snap-action contacts	2 NC	24 V DC	➔	**3SE5 115-1LA00-1AD2**	1 unit	0.300

➔ Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

[1] Use corresponding high-grade steel lever.

Note: For selection aid, see page 8/5.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Metal enclosures
Enclosure width 40 mm according to EN 50041

	Version	Diameter	DT	Modular system	PS*	Weight per PU approx.
		mm		Order No.		kg
Operating mechanisms						
	Rounded plungers, type B according to EN 50041					
	High-grade steel plungers, with 3 mm overtravel		➔	**3SE5 000-0AC02**	1 unit	0.030
	Roller plungers, type C according to EN 50041					
	High-grade steel rollers	13	➔	**3SE5 000-0AD02**	1 unit	0.050
Roller lever	**Roller levers**					
	Metal lever, plastic roller	22	➔	**3SE5 000-0AE01**	1 unit	0.045
	Metal lever, high-grade steel roller	22	➔	**3SE5 000-0AE02**	1 unit	0.065
	High-grade steel lever, plastic roller	22	➔	**3SE5 000-0AE03**	1 unit	0.040
	High-grade steel lever, high-grade steel roller	22	➔	**3SE5 000-0AE04**	1 unit	0.065
Angular roller lever	**Angular roller levers**					
	Metal lever, plastic roller	22	➔	**3SE5 000-0AF01**	1 unit	0.050
	Metal lever, high-grade steel roller	22	➔	**3SE5 000-0AF02**	1 unit	0.075
	High-grade steel lever, plastic roller	22	➔	**3SE5 000-0AF03**	1 unit	0.050
	High-grade steel lever, high-grade steel roller	22	➔	**3SE5 000-0AF04**	1 unit	0.075
Spring rod	**Spring rods** (to be used with snap-action contacts only)					
	Plastic plunger					
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)			**3SE5 000-0AR01**	1 unit	0.060
	• Length 76 mm (spring 23.5 mm, plunger 10 mm)			**3SE5 000-0AR03**	1 unit	0.020
	• Length 242.5 mm (spring 150 mm, plunger 50 mm)			**3SE5 000-0AR04**	1 unit	0.040
	High-grade steel plunger					
	• Length 142.5 mm (spring 50 mm, plunger 50 mm)			**3SE5 000-0AR02**	1 unit	0.039
Twist actuators						
Part-turn actuator	**Twist actuators**, metal (without lever)					
	• For twist levers and rod actuators, switching right and/or left, adjustable		➔	**3SE5 000-0AH00**	1 unit	0.070
	• For fork levers, latching		➔	**3SE5 000-0AT10**	1 unit	0.070
	Levers for twist actuators					
Twist lever	**Twist levers, type A according to EN 50041**					
	Metal lever, plastic roller	19	➔	**3SE5 000-0AA01**	1 unit	0.015
	Metal lever, high-grade steel roller	19	➔	**3SE5 000-0AA02**	1 unit	0.035
	Metal lever, roller with ball bearing	19	➔	**3SE5 000-0AA03**	1 unit	0.020
	Metal lever, 2 plastic rollers	19	➔	**3SE5 000-0AA04**	1 unit	0.015
Twist lever, adjustable length	Metal lever, plastic roller	30	➔	**3SE5 000-0AA05**	1 unit	0.015
	Metal lever, rubber roller	50	➔	**3SE5 000-0AA08**	1 unit	0.030
	High-grade steel lever, plastic roller	19	➔	**3SE5 000-0AA11**	1 unit	0.015
	High-grade steel lever, high-grade steel roller	19	➔	**3SE5 000-0AA12**	1 unit	0.025
	Twist levers, adjustable length, with grid hole					
	Metal lever, plastic roller	19	➔	**3SE5 000-0AA60**	1 unit	0.025
	Metal lever, high-grade steel roller	19	➔	**3SE5 000-0AA61**	1 unit	0.040
	Metal lever, rubber roller	50	➔	**3SE5 000-0AA68**	1 unit	0.045
	High-grade steel lever, plastic roller	19	➔	**3SE5 000-0AA62**	1 unit	0.025
	High-grade steel lever, high-grade steel roller	19	➔	**3SE5 000-0AA63**	1 unit	0.040
Fork lever	**Twist levers, adjustable length**					
	Metal lever, plastic roller	19		**3SE5 000-0AA50**	1 unit	0.025
	Metal lever, high-grade steel roller	19		**3SE5 000-0AA51**	1 unit	0.035
	Metal lever, plastic roller	30		**3SE5 000-0AA55**	1 unit	0.025
	Metal lever, rubber roller	50		**3SE5 000-0AA58**	1 unit	0.040
	High-grade steel lever, plastic roller	19		**3SE5 000-0AA52**	1 unit	0.025
	High-grade steel lever, high-grade steel roller	19		**3SE5 000-0AA53**	1 unit	0.035
Rod actuator	**Fork levers** (to be used with snap-action contacts only)					
	Metal lever, 2 plastic rollers	19	➔	**3SE5 000-0AT01**	1 unit	0.050
	Metal lever, 2 high-grade steel rollers	19	➔	**3SE5 000-0AT02**	1 unit	0.050
	High-grade steel lever, 2 plastic rollers	19	➔	**3SE5 000-0AT03**	1 unit	0.050
	High-grade steel lever, 2 high-grade steel rollers	19	➔	**3SE5 000-0AT04**	1 unit	0.050
	Rod actuators, type D according to EN 50041					
	Aluminum rod, length 200 mm	6		**3SE5 000-0AA80**	1 unit	0.070
	Spring bar, length 200 mm	6		**3SE5 000-0AA81**	1 unit	0.030
	Plastic rod, length 200 mm	6		**3SE5 000-0AA82**	1 unit	0.020

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Open-type position switches

Overview

Their compact design makes these switches particularly suitable for use in confined conditions. The fixing dimensions and operating points are according to EN 50047.

The switches are equipped with two or three contacts in slow-action or snap-action versions. The stroke is 6 mm.

The empty enclosure can be equipped with all switch block variants (see page 8/16).

Selection and ordering data

2 or 3 contacts · Degree of protection IP20 (2 contacts), IP10 (3 contacts)

	Version	Contacts	DT	Order No.	PS*	Weight per PU approx.
						kg
Plastic enclosures • 30 mm wide						
	With teflon plunger, Ø 6 mm					
2 contacts	Slow-action contacts	1 NO + 1 NC	➔	**3SE5 250-0BC05**	1 unit	0.025
	Snap-action contacts	1 NO + 1 NC	➔ ►	**3SE5 250-0CC05**	1 unit	0.025
3 contacts	Slow-action contacts	1 NO + 2 NC	➔	**3SE5 250-0KC05**	1 unit	0.035
	Snap-action contacts	1 NO + 2 NC	➔	**3SE5 250-0LC05**	1 unit	0.035
Empty enclosure	Empty enclosures without contact block	--	➔	**3SE5 250-0AC05**	1 unit	0.015

➔ Positive opening according to IEC 60947-5-1, Appendix K.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

The quick-release devices and plug-in connections are used for fast installation and replacement of position switches.

	Version	DT	Order No.	PS*	Weight per PU approx.
					kg
Quick-release devices for position switches, width 40 mm					
3SY3 110 3SY3 027	**Adapter plates with screws**		**3SY3 110**	1 unit	0.055
	Base plates with locking lever		**3SY3 027**	1 unit	0.080
Plug-in connections for M20 × 1.5 connecting threads					
3SY3 131 3SY3 136	**Connector sockets (6-pole + PE), for M20 × 1.5** For max. 250 V, 10 A With 0.75 mm² connecting cable, plastic, degree of protection IP65, ambient temperature –40 to +90 °C		**3SY3 131**	1 unit	0.030
	Cable boxes[1] With terminal compartment, can be pre-assembled, plastic, degree of protection IP65		**3SY3 136**	1 unit	0.065
3SY3 128 3RX8 000	**Connector sockets (4-pole), M12 for M20 × 1.5, fixed** For max. 250 V, 4 A With 0.25 mm² connecting cable, plastic, degree of protection IP67, ambient temperature –40 to +85 °C		**3SY3 127**	1 unit	0.010
	Cable boxes (4-pole), M12[2] With terminal compartment, can be pre-assembled		**3RX8 000-0CB45**	1 unit	0.016
	Angular cable boxes (4-pole), M12 With terminal compartment, can be pre-assembled[2]		**3RX8 000-0CC45**	1 unit	0.018
	Connector sockets (5-pole), M12 for M20 × 1.5, fixed For max. 125 V, 4 A With 0.25 mm² connecting cable, plastic, degree of protection IP67, ambient temperature –40 to +85 °C		**3SY3 128**	1 unit	0.010
	Cable boxes (5-pole), M12[2] With terminal compartment, can be pre-assembled[2]		**3RX8 000-0CB55**	1 unit	0.016
	Angular cable boxes (5-pole), M12 With terminal compartment, can be pre-assembled[2]		**3RX8 000-0CC55**	1 unit	0.017
Adapters and cable glands for M20 × 1.5 connecting threads					
3SX9 917 3SX9 918	**Adapters according to ⓢ, ⓤ and ⓤ** For cable entry from M20 × 1.5 to NPT 1/2				
	• Metal		**3SX9 917**	1 unit	0.035
	• Plastic		**3SX9 918**	1 unit	0.015
3SX9 926	**Cable glands M20 × 1.5** Plastic		**3SX9 926**	1 unit	0.010

[1] For wiring, a crimping tool is necessary, max. conductor cross-section 1 mm².

[2] For cable boxes with molded cable see A&D Mall or Catalog FS 10.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Accessories and spare parts

	Version	Contacts	DT	Order No.	PS*	Weight per PU approx.
						kg
Spare parts for 3SE5 position switches						
2 contacts	**Contact blocks with 2 contacts**					
	• Slow-action contacts	1 NO + 1 NC		**3SE5 000-0BA00**	1 unit	0.050
	• Snap-action contacts	1 NO + 1 NC				
	- standard			**3SE5 000-0CA00**	1 unit	0.050
	- 2 × 2 mm switching gap			**3SE5 000-0GA00**	1 unit	0.050
	- short stroke			**3SE5 000-0NA00**	1 unit	0.050
3 contacts	**Contact blocks with 3 contacts**					
	• Slow-action contacts	1 NO + 2 NC		**3SE5 000-0KA00**	1 unit	0.060
	• Snap-action contacts	1 NO + 2 NC		**3SE5 000-0LA00**	1 unit	0.060

	Version	Rated voltage LED	DT	Order No.	PS*	Weight per PU approx.
		V				kg
Spare parts for 3SE51, 3SE52 position switches						
31 mm, turquoise with LED	**Covers for plastic enclosures, width 31 mm**					
	• Turquoise with LED	24 DC		**3SE5 230-1AA00**	1 unit	0.012
		230 AC		**3SE5 230-3AA00**	1 unit	0.012
	• Yellow	--		**3SE5 230-0AA00-1AG0**	1 unit	0.010
	• Yellow with LED	24 DC		**3SE5 230-1AA00-1AG0**	1 unit	0.012
		230 AC		**3SE5 230-3AA00-1AG0**	1 unit	0.012
50 mm, turquoise with LED	**Covers for plastic enclosures, width 50 mm**					
	• Turquoise with LED	24 DC		**3SE5 240-1AA00**	1 unit	0.015
		230 AC		**3SE5 240-3AA00**	1 unit	0.015
	• Yellow	--		**3SE5 240-0AA00-1AG0**	1 unit	0.012
	• Yellow with LED	24 DC		**3SE5 240-1AA00-1AG0**	1 unit	0.015
		230 AC		**3SE5 240-3AA00-1AG0**	1 unit	0.015
40 mm, yellow with LED	**Covers for metal enclosures, width 40 mm**					
	• Turquoise with LED	24 DC		**3SE5 110-1AA00**	1 unit	0.060
		230 AC		**3SE5 110-3AA00**	1 unit	0.060
	• Yellow	--		**3SE5 110-0AA00-1AG0**	1 unit	0.055
	• Yellow with LED	24 DC		**3SE5 110-1AA00-1AG0**	1 unit	0.060
		230 AC		**3SE5 110-3AA00-1AG0**	1 unit	0.060
56 mm, yellow with LED	**Covers for metal enclosures, width 56 mm**					
	• Turquoise with LED	24 DC		**3SE5 120-1AA00**	1 unit	0.085
		230 AC		**3SE5 120-3AA00**	1 unit	0.085
	• Yellow	--		**3SE5 120-0AA00-1AG0**	1 unit	0.080
	• Yellow with LED	24 DC		**3SE5 120-1AA00-1AG0**	1 unit	0.085
		230 AC		**3SE5 120-3AA00-1AG0**	1 unit	0.085

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview

Position switches with separate actuator are used where the position of doors, covers or protective grills must be monitored for safety reasons.

Enclosure sizes

The 3SE5 switches are available in various enclosure sizes:

- Plastic enclosures according to EN 50047 (31 mm wide), 1 cable entry
- Plastic enclosures (50 mm wide), 2 cable entries
- Metal enclosures according to EN 50041 (40 mm wide), 1 cable entry
- Metal enclosures (56 mm wide), 3 cable entries

Also available is a switch in the 3SE2 series which has arisen in this form according to general market requirements:

- Plastic enclosures outside of the standards, enclosure width 52 mm (see A&D Mall)

3SE5 position switches with separate actuator have the same enclosures as the standard switches (modular system).

Enclosure versions

Various basic versions can be selected for the enclosures of the 3SE5 series:

- Available with two or three-pole contact blocks designed as slow-action contacts
- Optional LED status display
- With mounted four or five-pole M12 connector socket (available for the wide enclosures as an accessory for self-assembly)
- With 6-pole connector socket + PE on the metal enclosures
- Similarly with a combination of connector socket and LED indicators
- Metal enclosures for explosion protection (ATEX) (see A&D Mall)
- AS-Interface version with integrated ASIsafe electronics for all enclosure designs (see page 8/27)

Selection and ordering data

Complete units

5 directions of approach · 2 or 3 contacts · Degree of protection IP65 or IP66/IP67 · Cable entry M20 × 1.5

	Version[1]	Contacts	LEDs	DT	Complete units	PS*	Weight per PU approx.
					Order No.		kg
Plastic enclosures · Enclosure width 31 mm according to EN 50047							
With separate actuator with 2 LEDs	**5 directions of approach**						
	Slow-action contacts	1 NO + 1 NC	--	⊖	**3SE5 232-0RV40**	1 unit	0.150
	Slow-action contacts	1 NO + 2 NC	--	⊖ ►	**3SE5 232-0QV40**	1 unit	0.155
	With M12 connector socket, 4-pole						
	Slow-action contacts	1 NO + 1 NC	--	⊖	**3SE5 234-0RV40-1AC4**	1 unit	0.165
	Slow-action contacts	2 NC	--	⊖	**3SE5 234-0QV40-1AE0**	1 unit	0.170
	With 2 LEDs, yellow/green						
	Slow-action contacts	1 NO + 1 NC	24 V DC	⊖	**3SE5 232-1RV40**	1 unit	0.155
	Slow-action contacts	1 NO + 1 NC	230 V AC	⊖	**3SE5 232-3RV40**	1 unit	0.110
	With M12 connector socket, 5-pole, and 2 LEDs						
	Slow-action contacts	1 NO + 1 NC	24 V DC	⊖	**3SE5 234-1RV40-1AF3**	1 unit	0.175
Plastic enclosures · Enclosure width 50 mm							
with separate actuator	**5 directions of approach**						
	Slow-action contacts	1 NO + 2 NC	--	⊖	**3SE5 242-0QV40**	1 unit	0.110
	With 2 LEDs, yellow/green						
	Slow-action contacts	1 NO + 2 NC	24 V DC	⊖	**3SE5 242-1QV40**	1 unit	0.120
	Slow-action contacts	1 NO + 2 NC	230 V AC	⊖	**3SE5 242-3QV40**	1 unit	0.120

⊖ Positive opening according to IEC 60947-5-1, Appendix K.

[1] Supplied without actuator. Please order separately.

8

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3SE5 Position Switches
With Separate Actuator

Plastic enclosures
Metal enclosures

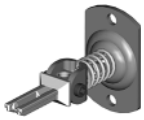
Complete units

5 directions of approach · 2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

	Version[1]	Contacts	LEDs	DT	Complete units Order No.	PS*	Weight per PU approx. kg
Metal enclosures · Enclosure width 40 mm according to EN 50041							
With separate actuator with 2 LEDs	**5 directions of approach**						
	Slow-action contacts	1 NO + 2 NC	--	➔ ►	**3SE5 112-0QV10**	1 unit	0.360
	With M12 connector socket, 5-pole						
	Slow-action contacts	1 NO + 1 NC	--	➔	**3SE5 114-0RV10-1AC5**	1 unit	0.360
	Slow-action contacts	2 NC	--	➔	**3SE5 114-0QV10-1AE1**	1 unit	0.360
	With connector socket, 6-pole + PE						
	Slow-action contacts	1 NO + 2 NC	--	➔	**3SE5 115-0QV10-1AD1**	1 unit	0.380
	With 2 LEDs, yellow/green						
	Slow-action contacts	1 NO + 2 NC	24 V DC	➔	**3SE5 112-1QV10**	1 unit	0.370
	Slow-action contacts	1 NO + 2 NC	230 V AC	➔	**3SE5 112-3QV10**	1 unit	0.370
	With M12 connector socket, 5-pole, and 2 LEDs						
	Slow-action contacts	1 NO + 1 NC	24 V DC	➔	**3SE5 114-1RV10-1AF3**	1 unit	0.360
	With connector socket, 6-pole + PE, and 2 LEDs						
	Slow-action contacts	1 NO + 1 NC	24 V DC	➔	**3SE5 115-1RV10-1AF2**	1 unit	0.360
Metal enclosures · Enclosure width 56 mm							
With separate actuator	**5 directions of approach**						
	Slow-action contacts	1 NO + 2 NC	--	➔	**3SE5 122-0QV10**	1 unit	0.360
	With 2 LEDs, yellow/green						
	Slow-action contacts	1 NO + 2 NC	24 V DC	➔	**3SE5 122-1QV10**	1 unit	0.370
	Slow-action contacts	1 NO + 2 NC	230 V AC	➔	**3SE5 122-3QV10**	1 unit	0.370

➔ Positive opening according to IEC 60947-5-1, Appendix K.

[1] Supplied without actuator. Please order separately.

	Version	DT	Order No.	PS*	Weight per PU approx. kg
Actuators					
3SE5 000-0AV01	Standard actuators, length 75.6 mm		**3SE5 000-0AV01**	1 unit	0.035
3SE5 000-0AV02	Actuators with vertical fixing, length 53 mm		**3SE5 000-0AV02**	1 unit	0.070
3SE5 000-0AV03	Actuators with transverse fixing, length 47 mm		**3SE5 000-0AV03**	1 unit	0.070
3SE5 000-0AV04	Radius actuators, left, length 44.5 mm		**3SE5 000-0AV04**	1 unit	0.070
	Radius actuators, right, length 44.5 mm		**3SE5 000-0AV06**	1 unit	0.070
 3SE5 000-0AV05	Universal actuators, length 69 mm		**3SE5 000-0AV05**	1 unit	0.090
Optional accessories for 3SE5					
3SE5 000-0AV08-1AA3	**Protective caps** made of black rubber for the actuator head, to protect the actuator openings from contamination (not to be used with 3SE5 2..)		**3SE5 000-0AV08-1AA2**	1 unit	0.010
	Blocking inserts, high-grade steel, for actuator head, for up to 8 padlocks		**3SE5 000-0AV08-1AA3**	1 unit	0.065

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview

The position switches with tumbler are exceptional, technically safe devices which restrict and prevent an unforeseen or intentional opening of protective doors, protective grilles or other covers as long as a dangerous situation is present (i.e. follow-on motion of the shutdown machine).

The safety position switches with tumbler are comprised of a switch part with electromechanical tumbler and a mechanical actuator which has to be ordered separately.

They are rugged protective devices that enable the greatest possible safety for man and machine.

The position switches with tumbler are offered in plastic or metal enclosures.
Dimensions (W × H × D):

- 3SE5 3: 54 × 185 × 43.5 mm,
- 3SE2 8: 90 × 100 (+ head 41.3 mm) × 45 mm.

(See A&D Mall)

Actuation

The actuator head is included in the scope of supply. For actuation from four directions it can be adjusted through 4 x 90°. The 3SE5 3 switches can also be approached from above.

The actuators are not included in the scope of supply of the position switch and must be ordered separately from a choice of six versions to suit the application (see page 8/18).

Actuation data:

- Maximum actuating speed v_{max} = 1.5 m/s
- Minimum actuating speed v_{min} = 0.4 mm/s
- Minimum force in the direction of actuation F_{min} = 30 N

The actuator is encoded. Simple overruling by hand or auxiliary devices is impossible.

Radius actuators

The position switches with radius actuators are particularly suitable for rotatable protective devices. The movable actuation key allows even small radii to be approached. Damage to the switch and the actuator due to inaccurate approach is prevented.

Locking devices

A high-grade steel blocking device for attaching up to eight padlocks is available for even more safety.

Dust protection

A rubber cap to protect the actuator head from contamination is available for operation in dusty environments.

Tumbler

There are two versions for locking the actuator:

- Spring-actuated locking (closed-circuit principle) with various release mechanisms
- Magnetic field locking (open-circuit principle)

The spring-actuated switch is equipped with an auxiliary release for emergency situations or setup mode. Available as options:

- Escape release or
- Emergency release

Contact blocks

The position switches with tumbler have one contact block each for:

- Monitoring the actuator or the position of the protective door
- Monitoring the position of the magnet

The mechanical design of the switch corresponds to the requirements of the failsafe principle according to EN 1088.

Optical signaling device

The position switches with tumbler are available with an optional optical signaling device.

The signaling device indicates the switch position of the lock and the protective device optically by means of 2 LEDs on the front.

Protective device	Tumbler	Display	Meaning
Closed	Released		Actuator free to be pulled
Closed	Closed		Actuator locked
Open	Open		Actuator pulled

Note:
The voltage of the LEDs at the monitored contacts must be the same as the operational voltage of the magnet (same potential).

© Siemens AG 2008

General data

Benefits

The new generation of 3SE5 3 position switches offers:

- More safety through higher locking forces:
  - 1300 N with a plastic enclosure
  - 2600 N with a metal enclosure
- Various release mechanisms: lock release, escape release and emergency release
- Two contact blocks each with three contacts as standard equipment, hence fewer versions needed
- Same dimensions for all enclosure variants: Plastic, metal or with integrated ASIsafe
- An extensive range of actuators
- An optional LED status display 24 V DC, 115 V AC or 230 V AC for all switch variants
- Device with ASIsafe electronics integrated in the enclosure

Application

The position switches with tumbler are exceptional, technically safe devices which restrict and prevent an unforeseen or intentional opening of protective doors, protective grilles or other covers as long as a dangerous situation is present (i.e. follow-on motion of the shutdown machine).

The safety position switches with tumbler have the following functions:

- Enabling the machine or process with closed and locked protective device
- Locking the machine or process with opened protective device
- Position monitoring of the protective device and tumbler

Standards

The switches comply with the standards IEC 60947-1 (Low-Voltage Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Devices).

The mechanical design of the switch corresponds to the requirements of the failsafe principle according to EN 1088.

Approvals

The switches are approved for use with locking devices according to EN 1088 and EN 292, Parts 1 and 2.

3SE5 3 position switches with tumbler bear the VDE test mark for tested according to GS-ET19 (Test Principles of the German Trade Association for Locking Devices with Electromagnetic Tumblers).

The 3SE2 8 metal-enclosed position switches with tumbler have been awarded a test certificate from the BIA (Berufsgenossenschaftliches Institut für Arbeitssicherheit).

They are approved according to UL 508, UL 50 and UL 746-C.

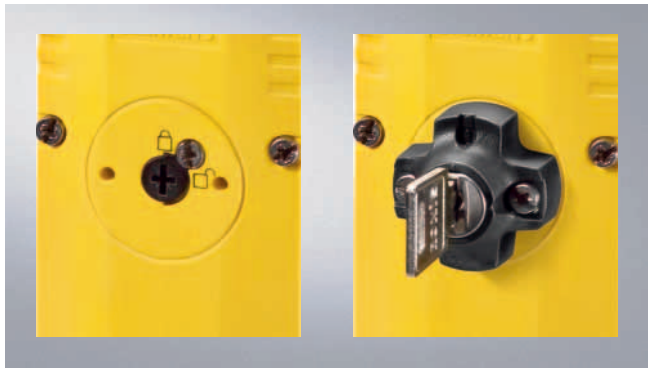
Tumbler

The separate actuator operates in a similar way to the coding of a key and protects against manipulation. It transmits the locking force to the protective device and helps to monitor its position.

There are two versions of locking:

Spring-actuated lock (closed-circuit principle)

- In the standard version, the position switch locks by means of spring force and releases by means of electromagnetic force. In the case of voltage failure, it reliably prevents the protective device from opening when machine parts are still moving.
- The switch is equipped with an auxiliary release for emergency situations or setup mode.
- An auxiliary release which can be secured with a lock to prevent misuse is available as a version.



Auxiliary release Auxiliary release with lock

The new 3SE5 3 position switches are also available with an escape release or an emergency release.

- Personnel working inside the hazard zone can use the escape release feature to manually release the tumbler without tools from the escape side (hazardous area side) so that they can exit the hazard area. An intentional act (in this case pulling the gray actuator) is required to release the locking mechanism and restore the normal operating state.
- The emergency release enables someone in an emergency situation to manually release the tumbler without tools from the access side (outside the hazardous area). Releasing the lock and restoring the normal operating state must require effort which is comparable to repair activity, in this case disassembly of the red actuator and resetting the mechanical lock.

Escape release from the front Emergency release from the back

Magnet field lock (open-circuit principle)

- The second version offers locking by means of electromagnetic force and release by means of spring force. This version has an advantage when it is necessary to quickly access the machine after a power failure occurs, or in the case of very short overtravel times.

© Siemens AG 2008

Selection and ordering data

6 slow-action contacts · 5 directions of approach · Cable entry 3 × M20 × 1.5 · Degree of protection IP66/IP67
Locking force 1300 N (1000 N according to GS-ET 19)

	Tumbler[1]	LEDs	Magnet, rated operational voltage	DT	**Complete units** Position monitoring: Actuators: 1 NO + 2 NC Magnet: 1 NO + 2 NC	PS*	Weight per PU approx.
			V		Order No.		kg
1300 N locking force · Enclosure width 54 mm							
	Spring-actuated locking						
3SE5 312-0SD2.	• With auxiliary release	--	24 DC	➔	**3SE5 322-0SD21**	1 unit	0.590
		--	115 AC	➔	**3SE5 322-0SD22**	1 unit	0.590
		--	230 AC	➔	**3SE5 322-0SD23**	1 unit	0.590
		Yellow/Green	24 DC	➔	**3SE5 322-1SD21**	1 unit	0.590
		Yellow/Green	115 AC	➔	**3SE5 322-2SD22**	1 unit	0.590
		Yellow/Green	230 AC	➔	**3SE5 322-3SD23**	1 unit	0.590
3SE5 312-0SE2.	• With auxiliary release with lock	--	24 DC	➔	**3SE5 322-0SE21**	1 unit	0.745
		--	115 AC	➔	**3SE5 322-0SE22**	1 unit	0.745
		--	230 AC	➔	**3SE5 322-0SE23**	1 unit	0.745
		Yellow/Green	24 DC	➔	**3SE5 322-1SE21**	1 unit	0.745
		Yellow/Green	115 AC	➔	**3SE5 322-2SE22**	1 unit	0.745
		Yellow/Green	230 AC	➔	**3SE5 322-3SE23**	1 unit	0.745
3SE5 312-0SF2.	• With escape release from the front	--	24 DC	➔	**3SE5 322-0SF21**	1 unit	0.590
		--	115 AC	➔	**3SE5 322-0SF22**	1 unit	0.590
		--	230 AC	➔	**3SE5 322-0SF23**	1 unit	0.590
		Yellow/Green	24 DC	➔	**3SE5 322-1SF21**	1 unit	0.590
		Yellow/Green	115 AC	➔	**3SE5 322-2SF22**	1 unit	0.590
		Yellow/Green	230 AC	➔	**3SE5 322-3SF23**	1 unit	0.590
3SE5 312-0SG2.	• With escape release from the back and auxiliary release from the front	--	24 DC	➔	**3SE5 322-0SG21**	1 unit	0.590
		--	115 AC	➔	**3SE5 322-0SG22**	1 unit	0.590
		--	230 AC	➔	**3SE5 322-0SG23**	1 unit	0.590
		Yellow/Green	24 DC	➔	**3SE5 322-1SG21**	1 unit	0.590
		Yellow/Green	115 AC	➔	**3SE5 322-2SG22**	1 unit	0.590
		Yellow/Green	230 AC	➔	**3SE5 322-3SG23**	1 unit	0.590
	• With escape release from the back and auxiliary release with lock from the front	--	24 DC	➔	**3SE5 322-0SH21**	1 unit	0.745
3SE5 312-0SJ2.	• With emergency release from the back and auxiliary release from the front	--	24 DC	➔	**3SE5 322-0SJ21**	1 unit	0.745
		--	115 AC	➔	**3SE5 322-0SJ22**	1 unit	0.745
		--	230 AC	➔	**3SE5 322-0SJ23**	1 unit	0.745
		Yellow/Green	24 DC	➔	**3SE5 322-1SJ21**	1 unit	0.745
		Yellow/Green	115 AC	➔	**3SE5 322-2SJ22**	1 unit	0.745
		Yellow/Green	230 AC	➔	**3SE5 322-3SJ23**	1 unit	0.745
3SE5 312-0SB2.	**Magnetic field locking**	--	24 DC	➔	**3SE5 322-0SB21**	1 unit	0.590
		--	115 AC	➔	**3SE5 322-0SB22**	1 unit	0.590
		--	230 AC	➔	**3SE5 322-0SB23**	1 unit	0.590
		Yellow/Green	24 DC	➔	**3SE5 322-1SB21**	1 unit	0.590
		Yellow/Green	115 AC	➔	**3SE5 322-2SB22**	1 unit	0.590
		Yellow/Green	230 AC	➔	**3SE5 322-3SB23**	1 unit	0.590

➔ Positive opening according to IEC 60947-5-1, Appendix K.

1) Supplied without actuator. Please order separately see page 8/18.

8

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Metal enclosures, up to 2600 N with locking force

Selection and ordering data

6 slow-action contacts · 5 directions of approach · Cable entry 3 × M20 × 1.5 · Degree of protection IP66/IP67
Locking force 2600 N (2000 N according to GS-ET 19)

	Tumbler[1]	LEDs	Magnet, rated operational voltage	DT	**Complete units** Position monitoring: Actuators: 1 NO + 2 NC Magnet: 1 NO + 2 NC	PS*	Weight per PU approx.
			V		Order No.		kg
2600 N locking force · Enclosure width 54 mm							
3SE5 312-0SD1.	**Spring-actuated locking**						
	• With auxiliary release	--	24 DC	➔	**3SE5 312-0SD11**	1 unit	1.030
		--	115 AC	➔	**3SE5 312-0SD12**	1 unit	1.030
		--	230 AC	➔	**3SE5 312-0SD13**	1 unit	1.030
		Yellow/Green	24 DC	➔	**3SE5 312-1SD11**	1 unit	1.040
		Yellow/Green	115 AC	➔	**3SE5 312-2SD12**	1 unit	1.040
		Yellow/Green	230 AC	➔	**3SE5 312-3SD13**	1 unit	1.040
3SE5 312-0SE1.	• With auxiliary release with lock	--	24 DC	➔	**3SE5 312-0SE11**	1 unit	1.180
		--	115 AC	➔	**3SE5 312-0SE12**	1 unit	1.180
		--	230 AC	➔	**3SE5 312-0SE13**	1 unit	1.180
		Yellow/Green	24 DC	➔	**3SE5 312-1SE11**	1 unit	1.180
		Yellow/Green	115 AC	➔	**3SE5 312-2SE12**	1 unit	1.180
		Yellow/Green	230 AC	➔	**3SE5 312-3SE13**	1 unit	1.180
3SE5 312-0SF1.	• With escape release from the front	--	24 DC	➔	**3SE5 312-0SF11**	1 unit	1.180
		--	115 AC	➔	**3SE5 312-0SF12**	1 unit	1.180
		--	230 AC	➔	**3SE5 312-0SF13**	1 unit	1.180
		Yellow/Green	24 DC	➔	**3SE5 312-1SF11**	1 unit	1.180
		Yellow/Green	115 AC	➔	**3SE5 312-2SF12**	1 unit	1.180
		Yellow/Green	230 AC	➔	**3SE5 312-3SF13**	1 unit	1.180
3SE5 312-0SG1.	• With escape release from the back and auxiliary release from the front	--	24 DC	➔	**3SE5 312-0SG11**	1 unit	1.175
		--	115 AC	➔	**3SE5 312-0SG12**	1 unit	1.175
		--	230 AC	➔	**3SE5 312-0SG13**	1 unit	1.175
		Yellow/Green	24 DC	➔	**3SE5 312-1SG11**	1 unit	1.180
		Yellow/Green	115 AC	➔	**3SE5 312-2SG12**	1 unit	1.180
		Yellow/Green	230 AC	➔	**3SE5 312-3SG13**	1 unit	1.180
	• With escape release from the back and auxiliary release with lock from the front	--	24 DC	➔	**3SE5 312-0SH11**	1 unit	1.180
3SE5 312-0SJ1.	• With emergency release from the back and auxiliary release from the front	--	24 DC	➔	**3SE5 312-0SJ11**	1 unit	1.180
		--	115 AC	➔	**3SE5 312-0SJ12**	1 unit	1.180
		--	230 AC	➔	**3SE5 312-0SJ13**	1 unit	1.180
		Yellow/Green	24 DC	➔	**3SE5 312-1SJ11**	1 unit	1.180
		Yellow/Green	115 AC	➔	**3SE5 312-2SJ12**	1 unit	1.180
		Yellow/Green	230 AC	➔	**3SE5 312-3SJ13**	1 unit	0.925
3SE5 312-0SB1.	**Magnetic field locking**	--	24 DC	➔	**3SE5 312-0SB11**	1 unit	1.030
		--	115 AC	➔	**3SE5 312-0SB12**	1 unit	1.030
		--	230 AC	➔	**3SE5 312-0SB13**	1 unit	1.030
		Yellow/Green	24 DC	➔	**3SE5 312-1SB11**	1 unit	1.040
		Yellow/Green	115 AC	➔	**3SE5 312-2SB12**	1 unit	1.040
		Yellow/Green	230 AC	➔	**3SE5 312-3SB13**	1 unit	1.040

➔ Positive opening according to IEC 60947-5-1, Appendix K.

[1] Supplied without actuator. Please order separately see page 8/18.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview

3SE5 hinge switches have the same enclosures as the standard switches (modular system).

Hinge switches for mounting on hinges:

- Hollow shaft, diameter inside 8 mm, outside 12 mm
- Solid shaft, diameter 10 mm

For a description of the basic switches see page 8/4.

Selection and ordering data

Complete units

2 or 3 contacts · Degree of protection IP65 or IP66/IP67 · Cable entry M20 × 1.5

	Version	Snap-action contacts	DT	Complete units	PS*	Weight per PU approx.
				Order No.		kg
Plastic enclosures · Enclosure width 31 mm according to EN 50047						
With hollow shaft	**With hollow shaft**					
	Operating angle 10°	1 NO + 1 NC	➔	**3SE5 232-0HU21**	1 unit	0.080
	Operating angle 10°	1 NO + 2 NC	➔	**3SE5 232-0LU21**	1 unit	0.090
With solid shaft	**With solid shaft**					
	Operating angle 10°	1 NO + 1 NC	➔	**3SE5 232-0HU22**	1 unit	0.110
	Operating angle 10°	1 NO + 2 NC	➔	**3SE5 232-0LU22**	1 unit	0.120
Metal enclosures · Enclosure width 40 mm according to EN 50041						
With hollow shaft	**With hollow shaft**					
	Operating angle 10°	1 NO + 2 NC	➔	**3SE5 112-0LU21**	1 unit	0.295
With solid shaft	**With solid shaft**					
	Operating angle 10°	1 NO + 2 NC	➔	**3SE5 112-0LU22**	1 unit	0.315

➔ Positive opening according to IEC 60947-5-1, Appendix K.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Metal enclosures

Overview

These switches comply with Directive 94/4/EC (ATEX 95) of the European Union and are approved for Zone 22.

They have a grounding screw on the outside of the enclosure but are other otherwise identical with the standard enclosures.

Selection and ordering data

Complete units

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

	Version		Contacts	DT	Complete units	PS*	Weight per PU approx.
					Order No.		kg
Enclosure width 40 mm according to EN 50041							
Roller lever	**With M20 × 1.5 connecting thread**						
	Snap-action contacts		1 NO + 1 NC				
	Rounded plunger	High-grade steel with overtravel		➔	**3SE5 112-0CC02-1DA0**	1 unit	0.290
	Roller plunger	High-grade steel roller		➔	**3SE5 112-0CD02-1DA0**	1 unit	0.310
	Roller lever	High-grade steel lever, plastic roller		➔	**3SE5 112-0CE03-1DA0**	1 unit	0.300
	Angular roller lever	High-grade steel lever, plastic roller		➔	**3SE5 112-0CF03-1DA0**	1 unit	0.320
	Spring rod	Length 142.5 mm, plastic plunger			**3SE5 112-0CR01-1DA0**	1 unit	0.315
	Twist lever	High-grade steel lever, plastic roller		➔	**3SE5 112-0CH11-1DA0**	1 unit	0.360
	Twist lever, adjustable length	High-grade steel lever, plastic roller			**3SE5 112-0CH52-1DA0**	1 unit	0.360
	Fork lever	High-grade steel lever, plastic roller		➔	**3SE5 112-0CT13-1DA0**	1 unit	0.360
	Rod actuator	Aluminum rod, length 200 mm			**3SE5 112-0CH80-1DA0**	1 unit	0.300
	Rod actuator	Plastic rod, length 200 mm			**3SE5 112-0CH82-1DA0**	1 unit	0.300
Enclosure width 56 mm							
Twist lever	**With 3 x M20 x 1.5 connecting thread**						
	Snap-action contacts		1 NO + 1 NC				
	Rounded plunger	High-grade steel with overtravel		➔	**3SE5 122-0CC02-1DA0**	1 unit	0.355
	Roller plunger	High-grade steel roller		➔	**3SE5 122-0CD02-1DA0**	1 unit	0.380
	Roller lever	High-grade steel lever, plastic roller		➔	**3SE5 122-0CE03-1DA0**	1 unit	0.375
	Angular roller lever	High-grade steel lever, plastic roller		➔	**3SE5 122-0CF03-1DA0**	1 unit	0.390
	Spring rod	Length 142.5 mm, plastic plunger			**3SE5 122-0CR01-1DA0**	1 unit	0.390
	Twist lever	High-grade steel lever, plastic roller		➔	**3SE5 122-0CH11-1DA0**	1 unit	0.410

➔ Positive opening according to IEC 60947-5-1, Appendix K.

Modular system

2 or 3 contacts · Degree of protection IP66/IP67 · Cable entry M20 × 1.5

	Version		Contacts	DT	Modular system	PS*	Weight per PU approx.
					Order No.		kg
Basic switches[1] · Enclosure width 40 mm according to EN 50041							
Basic switch	**With M20 × 1.5 connecting thread**						
	Slow-action contacts		1 NO + 1 NC	➔	**3SE5 112-0BA00-1DA0**	1 unit	0.260
	Snap-action contacts		1 NO + 1 NC	➔	**3SE5 112-0CA00-1DA0**	1 unit	0.260
	Slow-action contacts		1 NO + 2 NC	➔	**3SE5 112-0KA00-1DA0**	1 unit	0.270
	Snap-action contacts		1 NO + 2 NC	➔	**3SE5 112-0LA00-1DA0**	1 unit	0.270
Basic switches[1] · Enclosure width 56 mm							
Basic switch	**With 3 x M20 x 1.5 connecting thread**						
	Slow-action contacts		1 NO + 1 NC	➔	**3SE5 122-0BA00-1DA0**	1 unit	0.325
	Snap-action contacts		1 NO + 1 NC	➔	**3SE5 122-0CA00-1DA0**	1 unit	0.325
	Slow-action contacts		1 NO + 2 NC	➔	**3SE5 122-0KA00-1DA0**	1 unit	0.335
	Snap-action contacts		1 NO + 2 NC	➔	**3SE5 122-0LA00-1DA0**	1 unit	0.335

➔ Positive opening according to IEC 60947-5-1, Appendix K, or positively driven actuator, necessary in safety circuits.

[1] For actuators for basic switches with metal enclosure see page 8/13.

Note: For selection aid, see page 8/5.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview

The 3SF1 position switches with safety-oriented communication can be directly connected using the AS-Interface bus system. The safety functions no longer have to be conventionally wired up.

With the new 3SF1 position switches the ASIsafe electronics are integrated in the switch enclosure.

Examples of selection options in the modular system

Modular system

The position switches of the 3SF1 1.4 and 3SF1 2.4 series are constructed from a modular system comprising different versions of the basic switch and an actuator which must be ordered separately. Thanks to the modular construction of the switch the end user can select the right solution for his application from numerous versions and install it himself in a very short time.

Design

The 3SF1 switches are available in four different enclosure sizes:

- Plastic enclosures according to EN 50047, 31 mm wide, with M12 plug
- Plastic enclosures, 50 mm wide, with M12 plug and M12 socket
- Metal enclosures according to EN 50041, 40 mm wide, with M12 plug
- Metal enclosures, 56 mm wide, with M12 plug and M12 socket

Display

The switches have a status display with three LEDs:

- LED 1 (yellow): F-IN1
- LED 2 (yellow): F-IN2
- LED 3 (green/red): AS-i/FAULT

Connection

Connection to the AS-Interface is by means of a 4-pole M12 connector socket (plastic version) connected to the yellow AS-Interface bus cable.

The wide enclosures (50 or 56 mm) have a second M12 connector socket for connecting a second position switch. Category 4 according to EN 954-1 is thus achieved.

Benefits

The new generation of 3SF1 position switches offers:

- ASIsafe Electronics integrated in the enclosure, with low power consumption < 60 mA
- An extensive range of actuators
- Status display with three LEDs

Application

With the standard position switches, mechanical positions of moved machine parts are converted into electrical signals. Through their modular and uniform design and large number of variants, the devices can meet practically all requirements in industry.

Devices are available with enclosure versions to suit the particular ambient conditions. Different control tasks can be performed with the best contact blocks suited for the particular purpose. And many different actuator variants are available to match the mechanical configuration of the moved machined parts. Dimensions, fixing points and characteristics are largely in accordance with the EN 50041 or EN 50047 standards.

The devices are suitable for use in any climate.

Standards

The switches comply with the standards IEC 60947-1 (Low-Voltage Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Devices).

The mechanical design of the switch corresponds to the requirements of the failsafe principle according to EN 1088.

Approvals

AS-Interface according to EN 50295 and IEC 62026-2.

With a 3SF1 position switch it is possible to achieve category 2 according to ISO 13849-1 (EN 954-1) or SIL 1 according to IEC 61508.

Categories 3 or 4 according to ISO 13849-1 (EN 954-1) or SIL 2 or 3 according to IEC 61508 can be achieved by using a second 3SE5 position switch.

The 3SF1 position switches are approved according to UL 508, UL 50 and UL 746-C.

© Siemens AG 2008

Plastic enclosures
Metal enclosures

Selection and ordering data

Modular system

For the ASIsafe version of the position switch, the basic switch and actuator must be ordered separately.

1 or 2 contacts · 3 LEDs · Degree of protection IP65 or IP66/IP67 · M12 connector socket

Version	Contacts	LEDs	DT	Modular system Order No.	PS*	Weight per PU approx. kg
Plastic enclosures · Basic switches[1] (with rounded plunger[2]) · Enclosure width 31 mm according to EN 50047						
With teflon plunger, with M12 connector socket, 4-pole Channel 1 on NC contact, channel 2 on NC contact						
Slow-action contacts	2 NC	24 V DC	➔	**3SF1 234-1KC05-1BA1**	1 unit	0.070
Snap-action contacts	2 NC	24 V DC	➔	**3SF1 234-1LC05-1BA1**	1 unit	0.070
Plastic enclosures · Basic switches[1] (with rounded plunger[2]) · Enclosure width 50 mm						
With teflon plunger, with M12 connector socket, 4-pole Channel 1 on NC contact, channel 2 on M12 socket, right						
Slow-action contacts	1 NC	24 V DC	➔	**3SF1 244-1KC05-1BA2**	1 unit	0.080
Snap-action contacts	1 NC	24 V DC	➔	**3SF1 244-1LC05-1BA2**	1 unit	0.080

ASIsafe basic switch

ASIsafe basic switch

➔ Positive opening according to IEC 60947-5-1, Appendix K.

1) For actuators for basic switches with plastic enclosure see page 8/9.

2) On the plastic version the basic switch is a complete unit with rounded plunger.

Note: Use only positively driven actuators with ➔ for safety switches.

1 or 2 contacts · 3 LEDs · Degree of protection IP66/IP67 · M12 connector socket

Version	Contacts	LEDs	DT	Modular system Order No.	PS*	Weight per PU approx. kg
Metal enclosures · Basic switches[1] · Enclosure width 40 mm according to EN 50041						
With M12 connector socket, 4-pole Channel 1 on NC contact, channel 2 on NC contact						
Slow-action contacts	2 NC	24 V DC	➔	**3SF1 114-1KA00-1BA1**	1 unit	0.400
Snap-action contacts	2 NC	24 V DC	➔	**3SF1 114-1LA00-1BA1**	1 unit	0.400
Metal enclosures · Basic switches[1] · Enclosure width 56 mm						
With M12 connector socket, 4-pole Channel 1 on NC contact, channel 2 on M12 socket, right						
Slow-action contacts	1 NC	24 V DC	➔	**3SF1 124-1KA00-1BA2**	1 unit	0.470
Snap-action contacts	1 NC	24 V DC	➔	**3SF1 124-1LA00-1BA2**	1 unit	0.470

ASIsafe basic switch

ASIsafe basic switch

➔ Positive opening according to IEC 60947-5-1, Appendix K.

1) For actuators for basic switches with metal enclosure see page 8/13.

Note: Use only positively driven actuators with ➔ for safety switches.

8

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview

The 3SF1 position switches with safety-oriented communication can be directly connected using the AS-Interface bus system. The safety functions no longer have to be conventionally wired up.

With the new 3SF1 position switches the ASIsafe electronics are integrated in the switch enclosure.

3SF1 position switches with separate actuator and with integrated ASIsafe electronics

3SF1 position switches with separate actuator have the same enclosures as the standard switches.

Actuation

The actuator head is included in the scope of supply. For actuation from four directions it can be adjusted through 4 x 90°. The switches can also be approached from above.

The actuators are not included in the scope of supply of the position switch and must be ordered separately from a choice of six versions to suit the application.

The actuator is encoded. Simple overruling by hand or auxiliary devices is impossible.

Display

The switches have a status display with three LEDs:

- LED 1 (yellow): F-IN1
- LED 2 (yellow): F-IN2
- LED 3 (green/red): AS-i/FAULT

Connection

Connection to the AS-Interface is by means of a 4-pole M12 connector socket (plastic version) connected to the yellow AS-Interface bus cable.

The wide enclosures (50 or 56 mm) have a second M12 connector socket for connecting a second position switch. Category 4 according to EN 954-1 is thus achieved.

Benefits

The new generation of 3SF1 position switches with separate actuator offers:

- ASIsafe Electronics integrated in the enclosure, with low power consumption < 60 mA
- An extensive range of actuators
- Status display with three LEDs

Application

Position switches with separate actuator are used where the position of doors, covers or protective grills must be monitored for safety reasons.

The position switch can only be operated with the matching coded actuator. Simple overruling by hand or auxiliary devices is impossible.

Devices are available with enclosure versions to suit the particular ambient conditions. Different control tasks can be performed with the best contact blocks suited for the particular purpose. Dimensions, fixing points of the enclosure are in accordance with EN 50041 or EN 50047 standards.

The devices are suitable for use in any climate.

Standards

The switches comply with the standards IEC 60947-1 (Low-Voltage Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Devices).

The mechanical design of the switch corresponds to the requirements of the failsafe principle according to EN 1088.

Approvals

AS-Interface according to EN 50295 and IEC 62026-2.

With a 3SF1 position switch it is possible to achieve category 3 according to ISO 13849-1 (EN 954-1) or SIL 2 according to IEC 61508.

Category 4 according to ISO 13849-1 (EN 954-1) or SIL 3 according to IEC 61508 can be achieved by using a second 3SE5 position switch.

The 3SF1 position switches are approved according to UL 508, UL 50 and UL 746-C.

© Siemens AG 2008

Overview

Complete units

- Contacts: 1 or 2 slow-action contacts
- Status display with 3 LEDs 24 V DC; 1: F–IN1, 2: F–IN2, 3: AS-i/FAULT
- Degree of protection IP65 or IP66/IP67

Selection and ordering data

	Version[1]	Slow-action contacts	DT	Complete units Order No.	PS*	Weight per PU approx. kg
Plastic enclosures · Enclosure width 31 mm according to EN 50047						
ASIsafe	**5 directions of approach** M12 connector socket, 4-pole, slow-action contacts Channel 1 on NC contact, channel 2 on NC contact	2 NC	➔	**3SF1 234-1QV40-1BA1**	1 unit	0.210
Plastic enclosures · Enclosure width 50 mm						
ASIsafe	**5 directions of approach** M12 connector socket, 4-pole, slow-action contacts Channel 1 on NC, channel 2 on M12 socket, right	1 NC	➔	**3SF1 244-1QV40-1BA2**	1 unit	0.220
Metal enclosures · Enclosure width 40 mm according to EN 50041						
ASIsafe	**5 directions of approach** M12 connector socket, 4-pole, slow-action contacts Channel 1 on NC contact, channel 2 on NC contact	2 NC	➔	**3SF1 114-1QV10-1BA1**	1 unit	0.550
Metal enclosures · Enclosure width 56 mm						
ASIsafe	**5 directions of approach** M12 connector socket, 4-pole, slow-action contacts Channel 1 on NC, channel 2 on M12 socket, right	1 NC	➔	**3SF1 124-1QV10-1BA2**	1 unit	0.600

➔ Positive opening according to IEC 60947-5-1, Appendix K.

1) Supplied without actuator. Please order separately see page 8/18.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview

The 3SF1 position switches with safety-oriented communication can be directly connected using the AS-Interface bus system. The safety functions no longer have to be conventionally wired up.

With the new 3SF1 position switches the ASIsafe electronics are integrated in the switch enclosure.

3SF1 position switches with tumbler and with integrated ASIsafe electronics

Actuation

The actuator head is included in the scope of supply. For actuation from four directions it can be adjusted through 4 x 90°. The switches can also be approached from above.

The actuators are not included in the scope of supply of the position switch and must be ordered separately from a choice of six versions to suit the application.

Tumbler

There are two versions for locking the actuator:

- Spring-actuated lock (closed-circuit principle) with various release mechanisms
- Magnet field lock (open-circuit principle)

Display

The switches have a status display with four LEDs:

- LED 1 (yellow): F-IN1
- LED 2 (yellow): F-IN2
- LED 3 (green): AS-i
- LED 4 (red): FAULT

Connection

Connection to the AS-Interface is by means of a 4-pole M12 connector socket (plastic version) connected to the yellow AS-Interface bus cable (no additional supply of auxiliary power is required thanks to the low current consumption of the magnet of max. 170 mA).

Benefits

The new generation of 3SF1 3 position switches with tumbler offers:

- More safety through higher locking forces:
  - 1300 N for plastic version
  - 2600 N for metal version
- Various release mechanisms: lock release, escape release and emergency release
- ASIsafe Electronics integrated in the enclosure; connected through 4-pole M12 plug
- Current consumption of the magnet max. 170 mA
- Two contact blocks as standard equipment, hence fewer versions needed
- Same dimensions for all enclosure variants: Plastic, metal
- An extensive range of actuators
- Status display with four LEDs

Application

The position switches with tumbler are exceptional, technically safe devices which restrict and prevent an unforeseen or intentional opening of protective doors, protective grilles or other covers as long as a dangerous situation is present (i.e. follow-on motion of the shutdown machine).

The safety position switches with tumbler have the following functions:

- Enabling the machine or process with closed and locked protective device
- Locking the machine or process with opened protective device
- Position monitoring of the protective device and tumbler

Standards

The switches comply with the standards IEC 60947-1 (Low-Voltage Controlgear, General) and IEC 60947-5-1 (Electromechanical Control Devices).

The mechanical design of the switch corresponds to the requirements of the failsafe principle according to EN 1088.

Approvals

AS-Interface according to EN 50295 and IEC 62026-2.

The switches are approved for use with locking devices according to EN 1088 and EN 292, Parts 1 and 2.

3SE5 3 position switches with tumbler bear the VDE test mark for tested according to GS-ET19 (Test Principles of the German Trade Association for Locking Devices with Electromagnetic Tumblers).

With a 3SF1 3 position switch it is possible to achieve category 3 according to ISO 13849-1 (EN 954-1) or SIL 2 according to IEC 61508.

Category 4 according to ISO 13849-1 (EN 954-1) or SIL 3 according to IEC 61508 can be achieved by using a second 3SE5 position switch.

The 3SF1 position switches are approved according to UL 508, UL 50 and UL 746-C.

© Siemens AG 2008

3SF1 AS-Interface Position Switches

With Tumbler

Plastic enclosures
Metal enclosures

Overview

5 directions of approach · Degree of protection IP66/IP67

- Slow-action contacts:
  - Version -1BA1:
    ASIsafe channel 1 on 1 NC contact from the actuator and channel 2 on 1 NC contact from the magnet
  - Version -1BA3:
    ASIsafe channel 1 on 1 NC contact from the actuator and channel 2 on 1 NC contact from the actuator
- Magnet: Rated operational voltage 24 V DC
- Locking force 1300 N (1000 N according to GS-ET 19)
- Status display with 4 LEDs 24 V DC;
  1: F–IN1, 2: F–IN2, 3: AS-i, 4: FAULT

Selection and ordering data

	Tumbler[1]	Enclosure width	DT	Complete units	PS*	Weight per PU approx.
		mm		Order No.		kg
Plastic enclosures · Enclosure width 54 mm · Locking force 1300 N						
3SF1 324-1SD21-...	**Spring-actuated locking**					
	• With auxiliary release	54	➔	**3SF1 324-1SD21-1BA1**	1 unit	0.600
	• With auxiliary release	54	➔	**3SF1 324-1SD21-1BA3**	1 unit	0.600
	• With auxiliary release with lock	54	➔	**3SF1 324-1SE21-1BA1**	1 unit	0.760
	• With escape release from the front	54	➔	**3SF1 324-1SF21-1BA1**	1 unit	0.620
3SF1 324-1SF21-...	• With escape release from the back and auxiliary release from the front	54	➔	**3SF1 324-1SG21-1BA1**	1 unit	0.640
	• With emergency release from the back and auxiliary release from the front	54	➔	**3SF1 324-1SJ21-1BA1**	1 unit	0.650
3SF1 324-1SB21-...	**Magnetic field locking**	54	➔	**3SF1 324-1SB21-1BA1**	1 unit	0.495
	• With escape release from the back and auxiliary release from the front	54	➔	**3SF1 324-1SG21-1BA1**	1 unit	0.495
Metal enclosures · Enclosure width 54 mm · Locking force 2600 N						
3SF1 314-1SD21-...	**Spring-actuated locking**					
	• With auxiliary release	54	➔	**3SF1 314-1SD11-1BA1**	1 unit	1.060
	• With auxiliary release with lock	54	➔	**3SF1 314-1SE11-1BA1**	1 unit	1.220
	• With escape release from the front	54	➔	**3SF1 314-1SF11-1BA1**	1 unit	1.060
	• With escape release from the back and auxiliary release from the front	54	➔	**3SF1 314-1SG11-1BA1**	1 unit	1.080
3SF1 314-1SF21-...	• With emergency release from the back and auxiliary release from the front	54	➔	**3SF1 314-1SJ11-1BA1**	1 unit	1.100
3SF1 314-1BF21-...	**Magnetic field locking**	54	➔	**3SF1 314-1SB11-1BA1**	1 unit	1.060

➔ Positive opening according to IEC 60947-5-1, Appendix K.

[1] Supplied without actuator. Please order separately see page 8/18.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview

Modular system

Hinge switches for mounting on hinges:
- Hollow shaft, diameter inside 8 mm, outside 12 mm
- Solid shaft, diameter 10 mm

For the ASIsafe version of the hinge switch, the basic switch and actuator head must be ordered separately.

The standards and approvals are the same as for the 3SF1 standard switches.

Selection and ordering data

1 or 2 contacts · 3 LEDs · Degree of protection IP65 or IP66/IP67 · M12 connector socket

	Version	Contacts	LEDs	DT	Modular system	PS*	Weight per PU approx.
					Order No.		kg
Plastic enclosures · Enclosure width 31 mm according to EN 50047							
ASIsafe basic switch	**With teflon plunger, with M12 connector socket**, 4-pole Channel 1 on NC contact, channel 2 on NC contact Snap-action contacts	2 NC	24 V DC	➔	**3SF1 234-1LC05-1BA1**	1 unit	0.170
Plastic enclosures · Enclosure width 50 mm							
ASIsafe basic switch	**With teflon plunger, with M12 connector socket**, 4-pole Channel 1 on NC contact, channel 2 on M12 socket, right Snap-action contacts	1 NC	24 V DC	➔	**3SF1 244-1LC05-1BA2**	1 unit	0.180
Metal enclosures · Enclosure width 40 mm according to EN 50041							
ASIsafe basic switch	**With M12 connector socket**, 4-pole Channel 1 on NC contact, channel 2 on NC contact Snap-action contacts	2 NC	24 V DC	➔	**3SF1 114-1LA00-1BA1**	1 unit	0.400
Metal enclosures · Enclosure width 56 mm							
ASIsafe basic switch	**With M12 connector socket**, 4-pole Channel 1 on NC contact, channel 2 on M12 socket, right Snap-action contacts	1 NC	24 V DC	➔	**3SF1 124-1LA00-1BA2**	1 unit	0.470
Actuator heads							
	With hollow shaft Operating angle 10°				**3SE5 000-0AU21**	1 unit	0.030
	With solid shaft Operating angle 10°				**3SE5 000-0AU22**	1 unit	0.052

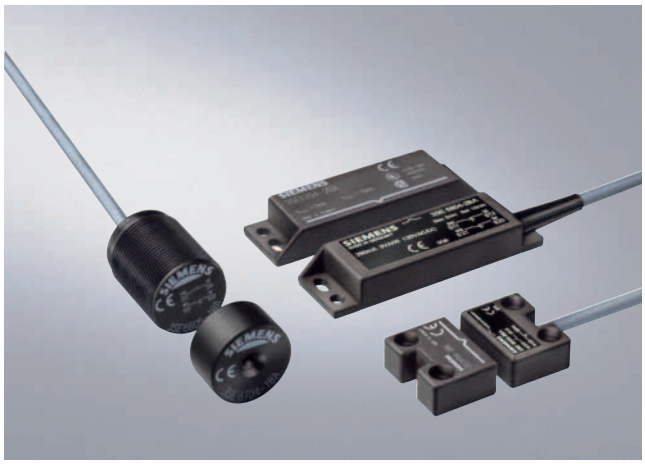
➔ Positive opening according to IEC 60947-5-1, Appendix K.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

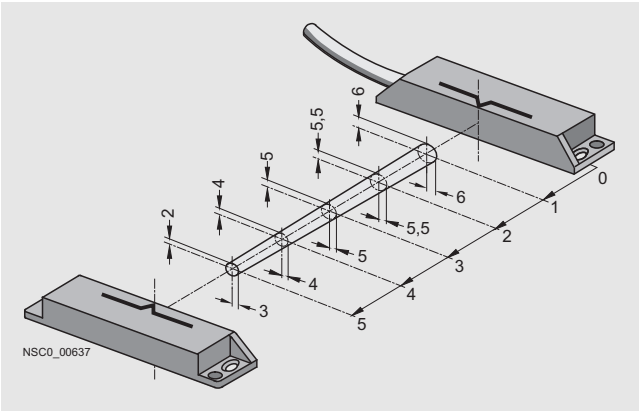
Magnetic monitoring systems

Overview



Switching magnets and contact blocks

A magnetically operated switch is comprised of a coded switching magnet and a contact block (sensor unit). Evaluation requires a safety relay or connection to a bus system.



Enabling range (example)

3SE6 806 safety relays

The 3SE6 806 safety relay has two floating enabling circuits (safe circuits) as NO contact circuits and one floating signaling circuit as a NC circuit. The number of enabling circuits can be increased by adding one or more 3TK28 30 expansion modules.

Up to six protective devices (sensors) can be connected to the safety relay. The device has six current-sourcing semiconductor outputs (Y1 ... Y6), which report the state of the connected protective devices.

Application

SIRIUS 3SE6 magnetically operated switches are designed for mounting on movable protective guards (covers, hinge switches, doors, etc.). Evaluation can be performed by means of a safety relay or through connection to a bus system.

The 3SE6 6 non-contact, magnetically operated safety switches stand out due to their enclosed design with degree of protection IP67. They are particularly suitable therefore for areas exposed to contamination, cleaning or disinfecting.

A magnetic monitoring system comprises one or more magnetically operated switches and an evaluation unit, e.g. a safety relay. When contact blocks 1 NO + 1 NC are used the 3SE6 806 safety relay provides a high degree of protection against manipulation and can be installed in safety circuits up to Category 3 according to EN 954-1.

Combination of monitoring unit and magnetically operated switch

Monitoring units	Magnetically operated switch (contact block)			
	1 NO + 1 NC			2 NC
	3SE6 605 -1BA	3SE6 605 -2BA	3SE6 605 -3BA	3SE6 604 -2BA
Relay outputs[1]				
SIRIUS 3SE6 806 safety relay	✔	✔	✔	--
Solid-state outputs[2]				
SIRIUS 3TK28 4 safety relay	--	--	--	✔
SIRIUS 3TK28 5 safety relay with contactor relay	--	--	--	✔
3RA7 SIRIUS safe load feeder	--	--	--	✔
SIMATIC ET200 S, PROFIsafe 4/8 F-DI 24 V DC	✔	✔	✔	✔
SIMATIC ET 200M: SM 326, 24 DI, 24 V DC, SM 326, 8 DI, NAMUR; SIMATIC S7-31xF-2 DP: SM 326, 24 DI, 24 V DC	✔	✔	✔	✔

✔ Combination possible.

-- Combination not possible.

1) Up to Category 3 according to EN 954-1.

2) Up to Category 4 according to EN 954-1.

© Siemens AG 2008

Selection and ordering data

	Version	Size	Contacts	DT	Order No.	PS*	Weight per PU approx.
		mm					kg
Round sensor units							
	Switching magnets (coded)	M30			**3SE6 704-1BA**	1 unit	0.035
	Contact blocks						
	• With 3 m cable	M30	1 NO + 1 NC		**3SE6 605-1BA**	1 unit	0.165
	• With M12 plug, 4-pole	M30	1 NO + 1 NC		**3SE6 605-1BA02**	1 unit	0.040
Rectangular sensor units							
	Switching magnets (coded)	25 × 88			**3SE6 704-2BA**	1 unit	0.027
	Contact blocks						
	• With 3 m cable	25 × 88	1 NO + 1 NC		**3SE6 605-2BA**	1 unit	0.165
			2 NC		**3SE6 604-2BA**	1 unit	0.165
	• With M8 connector socket, 4-pole	25 × 88	1 NO + 1 NC		**3SE6 605-2BA01**	1 unit	0.040
			2 NC		**3SE6 604-2BA01**	1 unit	0.130
	Switching magnets (coded)	25 × 33			**3SE6 704-3BA**	1 unit	0.014
	Contact blocks with 3 m cable	25 × 33	1 NO + 1 NC		**3SE6 605-3BA**	1 unit	0.150
Accessories							
	Spacers	25 × 88			**3SX3 260**	1 unit	0.015
	Spacers	25 × 33			**3SX3 261**	1 unit	0.010

	Version	Number of sensors	Enabling/ signaling circuits	DT	Order No.	PS*	Weight per PU approx.
							kg
Monitoring units							
	Safety relays with relay output, 6-fold Rated control supply voltage 24 V DC	6	2 NO / 1 NC		**3SE6 806-2CD00**	1 unit	0.200

For more monitoring units, see Chapters 6 and 7 and Catalog IK PI.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Notes

© Siemens AG 2008

Commanding and Signaling Devices

9

9/2 **Introduction**

3SB2 Pushbutton Units and Indicator Lights, 16 mm
9/4 Complete units

3SB3 Pushbutton Units and Indicator Lights, 22 mm
Actuators and Indicators, Plastic, Round
9/6 Complete units
9/8 Coordinate switches, complete
9/9 Actuators and indicators
Actuators and Indicators, Metal, Round
9/13 Complete units
9/15 Actuators and indicators
Components for Actuators and Indicators
9/18 Contact blocks and lampholders
9/21 AS-Interface F adapters for EMERGENCY-STOP control devices
Labels
9/22 Laser inscriptions
9/23 Insert labels
9/24 Name plates
Accessories and Spare Parts
9/27 Protective covers
Miscellaneous accessories
Enclosures
9/28 Enclosures with standard fittings
Empty enclosures
9/29 Customized enclosures
9/30 Contact blocks and lampholders
Accessories
AS-Interface Enclosures
9/31 General data
9/32 AS-Interface enclosures with standard fittings
9/33 Components for AS-Interface enclosures

3SB3 Two-Hand Operation Consoles
9/34 Plastic and metal enclosures

3SE7, 3SF2 Cable-Operated Switches
9/35 3SE7 metal enclosures
9/37 3SF2 AS-Interface cable-operated switches

3SE2, 3SE3 Foot Switches
9/38 Plastic and metal enclosures

8WD4 Signaling Columns
9/39 8WD42 signaling columns, 50 mm diameter
9/39 8WD44 signaling columns, 70 mm diameter

8WD5 Integrated Signal Lamps
9/41 8WD53 integrated signal lamps, 70 mm diameter

© Siemens AG 2008

Introduction

Overview

3SB2

3SB30, 3SB32

3SB31, 3SB33

3SB35, 3SB36

Pushbutton units and indicator lights				
Designs				
Nominal diameter	16 mm	22 mm	26 mm × 26 mm	22 mm
Version	Plastic, round	Plastic, round	Plastic, square	Metal, round
Actuators				
Pushbuttons and switches	✔[1)]	✔	✔	✔
Illuminated pushbuttons and illuminated switches	✔[1)]	✔	✔	✔
Mushroom pushbuttons	--	✔	--	✔
Push-pull buttons	--	✔	--	✔
EMERGENCY-STOP mushroom pushbuttons	✔	✔	✔	✔
Knobs	✔	✔	✔	✔
Locks	✔	✔	✔	✔
Special actuators				
Coordinate switches	--	✔	--	--
Twin pushbuttons	--	✔	--	--
Potentiometer operating mechanisms	--	✔	--	--
Indicators				
Indicator lights	✔	✔	✔	✔
Acoustic signaling devices	--	✔	--	--
Switching blocks				
Single-pole	✔	✔	✔	✔
Two-pole	✔	✔	✔	✔
Lampholders				
Wedge base	✔	✔ (with solder connections)	✔ (with solder connections)	✔ (with solder connections)
BA 9s base	--	✔	✔	✔
With integrated LEDs	--	✔	✔	✔
Terminals				
Plug-in connection	✔	--	--	--
Screw terminals	--	✔	✔	✔
Spring-loaded terminals	--	✔	✔	✔
Solder pins	✔	✔	✔	✔
AS-Interface	--	✔	✔	✔

AS-Interface solutions

Commanding and signaling devices of the SIRIUS 3SB3 series can be connected to the AS-Interface communication system quickly and easily with the help of various solutions.

For AS-Interface solutions, see catalog IK PI "Industrial Communication for Automation & Drives".

AS-Interface EMERGENCY-STOP according to ISO 13850

Using a special F adapter, EMERGENCY-STOP devices according to ISO 13850 (former EN 418) can be directly connected through the standard AS-Interface with safety-oriented communication.

AS-Interface enclosures and front panel modules

Enclosures with standard fittings are listed in this catalog. For customized enclosures, use the 3SB configurator to select the blocks for equipping (see Catalog IK PI).

For front panel modules with one 4I/4O slave for connection of four 3SB3 commanding or signaling devices see catalog IK PI.

✔ Standard
-- Not available
❑ Optional
1) Only pushbuttons, no pushbutton switches.

© Siemens AG 2008

	3SB38	3SB38 6	3SE7, 3SF2	3SE29
	Enclosures	**2-hand operation consoles**	**Cable-operated switches**	**Foot switches**
Enclosures				
Plastic	✔	✔	--	✔
Metal	✔	✔	✔	✔
Actuators				
Pushbuttons and switches	✔	✔	--	✔
Illuminated pushbuttons and switches	✔	✔	--	--
Mushroom pushbuttons	✔	✔	--	--
Push-pull buttons	✔	--	--	--
EMERGENCY-STOP mushroom pushbuttons	✔	✔	✔	--
Knobs	✔	--	--	--
Locks	✔	--	--	--
Bowden wires	--	--	✔	--
Indicators				
Indicator lights	✔	--	✔	--
Acoustic signaling devices	✔	--	--	--
Contact blocks				
Single-pole	✔	✔	--	--
Two-pole	--	✔	✔	✔
Three-pole	--	--	--	✔
Four-pole	--	--	✔	✔
Terminals				
Screw terminals	✔	✔	✔	✔
Spring-loaded terminals	✔	❑	--	--
Molded cables	--	--	--	✔
Plug-in connection	--	❑	❑	❑
AS-Interface	✔	❑	--	--

	8WD42, 8WD44	8WD53
	Signaling columns	**Integrated signal lamps**
Enclosures		
Plastic	✔	✔
Metal	--	--
lighting		
Incandescent lamps	✔	✔
LEDs	✔	✔
Flashlights	✔	✔
Terminals		
Screw terminals	✔	✔
Spring-loaded terminals	✔	--
AS-Interface	✔	--

© Siemens AG 2008

Complete units

Selection and ordering data

Pushbutton with flat button

Illuminated pushbutton with raised button

EMERGENCY-STOP mushroom pushbutton

Selector switch

Version	Color of handle	Contact blocks	DT	Flat connectors	PS*	Weight per PU approx.
				Order No.		kg
Pushbuttons with flat button	Black	1 NO	►	**3SB22 02-0AB01**	1 unit	0.023
	Black	1 NC		**3SB22 03-0AB01**	1 unit	0.023
	Red	1 NC	►	**3SB22 03-0AC01**	1 unit	0.023
	Yellow	1 NO		**3SB22 02-0AD01**	1 unit	0.023
	Green	1 NO	►	**3SB22 02-0AE01**	1 unit	0.023
	Blue	1 NO		**3SB22 02-0AF01**	1 unit	0.023
	White	1 NO	►	**3SB22 02-0AG01**	1 unit	0.023
	Clear[1]	1 NO		**3SB22 02-0AH01**	1 unit	0.023
Illuminated pushbuttons with flat button Lampholder W2 x 4.6 d[2]	Red	1 NC	►	**3SB22 07-0AC01**	1 unit	0.025
	Yellow[1]	1 NO		**3SB22 06-0AD01**	1 unit	0.025
	Green	1 NO	►	**3SB22 06-0AE01**	1 unit	0.025
	Blue	1 NO		**3SB22 06-0AF01**	1 unit	0.025
	Clear[1]	1 NO	►	**3SB22 06-0AH01**	1 unit	0.025
Illuminated pushbuttons with flat button Lampholder W2 x 4.6 d with incandescent lamp 24 V	Red	1 NC	►	**3SB22 27-0AC01**	1 unit	0.025
	Yellow[1]	1 NO		**3SB22 26-0AD01**	1 unit	0.025
	Green	1 NO	►	**3SB22 26-0AE01**	1 unit	0.025
	Blue	1 NO		**3SB22 26-0AF01**	1 unit	0.025
	Clear[1]	1 NO	►	**3SB22 26-0AH01**	1 unit	0.025
Pushbuttons with raised button	Black	1 NO		**3SB22 02-0LB01**	1 unit	0.024
	Red	1 NC		**3SB22 03-0LC01**	1 unit	0.024
	Yellow	1 NO		**3SB22 02-0LD01**	1 unit	0.024
	Blue	1 NO		**3SB22 02-0LF01**	1 unit	0.024
	Clear[1]	1 NO		**3SB22 02-0LH01**	1 unit	0.024
Illuminated pushbuttons with raised button Lampholder W2 x 4.6 d[2]	Red	1 NC		**3SB22 07-0LC01**	1 unit	0.025
	Yellow[1]	1 NO		**3SB22 06-0LD01**	1 unit	0.025
	Green	1 NO		**3SB22 06-0LE01**	1 unit	0.025
	Blue	1 NO		**3SB22 06-0LF01**	1 unit	0.025
	Clear[1]	1 NO		**3SB22 06-0LH01**	1 unit	0.025
Illuminated pushbuttons with raised button Lampholder W2 x 4.6 d with incandescent lamp 24 V	Red	1 NC		**3SB22 27-0LC01**	1 unit	0.025
	Yellow[1]	1 NO		**3SB22 26-0LD01**	1 unit	0.026
	Green	1 NO		**3SB22 26-0LE01**	1 unit	0.026
	Blue	1 NO		**3SB22 26-0LF01**	1 unit	0.026
	Clear[1]	1 NO		**3SB22 26-0LH01**	1 unit	0.026
EMERGENCY-STOP mushroom pushbuttons according to ISO 13850, latching[3] Latches automatically when pressed; unlatches by turning the mushroom head anticlockwise, with yellow name plate, with German inscription "NOT-HALT"	Red	1 NC ➔	►	**3SB22 03-1AC01**	1 unit	0.032
Selector switches with 2 switch positions Switching sequence O-I, 62° operating angle, latching	Black	1 NO	►	**3SB22 02-2AB01**	1 unit	0.026
	Red	1 NO		**3SB22 02-2AC01**	1 unit	0.026
	Green	1 NO		**3SB22 02-2AE01**	1 unit	0.026
	White	1 NO		**3SB22 02-2AG01**	1 unit	0.026
Selector switches, 3 switch positions Switching sequence I-O-II, 2 × 62° operating angle, latching	Black	1 NO, 1 NO	►	**3SB22 10-2DB01**	1 unit	0.030
	Red	1 NO, 1 NO		**3SB22 10-2DC01**	1 unit	0.030
	Green	1 NO, 1 NO		**3SB22 10-2DE01**	1 unit	0.030
	White	1 NO, 1 NO		**3SB22 10-2DG01**	1 unit	0.030
Selector switches, 3 switch positions Switching sequence I-O-II, 2 × 50° operating angle, momentary-contact type	Black	1 NO, 1 NO	►	**3SB22 10-2EB01**	1 unit	0.029
	Red	1 NO, 1 NO		**3SB22 10-2EC01**	1 unit	0.029
	Green	1 NO, 1 NO		**3SB22 10-2EE01**	1 unit	0.029
	White	1 NO, 1 NO		**3SB22 10-2EG01**	1 unit	0.029

➔ Positive opening according to IEC 60947-5-1, Appendix K.

1) Inscription is possible by inserting a label.

2) For wedge base lamps, see Accessories.

3) The mushroom pushbutton cannot be combined with 3SB29 02-0AB name plate or 3SB29 02-0AA single frame (see A&D Mall).

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Complete units

CES key-operated switch

Version	Lock No.	Switching blocks	Key removal position	DT	Flat connectors Order No.	PS*	Weight per PU approx. kg
CES key-operated switches, 2 switch positions Switching sequence O-I, 62° operating angle, latching 	SB2	1 NO 1 NO	O O + I	▶	**3SB22 02-4LA01** **3SB22 02-4LB01**	1 unit 1 unit	0.053 0.053
CES key-operated switches, 3 switch positions Switching sequence I-O-II, 2 × 62° operating angle, latching 	SB2	1 NO, 1 NO 1 NO, 1 NO	O I + O + II		**3SB22 10-4PA01** **3SB22 10-4PB01**	1 unit 1 unit	0.056 0.056
CES key-operated switches, 3 switch positions Switching sequence I-O-II, 2 × 50° operating angle, momentary-contact type 	SB2	1 NO, 1 NO	O		**3SB22 10-4QA01**	1 unit	0.057

Indicator light

Version	Color of screw lens	DT	Flat connectors Order No.	PS*	Weight per PU approx. kg
Indicator lights Lampholder W2 x 4.6 d without lamp[1)]	Red Yellow Green White Clear	▶ ▶ ▶ 	**3SB22 04-6BC06** **3SB22 04-6BD06** **3SB22 04-6BE06** **3SB22 04-6BG06** **3SB22 04-6BH06**	1 unit 1 unit 1 unit 1 unit 1 unit	0.020 0.020 0.020 0.020 0.020
Indicator lights Lampholder W2 x 4.6 d with incandescent lamp 24 V	Red Yellow Green White Clear	▶ ▶ ▶ 	**3SB22 24-6BC06** **3SB22 24-6BD06** **3SB22 24-6BE06** **3SB22 24-6BG06** **3SB22 24-6BH06**	1 unit 1 unit 1 unit 1 unit 1 unit	0.021 0.021 0.021 0.021 0.021

[1)] For wedge base lamps, see Accessories.

Accessories

Version	Lamp voltage V AC/DC	Color	DT	Order No.	PS*	Weight per PU approx. kg
 Incandescent lamps Wedge base W2 × 4.6 d, 1.0 W	6 12 24 30 48 60	Clear	▶	**3SB29 08-1AA** **3SB29 08-1AB** **3SB29 08-1AC** **3SB29 08-1AD** **3SB29 08-1AE** **3SB29 08-1AF**	10 units 10 units 10 units 10 units 10 units 10 units	0.100 0.100 0.100 0.100 0.001 0.001
 LED lamps, super-bright Wedge base W2 × 4.6 d	24	Red Yellow Green White Blue		**3SB39 01-1SB** **3SB39 01-1RB** **3SB39 01-1TB** **3SB39 01-1UB** **3SB29 08-1BD**	10 units 10 units 10 units 10 units 10 units	0.001 0.001 0.001 0.001 0.001
 Dismantling tools For holders and lampholders with holder		--	▶	**3SB29 08-2AA**	1 unit	0.015
 Lamp extractors For lamps with bases W2 × 4.6 d		--	▶	**3SB29 08-2AB**	1 unit	0.003
 Mounting tools For buttons and screw lenses		--	▶	**3SB29 08-2AC**	1 unit	0.012
  Name plates, Ø 50 mm As backing plate for EMERGENCY-STOP, self-adhesive • Blank • With German inscription "NOT-HALT"		Yellow ▶ ▶	 **3SB29 08-2AF** **3SB29 08-2AG**	 1 unit 1 unit	 0.001 0.001

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Complete units

Selection and ordering data

	Version	Color of handle	Contacts	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
					Order No.		Order No.		kg
Pushbutton with flat button	**Pushbuttons with flat button**	Black	1 NO	▶	**3SB32 02-0AA11**		**3SB32 02-0AA11-0CC0**	1 unit	0.040
		Black	1 NC		**3SB32 03-0AA11**		**3SB32 03-0AA11-0CC0**	1 unit	0.040
		Red	1 NC	▶	**3SB32 03-0AA21**		**3SB32 03-0AA21-0CC0**	1 unit	0.040
		Yellow	1 NO		**3SB32 02-0AA31**		**3SB32 02-0AA31-0CC0**	1 unit	0.040
		Green	1 NO	▶	**3SB32 02-0AA41**		**3SB32 02-0AA41-0CC0**	1 unit	0.040
		Blue	1 NO		**3SB32 02-0AA51**		**3SB32 02-0AA51-0CC0**	1 unit	0.040
		White	1 NO	▶	**3SB32 02-0AA61**		**3SB32 02-0AA61-0CC0**	1 unit	0.040
	Illuminated pushbuttons with flat button With integrated LED 24 V AC/DC	Red[1]	1 NC	▶	**3SB32 46-0AA21**		**3SB32 46-0AA21-0CC0**	1 unit	0.050
		Yellow[1]	1 NO		**3SB32 45-0AA31**		**3SB32 45-0AA31-0CC0**	1 unit	0.050
		Green[1]	1 NO	▶	**3SB32 45-0AA41**		**3SB32 45-0AA41-0CC0**	1 unit	0.050
		Blue[1]	1 NO		**3SB32 45-0AA51**		**3SB32 45-0AA51-0CC0**	1 unit	0.050
		White	1 NO		**3SB32 45-0AA61**		**3SB32 45-0AA61-0CC0**	1 unit	0.050
		Clear[1]	1 NO	▶	**3SB32 45-0AA71**		**3SB32 45-0AA71-0CC0**	1 unit	0.050
Illuminated pushbutton with flat button	**Illuminated pushbuttons with flat button** With BA 9s lampholder, without lamp	Red[1]	1 NC		**3SB32 07-0AA21**		**3SB32 07-0AA21-0CC0**	1 unit	0.050
		Yellow[1]	1 NO		**3SB32 06-0AA31**		**3SB32 06-0AA31-0CC0**	1 unit	0.050
		Green[1]	1 NO		**3SB32 06-0AA41**		**3SB32 06-0AA41-0CC0**	1 unit	0.050
		Blue[1]	1 NO		**3SB32 06-0AA51**		**3SB32 06-0AA51-0CC0**	1 unit	0.050
		White	1 NO		**3SB32 06-0AA61**		**3SB32 06-0AA61-0CC0**	1 unit	0.050
		Clear[1]	1 NO		**3SB32 06-0AA71**		**3SB32 06-0AA71-0CC0**	1 unit	0.050
	Selector switches, 2 switch positions Switching sequence O-I, 50° operating angle, latching	Black	1 NO	▶	**3SB32 02-2KA11**		**3SB32 02-2KA11-0CC0**	1 unit	0.040
			1 NO + 1 NC		**3SB32 01-2KA11**		**3SB32 01-2KA11-0CC0**	1 unit	0.050
Selector switch	**Selector switches, 3 switch positions** Switching sequence I-O-II, 2 x 50° operating angle, latching	Black	1 NO, 1 NO	▶	**3SB32 10-2DA11**		**3SB32 10-2DA11-0CC0**	1 unit	0.070
			1 NO + 1 NC, 1 NO + 1 NC		**3SB32 08-2DA11**		**3SB32 08-2DA11-0CC0**	1 unit	0.070
	Selector switches, 3 switch positions Switching sequence I-O-II, 2 x 50° operating angle, momentary-contact type	Black	1 NO, 1 NO		**3SB32 10-2EA11**		**3SB32 10-2EA11-0CC0**	1 unit	0.070
			1 NO + 1 NC, 1 NO + 1 NC		**3SB32 08-2EA11**		**3SB32 08-2EA11-0CC0**	1 unit	0.070
RONIS key-operated switch	**RONIS key-operated switches, 2 switch positions** With 2 keys Switching sequence O-I, 50° operating angle, latching	Lock No. SB 30	1 NO	▶	**3SB32 02-4AD11**		**3SB32 02-4AD11-0CC0**	1 unit	0.070
			1 NO + 1 NC		**3SB32 01-4AD11**		**3SB32 01-4AD11-0CC0**	1 unit	0.080
EMERGENCY-STOP control devices according to ISO 13850, with yellow name plate, Ø 80 mm, with inscription[2]									
EMERGENCY-STOP mushroom pushbutton	**EMERGENCY-STOP mushroom pushbuttons, Ø 40 mm, with positive latching function**		➔						
	With rotate-to-unlatch mechanism	Red	1 NC	▶	**3SB32 03-1HA20**		**3SB32 03-1HA20-0CC0**	1 unit	0.070
			1 NO + 1 NC		**3SB32 01-1HA20**		**3SB32 01-1HA20-0CC0**	1 unit	0.080
	With pull-to-unlatch mechanism		1 NC		**3SB32 03-1TA20**		--	1 unit	0.060
			1 NO + 1 NC		**3SB32 01-1TA20**		--	1 unit	0.050

➔ Positive opening according to IEC 60947-5-1, Appendix K.

1) Inscription is possible by inserting a label.

2) German inscription "NOT-HALT".

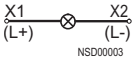
*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Indicator light with smooth lens

Indicator light with lens with concentric rings

Acoustic signaling device

Version	Rated voltage of lamp	Color of lens	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
	V			Order No.		Order No.		kg
Indicator lights, with smooth lens[1] With integrated LED	24 AC/DC	Red	▶	**3SB32 44-6AA20**		**3SB32 44-6AA20-0CC0**	1 unit	0.040
		Yellow		**3SB32 44-6AA30**		**3SB32 44-6AA30-0CC0**	1 unit	0.040
		Green	▶	**3SB32 44-6AA40**		**3SB32 44-6AA40-0CC0**	1 unit	0.040
		Blue		**3SB32 44-6AA50**		**3SB32 44-6AA50-0CC0**	1 unit	0.040
		White		**3SB32 44-6AA60**		**3SB32 44-6AA60-0CC0**	1 unit	0.040
		Clear	▶	**3SB32 44-6AA70**		**3SB32 44-6AA70-0CC0**	1 unit	0.040
Indicator lights, with smooth lens[1] With BA 9s lampholder, without lamp	–	Red		**3SB32 04-6AA20**		**3SB32 04-6AA20-0CC0**	1 unit	0.040
		Yellow		**3SB32 04-6AA30**		**3SB32 04-6AA30-0CC0**	1 unit	0.040
		Green		**3SB32 04-6AA40**		**3SB32 04-6AA40-0CC0**	1 unit	0.040
		Blue		**3SB32 04-6AA50**		**3SB32 04-6AA50-0CC0**	1 unit	0.040
		White		**3SB32 04-6AA60**		**3SB32 04-6AA60-0CC0**	1 unit	0.040
		Clear		**3SB32 04-6AA70**		**3SB32 04-6AA70-0CC0**	1 unit	0.040
Indicator lights with lens with concentric rings[1] With integrated LED	24 AC/DC	Red	▶	**3SB32 44-6BA20**		**3SB32 44-6BA20-0CC0**	1 unit	0.040
		Yellow		**3SB32 44-6BA30**		**3SB32 44-6BA30-0CC0**	1 unit	0.040
		Green	▶	**3SB32 44-6BA40**		**3SB32 44-6BA40-0CC0**	1 unit	0.040
		Blue		**3SB32 44-6BA50**		**3SB32 44-6BA50-0CC0**	1 unit	0.040
		White		**3SB32 44-6BA60**		**3SB32 44-6BA60-0CC0**	1 unit	0.040
		Clear	▶	**3SB32 44-6BA70**		**3SB32 44-6BA70-0CC0**	1 unit	0.040
Indicator lights with lens with concentric rings[1] With BA 9s lampholder, without lamp	–	Red		**3SB32 04-6BA20**		**3SB32 04-6BA20-0CC0**	1 unit	0.040
		Yellow		**3SB32 04-6BA30**		**3SB32 04-6BA30-0CC0**	1 unit	0.040
		Green		**3SB32 04-6BA40**		**3SB32 04-6BA40-0CC0**	1 unit	0.040
		Blue		**3SB32 04-6BA50**		**3SB32 04-6BA50-0CC0**	1 unit	0.040
		White		**3SB32 04-6BA60**		**3SB32 04-6BA60-0CC0**	1 unit	0.040
		Clear		**3SB32 04-6BA70**		**3SB32 04-6BA70-0CC0**	1 unit	0.040
Acoustic signaling devices, IP65[2] Continuous tone 2.4 kHz, min. operational current 4 mA, min. sound pressure 80 dB/10 cm 	24 AC/DC 115 AC/DC 230 AC/DC	Black		**3SB32 33-7BA10** **3SB32 34-7BA10** **3SB32 35-7BA10**		**--** **--** **--**	1 unit 1 unit 1 unit	0.042 0.042 0.040

Actuator for potentiometer

Pushbutton with 12 mm stroke

Version	Color of handle		DT	Without connection	PS*	Weight per PU approx.
				Order No.		kg
Actuators for potentiometer IP65[2)3)] With shaft Ø 6 mm, 30 ... 32 mm long	--	--		**3SB10 00-7CH07**	1 unit	0.030
Pushbuttons with extended stroke (12 mm), IP65[2)] For actuating relays	Black	--		**3SB30 00-0EA11**	1 unit	0.020

1) Inscription by inserting a label is not possible.
2) Mounting in 3SB38 enclosure is not possible.
3) The potentiometer is not included in the scope of supply.

© Siemens AG 2008

Coordinate switches, complete

Selection and ordering data

Version	Operating travel ▭ Contact closed ▭ Contact open	DT	Screw terminals Order No. For Order No. supplement see below	PS*	Weight per PU approx. kg
Coordinate switches, complete					
2 switch positions, 1 NO per direction					
Horizontal, momentary contact type[1]					
Without mechanical locking in the O position			**3SB12 01-7DV ☐☐**	1 unit	0.110
With mechanical locking in the O position			**3SB12 01-7DW ☐☐**	1 unit	0.110
Vertical, momentary contact type[1]					
Without mechanical locking in the O position			**3SB12 01-7FV ☐☐**	1 unit	0.110
With mechanical locking in the O position			**3SB12 01-7FW ☐☐**	1 unit	0.110
4 switch positions, 1 NO per direction					
Momentary contact type[1]					
Without mechanical locking in the O position			**3SB12 08-7JV ☐☐**	1 unit	0.133
With mechanical locking in the O position			**3SB12 08-7JW ☐☐**	1 unit	0.130
Order No. supplement for front rings					
Actuator with plastic front ring, black			**01**		
Actuator with metal front ring			**20**		
Spare contact blocks					
Contact blocks with 2 contacts 1 NO, 1 NO			**3SB14 00-0J**	1 unit	0.020
Label holders					
Label holders for coordinate switches					
2 switch positions, horizontal			**3SB19 06-0AU**	1 unit	0.003
2 switch positions, vertical			**3SB19 06-0AV**	1 unit	0.003
4 switch positions			**3SB19 06-0AW**	1 unit	0.006
Inscription labels 27 mm × 27 mm					
Without inscription			**3SB19 06-2AA**	10 units	0.100
With inscription			**3SB19 06-2XZ**		
• Text lines (up to 5 lines each with 11 characters are possible, text engraved)			**K0Y, K1Y, K2Y,** or **K5Y**	1 unit	0.001
• Graphic symbol with No. according to collection			**K3Y**	1 unit	0.001
• Any inscription or symbol			**K9Y**	1 unit	0.001

Label holder for 2 switch positions, vertical

Customized inscriptions

For explanations of the individual labeling of the plates see page 9/26.

[1] For coordinate switches the Order No. must be modified in the 9th position:
Horizontal latching: 3SB12 01-7EV, -7EW
Vertical latching: 3SB12 01-7GV, -7GW
4 switch positions, latching: 3SB12 08-7KV, -7KW.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

Version	Inscription	Color of handle	DT	Order No.	PS*	Weight per PU approx.
						kg
Pushbuttons with holder[1]						
Pushbutton with flat button						
Pushbuttons with flat button		Black	▶	**3SB30 00-0AA11**	1 unit	0.025
		Red	▶	**3SB30 00-0AA21**	1 unit	0.025
		Yellow		**3SB30 00-0AA31**	1 unit	0.025
		Green	▶	**3SB30 00-0AA41**	1 unit	0.025
		Blue		**3SB30 00-0AA51**	1 unit	0.025
		White	▶	**3SB30 00-0AA61**	1 unit	0.025
		Clear[2]		**3SB30 00-0AA71**	1 unit	0.025
	I	Green		**3SB30 00-0AA81**	1 unit	0.025
	O	Red		**3SB30 00-0AB01**	1 unit	0.025
	I	White		**3SB30 00-0AB11**	1 unit	0.025
	O	Black		**3SB30 00-0AB21**	1 unit	0.025
	R	Blue		**3SB30 00-0AC81**	1 unit	0.025
Pushbutton with raised button						
Pushbuttons with raised button		Black		**3SB30 00-0BA11**	1 unit	0.025
		Red		**3SB30 00-0BA21**	1 unit	0.025
		Yellow		**3SB30 00-0BA31**	1 unit	0.025
		Green		**3SB30 00-0BA41**	1 unit	0.025
		Blue		**3SB30 00-0BA51**	1 unit	0.025
		White		**3SB30 00-0BA61**	1 unit	0.025
Illuminated pushbuttons with flat button including holder for 3 elements		Red[2]	▶	**3SB30 01-0AA21**	1 unit	0.025
		Yellow[2]	▶	**3SB30 01-0AA31**	1 unit	0.025
		Green[2]	▶	**3SB30 01-0AA41**	1 unit	0.025
		Blue[2]		**3SB30 01-0AA51**	1 unit	0.025
		White		**3SB30 01-0AA61**	1 unit	0.025
		Clear[2]	▶	**3SB30 01-0AA71**	1 unit	0.025
Illuminated pushbutton with raised button						
Illuminated pushbuttons with raised button including holder for 3 elements		Red		**3SB30 01-0BA21**	1 unit	0.025
		Yellow		**3SB30 01-0BA31**	1 unit	0.025
		Green		**3SB30 01-0BA41**	1 unit	0.025
		Blue		**3SB30 01-0BA51**	1 unit	0.025
		Clear		**3SB30 01-0BA71**	1 unit	0.025
Pushbuttons with flat button, **latching**, unlatches by pressing again		Black		**3SB30 00-0DA11**	1 unit	0.025
		Red		**3SB30 00-0DA21**	1 unit	0.025
		Yellow		**3SB30 00-0DA31**	1 unit	0.025
		Green		**3SB30 00-0DA41**	1 unit	0.026
		Blue		**3SB30 00-0DA51**	1 unit	0.025
		White		**3SB30 00-0DA61**	1 unit	0.025
Illuminated pushbuttons with flat button, **latching**, unlatches by pressing again, including holder for 3 elements		Red[2]		**3SB30 01-0DA21**	1 unit	0.025
		Yellow[2]		**3SB30 01-0DA31**	1 unit	0.025
		Green[2]		**3SB30 01-0DA41**	1 unit	0.025
		Blue[2]		**3SB30 01-0DA51**	1 unit	0.025
		White		**3SB30 01-0DA61**	1 unit	0.025
		Clear[2]		**3SB30 01-0DA71**	1 unit	0.025
Mushroom pushbuttons with holder[1)3)]						
Mushroom pushbutton, Ø 40 mm						
Mushroom pushbuttons, Ø 30 mm		Black		**3SB30 00-1DA11**	1 unit	0.035
		Red		**3SB30 00-1DA21**	1 unit	0.035
		Yellow		**3SB30 00-1DA31**	1 unit	0.035
		Green		**3SB30 00-1DA41**	1 unit	0.035
Mushroom pushbuttons, Ø 40 mm		Black	▶	**3SB30 00-1GA11**	1 unit	0.035
		Red	▶	**3SB30 00-1GA21**	1 unit	0.035
		Yellow		**3SB30 00-1GA31**	1 unit	0.035
		Green		**3SB30 00-1GA41**	1 unit	0.035
Mushroom pushbuttons, Ø 60 mm		Black		**3SB30 00-1QA11**	1 unit	0.040
		Red		**3SB30 00-1QA21**	1 unit	0.040
		Yellow		**3SB30 00-1QA31**	1 unit	0.040
		Green		**3SB30 00-1QA41**	1 unit	0.040
Illuminated mushroom pushbutton, Ø 30 mm						
Illuminated mushroom pushbuttons, Ø 30 mm including holder for 3 elements		Yellow		**3SB30 01-1DA31**	1 unit	0.050
		Green		**3SB30 01-1DA41**	1 unit	0.050
		White		**3SB30 01-1DA61**	1 unit	0.050
Illuminated mushroom pushbuttons, Ø 40 mm including holder for 3 elements		Yellow		**3SB30 01-1GA31**	1 unit	0.035
		Green		**3SB30 01-1GA41**	1 unit	0.035
		White		**3SB30 01-1GA61**	1 unit	0.035
Push-pull buttons, Ø 30 mm, latching, pull to unlatch		Black		**3SB30 00-1EA11**	1 unit	0.030
		Red[4]		**3SB30 00-1EA21**	1 unit	0.030
Push-pull buttons, Ø 40 mm, latching, pull to unlatch		Black	▶	**3SB30 00-1CA11**	1 unit	0.035
		Red[4]	▶	**3SB30 00-1CA21**	1 unit	0.035
Push-pull buttons, Ø 60 mm, latching, pull to unlatch		Black		**3SB30 00-1RA11**	1 unit	0.050
		Red		**3SB30 00-1RA21**	1 unit	0.050

1) Also available without holder. Supplement Order No. with **"-Z"** and quote order code **"B01"**. Price reduction.

2) Inscription is possible by inserting a label.

3) Maximum permissible equipment: 3 single-pole and 2 double-pole contact blocks. When using the 3SB39 01-0AB holder, the central command position must not be empty.

4) Also available as illuminatable 3SB30 01-1EA.1, -1CA.1 push-pull buttons incl. holders for 3 elements, also in other colors.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Actuators and indicators

Non-illuminated

Illuminated

Selector switches with holder[1)]

Version	Version lighting	Color of handle	DT	Order No.	PS*	Weight per PU approx. kg
Selector switches with 2 switch positions						
Switching sequence O-I, 50° operating angle, latching	**Non-illuminated**	Black	►	**3SB30 00-2KA11**	1 unit	0.030
		Red		**3SB30 00-2KA21**	1 unit	0.030
		Green		**3SB30 00-2KA41**	1 unit	0.030
		White		**3SB30 00-2KA61**	1 unit	0.030
	Illuminated including holder for 3 elements	Red		**3SB30 01-2KA21**	1 unit	0.030
		Yellow		**3SB30 01-2KA31**	1 unit	0.030
		Green		**3SB30 01-2KA41**	1 unit	0.030
		Blue		**3SB30 01-2KA51**	1 unit	0.030
		Clear		**3SB30 01-2KA71**	1 unit	0.030
Switching sequence O-I, 50° operating angle, momentary contact type	**Non-illuminated**	Black	►	**3SB30 00-2LA11**	1 unit	0.030
		Red		**3SB30 00-2LA21**	1 unit	0.030
		Green		**3SB30 00-2LA41**	1 unit	0.030
		White		**3SB30 00-2LA61**	1 unit	0.030
	Illuminated including holder for 3 elements	Red		**3SB30 01-2LA21**	1 unit	0.030
		Yellow		**3SB30 01-2LA31**	1 unit	0.030
		Green		**3SB30 01-2LA41**	1 unit	0.030
		Blue		**3SB30 01-2LA51**	1 unit	0.030
		Clear		**3SB30 01-2LA71**	1 unit	0.030
Selector switches with 3 switch positions						
Switching sequence I-O-II 2 x 50° operating angle, latching	**Non-illuminated**	Black	►	**3SB30 00-2DA11**	1 unit	0.030
		Red		**3SB30 00-2DA21**	1 unit	0.030
		Green		**3SB30 00-2DA41**	1 unit	0.030
		White		**3SB30 00-2DA61**	1 unit	0.030
	Illuminated including holder for 3 elements	Red		**3SB30 01-2DA21**	1 unit	0.030
		Yellow		**3SB30 01-2DA31**	1 unit	0.030
		Green		**3SB30 01-2DA41**	1 unit	0.030
		Blue		**3SB30 01-2DA51**	1 unit	0.030
		Clear		**3SB30 01-2DA71**	1 unit	0.030
Switching sequence I-O-II 2 x 50° operating angle, momentary contact type	**Non-illuminated**	Black	►	**3SB30 00-2EA11**	1 unit	0.030
		Red		**3SB30 00-2EA21**	1 unit	0.030
		Green		**3SB30 00-2EA41**	1 unit	0.030
		White		**3SB30 00-2EA61**	1 unit	0.030
	Illuminated including holder for 3 elements	Red		**3SB30 01-2EA21**	1 unit	0.030
		Yellow		**3SB30 01-2EA31**	1 unit	0.030
		Green		**3SB30 01-2EA41**	1 unit	0.030
		Blue		**3SB30 01-2EA51**	1 unit	0.030
		Clear		**3SB30 01-2EA71**	1 unit	0.030

RONIS key-operated switch

CES key-operated switch

Key-operated switches with holder[1)]

Version	Version key-operated switch: Type	Lock No./ color	Key removal position	DT	Order No.	PS*	Weight per PU approx. kg
Key-operated switches with 2 keys and 2 switch positions							
Switching sequence O-I, 50° operating angle							
Latching	RONIS	SB 30	O+I		**3SB30 00-4HD11**	1 unit	0.060
			O		**3SB30 00-4HD01**	1 unit	0.060
			I		**3SB30 00-4HD21**	1 unit	0.060
Latching	RONIS	SB 30	O+I	►	**3SB30 00-4AD11**	1 unit	0.060
			O	►	**3SB30 00-4AD01**	1 unit	0.060
			I		**3SB30 00-4AD21**	1 unit	0.060
	CES	SSG 10	O+I	►	**3SB30 00-4LD11**	1 unit	0.140
			O	►	**3SB30 00-4LD01**	1 unit	0.140
			I		**3SB30 00-4LD21**	1 unit	0.140
	CES with key monitoring	SSG 10[2)]	O		**3SB30 00-4LD05**	1 unit	0.140
Momentary-contact type	RONIS	SB 30	O	►	**3SB30 00-4BD01**	1 unit	0.060
	CES	SSG 10	O	►	**3SB30 00-4MD01**	1 unit	0.140
Key-operated switches with 2 keys and 3 switch positions							
Switching sequence I-O-II, 2 x 50° operating angle							
Latching	RONIS	SB 30	I+O+II		**3SB30 00-4DD11**	1 unit	0.060
			O		**3SB30 00-4DD01**	1 unit	0.060
	CES	SSG 10	I+O+II		**3SB30 00-4PD11**	1 unit	0.150
			O		**3SB30 00-4PD01**	1 unit	0.150
Momentary-contact type	CES with key monitoring	SSG 10[2)]	O		**3SB30 00-4PD05**	1 unit	0.140
	RONIS	SB 30	O		**3SB30 00-4ED01**	1 unit	0.060
	CES	SSG 10	O		**3SB30 00-4QD01**	1 unit	0.140

1) The middle contact block is actuated by key operation and can be fitted with only one pole. The holder for 3 elements is included in the scope of supply.
2) Also available without holder. Supplement Order No. with **"-Z"** and quote order code **"B01"**. Price reduction.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

EMERGENCY-STOP control devices according to ISO 13850 and IEC 60947-5-5, with holder[1)2)]

Mushroom diameter 32 mm

Mushroom diameter 40 mm, with rotate-to-unlatch mechanism

Mushroom diameter 40 mm, pull-to-unlatch mechanism

Mushroom diameter 40 mm, with CES key-operated switch

Version	Color of handle	Approval	DT	Order No.	PS*	Weight per PU approx. kg
EMERGENCY-STOP mushroom pushbuttons, Ø 32 mm With positive latching according to ISO 3850, with rotate-to-unlatch mechanism	Red	BG-PRÜFZERT 96 4041		**3SB30 00-1FA20**	1 unit	0.050
EMERGENCY-STOP mushroom pushbuttons, Ø 40 mm With positive latching according to ISO 3850, with rotate-to-unlatch mechanism	Red	BG-PRÜFZERT 96 4041	►	**3SB30 00-1HA20**	1 unit	0.060
EMERGENCY-STOP mushroom pushbuttons, Ø 40 mm With positive latching according to ISO 3850, with pull-to-unlatch mechanism	Red	BG-PRÜFZERT 96 4041		**3SB30 00-1TA20**	1 unit	0.060
EMERGENCY-STOP mushroom pushbuttons, Ø 60 mm With positive latching according to ISO 3850, with rotate-to-unlatch mechanism	Red	BG-PRÜFZERT 96 4041		**3SB30 00-1AA20**	1 unit	0.080
EMERGENCY-STOP mushroom pushbuttons, Ø 40 mm, with RONIS key-operated switch, lock No. SB 30, with positive latching acc. to ISO 13850, unlocking only possible using key	Red	BG-PRÜFZERT 96 4042		**3SB30 00-1BA20**	1 unit	0.090
EMERGENCY-STOP mushroom pushbuttons, Ø 40 mm, with CES key-operated switch, lock No. SSG 10, with positive latching according to ISO 13850, unlocking only possible using key	Red	BG-PRÜFZERT 96 4042		**3SB30 00-1KA20**	1 unit	0.110

Signaling elements with holder[2)]

Version	Color of lens	DT	Order No.	PS*	Weight per PU approx. kg
Indicator lights With smooth lens[3)]	Red	►	**3SB30 01-6AA20**	1 unit	0.020
	Yellow		**3SB30 01-6AA30**	1 unit	0.020
	Green	►	**3SB30 01-6AA40**	1 unit	0.020
	Blue		**3SB30 01-6AA50**	1 unit	0.020
	White		**3SB30 01-6AA60**	1 unit	0.020
	Clear	►	**3SB30 01-6AA70**	1 unit	0.020
Indicator lights With lens with concentric rings[3)]	Red		**3SB30 01-6BA20**	1 unit	0.020
	Yellow		**3SB30 01-6BA30**	1 unit	0.020
	Green		**3SB30 01-6BA40**	1 unit	0.020
	Blue		**3SB30 01-6BA50**	1 unit	0.020
	White		**3SB30 01-6BA60**	1 unit	0.020
	Clear		**3SB30 01-6BA70**	1 unit	0.020
Acoustic signaling devices, IP40[4)] For acoustic signal transformer 24 V DC[5)]	Black		**3SB30 00-7AA10**	1 unit	0.025

1) The yellow backing plates must be ordered separately, see Accessories.

2) Also available without holder. Supplement Order No. with **"-Z"** and quote order code **"B01"**. Price reduction.

3) Inscription by inserting a label is not possible.

4) For acoustic signaling devices, degree of protection IP65, see page 9/7.

5) To order 3SB1902-2BN acoustic signal transformers separately, see page 9/12.
The 3SB34 00-1A lampholder is also required; only version with screw terminals can be used. With front mounting, use in the enclosure is also possible.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Actuators and indicators

	Version	Inscription	Color of handle	DT	Order No.	PS*	Weight per PU approx. kg
Twin pushbuttons with holder[1]							
Twin pushbutton with flat buttons	**Twin pushbuttons,** with flat buttons	I/O[2] I/O[2]	Green/Red White/Black		**3SB31 00-8AC21** **3SB31 00-8AC31**	1 unit 1 unit	0.035 0.035
	Twin pushbuttons, with flat and raised button	I/O[2] I/O[2]	Green/Red White/Black		**3SB31 00-8CC21** **3SB31 00-8CC31**	1 unit 1 unit	0.035 0.035
Twin pushbutton with indicator light, with flat and raised buttons	**Twin pushbuttons with indicator light,** with flat buttons, including holder for 3 elements	I/O[2] I/O[2]	Green/Red White/Black		**3SB31 01-8BC21** **3SB31 01-8BC31**	1 unit 1 unit	0.035 0.035
	Twin pushbuttons with indicator light, with flat and raised button, including holder for 3 elements	I/O[2] I/O[2]	Green/Red White/Black		**3SB31 01-8DC21** **3SB31 01-8DC31**	1 unit 1 unit	0.035 0.035

[1] Also available without holder. Supplement Order No. with **"-Z"** and quote order code **"B01"**. Price reduction.

[2] Black inscription for green, red and white buttons; white inscription on black button.

Accessories

	Version	Application	DT	Order No.	PS*	Weight per PU approx. kg
Accessories for twin pushbuttons						
Label holder	**Label holders 70 x 30 mm** For inscription label 12.5 x 27 mm[2]	Twin pushbuttons		**3SB39 22-0AY**	10 units	0.200
Protective cap	**Protective caps, clear** Silicone, for degree of protection IP67	Twin pushbuttons with flat buttons		**3SB39 21-0AQ**	1 unit	0.005
Accessories for acoustic signal devices						
	Acoustic signal transformers, BA 9s base For acoustic signaling devices[2] Operational current 25 mA, 0.6 W, sound pressure 80 dB/10 cm	Acoustic signaling devices, IP40		**3SB19 02-2BN**	1 unit	0.004

[1] Black inscription for green, red and white buttons; white inscription on black button.

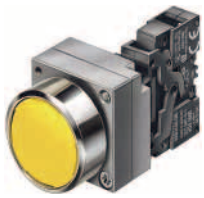
[2] For inscription labels see page 9/24.

[3] For increased protection, the IP65 acoustic signaling device (complete unit) can be used.

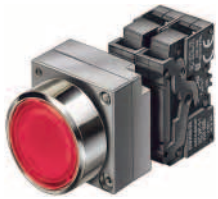
*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

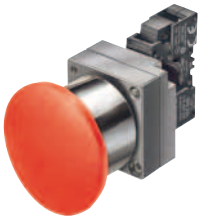
Selection and ordering data



Pushbutton with flat button

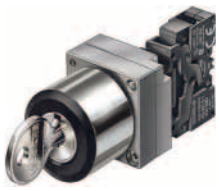


Illuminated pushbutton with flat button



Mushroom push-pull button

Selector switch



RONIS key-operated switch

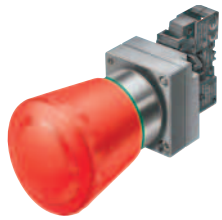
Version	Color of handle	Contacts	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
				Order No.		Order No.		kg
Pushbuttons with flat button	Black	1 NO	▶	**3SB36 02-0AA11**		**3SB36 02-0AA11-0CC0**	1 unit	0.090
	Black	1 NC		**3SB36 03-0AA11**		**3SB36 03-0AA11-0CC0**	1 unit	0.090
	Red	1 NC	▶	**3SB36 03-0AA21**		**3SB36 03-0AA21-0CC0**	1 unit	0.090
	Yellow	1 NO		**3SB36 02-0AA31**		**3SB36 02-0AA31-0CC0**	1 unit	0.090
	Green	1 NO	▶	**3SB36 02-0AA41**		**3SB36 02-0AA41-0CC0**	1 unit	0.090
	Blue	1 NO		**3SB36 02-0AA51**		**3SB36 02-0AA51-0CC0**	1 unit	0.090
	White	1 NO	▶	**3SB36 02-0AA61**		**3SB36 02-0AA61-0CC0**	1 unit	0.090
Illuminated pushbuttons with flat button With integrated LED 24 V AC/DC	Red[1)]	1 NC	▶	**3SB36 46-0AA21**		**3SB36 46-0AA21-0CC0**	1 unit	0.100
	Yellow[1)]	1 NO		**3SB36 45-0AA31**		**3SB36 45-0AA31-0CC0**	1 unit	0.100
	Green[1)]	1 NO	▶	**3SB36 45-0AA41**		**3SB36 45-0AA41-0CC0**	1 unit	0.100
	Blue[1)]	1 NO		**3SB36 45-0AA51**		**3SB36 45-0AA51-0CC0**	1 unit	0.100
	White	1 NO		**3SB36 45-0AA61**		**3SB36 45-0AA61-0CC0**	1 unit	0.100
	Clear[1)]	1 NO	▶	**3SB36 45-0AA71**		**3SB36 45-0AA71-0CC0**	1 unit	0.100
With integrated LED 230 V AC	Red[1)]	1 NC	▶	**3SB36 54-0AA21**		**3SB36 54-0AA21-0CC0**	1 unit	0.100
	Yellow[1)]	1 NO		**3SB36 53-0AA31**		**3SB36 53-0AA31-0CC0**	1 unit	0.100
	Green[1)]	1 NO	▶	**3SB36 53-0AA41**		**3SB36 53-0AA41-0CC0**	1 unit	0.100
	Blue[1)]	1 NO		**3SB36 53-0AA51**		**3SB36 53-0AA51-0CC0**	1 unit	0.100
	White	1 NO		**3SB36 53-0AA61**		**3SB36 53-0AA61-0CC0**	1 unit	0.100
	Clear[1)]	1 NO	▶	**3SB36 53-0AA71**		**3SB36 53-0AA71-0CC0**	1 unit	0.100
Illuminated pushbuttons with flat button With BA 9s lampholder, without lamp	Red[1)]	1 NC		**3SB36 07-0AA21**		**3SB36 07-0AA21-0CC0**	1 unit	0.100
	Yellow[1)]	1 NO		**3SB36 06-0AA31**		**3SB36 06-0AA31-0CC0**	1 unit	0.100
	Green[1)]	1 NO		**3SB36 06-0AA41**		**3SB36 06-0AA41-0CC0**	1 unit	0.100
	Blue[1)]	1 NO		**3SB36 06-0AA51**		**3SB36 06-0AA51-0CC0**	1 unit	0.100
	White	1 NO		**3SB36 06-0AA61**		**3SB36 06-0AA61-0CC0**	1 unit	0.100
	Clear[1)]	1 NO		**3SB36 06-0AA71**		**3SB36 06-0AA71-0CC0**	1 unit	0.100
Mushroom push-pull buttons, Ø 40 mm, latching With pull-to-unlatch mechanism	Red	1 NC		**3SB36 03-1CA21**		**3SB36 03-1CA21-0CC0**	1 unit	0.100
		1 NO + 1 NC		**3SB36 01-1CA21**		**3SB36 01-1CA21-0CC0**	1 unit	0.107
Selector switches, 2 switch positions Switching sequence O-I, 50° operating angle, latching	Black	1 NO	▶	**3SB36 02-2KA11**		**3SB36 02-2KA11-0CC0**	1 unit	0.100
	Standard version	1 NO + 1 NC		**3SB36 01-2KA11**		**3SB36 01-2KA11-0CC0**	1 unit	0.100
Selector switches, 3 switch positions Switching sequence I-O-II, 2 x 50° operating angle, latching	Black	1 NO, 1 NO	▶	**3SB36 10-2DA11**		**3SB36 10-2DA11-0CC0**	1 unit	0.120
	Standard version	1 NO + 1 NC, 1 NO + 1 NC	▶	**3SB36 08-2DA11**		**3SB36 08-2DA11-0CC0**	1 unit	0.120
Selector switches, 3 switch positions Switching sequence I-O-II, 2 x 50° operating angle, momentary-contact type	Black	1 NO, 1 NO	▶	**3SB36 10-2EA11**		**3SB36 10-2EA11-0CC0**	1 unit	0.110
	Standard version	1 NO + 1 NC, 1 NO + 1 NC		**3SB36 08-2EA11**		**3SB36 08-2EA11-0CC0**	1 unit	0.110
RONIS key-operated switches, 2 switch positions Key can be removed in any position, switching sequence O-I, 50° operating angle, latching	Lock No. SB 30	1 NO + 1 NC		**3SB36 01-4AD11**		**3SB36 01-4AD11-0CC0**	1 unit	0.130
		1 NO	▶	**3SB36 02-4AD11**		**3SB36 02-4AD11-0CC0**	1 unit	0.120

[1)] Inscription is possible by inserting a label.

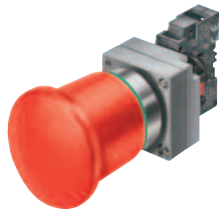
© Siemens AG 2008

Complete units

EMERGENCY-STOP control devices according to ISO 13850, with yellow name plate, Ø 80 mm, with inscription



EMERGENCY-STOP mushroom pushbutton with rotate-to-unlatch mechanism



EMERGENCY-STOP mushroom pushbutton with pull-to-unlatch mechanism

Version	Color of handle	Contacts	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
				Order No.		Order No.		kg
EMERGENCY-STOP mushroom pushbuttons, Ø 40 mm, with positive latching function		➔						
German inscription "NOT-HALT"								
With rotate-to-unlatch mechanism	Red	1 NC	▶	**3SB36 03-1HA20**		**3SB36 03-1HA20-0CC0**	1 unit	0.130
		1 NO + 1 NC		**3SB36 01-1HA20**		**3SB36 01-1HA20-0CC0**	1 unit	0.140
With pull-to-unlatch mechanism	Red	1 NC		**3SB36 03-1TA20**		**3SB36 03-1TA20-0CC0**	1 unit	0.130
		1 NO + 1 NC		**3SB36 01-1TA20**		**3SB36 01-1TA20-0CC0**	1 unit	0.140
		1 NC + 1 NC		**--**		**3SB36 11-1TA20-0CC0**	1 unit	0.131
English inscription "EMERGENCY STOP"								
With rotate-to-unlatch mechanism	Red	1 NC		**3SB36 03-1HR20**		**--**	1 unit	0.130
		1 NO + 1 NC		**3SB36 01-1HR20**		**--**	1 unit	0.140
With pull-to-unlatch mechanism	Red	1 NC		**3SB36 03-1TR20**		**--**	1 unit	0.140
		1 NO + 1 NC		**3SB36 01-1TR20**		**--**	1 unit	0.140
French inscription "ARRET D'URGENCE"								
With rotate-to-unlatch mechanism	Red	1 NO + 1 NC		**3SB36 01-1HP20**		**--**	1 unit	0.140
With pull-to-unlatch mechanism	Red	1 NO + 1 NC		**3SB36 01-1TP20**		**--**	1 unit	0.140

Indicator light with lens with concentric rings

Version	Rated voltage of lamp	Color of lens	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
	V			Order No.		Order No.		kg
Indicator lights with lens with concentric rings[1] With integrated LED	24 AC/DC	Red	▶	**3SB36 44-6BA20**		**3SB36 44-6BA20-0CC0**	1 unit	0.080
		Yellow		**3SB36 44-6BA30**		**3SB36 44-6BA30-0CC0**	1 unit	0.080
		Green	▶	**3SB36 44-6BA40**		**3SB36 44-6BA40-0CC0**	1 unit	0.080
		Blue		**3SB36 44-6BA50**		**3SB36 44-6BA50-0CC0**	1 unit	0.080
		White		**3SB36 44-6BA60**		**3SB36 44-6BA60-0CC0**	1 unit	0.080
		Clear	▶	**3SB36 44-6BA70**		**3SB36 44-6BA70-0CC0**	1 unit	0.080
	230 AC	Red	▶	**3SB36 52-6BA20**		**3SB36 52-6BA20-0CC0**	1 unit	0.080
		Yellow		**3SB36 52-6BA30**		**3SB36 52-6BA30-0CC0**	1 unit	0.080
		Green	▶	**3SB36 52-6BA40**		**3SB36 52-6BA40-0CC0**	1 unit	0.080
		Blue		**3SB36 52-6BA50**		**3SB36 52-6BA50-0CC0**	1 unit	0.080
		White		**3SB36 52-6BA60**		**3SB36 52-6BA60-0CC0**	1 unit	0.080
		Clear	▶	**3SB36 52-6BA70**		**3SB36 52-6BA70-0CC0**	1 unit	0.080
Indicator lights with lens with concentric rings[1] With BA 9s lampholder, without lamp	–	Red		**3SB36 04-6BA20**		**3SB36 04-6BA20-0CC0**	1 unit	0.080
		Yellow		**3SB36 04-6BA30**		**3SB36 04-6BA30-0CC0**	1 unit	0.080
		Green		**3SB36 04-6BA40**		**3SB36 04-6BA40-0CC0**	1 unit	0.080
		Blue		**3SB36 04-6BA50**		**3SB36 04-6BA50-0CC0**	1 unit	0.080
		White		**3SB36 04-6BA60**		**3SB36 04-6BA60-0CC0**	1 unit	0.080
		Clear		**3SB36 04-6BA70**		**3SB36 04-6BA70-0CC0**	1 unit	0.080

➔ Positive opening according to IEC 60947-5-1, Appendix K.

[1] Inscription by inserting a label is not possible.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

Version	Inscription	Color of handle	DT	Order No.	PS*	Weight per PU approx. kg
Pushbuttons with holder[1]						
Pushbutton with flat button						
Pushbuttons with flat button		Black	►	**3SB35 00-0AA11**	1 unit	0.080
		Red	►	**3SB35 00-0AA21**	1 unit	0.080
		Yellow		**3SB35 00-0AA31**	1 unit	0.080
		Green	►	**3SB35 00-0AA41**	1 unit	0.080
		Blue		**3SB35 00-0AA51**	1 unit	0.080
		White	►	**3SB35 00-0AA61**	1 unit	0.080
		Clear[2]		**3SB35 00-0AA71**	1 unit	0.080
	I	Green		**3SB35 00-0AA81**	1 unit	0.080
	O	Red		**3SB35 00-0AB01**	1 unit	0.080
	I	White		**3SB35 00-0AB11**	1 unit	0.080
	O	Black		**3SB35 00-0AB21**	1 unit	0.080
	R	Blue		**3SB35 00-0AC81**	1 unit	0.080
Pushbutton with raised button						
Pushbuttons with raised button		Black		**3SB35 00-0BA11**	1 unit	0.080
		Red		**3SB35 00-0BA21**	1 unit	0.080
		Yellow		**3SB35 00-0BA31**	1 unit	0.080
		Green		**3SB35 00-0BA41**	1 unit	0.080
		Blue		**3SB35 00-0BA51**	1 unit	0.080
		White		**3SB35 00-0BA61**	1 unit	0.080
Illuminated pushbutton with flat button						
Illuminated pushbuttons with flat button Including holder for 3 elements		Red[2]	►	**3SB35 01-0AA21**	1 unit	0.080
		Yellow[2]		**3SB35 01-0AA31**	1 unit	0.080
		Green[2]	►	**3SB35 01-0AA41**	1 unit	0.080
		Blue[2]		**3SB35 01-0AA51**	1 unit	0.080
		White		**3SB35 01-0AA61**	1 unit	0.080
		Clear[2]	►	**3SB35 01-0AA71**	1 unit	0.080
Illuminated pushbuttons with raised button Including holder for 3 elements		Red		**3SB35 01-0BA21**	1 unit	0.080
		Yellow		**3SB35 01-0BA31**	1 unit	0.080
		Green		**3SB35 01-0BA41**	1 unit	0.080
		Blue		**3SB35 01-0BA51**	1 unit	0.080
		Clear		**3SB35 01-0BA71**	1 unit	0.080
Illuminated pushbutton with raised button						
Pushbuttons with flat button, latching Unlatches by pressing again		Black		**3SB35 00-0DA11**	1 unit	0.080
		Red		**3SB35 00-0DA21**	1 unit	0.080
		Yellow		**3SB35 00-0DA31**	1 unit	0.080
		Green		**3SB35 00-0DA41**	1 unit	0.080
		Blue		**3SB35 00-0DA51**	1 unit	0.080
		White		**3SB35 00-0DA61**	1 unit	0.080
Illuminated pushbuttons with flat button, latching Unlatches by pressing again (including holder for 3 elements)		Red[2]		**3SB35 01-0DA21**	1 unit	0.080
		Yellow[2]		**3SB35 01-0DA31**	1 unit	0.080
		Green[2]		**3SB35 01-0DA41**	1 unit	0.080
		Blue[2]		**3SB35 01-0DA51**	1 unit	0.080
		White		**3SB35 01-0DA61**	1 unit	0.080
		Clear[2]		**3SB35 01-0DA71**	1 unit	0.080
Mushroom pushbuttons with holder[1]						
Mushroom pushbutton, Ø 30 mm						
Mushroom pushbuttons, Ø 30 mm		Black		**3SB35 00-1DA11**	1 unit	0.080
		Red		**3SB35 00-1DA21**	1 unit	0.080
		Yellow		**3SB35 00-1DA31**	1 unit	0.080
		Green		**3SB35 00-1DA41**	1 unit	0.080
Mushroom pushbuttons, Ø 40 mm		Black		**3SB35 00-1GA11**	1 unit	0.085
		Red		**3SB35 00-1GA21**	1 unit	0.085
		Yellow		**3SB35 00-1GA31**	1 unit	0.085
		Green		**3SB35 00-1GA41**	1 unit	0.085
Mushroom pushbuttons, Ø 60 mm		Black		**3SB35 00-1QA11**	1 unit	0.090
		Red		**3SB35 00-1QA21**	1 unit	0.090
		Yellow		**3SB35 00-1QA31**	1 unit	0.090
		Green		**3SB35 00-1QA41**	1 unit	0.090
Illuminated mushroom pushbutton, Ø 60 mm						
Illuminated mushroom pushbuttons, Ø 30 mm Including holder for 3 elements		Yellow		**3SB35 01-1DA31**	1 unit	0.080
		Green		**3SB35 01-1DA41**	1 unit	0.080
		White		**3SB35 01-1DA61**	1 unit	0.080
Illuminated mushroom pushbuttons, Ø 40 mm Including holder for 3 elements		Yellow		**3SB35 01-1GA31**	1 unit	0.085
		Green		**3SB35 01-1GA41**	1 unit	0.085
		White		**3SB35 01-1GA61**	1 unit	0.085
Illuminated mushroom pushbuttons, Ø 60 mm Including holder for 3 elements		Yellow		**3SB35 01-1QA31**	1 unit	0.090
		Green		**3SB35 01-1QA41**	1 unit	0.090
		White		**3SB35 01-1QA61**	1 unit	0.090
Push-pull buttons, Ø 30 mm, latching, with pull-to-unlatch		Black		**3SB35 00-1EA11**	1 unit	0.080
		Red[3]		**3SB35 00-1EA21**	1 unit	0.080
Push-pull buttons, Ø 40 mm, latching, with pull-to-unlatch		Black		**3SB35 00-1CA11**	1 unit	0.085
		Red[3]		**3SB35 00-1CA21**	1 unit	0.085
Push-pull buttons, Ø 60 mm, latching, with pull-to-unlatch		Black		**3SB35 00-1RA11**	1 unit	0.090
		Red		**3SB35 00-1RA21**	1 unit	0.090

[1] Also available without holder. Supplement Order No. with **"–Z"** and quote order code **"B01"**. Price reduction.

[2] Inscription is possible by inserting a label.

[3] Also available as illuminatable 3SB35 01-1EA.1, -1CA.1 push-pull buttons incl. holders for 3 elements, also in other colors.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Actuators and indicators

Selector switches with holder[1)]

Selector switch, 2 switch positions, standard version

Selector switch, 3 switch positions, standard version

Version	Lighting version	Color of handle	DT	Order No.	PS*	Weight per PU approx. kg
Selector switches with 2 switch positions						
Switching sequence O-I, 50° operating angle, latching	**Non-illuminated, standard version**	Black	▶	**3SB35 00-2KA11**	1 unit	0.080
		Red		**3SB35 00-2KA21**	1 unit	0.080
		Green		**3SB35 00-2KA41**	1 unit	0.080
		White		**3SB35 00-2KA61**	1 unit	0.080
	Illuminated, standard version, including holder for 3 elements	Red		**3SB35 01-2KA21**	1 unit	0.080
		Yellow		**3SB35 01-2KA31**	1 unit	0.080
		Green		**3SB35 01-2KA41**	1 unit	0.080
		Blue		**3SB35 01-2KA51**	1 unit	0.080
		Clear		**3SB35 01-2KA71**	1 unit	0.080
Switching sequence O-I, 50° operating angle, momentary contact type	**Non-illuminated, standard version**	Black	▶	**3SB35 00-2LA11**	1 unit	0.080
		Red		**3SB35 00-2LA21**	1 unit	0.080
		Green		**3SB35 00-2LA41**	1 unit	0.080
		White		**3SB35 00-2LA61**	1 unit	0.080
	Illuminated, standard version, including holder for 3 elements	Red		**3SB35 01-2LA21**	1 unit	0.080
		Yellow		**3SB35 01-2LA31**	1 unit	0.080
		Green		**3SB35 01-2LA41**	1 unit	0.080
		Blue		**3SB35 01-2LA51**	1 unit	0.080
		Clear		**3SB35 01-2LA71**	1 unit	0.080
Selector switches with 3 switch positions						
Switching sequence I-O-II 2 x 50° operating angle, latching	**Non-illuminated, standard version**	Black	▶	**3SB35 00-2DA11**	1 unit	0.080
		Red		**3SB35 00-2DA21**	1 unit	0.080
		Green		**3SB35 00-2DA41**	1 unit	0.080
		White		**3SB35 00-2DA61**	1 unit	0.080
	Illuminated, standard version, including holder for 3 elements	Red		**3SB35 01-2DA21**	1 unit	0.080
		Yellow		**3SB35 01-2DA31**	1 unit	0.080
		Green		**3SB35 01-2DA41**	1 unit	0.080
		Blue		**3SB35 01-2DA51**	1 unit	0.080
		Clear		**3SB35 01-2DA71**	1 unit	0.080
Switching sequence I-O-II 2 x 50° operating angle, momentary contact type	**Non-illuminated, standard version**	Black	▶	**3SB35 00-2EA11**	1 unit	0.080
		Red		**3SB35 00-2EA21**	1 unit	0.080
		Green		**3SB35 00-2EA41**	1 unit	0.080
		White		**3SB35 00-2EA61**	1 unit	0.080
	Illuminated, standard version, including holder for 3 elements	Red		**3SB35 01-2EA21**	1 unit	0.080
		Yellow		**3SB35 01-2EA31**	1 unit	0.080
		Green		**3SB35 01-2EA41**	1 unit	0.080
		Blue		**3SB35 01-2EA51**	1 unit	0.080
		Clear		**3SB35 01-2EA71**	1 unit	0.080

Key-operated switches with holder[1)]

RONIS key-operated switch

CES key-operated switch

Version	Version key-operated switch: Type	Lock No.	Key removal position	DT	Order No.	PS*	Weight per PU approx. kg
Key-operated switches with 2 keys, 2 switch positions							
Switching sequence O-I, 50° operating angle, latching	RONIS	SB 30	O+I	▶	**3SB35 00-4AD11**	1 unit	0.110
			O	▶	**3SB35 00-4AD01**	1 unit	0.110
			I		**3SB35 00-4AD21**	1 unit	0.110
	CES	SSG 10	O+I	▶	**3SB35 00-4LD11**	1 unit	0.190
			O	▶	**3SB35 00-4LD01**	1 unit	0.190
			I		**3SB35 00-4LD21**	1 unit	0.190
Switching sequence O-I, 50° operating angle, momentary contact type	RONIS	SB 30	O	▶	**3SB35 00-4BD01**	1 unit	0.110
	CES	SSG 10	O	▶	**3SB35 00-4MD01**	1 unit	0.190
Key-operated switches with 2 keys, 3 switch positions							
Switching sequence I-O-II 2 x 50° operating angle, latching	RONIS	SB 30	I+O+II		**3SB35 00-4DD11**	1 unit	0.110
			O		**3SB35 00-4DD01**	1 unit	0.110
	CES	SSG 10	O+I+II		**3SB35 00-4PD11**	1 unit	0.190
			O		**3SB35 00-4PD01**	1 unit	0.190
Switching sequence I-O-II 2 x 50° operating angle, momentary contact type	RONIS	SB 30	O		**3SB35 00-4ED01**	1 unit	0.110
	CES	SSG 10	O		**3SB35 00-4QD01**	1 unit	0.190

1) Also available without holder. Supplement Order No. with **"–Z"** and quote order code **"B01"**. Price reduction.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

EMERGENCY-STOP control devices according to ISO 13850 and IEC 60947-5-5 with holder[1)2)]

Version	Color of handle	DT	Order No.	PS*	Weight per PU approx. kg
EMERGENCY-STOP mushroom pushbuttons, Ø 32 mm, with positive latching acc. to ISO 13850, with rotate-to-unlatch mechanism	Red		**3SB35 00-1FA20**	1 unit	0.110
EMERGENCY-STOP mushroom pushbuttons, Ø 40 mm, with positive latching acc. to ISO 13850, with rotate-to-unlatch mechanism	Red	►	**3SB35 00-1HA20**	1 unit	0.120
With pull-to-unlatch mechanism	Red		**3SB35 00-1TA20**	1 unit	0.120
EMERGENCY-STOP mushroom pushbuttons, Ø 60 mm, with positive latching acc. to ISO 13850, with rotate-to-unlatch mechanism	Red		**3SB35 00-1AA20**	1 unit	0.140
EMERGENCY-STOP mushroom pushbuttons, Ø 40 mm, with RONIS key-operated switch, (with 2 keys), lock No. SB 30, with positive latching according to ISO 13850, unlocking only possible using key	Red		**3SB35 00-1BA20**	1 unit	0.145
EMERGENCY-STOP mushroom pushbuttons, Ø 40 mm, with CES key-operated switch, (with 2 keys), lock No. SSG 10, with positive latching according to ISO 13850, unlocking only possible using key	Red		**3SB35 00-1KA20**	1 unit	0.170

Mushroom diameter 32 mm

Mushroom diameter 40 mm, with rotate-to-unlatch mechanism

Mushroom diameter 40 mm, pull-to-unlatch mechanism

Mushroom diameter 60 mm

Signaling elements with holder[1)]

Version	Color of lens	DT	Order No.	PS*	Weight per PU approx. kg
Indicator lights with lens with concentric rings[3)]	Red	►	**3SB35 01-6BA20**	1 unit	0.060
	Yellow		**3SB35 01-6BA30**	1 unit	0.060
	Green	►	**3SB35 01-6BA40**	1 unit	0.060
	Blue		**3SB35 01-6BA50**	1 unit	0.060
	White		**3SB35 01-6BA60**	1 unit	0.060
	Clear	►	**3SB35 01-6BA70**	1 unit	0.060
Indicator lights with smooth lens[3)]	Red		**3SB35 01-6AA20**	1 unit	0.060
	Yellow		**3SB35 01-6AA30**	1 unit	0.060
	Green		**3SB35 01-6AA40**	1 unit	0.060
	Blue		**3SB35 01-6AA50**	1 unit	0.060
	White	►	**3SB35 01-6AA60**	1 unit	0.060
	Clear		**3SB35 01-6AA70**	1 unit	0.060

Indicator light with smooth lens

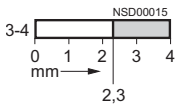
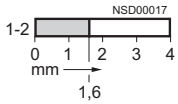
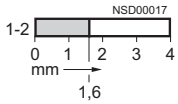
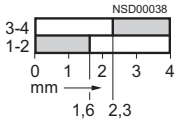
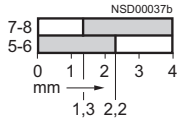
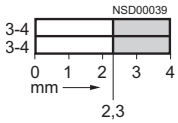
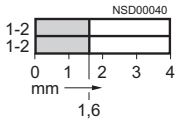
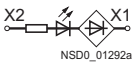
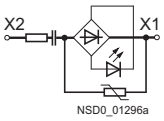
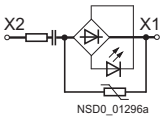
1) Also available without holder. Supplement Order No. with **"–Z"** and quote order code **"B01"**. Price reduction.

2) The yellow backing plates must be ordered separately, see Accessories and Spare Parts.

3) Inscription by inserting a label is not possible.

© Siemens AG 2008

Selection and ordering data

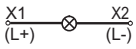
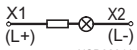
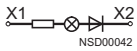
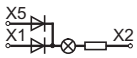
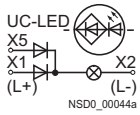
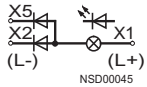
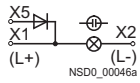
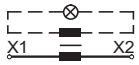
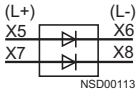
Version	Symbols	Operating travel (Contact closed / Contact open)	DT	Screw terminals Order No.	DT	Spring-loaded terminals Order No.	PS*	Weight per PU approx. kg
Contact blocks for front plate mounting								
Contact blocks with one contact Mounting depth 50 mm								
1 NO			▶	**3SB34 00-0B**		**3SB34 03-0B**	1 unit	0.011
1 NO with gold-plated contacts				**3SB34 00-0BA**		**3SB34 03-0BA**	1 unit	0.011
1 NC ➔			▶	**3SB34 00-0C**		**3SB34 03-0C**	1 unit	0.011
1 NC with gold-plated contacts ➔				**3SB34 00-0CA**		**3SB34 03-0CA**	1 unit	0.011
• With mounting monitoring contact[1], mounting depth 63 mm								
1 NC ➔				**3SB34 00-0M**		**3SB34 03-0M**	1 unit	0.018
Contact blocks with 2 contacts Mounting depth 63 mm (including unit labeling plate)								
1 NO + 1 NC ➔			▶	**3SB34 00-0A**		**3SB34 03-0A**	1 unit	0.018
1 NO + 1 NC ➔ with gold-plated contacts				**3SB34 00-0AA**		**3SB34 03-0AA**	1 unit	0.018
1 NO leading + 1 NC delayed				**3SB34 00-0H**		**3SB34 03-0H**	1 unit	0.018
1 NO leading + 1 NC delayed with gold-plated contacts				**3SB34 00-0HA**		**3SB34 03-0HA**	1 unit	0.018
2 NO				**3SB34 00-0D**		**3SB34 03-0D**	1 unit	0.018
2 NO with gold-plated contacts				**3SB34 00-0DA**		**3SB34 03-0DA**	1 unit	0.018
2 NC ➔				**3SB34 00-0E**		**3SB34 03-0E**	1 unit	0.018
2 NC ➔ with gold-plated contacts				**3SB34 00-0EA**		**3SB34 03-0EA**	1 unit	0.018
Lampholders with integrated LED								
24 V AC/DC		Yellow		**3SB34 00-1PA**		**3SB34 03-1PA**	1 unit	0.011
		Red	▶	**3SB34 00-1PB**		**3SB34 03-1PB**	1 unit	0.011
		Green	▶	**3SB34 00-1PC**		**3SB34 03-1PC**	1 unit	0.011
		Blue		**3SB34 00-1PD**		**3SB34 03-1PD**	1 unit	0.011
		White	▶	**3SB34 00-1PE**		**3SB34 03-1PE**	1 unit	0.011
110 V AC		Yellow		**3SB34 00-1QA**		**3SB34 03-1QA**	1 unit	0.012
		Red		**3SB34 00-1QB**		**3SB34 03-1QB**	1 unit	0.012
		Green		**3SB34 00-1QC**		**3SB34 03-1QC**	1 unit	0.012
		Blue		**3SB34 00-1QD**		**3SB34 03-1QD**	1 unit	0.012
		White		**3SB34 00-1QE**		**3SB34 03-1QE**	1 unit	0.012
230 V AC		Yellow		**3SB34 00-1RA**		**3SB34 03-1RA**	1 unit	0.012
		Red	▶	**3SB34 00-1RB**		**3SB34 03-1RB**	1 unit	0.012
		Green	▶	**3SB34 00-1RC**		**3SB34 03-1RC**	1 unit	0.012
		Blue		**3SB34 00-1RD**		**3SB34 03-1RD**	1 unit	0.012
		White	▶	**3SB34 00-1RE**		**3SB34 03-1RE**	1 unit	0.012

➔ Positive opening according to IEC 60947-5-1, Appendix K.

1) The NC contact opens automatically upon disconnection of the actuator. On delivery, the contact is open (= safe state). Activation (= NC contacts on the non-actuated control device are closed) takes place upon first-time actuation after the contact block is snapped onto the actuator.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Version	Rated voltage of lamp	Symbols	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
	V			Order No.		Order No.		kg
Contact blocks for front plate mounting								
BA 9s lampholders, Mounting depth 50 mm								
Without lamp	According to lamp	 NSD00003	►	**3SB34 00-1A**		**3SB34 03-1A**	1 unit	0.010
With 24 V incandescent lamp (3SX1 344)	24 V AC/DC			**3SB34 00-1D**		--	1 unit	0.012
BA 9s lampholders, mounting depth 50 mm								
With built-in resistor for longer endurance and with 130 V lamp (3SX1 731)[1]	110/130 V AC/DC	 NSD00041		**3SB34 00-1B**		--	1 unit	0.013
With integrated voltage reducer and with 130 V lamp (3SX1 731)[1]	230/240 V AC	 NSD00042		**3SB34 00-1C**		**3SB34 03-1C**	1 unit	0.013
BA 9s lampholders, with separate lamp test function[2)3)]								
With integrated voltage reducer and with 130 V lamp (3SX1 731)[1]	230/240 V AC	 NSD00043		**3SB34 00-1F**		--	1 unit	0.019
Without lamp For incandescent lamp, max. 2.6 W; for LED lamp, 24/48/230 V AC/DC[4]	According to lamp	 NSD0_00044a		**3SB34 00-1G**		--	1 unit	0.016
Without lamp For incandescent lamp, max. 2.6 W; for LED lamp, AC or DC[5]	According to lamp	 NSD00045		**3SB34 00-1L**		--	1 unit	0.017
Without lamp For incandescent lamp, max. 2.6 W; for glow lamp, AC	According to lamp	 NSD0_00046a		**3SB34 00-1H**		--	1 unit	0.016
Transformers For snapping onto 3SB34 00-1A lampholder For incandescent lamp, 2 W, AC	127 / 24 V	 NSD00047		**3SB34 00-3A**		--	1 unit	0.109
	240 / 24 V			**3SB34 00-3C**		--	1 unit	0.108
	260 / 24 V			**3SB34 00-3E**		--	1 unit	0.110
	400 / 24 V			**3SB34 00-3F**		--	1 unit	0.108
	127 / 6 V			**3SB34 00-3M**		--	1 unit	0.108
	240 / 6 V			**3SB34 00-3P**		--	1 unit	0.107
	400 / 6 V			**3SB34 00-3S**		--	1 unit	0.107
	480 / 6 V			**3SB34 00-3U**		--	1 unit	0.132
	600 / 6 V			**3SB34 00-3W**		--	1 unit	0.128
Blocks with 2 diodes Type 1N 4007	U_{RMS} = max. 250 V I_{FAV} = 0.8 A at T_u = 60 °C	 NSD00113		**3SB34 00-2A**		--	1 unit	0.018

1) Use these lamps only.

2) The lampholder with separate lamp test function can not be installed in an enclosure.

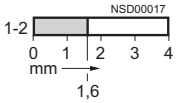
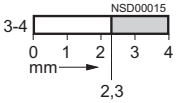
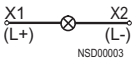
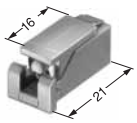
3) For examples of circuits, see Technical Information LV 1 T.

4) Not suitable for LED which is suitable only for AC or DC.

5) Not suitable for LED for 24/48/230 V AC/DC. For connecting to DC, X5 must be connected to L–.

© Siemens AG 2008

Contact blocks and lampholders

	Version	Symbols	Operating travel Contact closed Contact open	DT	Order No.	PS*	Weight per PU approx.
							kg
Holders for 3 contact blocks, for front panel mounting							
	Holders for pushbuttons and switches[1] For snapping on 3 blocks (for illuminated pushbuttons and illuminated selector switches the holder is included in the scope of supply)			▶	**3SB39 01-0AB**	20 units	0.100
	Holders for selector switches, key-operated switches and twin pushbuttons With pressure plate for actuating a central contact block			▶	**3SB39 01-0AC**	10 units	0.200
Contact blocks for use on printed circuit boards							
	Contact blocks with one contact Mounting depth 44 mm						
	1 NO				**3SB34 11-0B**	1 unit	0.003
	1 NC ➔				**3SB34 11-0C**	1 unit	0.003
	Lampholders Wedge base W2 x 4.6 d Without lamp Mounting depth 44 mm				**3SB34 11-1A**	1 unit	0.002
Pressure plates for use on printed circuit boards							
	Pressure plates for selector switches and key-operated switches For actuating the central contact block of 3 contact blocks				**3SB39 01-0AW**	10 units	0.100
Accessories for printed circuit boards							
	**Printed circuit board holders** For mounting the command devices on the printed circuit board (screw supplied)				**3SB39 01-0AA**	10 units	0.200

	Version	Rated voltage	Color	DT	Order No.	PS*	Weight per PU approx.
		V					kg
Lamps, BA 9s bases[3]							
	Incandescent lamps 2 W Length up to 28 mm, max. bulb diameter 10 mm	6 AC/DC 12 AC/DC 24 AC/DC	Clear		**3SX1 342** **3SX1 343** **3SX1 344**	10 units 10 units 10 units	0.003 0.003 0.003
	Incandescent lamps 2.6 W Length up to 28 mm, max. bulb diameter 10 mm	110 ... 130 AC/DC[4]	Clear	▶	**3SX1 731**	10 units	0.003
	LED lamps, super-bright Length up to 28 mm, max. bulb diameter 10 mm, max. operational current 15 mA	24 AC/DC	Red Yellow Green Blue White	▶ ▶ ▶	**3SB39 01-1CA** **3SB39 01-1BA** **3SB39 01-1DA** **3SB39 01-1PA** **3SB39 01-1QA**	10 units 10 units 10 units 10 units 10 units	0.002 0.002 0.002 0.002 0.002
		230 AC, 110 ... 160 DC, if X1 at "+"	Red Yellow Green Blue White		**3SB39 01-1CF** **3SB39 01-1BF** **3SB39 01-1DF** **3SB39 01-1PF** **3SB39 01-1QF**	10 units 10 units 10 units 10 units 10 units	0.003 0.003 0.003 0.003 0.003
	Lamp extractors For lamps with BA 9s base			▶	**3SB19 02-2AD**	1 unit	0.006

➔ Positive opening according to IEC 60947-5-1, Appendix K.

1) Holder also for mushroom pushbutton and push-pull button.

2) Also for 230 V when used with a 3SB34 00-1C voltage reducer.

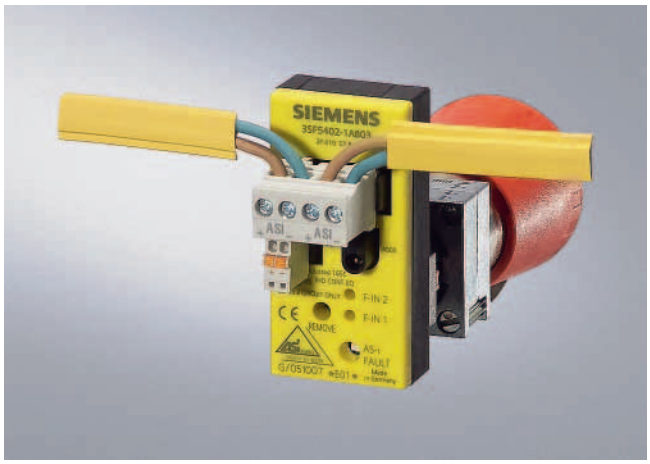
3) Essential accessories when using lampholders with BA 9s base and delivery without lamp.

4) Also for 230 V when used with a 3SB34 00-1C voltage reducer.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview



The AS-Interface F adapter is used to connect an EMERGENCY-STOP control device according to ISO 13850 from the 3SB3 series to the AS-Interface bus system.

The F adapter has a safe AS-Interface slave and is snapped from behind onto the EMERGENCY-STOP control device (only actuator).

Depending on the version used, connection is made using screw terminals or spring-loaded terminals. In the expanded version, an output is also available for actuating an indicator light with LED.

Addressing is performed using the AS-Interface connections or the integrated addressing socket.

Safety category 4 (SIL 3) is achieved with the adapter.

Selection and ordering data

	Version	DT	Screw terminals	DT	Spring-loaded terminals	PS*	Weight per PU approx.
			Order No.		Order No.		kg
3SF5 402-1AA03	**AS-Interface F adapters for 3SB3 EMERGENCY-STOP control devices** For mounting on front plates						
	• 2I	►	**3SF5 402-1AA03**	►	**3SF5 402-1AA04**	1 unit	0.066
	• 2I/1O, output for LED control	►	**3SF5 402-1AB03**	►	**3SF5 402-1AB04**	1 unit	0.066

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Laser inscription

Options

Inscription of actuators and indicators

Actuators and indicators of plastic as well as metal version can be optionally inscribed with a laser.

Pushbutton (metal) with laser inscription

The actuators of the pushbuttons, illuminated pushbuttons, mushroom pushbuttons and illuminated mushroom pushbuttons can be inscribed as well as the lenses of the indicator lights.

Selector switches can be inscribed only if they are made of plastic (only one text line on the front ring).

Pushbutton and selector switch (plastic) with laser inscription

Version

A letter height of 4 mm is used as standard for text inscriptions:

The typeface used is Arial. Other letter heights and typefaces are possible, but must be specified when ordering.

The maximum possible number of characters per line is:

- 10 characters for one line of text
- 8 characters for 2 lines of text
- 6 characters for 3 lines of text, but 10 characters in the middle line

Ordering notes

When ordering, supplement the Order No. of the actuator or the indicator light with **"–Z"** and an order code:

- Text in upper/lower case, upper case always for beginning of line (e.g. "Lift off"): **Y10**
- Text in upper case (e.g. "LIFT OFF"): **Y11**
- Text in lower case (e.g. "lift off"): **Y12**
- Text in upper/lower case, all words begin with capital letters (e.g. "Lift Off"): **Y15**
- Symbol with number according to collection of graphic symbols: **Y13**
- Any inscription or symbol according to order form supplement: **Y19**

Additional price per unit for Y10 to Y19

When ordering, specify the required inscription in plain text in addition to the order number and order code. In the case of special inscriptions with words in languages other than German, give the exact spelling and specify the language (see ordering example 1).

In the case of multi-line inscriptions, the text must be assigned to the respective line, e.g. "Z1 = Lift, Z2 =Lower". For long words you can also specify the end-of-line division.

Symbols with number can be found in "Corporate Design Symbols – Collection of International and National Graphic Symbols for Use on Equipment", which is based on the withdrawn DIN Report 4 (see ordering example 2).

The collection can be downloaded as a PDF file from:
http://www.siemens.com/automation/service&support

Symbols can also be ordered with numbers according to ISO 7000 (see ordering example 3).

For special symbols (order code Y19), a CAD drawing in DXF format can be submitted.

Ordering example 1

A round pushbutton with the inscription "Reset" is required:

3SB30 00–0AA41–Z
Y10
Z = Reset (English)

Ordering example 2

A square pushbutton inscribed with symbol No. 1800 according to the collection of graphic symbols is required:

3SB31 10–0AA31–Z
Y13
Z = 1800

Ordering example 3

A round pushbutton inscribed with symbol No. 1118 according to ISO 7000 is required:

3SB30 00–0AA41–Z
Y13
Z = 1118 ISO 7000

© Siemens AG 2008

Overview

Pushbuttons (clear) and illuminated pushbuttons with a flat button can be fitted with insert labels for identification purposes, but indicator lights cannot.

These insert labels are made of clear, transparent plastic with black inscription; they can be fitted in any 90° angle.

Inscriptions

The inscriptions have upper case initial letters. Graphic symbols, including those not listed in the catalog, are according to the collection of "Corporate Design Symbols".

The insert labels without inscription are suitable for user marking with permanent pen.

Selection and ordering data

	Inscriptions	Serial No. according to collection	DT	**Round range, plastic and metal version**	PS*	Weight per PU approx.
				Order No.		kg
Insert labels for self-inscription						
	Blank			**3SB19 01-4AS**	10 units	0.100
Insert labels with inscription						
	Ein			**3SB19 01-4AB**	10 units	0.100
	On			**3SB19 01-4EB**	10 units	0.100
	Aus			**3SB19 01-4AC**	10 units	0.100
	Off			**3SB19 01-4EC**	10 units	0.100
	Auf			**3SB19 01-4AD**	10 units	0.100
	Up			**3SB19 01-4ED**	10 units	0.100
	Ab			**3SB19 01-4AE**	10 units	0.100
	Down			**3SB19 01-4EE**	10 units	0.100
	Vor			**3SB19 01-4AF**	10 units	0.100
	Forward			**3SB19 01-4EF**	10 units	0.100
	Zurück			**3SB19 01-4AG**	10 units	0.100
	Reverse			**3SB19 01-4EG**	10 units	0,100
	Rechts			**3SB19 01-4AH**	10 units	0.100
	Right			**3SB19 01-4EH**	10 units	0.100
	Links			**3SB19 01-4AJ**	10 units	0.100
	Left			**3SB19 01-4EJ**	10 units	0.100
	Auf			**3SB19 01-4AD**	10 units	0.100
	Open			**3SB19 01-4EP**	10 units	0.100
	Zu			**3SB19 01-4AL**	10 units	0.100
	Close			**3SB19 01-4EQ**	10 units	0.100
	Schnell			**3SB19 01-4AM**	10 units	0.100
	Fast			**3SB19 01-4ER**	10 units	0.100
	Langsam			**3SB19 01-4AN**	10 units	0.100
	Slow			**3SB19 01-4ES**	10 units	0.100
	Betrieb			**3SB19 01-4AP**	10 units	0.100
	Running			**3SB19 01-4EV**	10 units	0.100
	Störung			**3SB19 01-4AQ**	10 units	0.100
	Fault			**3SB19 01-4EW**	10 units	0.100
	Einrichten			**3SB19 01-4AR**	10 units	0.100
	Reset			**3SB19 01-4EM**	10 units	0.100
	Test			**3SB19 01-4EN**	10 units	0.100
	Start			**3SB19 01-4EK**	10 units	0.100
	Halt			**3SB19 01-4AK**	10 units	0.100
	Stop			**3SB19 01-4EL**	10 units	0.100
Insert labels with graphic symbol						
	O (Off)	15		**3SB19 01-4MB**	10 units	0.100
	I (On)	16		**3SB19 01-4MC**	10 units	0.100
	II (On)	–		**3SB19 01-4MD**	10 units	0.100
Insert labels with equipment symbols						
	Electric motor	42		**3SB19 01-4PA**	10 units	0.100
Insert labels with motion symbols						
	Motion in direction of arrow	28		**3SB19 01-4NA**	10 units	0.100
	Increase, plus	40		**3SB19 01-4NG**	10 units	0.100
	Decrease, minus	41		**3SB19 01-4MC**	10 units	0.100
Insert labels with customized inscription						
	Any inscription or symbol can be selected (see Options, page 9/26)			**3SB19 01-4AZ** **K0Y, K1Y, K2Y, K3Y, K5Y** or **K9Y**	10 units	0.001

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Labels

Name plates

Overview

The name plates consist of a black plastic label holder and an inscription label (black with white print or silver-colored with black print) for sticking or snapping in place. They are not suitable for EMERGENCY-STOP pushbuttons.

Inscriptions

The inscriptions have upper case initial letters. Symbols, including those not listed in the catalog, are according to the collection of "Corporate Design Symbols".

Selection and ordering data

	Inscriptions	DT	Inscription labels, self-adhesive, black 12.5 × 27 mm Order No.	DT	Inscription labels, self-adhesive, silver 12.5 × 27 mm Order No.	PS*	Weight per PU approx. kg
Labels for self-inscription							
	Blank	►	**3SB39 02-1AA**	B	**3SB19 01-2AA**	10 units	0.100
Labeling plates with inscription							
	Ein		**3SB39 02-1AB**		**3SB19 01-2AB**	10 units	0.100
	On		**3SB39 02-1EB**		**3SB19 01-2EB**	10 units	0.100
	Aus		**3SB39 02-1AC**		**3SB19 01-2AC**	10 units	0.100
	Off		**3SB39 02-1EC**		**3SB19 01-2EC**	10 units	0.100
	Auf		**3SB39 02-1AD**		**3SB19 01-2AD**	10 units	0.100
	Up		**3SB39 02-1ED**		**3SB19 01-2ED**	10 units	0.100
	Ab		**3SB39 02-1AE**		**3SB19 01-2AE**	10 units	0.100
	Down		**3SB39 02-1EE**		**3SB19 01-2EE**	10 units	0.100
	Vor		**3SB39 02-1AF**		**3SB19 01-2AF**	10 units	0.100
	Forward		**3SB39 02-1EF**		**3SB19 01-2EF**	10 units	0.100
	Zurück		**3SB39 02-1AG**		**3SB19 01-2AG**	10 units	0.100
	Reverse		**3SB39 02-1EG**		**3SB19 01-2EG**	10 units	0.100
	Rechts		**3SB39 02-1AH**		**3SB19 01-2AH**	10 units	0.100
	Right		**3SB39 02-1EH**		**3SB19 01-2EH**	10 units	0.100
	Links		**3SB39 02-1AJ**		**3SB19 01-2AJ**	10 units	0.100
	Left		**3SB39 02-1EJ**		**3SB19 01-2EJ**	10 units	0.100
	Auf		**3SB39 02-1AD**		**3SB19 01-2AD**	10 units	0.100
	Open		**3SB39 02-1EP**		**3SB19 01-2EP**	10 units	0.100
	Zu		**3SB39 02-1AL**		**3SB19 01-2AL**	10 units	0.100
	Close		**3SB39 02-1EQ**		**3SB19 01-2EQ**	10 units	0.100
	Betrieb		**3SB39 02-1AP**		**3SB19 01-2AP**	10 units	0.100
	Störung		**3SB39 02-1AQ**		**3SB19 01-2AQ**	10 units	0.100
	Fault		**3SB39 02-1EW**		**3SB19 01-2EW**	10 units	0.100
	Test		**3SB39 02-1EN**		**3SB19 01-2EN**	10 units	0.100
	Start		**3SB39 02-1EL**		**3SB19 01-2EL**	10 units	0.100
	Halt		**3SB39 02-1AK**		**3SB19 01-2AK**	10 units	0.100
	Stop		**3SB39 02-1EK**		**3SB19 01-2EK**	10 units	0.100
	Stop Start		**3SB39 02-1BC**		**3SB19 01-2BC**	10 units	0.100
	Hand Auto		**3SB39 02-1BA**		**3SB19 01-2BA**	10 units	0.100
	Man Auto		**3SB39 02-1EU**		**3SB19 01-2EU**	10 units	0.100
Labels with graphic symbol							
	O		**3SB39 02-1MB**		**3SB19 01-2MB**	10 units	0.100
	I		**3SB39 02-1MC**		**3SB19 01-2MC**	10 units	0.100
	II		--		**3SB19 01-2MD**	10 units	0.100
	III		--		**3SB19 01-2ME**	10 units	0.100
	O I		**3SB39 02-1MF**		**3SB19 01-2MF**	10 units	0.100
	I O II		**3SB39 02-1MG**		**3SB19 01-2MG**	10 units	0.100
	1 2		**3SB39 02-1ML**		--	10 units	0.100
	↑		**3SB39 02-1NJ**		**3SB19 01-2NJ**	10 units	0.100
	→		**3SB39 02-1NA**		**3SB19 01-2NA**	10 units	0.100
Labels with customized inscription							
	Any inscription or symbol can be selected (see Options on page 9/26)		**3SB39 02-1XZ** **K0Y, K1Y, K2Y, K3Y, K5Y** or **K9Y**		**3SB19 01-2XZ** **K0Y, K1Y, K2Y, K3Y, K5Y** or **K9Y**	1 unit	0.001
Label holders							
	For round range, flat		**3SB39 22-0AV**		**3SB39 22-0AV**	10 units	0.200
	For potentiometer operating mechanism 3SB10 00-7CH07 [1]		**3SB39 22-0AS**		**3SB39 22-0AS**	1 unit	0.003

[1] This label holder can also be used for pushbuttons with dust covers if the front plate thickness of 3 mm is not exceeded.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Name plates

Inscriptions	DT	Inscription labels, self-adhesive, black 27 × 27 mm Order No.	DT	Inscription labels, self-adhesive, silver 27 × 27 mm Order No.	PS*	Weight per PU approx. kg
Labels for self-inscription						
Blank		**3SB39 03-1AA**		**3SB19 06-2AA**	10 units	0.100
Labeling plates with inscription						
Ein		**3SB39 03-1AB**		--	10 units	0.100
On		**3SB39 03-1EB**		--	10 units	0.100
Aus		**3SB39 03-1AC**		--	10 units	0.100
Off		**3SB39 03-1EC**		--	10 units	0.100
Auf		**3SB39 03-1AD**		--	10 units	0.100
Ab		**3SB39 03-1AE**		--	10 units	0.100
Vor		**3SB39 03-1AF**		--	10 units	0.100
Zurück		**3SB39 03-1AG**		--	10 units	0.100
Rechts		**3SB39 03-1AH**		--	10 units	0.100
Links		**3SB39 03-1AJ**		--	10 units	0.100
Auf		**3SB39 03-1AD**		--	10 units	0.100
Zu		**3SB39 03-1AL**		--	10 units	0.100
Betrieb		**3SB39 03-1AP**		--	10 units	0.100
Störung		**3SB39 03-1AQ**		--	10 units	0.100
Start		**3SB39 03-1EL**		--	10 units	0.100
Halt		**3SB39 03-1AK**		--	10 units	0.100
Stop Start		**3SB39 03-1BC**		--	10 units	0.100
Hand Auto		**3SB39 03-1BA**		--	10 units	0.100
Labels with graphic symbol						
O I		**3SB39 03-1MF**		--	10 units	0.100
→		**3SB39 03-1NA**		--	10 units	0.100
Labels with customized inscription						
Any inscription or symbol can be selected		**3SB39 03-1XZ**		**3SB19 06-2XZ**	1 unit	0.001
(see Options)		**K0Y, K1Y, K2Y, K3Y, K5Y** or **K9Y**		**K0Y, K1Y, K2Y, K3Y, K5Y** or **K9Y**	1 unit	0.001
Label holders						
For round range, flat		**3SB39 23-0AV**		**3SB39 23-0AV**	1 unit	0.200
For round range, raised		**3SB39 23-0AX**		**3SB39 23-0AX**	10 units	0.005

Inscriptions	DT	Inscription labels, for snapping on, black 17.5 × 28 mm Order No.	DT	Inscription labels, for snapping on, silver 17.5 × 28 mm Order No.	PU (UNIT, SET, M)	PS*	Weight per PU approx. kg
Labels for self-inscription							
Blank		**3SB39 05-1AA**		**3SB19 04-2AA**	100	10 units	0.100
Labeling plates with inscription							
Ein		**3SB39 05-1AB**		**3SB19 04-2AB**	100	10 units	0.100
Aus		**3SB39 05-1AC**		**3SB19 04-2AC**	100	10 units	0.100
Auf		**3SB39 05-1AD**		**3SB19 04-2AD**	100	10 units	0.100
Ab		**3SB39 05-1AE**		**3SB19 04-2AE**	100	10 units	0.100
Zurück		**3SB39 05-1AG**		**3SB19 04-2AG**	100	10 units	0.100
Zu		**3SB39 05-1AL**		**3SB19 04-2AL**	100	10 units	0.100
Betrieb		**3SB39 05-1AP**		**3SB19 04-2AP**	100	10 units	0.100
Störung		**3SB39 05-1AQ**		**3SB19 04-2AQ**	100	10 units	0.100
Start		**3SB39 05-1EL**		**3SB19 04-2EL**	100	10 units	0.100
Halt		**3SB39 05-1AK**		**3SB19 04-2AK**	100	10 units	0.100
Stop		**3SB39 05-1EK**		**3SB19 04-2EK**	100	10 units	0.100
Stop Start		**3SB39 05-1BC**		**3SB19 04-2BC**	100	10 units	0.100
Hand Auto		**3SB39 05-1BA**		**3SB19 04-2BA**	100	10 units	0.100
Labels with graphic symbol							
O I		**3SB39 05-1MF**		**3SB19 04-2MF**	100	10 units	0.100
↑		**3SB39 05-1NJ**		**3SB19 04-2NJ**	100	10 units	0.100
→		**3SB39 05-1NA**		**3SB19 04-2NA**	100	10 units	0.100
Labels with customized inscription							
Any inscription or symbol can be selected		**3SB39 05-1XZ**		**3SB19 04-2XZ**	1	1 unit	0.001
(see Options)		**K0Y, K1Y, K2Y, K3Y, K5Y** or **K9Y**		**K0Y, K1Y, K2Y, K3Y, K5Y** or **K9Y**			

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Name plates

Options

Customized inscriptions

The labels can be inscribed with text and symbols not listed in the ordering data.

The following letter heights are used as standard for text inscriptions:

- Label size 12.5 × 27 mm: up to 3 lines with letter height 4 mm (1-line), 3.5 mm (2-line) or 2.5 mm (3-line)
- Label size 27 × 27 mm: up to 5 lines with letter height 4 mm (1- to 5-line)
- Label size 17.5 × 28 mm: up to 3 lines with letter height 4 mm (1- to 2-line) or 3 mm (3-line)

Up to 11 characters per line are possible. The typeface used is Arial. Other letter heights and typefaces are possible, but must be specified when ordering.

Examples for customized inscription

Two-line inscription in upper/lower case lettering

Single-line inscription in upper case lettering

Three-line inscription in lower case letters

Symbol number 19 according to collection of graphic symbols

Any symbol according to order form supplement

Ordering notes

Append the following order codes to the order number:

- Text line(s) in upper/lower case, upper case always for beginning of line (e.g. "Lift off"): **K0Y**
- Text line(s) in upper case (e.g. "LIFT OFF"): **K1Y**
- Text line(s) in lower case (e.g. "lift off"): **K2Y**
- Text line(s) in upper/lower case, all words begin with upper case letters (e.g. "Lift Off"): **K5Y**
- Symbol with number according to collection of graphic symbols: **K3Y**
- Any inscription or symbol according to order form supplement: **K9Y**

When ordering, specify the required inscription in plain text in addition to the order number and order code. In the case of special inscriptions with words in languages other than German, give the exact spelling and specify the language.

In the case of multi-line inscriptions, the text must be assigned to the respective line, e.g. "Z1 = Lift, Z2 =Lower".
For long words you can also specify the end-of-line division (see ordering example 1).

Symbols with number can be found in "Corporate Design Symbols – Collection of International and National Graphic Symbols for Use on Equipment", which is based on the withdrawn DIN Report 4 (see ordering example 2).

The collection can be downloaded as a PDF file from:
http://www.siemens.com/automation/service&support

Symbols can also be ordered with numbers according to ISO 7000 (see ordering example 3).

For special symbols (order code K9Y), a CAD drawing in DXF format can be submitted.

Ordering example 1

A label with 2 lines of text is required:

3SB39 02–1XZ
K1Y
Z1 = LIFT
Z2 = LOWER

Ordering example 2

A label inscribed with symbol No. 19 according to the collection of graphic symbols is required:

3SB39 02–1XZ
K3Y
Z = 19

Ordering example 3

A label inscribed with symbol No. 1118 according to ISO 7000 is required:

3SB39 02–1XZ
K3Y
Z = 1118 ISO 7000

© Siemens AG 2008

Selection and ordering data

	Version	Use (round version)	Color/ inscription	DT	Order No.	PS*	Weight per PU approx. kg
Protective caps, elastolan, degree of protection IP67							
	Protective caps, clear For round version[1]	Flat button (plastic)	Clear		**3SB39 21-0AJ**	1 unit	0.001
		Raised button (plastic), flat button (metal)	Clear		**3SB39 21-0AM**	1 unit	0.002
	• PVC	Raised button (metal)	Clear		**3SB19 02-2AN**	1 unit	0.004
Protective caps, silicone, degree of protection IP67							
	Protective caps, clear For round version[1]	Flat button (plastic)	Clear		**3SB39 21-0AH**	1 unit	0.002
		Raised button (plastic), flat button (metal)	Clear		**3SB19 02-0AK**	1 unit	0.002
		Raised button (metal)	Clear		**3SB19 02-0AN**	1 unit	0.003
		Selector switches (plastic and metal, normal handle)	Clear		**3SB39 21-0BA**	1 unit	0.003
	Protective caps, clear For round version[1]	Mushroom push-pull switches, Ø 40 mm	Clear		**3SB19 02-2BH**	1 unit	0.006
		EMERGENCY-STOP mushroom pushbuttons, Ø 40 mm	Clear		**3SB39 21-0BU**	1 unit	0.013
Other protective caps[1]							
	Sealable caps For round version	Flat button (plastic)	Black		**3SB19 02-0AL**	1 unit	0.003
		Flat button (metal), raised button (plastic)	Clear[2]		**3SB19 02-2AR**	1 unit	0.011
	Dust covers For use in dusty environments	CES key-operated switches	Transparent		**3SB39 21-0BT**	1 unit	0.003
Protective collars for front plates							
	Protective collars for EMERGENCY-STOP[3] For round version	EMERGENCY-STOP mushroom pushbuttons without key-operated switch	Yellow	►	**3SB39 21-0AK**	1 unit	0.044
		EMERGENCY-STOP mushroom pushbuttons with key-operated switch	Yellow		**3SB39 21-0AX**	1 unit	0.053
	Protective collars for EMERGENCY-STOP for 5 padlocks[3] For round version	3SB3. ..-1AA20 EMERGENCY-STOP mushroom pushbuttons	Yellow	►	**3SB39 21-0CG**	1 unit	0.044
	Sun collars For round version	Illuminated pushbuttons	Black		**3SB39 21-0AS**	1 unit	0.003
Yellow name plates, as backing plate for EMERGENCY-STOP							
	Name plates, round Self-adhesive, • External diameter 80 mm, hole 23 mm	EMERGENCY-STOP mushroom pushbuttons (round version)	Blank		**3SB39 21-0AB**	1 unit	0.002
			4 languages: G, En, Fr, Sp		**3SB39 21-0BW**	1 unit	0.001
			NOT-HALT		**3SB39 41-0AK**	1 unit	0.001
			EMERGENCY STOP		**3SB39 21-0AD**	1 unit	0.001
			ARRET D'URGENCE		**3SB39 21-0AG**	1 unit	0.002
			EMERGENZA		**3SB39 21-0AN**	1 unit	0.002
	Applies for external diameter 60 mm, hole 23 mm[5], illuminated, suitable as signaling device for EMERGENCY-STOP, with plug-in connection for 24 V AC/DC[4]		Blank		**3SB39 21-0DA**	1 unit	0.020
			NOT-HALT		**3SB39 21-0DK**	1 unit	0.020
			EMERGENCY STOP		**3SB39 21-0DD**	1 unit	0.020

[1] Not suitable for mounting on front plates. Not to be used with label holder.

[2] Only for mounting on front plates.

[3] The protective collar must only be used to protect against inadvertent actuating and must be fitted to allow unimpeded access to the EMERGENCY-STOP mushroom pushbutton.

[4] The illuminated label can also be operated through the AS-Interface F adapter (see page 9/21).

[5] For front thickness of max. 4 mm.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Enclosures

Enclosures with standard fittings
Empty enclosures

Overview

Enclosures with standard fittings are available with:

- 1 to 3 command positions
- Operational voltage up to 400 V
- Vertical mounting type
- Plastic enclosures are equipped with plastic actuators and indicators, metal enclosures are equipped with metal actuators and indicators
- Contact blocks and lampholders for floor mounting (are snapped into the enclosure base).

The actuators/indicators are fixed with an enclosure nut. If required it can be disassembled with a 27 mm socket wrench or with a 3SX17 07 ring nut wrench.

Color of enclosure cover:

- Gray, RAL 7035, or
- Yellow, RAL 1004

Color of enclosure base:

- Black, RAL 9005

Selection and ordering data

Equipment	Contact block function	Number of command positions	DT	Plastic enclosures Order No.	Weight per PU approx. kg	DT	Metal enclosures Order No.	PS*	Weight per PU approx. kg
Enclosures with standard fittings									
Cable entry top and bottom each 1 x M20									
A = Pushbutton green, label "I"	1 NO	1		**3SB38 01-0DA3**	0.210		**3SB38 01-2DA3**	1 unit	0.532
A = Pushbutton red, label "O"	1 NC	1		**3SB38 01-0DB3**	0.209		**3SB38 01-2DB3**	1 unit	0.535
A = EMERGENCY-STOP mushroom pushbuttons, Ø 40 mm, with positive latching according to ISO 13850 and rotate-to-unlatch mechanism									
• With yellow top part, without protective collar	1 NC ➔	1		**3SB38 01-0DG3**	0.242		**3SB38 01-2DG3**	1 unit	0.591
	2 NC ➔	1		**3SB38 01-0EG3**	0.250		**3SB38 01-2EG3**	1 unit	0.590
• With yellow top part, with protective collar [1]	1 NC ➔	1		**3SB38 01-0DF3**	0.262		**3SB38 01-2DF3**	1 unit	0.684
	2 NC ➔	1		**3SB38 01-0EF3**	0.270		**3SB38 01-2EF3**	1 unit	0.680
B = Pushbutton green, label "I", A = Pushbutton red, label "O"	1 NO, 1 NC	2		**3SB38 02-0DA3**	0.261		**3SB38 02-2DA3**	1 unit	0.675
B = Pushbutton white, label "I", A = Pushbutton black, label "O"	1 NO, 1 NC	2		**3SB38 02-0DB3**	0.260		**3SB38 02-2DB3**	1 unit	0.667

Version	Number of command positions	DT	Plastic enclosures Order No.	Weight per PU approx. kg	DT	Metal enclosures Order No.	PS*	Weight per PU approx. kg
Empty enclosures								
Cable entry top and bottom each 1 x M20 for 1 to 3 command positions, each 1 x M25 for 4 and 6 command positions								
For contact blocks, lampholders and accessories with snap-on floor mounting, also single-pole front plate blocks can be used (switching state is maintained upon opening) • With gray top section	1		**3SB38 01-0AA3**	0.185		**3SB38 01-2AA3**	1 unit	0.445
	2		**3SB38 02-0AA3**	0.214		**3SB38 02-2AA3**	1 unit	0.524
	3		**3SB38 03-0AA3**	0.258		**3SB38 03-2AA3**	1 unit	0.634
	4		**3SB38 04-0AA3**	0.301		**3SB38 04-2AA3**	1 unit	0.735
	6		**3SB38 06-0AA3**	0.427		**3SB38 06-2AA3**	1 unit	0.985
For EMERGENCY-STOP, for contact blocks, lampholders and accessories with snap-on floor mounting, also single-pole front plate blocks can be used (switching state is maintained upon opening)								
• With yellow top part, without protective collar	1		**3SB38 01-0AB3**	0.185		**3SB38 01-2AB3**	1 unit	0.447
• With yellow top part, with protective collar [1]	1		**3SB38 01-0AD3**	0.213		**3SB38 01-2AD3**	1 unit	0.551

➔ Positive opening according to IEC 60947-5-1, Appendix K.

[1] The protective collar must only be used to protect against inadvertent actuating and must be fitted to allow unimpeded access to the EMERGENCY-STOP mushroom pushbutton.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview

Customized enclosures are available with:

- 1 to 6 command positions
- Operational voltage through AS-Interface (approx. 30 V).

One command position comprises:

- 1 actuator or indicator
- Up to 3 contact blocks or up to 2 contact blocks + 1 lampholder
- 1 inscription label

For plastic enclosures the command positions are equipped as standard with plastic actuators and indicators, for metal enclosures they are equipped with metal actuators and indicators.

For routing the cable in, one hole for M20 (for 1 to 3 command positions) or for M25 (for 4 or 6 command positions) is provided at the top and bottom.

Ordering notes

To order customized enclosures with the 3SB3 control devices, use the 3SB configurator to select the blocks for equipping. An electronic order form will be generated for the additional options. The configurator is available in the electronic catalog CA 01 on CD-ROM or DVD or in the online catalog (Mall) on the Internet:

https://mall.automation.siemens.com

The list price of the complete enclosure is generated in the configurator for the customized equipment.

Please send the resulting electronic order form along with your order by e-mail to our Competence Center at

sirius-attach.aud@siemens.com

If you are unable to access either catalog, please contact our Technical Support.

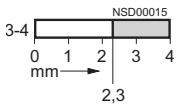
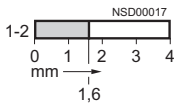
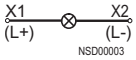
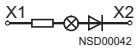
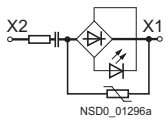
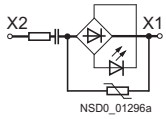
Selection and ordering data

	Version	Number of command positions	DT	Order No.	PS*	Weight per PU approx.
						kg
Plastic enclosures						
3SB38 03-.AZ	With contact blocks and lampholders for floor mounting	1		**3SB38 01-0AZ**	1 unit	
		2		**3SB38 02-0AZ**	1 unit	
		3		**3SB38 03-0AZ**	1 unit	
		4		**3SB38 04-0AZ**	1 unit	
		6		**3SB38 06-0AZ**	1 unit	
Metal enclosures						
3SB38 03-.AZ	With contact blocks and lampholders for floor mounting	1		**3SB38 01-2AZ**	1 unit	
		2		**3SB38 02-2AZ**	1 unit	
		3		**3SB38 03-2AZ**	1 unit	
		4		**3SB38 04-2AZ**	1 unit	
		6		**3SB38 06-2AZ**	1 unit	
	Suspended pushbuttons With holding plate and handle, customized equipment	max. 6		**3SB38 87-1AZ**	1 unit	

[1] The prices depend on the equipment selected.

© Siemens AG 2008

Selection and ordering data

Version	Rated voltage/ symbols	Operating travel/color (Contact closed / Contact open)	DT	Screw terminals Order No.	DT	Spring-loaded terminals Order No.	PS*	Weight per PU approx. kg
Elements for floor mounting								
Contact blocks with one contact								
1 NO			▶	**3SB34 20-0B**		**3SB34 23-0B**	1 unit	0.012
1 NO with gold-plated contacts				**3SB34 20-0BA**		**3SB34 23-0BA**	1 unit	0.015
1 NC ➔			▶	**3SB34 20-0C**		**3SB34 23-0C**	1 unit	0.012
1 NC with gold-plated contacts ➔				**3SB34 20-0CA**		**3SB34 23-0CA**	1 unit	0.015
BA 9s lampholders								
Without lamp	acc. to lamp 		▶	**3SB34 20-1A**		--	1 unit	0.012
With integrated voltage reducer and with 130 V lamp (3SX1 731)[1]	230/240 V AC 	Clear		**3SB34 20-1C**		--	1 unit	0.016
Lampholders with integrated LED	24 V AC/DC	Yellow		**3SB34 20-1PA**		**3SB34 23-1PA**	1 unit	0.011
		Red	▶	**3SB34 20-1PB**		**3SB34 23-1PB**	1 unit	0.011
		Green	▶	**3SB34 20-1PC**		**3SB34 23-1PC**	1 unit	0.011
		Blue		**3SB34 20-1PD**		**3SB34 23-1PD**	1 unit	0.011
		White	▶	**3SB34 20-1PE**		**3SB34 23-1PE**	1 unit	0.011
	110 V AC 	Yellow		**3SB34 20-1QA**		**3SB34 23-1QA**	1 unit	0.012
		Red		**3SB34 20-1QB**		**3SB34 23-1QC**	1 unit	0.012
		Green		**3SB34 20-1QC**		**3SB34 23-1QB**	1 unit	0.012
		Blue		**3SB34 20-1QD**		**3SB34 23-1QD**	1 unit	0.012
		White		**3SB34 20-1QE**		**3SB34 23-1QE**	1 unit	0.012
	230 V AC 	Yellow		**3SB34 20-1RA**		**3SB34 23-1RA**	1 unit	0.012
		Red		**3SB34 20-1RB**		**3SB34 23-1RD**	1 unit	0.012
		Green		**3SB34 20-1RC**		**3SB34 23-1RC**	1 unit	0.012
		Blue		**3SB34 20-1RD**		**3SB34 23-1RB**	1 unit	0.012
		White		**3SB34 20-1RE**		**3SB34 23-1RE**	1 unit	0.012
Support terminals		Black		**3SB39 01-0AG**		**3SB34 23-2F**	1 unit	0.012
		Blue		**3SB39 01-0AH**		**3SB34 23-2G**	1 unit	0.012
		Green/Yellow		**3SB39 01-0AJ**		**3SB34 23-2H**	1 unit	0.012
Accessories for contact blocks								
Pressure plates for selector switches and key-operated switches	For actuating the central contact block of 3 contact blocks			**3SB39 01-0AW**		**3SB39 01-0AW**	10 units	0.100

Version	Inscription/ use	DT	Order No.	PS*	Weight per PU approx. kg
Accessories					
Yellow name plates As backing plate for EMERGENCY-STOP, self-adhesive	Blank		**3SB19 02-1AQ**	1 unit	0.001
	With German inscription "NOT-HALT"		**3SB19 02-2AQ**	1 unit	0.001
	With recess for inscription label		**3SB39 21-0BV**	1 unit	0.001
M20 cable glands			**3SB39 01-0CK**	1 unit	0.011
M25 cable glands			**3SB39 01-0CM**	1 unit	0.014
M20 hexagonal nuts	For glands		**3SB39 01-0CL**	10 units	0.100
M25 hexagonal nuts	For glands		**3SB39 01-0CN**	10 units	0.100

➔ Positive opening according to IEC 60947-5-1, Appendix K.

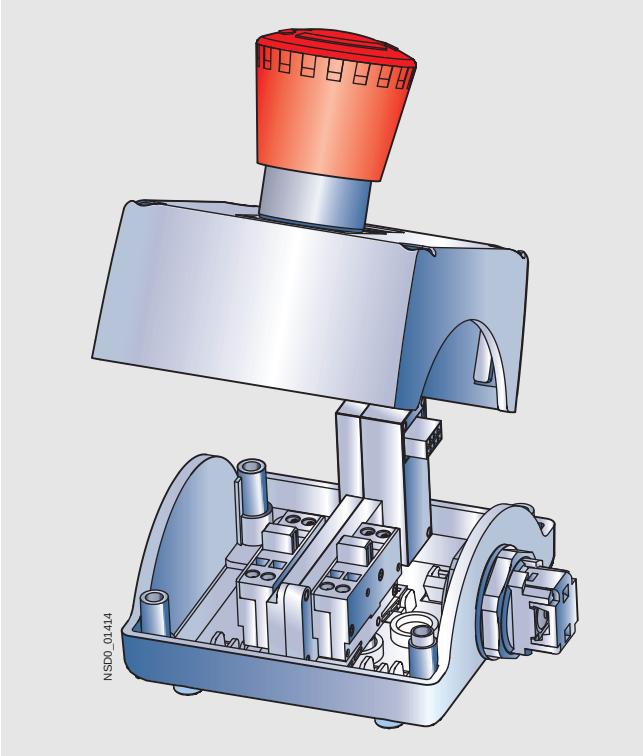
1) Only use with this lamp.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview

Distributed command devices of the 3SB3 series can be quickly connected to the AS-Interface using AS-Interface enclosures. Using suitable components you can make your own enclosures with integrated AS-Interface or flexibly modify existing enclosures.



EMERGENCY-STOP enclosures

Enclosures

Color of enclosure cover:

- Gray, RAL 7035, or
- Yellow, RAL 1004, for EMERGENCY-STOP.

Color of enclosure base:

- Black, RAL 9005

Installation of AS-Interface slaves

The following slave types are available for connecting the command positions:

- Slave in A/B technology with 4 inputs and 3 outputs
- Slave with 4 inputs and 4 outputs
- F slave with 2 safe inputs for EMERGENCY-STOP

The following table shows the maximum number of equippable slaves:

Enclosures for	Number of slaves for enclosures without EMERGENCY-STOP	Number of slaves for enclosures with EMERGENCY-STOP
1 command position	Not available	1x F slave
2 command positions	1 x slave 4I/4O or 4I/3O	Not available
3 command positions	1 x slave 4I/4O or 4I/3O	1 x slave 4I/4O or 4I/3O + 1 x F slave
4 command positions	2 x slave 4I/4O or 4I/3O[1)]	2 × slave 4I/4O or 4I/3O + 1 × F slave[1)]
6 command positions	2 x slave 4I/4O or 4I/3O	2 x slave 4I/4O or 4I/3O + 1 x F slave

[1)] For metal enclosures with 4 command positions, only 1 x slave 4I/4O or 4I/3O is possible.

Connection

One set of links is required in each case to connect a slave to contact blocks, to lampholders and to the connection element.

The connection elements are mounted in the front-end cable glands and are used for connection of the AS-Interface or for bringing unused inputs or outputs out of the enclosure.

For connection to the AS-Interface bus there is a choice of the following options:

- Terminal for shaped AS-Interface cable. The cable is contacted by the insulation piercing method and routed past the enclosure on the outside (possible only with plastic enclosure).
- Cable gland for the shaped AS-Interface cable or round cable. The cable is routed into the enclosure (preferable for metal enclosure).
- Connection using M12 plug

If less than all inputs/outputs of the installed slaves in an enclosure are used for connecting the command devices, free inputs and outputs can be routed on request to the outside through an M12 socket on the top or bottom side of the enclosure.

To supply inputs with power, the S+ connection of the slave must be assigned to the socket, for outputs the OUT– connection must be assigned.

Addressing is performed using the AS-Interface connections or the integrated addressing socket. An external power supply is not required.

Customized enclosures

To order customized 3SF58 AS-Interface enclosures with the 3SB3 control devices, use the 3SB configurator to select the blocks for equipping. An electronic order form will be generated for the additional options.

© Siemens AG 2008

AS-Interface enclosures with standard fittings

Overview

Enclosures with standard fittings are available with:

- 1 to 3 command positions
- Operational voltage through AS-Interface (approx. 30 V),
- Vertical mounting type
- Plastic enclosures are equipped with plastic actuators and indicators, metal enclosures are equipped with metal actuators and indicators.

The actuator/indicator is fixed with an enclosure nut. If required it can be disassembled with a 27 mm socket wrench or with a 3SX17 07 ring nut wrench.

The enclosures without EMERGENCY-STOP each have one user module with 4I/3O; the enclosures with EMERGENCY STOP have a safe AS-Interface slave integrated in the enclosure.

EMERGENCY-STOP enclosures are fitted with two NC contact blocks, which are wired to the safe slave. The contact blocks and lampholders (with spring-loaded terminals) of the control device, and the AS-Interface slaves, are mounted in the base of the enclosure and are cable-connected.

The plastic versions of the enclosures have a connection for the AS-Interface flat cable (the cable is routed past the enclosure on the outside); in the case of the metal versions the AS-Interface cable is routed into the enclosure.

Selection and ordering data

Equipping options (A, B, C = identification letters of the command positions)	Number of command positions	DT	Order No.	PS*	Weight per PU approx.
					kg
AS-Interface enclosures, plastic					
A = EMERGENCY-STOP mushroom pushbutton, with rotate-to-unlatch mechanism, connection by insulation piercing method, yellow enclosure top	1		**3SF5 811-0AA08**	1 unit	0.315
A = EMERGENCY-STOP mushroom pushbutton, with rotate-to-unlatch mechanism, connection by insulation piercing method, yellow enclosure top, with protective collar	1		**3SF5 811-0AB08**	1 unit	0.415
B = Pushbutton green, label "I", A = Pushbutton red, label "O"	2		**3SF5 812-0DA00**	1 unit	0.352
B = Pushbutton white, label "I", A = Pushbutton black, label "O"	2		**3SF5 812-0DB00**	1 unit	0.352
C = Indicator light clear, label without inscription, B = Pushbutton green, label "I", A = Pushbutton red, label "O"	3		**3SF5 813-0DA00**	1 unit	0.420
C = Indicator light clear, label without inscription, B = Pushbutton white, label "I", A = Pushbutton black, label "O"	3		**3SF5 813-0DC00**	1 unit	0.415
C = Pushbutton black, label "II", B = Pushbutton black, label "I", A = Pushbutton red, label "O"	3		**3SF5 813-0DB00**	1 unit	0.416
AS-Interface enclosures, metal					
A = EMERGENCY-STOP mushroom pushbutton, with rotate-to-unlatch mechanism, with cable gland, yellow enclosure top	1		**3SF5 811-2AA08**	1 unit	0.415
A = EMERGENCY-STOP mushroom pushbutton, with rotate-to-unlatch mechanism, with cable gland, yellow enclosure top, with protective collar	1		**3SF5 811-2AB08**	1 unit	0.415
A = EMERGENCY-STOP mushroom pushbutton, with rotate-to-unlatch mechanism, with M12 connector, yellow enclosure top	1		**3SF58 11-2AA10**	1 unit	0.315
A = EMERGENCY-STOP mushroom pushbutton, with rotate-to-unlatch mechanism, with M12 connector, yellow enclosure top, with protective collar	1		**3SF58 11-2AB10**	1 unit	0.315
B = Pushbutton green, label "I", A = Pushbutton red, label "O"	2		**3SF5 812-2DA00**	1 unit	0.415
B = Pushbutton white, label "I", A = Pushbutton black, label "O"	2		**3SF5 812-2DB00**	1 unit	0.415
C = Indicator light clear, label without inscription, B = Pushbutton green, label "I", A = Pushbutton red, label "O"	3		**3SF5 813-2DA00**	1 unit	0.415
C = Indicator light clear, label without inscription, B = Pushbutton white, label "I", A = Pushbutton black, label "O"	3		**3SF5 813-2DC00**	1 unit	0.415
C = Pushbutton black, label "II", B = Pushbutton black, label "I", A = Pushbutton red, label "O"	3		**3SF5 813-2DB00**	1 unit	0.415

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

For self-equipping of the enclosures

Version	Number of command positions	DT	Order No.	PS*	Weight per PU approx.
					kg
For plastic enclosures					
AS-Interface slaves					
F slave, 2 safe inputs, for plastic enclosure, without protective collar	1 ... 6		**3SF5 500-0BA**	1 unit	0.415
F slave, 2 safe inputs, for plastic or metal enclosure, with protective collar	1		**3SF5 500-0DA**	1 unit	0.415
A/B slave, 4I/3O for plastic enclosure	2 ... 6		**3SF5 500-0BB**	1 unit	0.001
Slave, 4I/4O, for plastic enclosure	2 ... 6		**3SF5 500-0BC**	1 unit	0.001
Sets of links					
For F slave			**3SF5 900-0BA**	1 unit	0.001
For slave 4I/4O or A/B slave 4I(3O)			**3SF5 900-0BB**	1 unit	0.001
Connection elements					
For AS-Interface flat cable, connection by insulation piercing method, for plastic enclosure	1 ... 3		**3SF5 900-0CA**	1 unit	0.001
	4 ... 6		**3SF5 900-0CB**	1 unit	0.001
For AS-Interface connection using M12 plug, for plastic enclosure	1 ... 3		**3SF5 900-0CC**	1 unit	0.001
	4 ... 6		**3SF5 900-0CD**	1 unit	0.001
For bringing out unused inputs/outputs through an M12 socket, for plastic enclosure	1 ... 3		**3SF5 900-0CE**	1 unit	0.001
	4 ... 6		**3SF5 900-0CF**	1 unit	0.001
For AS-Interface flat cable, cable is routed into the enclosure, for plastic or metal enclosure	1 ... 3		**3SF5 900-0CG**	1 unit	0.001
	4 ... 6		**3SF5 900-0CH**	1 unit	0.001
For round cable, cable is routed into the enclosure, for plastic or metal enclosure	1 ... 3		**3SF5 900-0CJ**	1 unit	0.001
	4 ... 6		**3SF5 900-0CK**	1 unit	0.001
For metal enclosures					
AS-Interface slaves					
F slave, 2 safe inputs, for metal enclosure, without protective collar	1 ... 6		**3SF5 500-0CA**	1 unit	0.415
F slave, 2 safe inputs, for plastic or metal enclosure, with protective collar	1		**3SF5 500-0DA**	1 unit	0.415
A/B slave, 4I/3O for metal enclosure	2 ... 6		**3SF5 500-0CB**	1 unit	0.001
Slave, 4I/4O, for metal enclosure	2 ... 6		**3SF5 500-0CC**	1 unit	0.001
Sets of links					
For F slave			**3SF5 900-0BA**	1 unit	0.001
For slave 4I/4O or A/B slave 4I(3O)			**3SF5 900-0BB**	1 unit	0.001
Connection elements					
For AS-Interface connection using M12 plug, for metal enclosure	1 ... 3		**3SF5 900-2CC**	1 unit	0.001
	4 ... 6		**3SF5 900-2CD**	1 unit	0.001
For bringing out unused inputs/outputs through an M12 socket, for metal enclosure	1 ... 3		**3SF5 900-2CE**	1 unit	0.001
	4 ... 6		**3SF5 900-2CF**	1 unit	0.001
For AS-Interface flat cable, cable is routed into the enclosure, for plastic or metal enclosure	1 ... 3		**3SF5 900-0CG**	1 unit	0.001
	4 ... 6		**3SF5 900-0CH**	1 unit	0.001
For round cable, cable is routed into the enclosure, for plastic or metal enclosure	1 ... 3		**3SF5 900-0CJ**	1 unit	0.001
	4 ... 6		**3SF5 900-0CK**	1 unit	0.001

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Plastic and metal enclosures

Overview

Two-hand operation consoles with metal enclosure

Equipment

The two-hand operation consoles are pre-equipped with 3SB3 command devices. In the case of plastic enclosures the command positions are equipped as standard with actuators and indicators made of plastic, in the case of metal enclosures they are equipped with actuators and indicators made of metal.
The standard equipment comprises:

- 2 black mushroom pushbuttons, Ø 40 mm, 1 NO + 1 NC, Order No. 3SB30 00-1GA11 or 3SB35 00-1GA11
- 1 red EMERGENCY-STOP mushroom pushbutton according to ISO 13850, Ø 40 mm, with positive latching, 2 NC, Order No. 3SB30 00-1HA20 or 3SB35 00-1HA20.

The plastic version can be retrofitted with up to 8 customized command positions. The surface of the console has premachined breaking points for this purpose.

Application

The two-hand operation consoles are required for use with machines and systems that have hazardous areas, in order to direct both hands of the operator to one position.

Operator panels are primarily used on presses, stamping machines, printing presses and paper converting machines, in the chemical industry and in the rubber and plastics industries.

For the further processing of control commands, suitable evaluation units are used, e.g. 3TK28 3 safety relays (see Safety Relays in chapter 7).

Standards

The two-hand operation consoles comply with the requirements of EN 574.

Selection and ordering data

	Version	DT	Order No.	PS*	Weight per PU approx.
					kg
Metal enclosures, degree of protection IP65					
3SB38 63-4BB	**Two-hand operation consoles, metal enclosure**				
	• With standard fittings		**3SB38 63-4BB**	1 unit	4.800
	• With standard fittings and 4 additional holes for 22.5 mm command devices[1]		**3SB38 63-4BA**	1 unit	4.800
	• Empty enclosure, unequipped		**3SB38 63-4BC**	1 unit	4.800
Plastic enclosures, degree of protection IP65					
3SB38 63-1BB3	**Two-hand operation consoles, plastic enclosure** With standard fittings and machined breaking points for 8 additional 22.5 mm[1], command devices, with holes for metric cable glands		**3SB38 63-1BB3**	1 unit	2.300
Accessories					
3SB39 01-0AQ	**Stands for two-hand operation consoles** With holes for metric cable glands		**3SB39 01-0AQ3**	1 unit	4.500

[1] See 3SB3 Pushbutton Units and Indicator Lights.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview

Application

SIRIUS cable-operated switches are used for monitoring or for EMERGENCY-STOP devices on particularly endangered system sections.

As the effective range of a cable-operated switch is only limited by the length of the pull-rope, large systems can also be protected. Cable-operated switches (requiring pulling at both ends) and conveyor belt unbalance trackers are used primarily for monitoring very long belt systems.

Standards

The switches are equipped with positive latching and positive NC contacts and are thus suitable for operation in EMERGENCY-STOP devices in according to ISO 13850.

Selection and ordering data

	Version	Rope length	Contacts	DT	Order No.	PS*	Weight per PU approx.
		m					kg
Cable-operated switches							
3SE7 150-1BD00 3SE7 150-1BD04	**Metal enclosures** (cover made of plastic)	10					
	• Without latching, only cable pull monitoring		1 NO + 1 NC	→	**3SE7 120-2DD01**	1 unit	0.395
	• With latching and latching reset		2 NC	→	**3SE7 120-1BF00**	1 unit	0.410
	Metal enclosures (cover made of plastic), with dust protection and alignment window	25					
	• Without latching		1 NO + 1 NC	→	**3SE7 150-2DD00**	1 unit	0.425
	• With latching and latching reset		1 NO + 1 NC	→	**3SE7 150-1BD00**	1 unit	0.445
			2 NC	→	**3SE7 150-1BF00**	1 unit	0.440
	• With latching and key unlatching		1 NO + 1 NC	→	**3SE7 150-1CD00**	1 unit	0.510
3SE7 140-1B.00	**Metal enclosures** (cover made of plastic), with dust protection and alignment window, with LED, red, 24 V DC	25					
	• Without latching		1 NO + 1 NC	→	**3SE7 150-2DD04**	1 unit	0.425
	• With latching and latching reset		1 NO + 1 NC	→	**3SE7 150-1BD04**	1 unit	0.450
3SE7 141-1EG10	**Metal enclosures** (cover made of plastic), with dust protection	50					
	• With latching and latching reset		1 NO + 1 NC	→	**3SE7 140-1BD00**	1 unit	0.790
			2 NC	→	**3SE7 140-1BF00**	1 unit	0.790
	• In addition with LED, red, 24 V DC		1 NO + 1 NC	→	**3SE7 140-1BD04**	1 unit	0.820
	• With latching and key unlatching		1 NO + 1 NC	→	**3SE7 140-1CD00**	1 unit	0.835
	Metal enclosures (cover made of plastic), with EMERGENCY-STOP mushroom, rotate-to-unlatch mechanism	75	1 NO + 3 NC	→	**3SE7 141-1EG10**	1 unit	0.790
3SE7 160-1AE00	**Metal enclosures** with actuation on both sides	2 x 75					
	• With latching and latching reset		2 NO + 2 NC	→	**3SE7 160-1AE00**	1 unit	1.270
			1 NO + 1 NC	→	**3SE7 160-1BD00**	1 unit	0.300
	• In addition with LED, red, 24 V DC		2 NO + 2 NC	→	**3SE7 160-1AE04**	1 unit	1.200

→ Positive opening according to IEC 60947-5-1, Appendix K.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3SE7 metal enclosures

Version	Contacts	DT	Order No.	PS*	Weight per PU approx. kg
Conveyor belt unbalance protection devices					
Metal enclosures					
• With latching and latching reset	2 NO + 2 NC	➔	**3SE7 310-1AE00**	1 unit	1.805
• In addition with LED, red, 24 V DC	2 NO + 2 NC	➔	**3SE7 310-1AE04**	1 unit	1.815

3SE7 310-1AE00

➔ Positive opening according to IEC 60947-5-1, Appendix K.

Version	Length/ diameter	DT	Order No.	PS*	Weight per PU approx. kg
Accessories					
Steel ropes, with red plastic sheath, Ø 4 mm[1)]	10 m		**3SE7 910-3AA**	1 unit	0.420
	15 m		**3SE7 910-3AB**	1 unit	0.665
	20 m		**3SE7 910-3AC**	1 unit	0.865
	50 m		**3SE7 910-3AH**	1 unit	2.065
Rope clamps, galvanized white					
• Oval	Ø 4 mm		**3SE7 941-1AC**	1 unit	0.040
• Simplex (1 set = 4 units)	Ø 4 mm		**3SE7 943-1AC**	4 units	0.010
• Duplex (1 set = 4 units)	Ø 4 mm		**3SE7 944-1AC**	4 units	0.020
• Single (1 set = 4 units)	Ø 5 mm		**3SE7 942-1AA**	4 units	0.025
Tension springs (zinc-plated) to maintain the counter tension					
• 13 N			**3SE7 931-1AB**	1 unit	0.150
• 35 N			**3SE7 931-1AD**	1 unit	0.340
• > 35 N			**3SE7 931-1AE**	1 unit	0.340
Rope rollers for changing the direction of the rope, rotatable	Ø 4 mm		**3SE7 921-1AC**	1 unit	0.045
Fixtures for the rope rollers (including fixing nuts)			**3SE7 921-1AA**	1 unit	0.015
Rope eyes for changes in rope direction and improved power transmission at the fixing points (1 set = 4 units)	Ø 4 mm		**3SE7 930-1AD**	4 units	0.005
Eyebolts for fixing the rope					
• Including M8 nut			**3SE7 920-1AB**	1 unit	0.035
• Including M10 nut			**3SE7 920-1AC**	1 unit	0.060
Turnbuckles for precise adjustment of the pretension					
• M6 x 60			**3SE7 950-1AB**	1 unit	0.055
• M6 x 110			**3SE7 950-1AD**	1 unit	0.075
LED lights, red 24 V DC rated voltage 25 mm diameter; for M20 x 1.5 connection			**3SX3 235**	1 unit	0.015

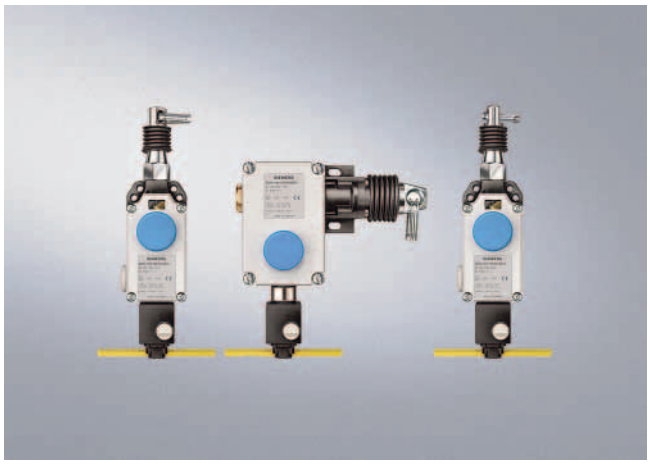
[1)] Diameter including casing; the diameter of the steel wire is 3.2 mm.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3SF2 AS-Interface cable-operated switches

Overview



AS-Interface cable-operated switches can now be directly connected via the standard AS-Interface with safety-oriented communication.

The safety functions no longer have to be conventionally wired up.

Application

SIRIUS cable-operated switches are used for monitoring or for EMERGENCY-STOP devices on particularly endangered system sections.

As the effective range of a cable-operated switch is only limited by the length of the pull-rope, large systems can also be protected.

Standards

The switches with latching for operation in EMERGENCY-STOP devices are in accordance with ISO 13850. They are usable up to Category 4 according to EN 954-1.

Selection and ordering data

	Version	Basic switch[1]	DT	Order No.	PS*	Weight per PU approx. kg
	ASIsafe cable-operated switches					
	With direct connection to AS-Interface, metal enclosure with dust protection, IP65, latching according to EN 418, with button reset, 2 NC contacts					
	• For rope lengths up to 10 m, with alignment window	*3SE7 120-1BF00*	➔	**3SF2 120-1BF00-0BA1**	1 unit	0.620
	• For rope lengths up to 25 m, with alignment window	*3SE7 150-1BF00*	➔	**3SF2 150-1BF00-0BA1**	1 unit	0.630
	• For rope lengths up to 50 m	*3SE7 140-1BF00*	➔	**3SF2 140-1BF00-0BA1**	1 unit	0.905

➔ Positive opening according to IEC 60947-5-1, Appendix K.

1) For accessories, see page 9/36.

© Siemens AG 2008

Plastic and metal enclosures

Overview

Version

The foot switch range encompasses versions in a metal enclosure for rugged applications as well as versions with plastic enclosure. The units can be supplied with or without a cover and have fixing holes for them to be screwed to the floor. The switches can be ordered in momentary-contact or latching versions

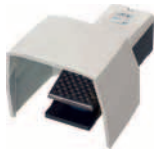
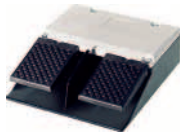
Safety foot switches

The single-pedal safety foot switches according to ISO 13850 lock on actuation. After eliminating the hazard, the machine can only be restarted after manually releasing the switch. A pushbutton on the top of the enclosure is used for this purpose. The devices are supplied with a cover.

Version with plastic enclosure

For operation in less harsh environments, momentary-contact pedal switches with plastic enclosures are available. They are supplied in single-pedal and two-pedal versions, the single-pedal version is also available with a cover. The momentary-contact pedal switch has one microswitch (changeover contact) per actuating pedal.

Selection and ordering data

	Version	Slow-action contacts for each pedal	DT	Order No.	PS*	Weight per PU approx.
						kg
Metal enclosures, degree of protection IP65						
 3SE2 90.-.AA20 3SE2 91.-.AA20	**Momentary contact foot switches, single pedal** M20 x 1.5 cable entry					
	• Without cover	1 NO + 1 NC	→	**3SE2 902-0AB20**	1 unit	0.655
		2 NO + 2 NC	→	**3SE2 903-1AB20**	1 unit	0.665
	• With cover	1 NO + 1 NC	→	**3SE2 902-0AA20**	1 unit	1.375
		2 NO + 2 NC	→	**3SE2 903-1AA20**	1 unit	1.370
	Foot switches, single pedal M20 x 1.5 cable entry					
	• Without cover	1 NO + 1 NC	→	**3SE2 912-2AB20**	1 unit	0.665
	• With cover	1 NO + 1 NC	→	**3SE2 912-2AA20**	1 unit	1.350
 3SE2 932-.AB20	**Momentary contact foot switches, two pedals** M25 x 1.5 cable entry					
	• Without cover	1 NO + 1 NC	→	**3SE2 932-0AB20**	1 unit	1.680
		2 NO + 2 NC	→	**3SE2 932-1AB20**	1 unit	1.870
3SE2 932-.AA20	• With cover	1 NO + 1 NC	→	**3SE2 932-0AA20**	1 unit	2.550
		2 NO + 2 NC	→	**3SE2 932-1AA20**	1 unit	2.570
3SE2 924-3AA20	**Safety foot switches, single pedal** With cover, M20 x 1.5 cable entry, with interlock according to ISO 13850, NO closes as momentary contact type, NC opens with latching	2 NO + 2 NC	→	**3SE2 924-3AA20**	1 unit	1.350
Plastic enclosures, degree of protection IP65						
3SE3 902-4CA20	**Momentary-contact pedal switches** 3 m cable	Microswitch				
	• Single pedal					
	- Without cover	1 CO		**3SE3 902-4CB20**	1 unit	0.355
	- With cover	1 CO		**3SE3 902-4CA20**	1 unit	1.100
3SE3 934-5CB20	• Two pedals, without cover	2 × 1 CO		**3SE3 934-5CB20**	1 unit	0.800

→ Positive opening according to IEC 60947-5-1, Appendix K.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

8WD42 signaling columns, 50 mm diameter
8WD44 signaling columns, 70 mm diameter

Overview

Features of the 8WD42:
- Thermoplast enclosure, diameter 50 mm
- Degree of protection IP54
- Up to 4 elements can be mounted

Features of the 8WD44:
- Thermoplast enclosure, diameter 70 mm
- Design with significantly improved illumination
- Fast, flexible connection using spring-loaded terminals
- Integrated degree of protection IP65
- Up to 5 elements can be mounted

	Version	Rated voltage	Color	DT	Diameter 50 mm	Weight per PU approx.	DT	Diameter 70 mm	PS*	Weight per PU approx.
		V			Order No.	kg		Order No.		kg
Acoustic elements										
	Buzzer elements 80/85 dB (8WD44: 85 dB), pulsating or continuous tone, adjustable by means of a wire bridge	24 AC/DC	Black		**8WD42 20-0FA**	0.060		**8WD44 20-0FA**	1 unit	0.084
		230 V AC			**8WD42 50-0FA**	0.066		**8WD44 50-0FA**	1 unit	0.090
	Siren elements 100 dB, multi-tone, 8 tones and volume are adjustable	24 AC/DC	Black		--			**8WD44 20-0EA2**	1 unit	0.090
		230 AC			--			**8WD44 50-0EA2**	1 unit	0.100
	Siren elements 108 dB, IP40	24 AC/DC	Black		--			**8WD44 20-0EA**	1 unit	0.135
Light elements for incandescent lamp/LED, BA 15d bases										
	Continuous light elements[1]	8WD42: 24 ... 230 AC/DC 8WD44: 12 ... 230 AC/DC	Red		**8WD42 00-1AB**	0.050		**8WD44 00-1AB**	1 unit	0.070
			Green		**8WD42 00-1AC**	0.050		**8WD44 00-1AC**	1 unit	0.070
			Yellow		**8WD42 00-1AD**	0.050		**8WD44 00-1AD**	1 unit	0.070
			Clear		**8WD42 00-1AE**	0.050		**8WD44 00-1AE**	1 unit	0.070
			Blue		**8WD42 00-1AF**	0.050		**8WD44 00-1AF**	1 unit	0.070
	Blinklight elements[1]	24 AC/DC[2]	Red		--			**8WD44 20-1BB**	1 unit	0.075
			Green		--			**8WD44 20-1BC**	1 unit	0.080
			Yellow		--			**8WD44 20-1BD**	1 unit	0.075
			Clear		--			**8WD44 20-1BE**	1 unit	0.080
			Blue		--			**8WD44 20-1BF**	1 unit	0.075
Light elements with integrated flash lamp										
	Flashlight elements With integrated electronic flash (lamp included in scope of supply)	24 DC[2]	Red		--			**8WD44 20-0CB**	1 unit	0.090
			Green		--			**8WD44 20-0CC**	1 unit	0.090
			Yellow		--			**8WD44 20-0CD**	1 unit	0.090
			Clear		--			**8WD44 20-0CE**	1 unit	0.090
			Blue		--			**8WD44 20-0CF**	1 unit	0.090
Light elements with integrated LED										
	Continuous light elements	24 AC/DC	Red		**8WD42 20-5AB**	0.050		**8WD44 20-5AB**	1 unit	0.075
			Green		**8WD42 20-5AC**	0.050		**8WD44 20-5AC**	1 unit	0.075
			Yellow		**8WD42 20-5AD**	0.050		**8WD44 20-5AD**	1 unit	0.075
			Clear		--			**8WD44 20-5AE**	1 unit	0.075
			Blue		--			**8WD44 20-5AF**	1 unit	0.075
	Blinklight elements	24 AC/DC	Red		**8WD42 20-5BB**	0.050		**8WD44 20-5BB**	1 unit	0.075
			Green		**8WD42 20-5BC**	0.050		**8WD44 20-5BC**	1 unit	0.075
			Yellow		**8WD42 20-5BD**	0.050		**8WD44 20-5BD**	1 unit	0.075
			Clear		**8WD42 20-5BE**	0.050		--	1 unit	
			Blue		**8WD42 20-5BF**	0.050		--	1 unit	
	Rotating light elements	24 AC/DC	Red		--			**8WD44 20-5DB**	1 unit	0.085
			Green		--			**8WD44 20-5DC**	1 unit	0.085
			Yellow		--			**8WD44 20-5DD**	1 unit	0.085
GSM radio elements										
	GSM radio elements Power consumption 50 mA, short-time 450 mA	24 DC, controlled ±15 %	Black		--			**8WD44 28-0BC**	1 unit	0.110
Connection elements[3]										
	Connection elements with cover		Black							
	Screw terminals									
	• For mounting on pipes, floors and brackets				**8WD42 08-0AA**	0.085		--	1 unit	
	• For mounting on pipes				--			**8WD44 08-0AA**	1 unit	0.110
	• For mounting on brackets and floors				--			**8WD44 08-0AB**	1 unit	0.115
	Spring-loaded terminals									
	• For mounting on pipes				--			**8WD44 08-0AD**	1 unit	0.105
	• For mounting on brackets and floors				--			**8WD44 08-0AE**	1 unit	0.105

[1] Lamp not included in scope of supply. Please order separately.

[2] Version 230 V AC: 8WD44 50-1B. or -0C.

[3] Important for assembling the signaling columns.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

8WD42 signaling columns, 50 mm diameter
8WD44 signaling columns, 70 mm diameter

Accessories

	Version	Rated voltage	DT	Diameter 50 mm	DT	Diameter 70 mm	PS*	Weight per PU approx.
		V		Order No.		Order No.		kg
Accessories for 8WD42, 8WD44								
	Feet with pipe • Pipe length 100 mm			**8WD43 08-0DA**		**8WD43 08-0DA**	1 unit	0.080
	Feet, single							
	• Plastic, for mounting on pipes			**8WD43 08-0DB**		**8WD43 08-0DB**	1 unit	0.050
	• Metal, for pipe lengths > 400 mm			**8WD43 08-0DC**		**8WD43 08-0DC**	1 unit	0.315
	• Plastic, for floor mounting (without pipe)			**8WD42 08-0DE**		--	1 unit	0.050
	Pipes, single							
	• Length 100 mm			**8WD42 08-0EF**		**8WD42 08-0EF**	1 unit	0.030
	• Length 150 mm			**8WD43 08-0EE**		**8WD43 08-0EE**	1 unit	0.045
	• Length 250 mm			**8WD43 08-0EA**		**8WD43 08-0EA**	1 unit	0.080
	• Length 400 mm			**8WD43 08-0EB**		**8WD43 08-0EB**	1 unit	0.120
	• Length 1000 mm			**8WD43 08-0ED**		**8WD43 08-0ED**	1 unit	0.300
	Sockets for feet							
	• Side cable outlet (can also be used without feet)			**8WD43 08-0DD**		**8WD43 08-0DD**	1 unit	0.070
	• Side cable outlet, with magnetic fixing[1]			**8WD43 08-0DE**		**8WD43 08-0DE**	1 unit	0.300
	Brackets for wall mounting (mounting without feet and pipe)							
	• For single-sided mounting			**8WD42 08-0CA**		--	1 unit	0.130
	• For single-sided mounting			--		**8WD43 08-0CA**	1 unit	0.090
	• For double-sided mounting			--		**8WD43 08-0CB**	1 unit	0.085
	Brackets for floor mounting			**8WD44 08-0CC**		**8WD44 08-0CC**	1 unit	0.070
	Brackets for base mounting Mounting without feet and pipe			--		**8WD44 08-0CD**	1 unit	0.055
	Adapters for single-hole mounting Mounting without feet and pipe, with M18 thread and fixing nut			**8WD42 08-0EH**		--	1 unit	0.120
Lamps, BA 15d bases								
	Incandescent lamps, 5 W	24 AC/DC		**8WD43 28-1XX**		**8WD43 28-1XX**	10 units	0.010
		115 AC		**8WD43 48-1XX**		**8WD43 48-1XX**	10 units	0.010
		230 AC		**8WD43 58-1XX**		**8WD43 58-1XX**	10 units	0.010
	LEDs Red	24 AC/DC		**8WD44 28-6XB**		**8WD44 28-6XB**	1 unit	0.020
	Green			**8WD44 28-6XC**		**8WD44 28-6XC**	1 unit	0.020
	Yellow			**8WD44 28-6XD**		**8WD44 28-6XD**	1 unit	0.020
	Clear			**8WD44 28-6XE**		**8WD44 28-6XE**	1 unit	0.020
	Blue			**8WD44 28-6XF**		**8WD44 28-6XF**	1 unit	0.020
	Red	230 AC		**8WD44 58-6XB**		**8WD44 58-6XB**	1 unit	0.020
	Green			**8WD44 58-6XC**		**8WD44 58-6XC**	1 unit	0.020
	Yellow			**8WD44 58-6XD**		**8WD44 58-6XD**	1 unit	0.020
	Clear			**8WD44 58-6XE**		**8WD44 58-6XE**	1 unit	0.020
Adapter elements for AS-Interface								
	AS-Interface adapter elements							
	• With external auxiliary voltage — For 4 signaling elements 24 V DC			**8WD42 28-0BB**		--	1 unit	0.075
	• A/B technology, with/without external auxiliary voltage, selectable — For 3 signaling elements 24 V DC			--		**8WD44 28-0BD**	1 unit	0.110
	• Standard AS-i, with external auxiliary voltage — For 4 signaling elements 24 V DC			--		**8WD44 28-0BE**	1 unit	0.110

[1] For horizontal mounting, only 1 element is recommended.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

8WD53 integrated signal lamps, 70 mm diameter

Overview

Features:

- Thermoplast enclosure, diameter 70 mm
- Degree of protection IP65
- Rated voltage 24 V, 115 V, 230 V AC/DC

Selection and ordering data

	Version	Rated voltage	Color	DT	Order No.	PS*	Weight per PU approx.
		V					kg
Lights for incandescent lamp/LED, BA 15d base							
	Continuous lights[1]	24 ... 230 AC/DC	Red		**8WD53 00-1AB**	1 unit	0.130
			Green		**8WD53 00-1AC**	1 unit	0.130
			Yellow		**8WD53 00-1AD**	1 unit	0.130
			Clear		**8WD53 00-1AE**	1 unit	0.130
			Blue		**8WD53 00-1AF**	1 unit	0.130
Lights with integrated flash lamp							
	Single-flash lights with integrated electronic flash	24 AC/DC	Red		**8WD53 20-0CB**	1 unit	0.150
			Green		**8WD53 20-0CC**	1 unit	0.150
			Yellow		**8WD53 20-0CD**	1 unit	0.150
			Clear		**8WD53 20-0CE**	1 unit	0.150
			Blue		**8WD53 20-0CF**	1 unit	0.150
		115 AC	Red		**8WD53 40-0CB**	1 unit	0.145
			Green		**8WD53 40-0CC**	1 unit	0.145
			Yellow		**8WD53 40-0CD**	1 unit	0.145
			Clear		**8WD53 40-0CE**	1 unit	0.145
			Blue		**8WD53 40-0CF**	1 unit	0.145
		230 AC	Red		**8WD53 50-0CB**	1 unit	0.145
			Green		**8WD53 50-0CC**	1 unit	0.145
			Yellow		**8WD53 50-0CD**	1 unit	0.145
			Clear		**8WD53 50-0CE**	1 unit	0.145
			Blue		**8WD53 50-0CF**	1 unit	0.145
Lights with integrated LED							
	Continuous lights	24 AC/DC	Red		**8WD53 20-5AB**	1 unit	0.133
			Green		**8WD53 20-5AC**	1 unit	0.133
			Yellow		**8WD53 20-5AD**	1 unit	0.133
	Blinklight lamps	24 AC/DC	Red		**8WD53 20-5BB**	1 unit	0.135
			Green		**8WD53 20-5BC**	1 unit	0.135
			Yellow		**8WD53 20-5BD**	1 unit	0.135
	Rotating lights	24 AC/DC	Red		**8WD53 20-5DB**	1 unit	0.140
			Green		**8WD53 20-5DC**	1 unit	0.140
			Yellow		**8WD53 20-5DD**	1 unit	0.140

For incandescent lamps and LEDs see Signaling Columns.

[1] Lamp not included in scope of supply. Please order separately.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Notes

© Siemens AG 2008

Transformers

10

10/2 **Introduction**

Single-Phase Transformers

4AM, 4AT Safety, Isolating, Control and Mains Transformers

10/4 4AM safety (mains transformers) and control transformers

10/5 4AM isolating, control and mains transformers

10/6 4AM, 4AT transformers with selectable voltages

4BT Power Transformers

10/7 4BT transformers with selectable voltages

Three-Phase Transformers

4AP, 4AU Safety, Isolating, Control and Mains Transformers

10/8 4AP, 4AU isolating, control and mains transformers

10/9 4AP, 4AU transformers with selectable voltages

4BU Power Transformers

10/10 4BU transformers with selectable voltages

© Siemens AG 2008

Introduction

Overview

Single-phase transformers

4AM

4AT

4BT

4AX24

4AT for supply of medical rooms

4FK

4CH

Version	Rated power kVA	Rated input voltage V AC	Rated output voltage V AC	Safety class	Page
4AM, 4AT safety, isolating, control and mains transformers					
4AM safety (mains transformers) and control transformers					
With one input voltage	0.063 ... 1.0	230 ± 5 %; 400 ± 5 %; 440 ± 5 %; 500 ± 5 %	24; 42	I	10/4
For European voltages	0.063 ... 1.0	400/230 ± 15 V	24; 42	I	10/4
In multi-voltage version	0.063 ... 1.0	550 ... 208; 600 ... 230	24; 42	I	10/4
4AM safety transformers (mains transformers)					
With one input voltage	0.025 ... 0.04	230 ± 5 %; 400 ± 5 %; 440 ± 5 %; 500 ± 5 %	24; 42	I	10/4
4AM, 4AT isolating, control and mains transformers					
4AM and 4AT with one input voltage	4AM: 0.063 ... 2.5; 4AT: 4 ... 10	230 ± 5 %; 400 ± 5 %; 440 ± 5 %; 500 ± 5 %	110; 2 × 115; 230	I	10/5
4AM and 4AT with one input voltage, without c UL us	4AM: 0.063 ... 2.5; 4AT: 4 ... 10	660 ± 5 %; 690 ± 5 %	230	I	10/5
4AM in European voltage design	0.063 ... 2.5	400/230 ± 15 V	2 × 115	I	10/5
4AM and 4AT in multi-voltage version	4AM: 0.063 ... 2.5; 4AT: 4 ... 10	550 ... 208; 600 ... 230	2 × 115	I	10/5
4AM isolating and mains transformers					
4AM with one input voltage	0.025 ... 0.04	230 ± 5 %; 400 ± 5 %; 440 ± 5 %; 500 ± 5 %	110; 230	I	--[2]
4AM and 4AT with one input voltage, without c UL us	0.025 ... 0.04	660 ± 5 %; 690 ± 5 %	230	I	--[2]
4AM, 4AT transformers with selectable voltages					
4AM and 4AT safety, isolating, control and mains transformers and autotransformers	4AM: 0.025 ... 2.5; 4AT: 4 ... 16	Selectable; 4AM: 12 … 690[1]; 4AT: 24 … 690[1]	Selectable; 4AM: 12 … 690[1]; 4AT: 24 … 690[1]	I I	10/6
4BT power transformers					
4BT Transformers with selectable voltages	18 ... 250	selectable; 100 … 1000[1]	selectable; 100 … 1000[1]	I	10/7
4AX22, 4AX23 safety transformers					
Resin-enclosed	0.1 ... 1	230	24; 42	II	--[2]
4AX24 isolating transformers					
Resin-enclosed	0.16 ... 2.5	230	230	II	--[2]
4AT isolating transformers					
For supply of medical premises	2.5 ... 8	230	230-115	I	--[2]
4FL, 4FK voltage regulators					
4FL transformer-type	2.2 ... 63	230	230	I	--[2]
4FK magnetic-type	0.12 ... 0.75 1 ... 2.5 3.15 ... 10	230/selectable 110 ... 500 230/selectable 110 ... 500 400/selectable 110 ... 500	230/selectable 110 ... 500 230/selectable 110 ... 500 230/selectable 110 ... 500	I I I	--[2]
4CH, 4CP variable-ratio transformers					
4CH toroidal-core variable-ratio transformers	0.28 ... 3.22 0.69 ... 3.22	400 230	0 ... 230 stepless 0 ... 230 stepless	I I	--[2]
4CP pillar-type variable-ratio transformers	13.8 ... 207	400	0 ... 400 stepless	I	--[2]

[1] c UL us max. 600 V.

[2] More products can be found in the interactive Catalog CA01 and in the A&D Mall.

© Siemens AG 2008

Three-Phase Transformers

4AP20

4AU

4BU

4FL

Version	Rated power kVA	Rated input voltage V AC	Rated output voltage V AC	Safety class	Page
4AP, 4AU safety, isolating, control and mains transformers					
4AP, 4AU isolating, control and mains transformers					
4AP and 4AU in two-voltage version	0.63 ... 16	Y 500-400 /Δ 289-230	Y 400/Δ 230	I	10/8
4AP and 4AU in multi-voltage version	0.63 ... 16	Y 520 ... 360 /Δ 300 ... 208	Y 400/Δ 230	I	10/8
4AP isolating and mains transformers					
In two-voltage version	0.16 ... 0.4	Y 500-400 /Δ 289-230	Y 400/Δ 230	I	--[4]
4AP, 4AU transformers with selectable voltages					
4AP and 4AU safety, isolating, control and mains transformers and autotransformers	4AP: 0.16 … 5; 4AU: 6.3 …16	Selectable; 4AP: 12 ... 690[1]; 4AU: 24 ... 690[1]	Selectable; 4AP: 12 ... 690[1]; 4AU: 24 ... 690[1]	 I I	10/9
4BU power transformers					
4BU matching transformers with one input voltage	18 ... 180[2]	Δ 400, 400 ± 5 %, 440, 440 ± 5 %, 480, 480 ± 5 %/ Y400, 400 ± 5 %, 440, 440 ± 5 %, 480, 480 ± 5 %	Y 208, 400	I	--[4]
4BU matching transformers With c UL us approval With one input voltage	18 ... 180[2]	Δ 400, 400 ± 5 %, 440, 440 ± 5 %, 480, 480 ± 5 %/ Y400, 400 ± 5 %, 440, 440 ± 5 %, 480, 480 ± 5 %	Y 208, 400	I	--[4]
4BU transformers with selectable voltages	18 ... 400	Selectable 100 ... 1000[1]	Selectable 100 ... 1000[1]	I	10/10
4AP, 4AU autotransformers					
For matching purpose according to EN 61558-2-13	4AP: 5 ... 22.5; 4AU: 12.5 ... 50	4AP, 4AU: 480 ... 380 4AP, 4AU: 480 ... 400 (380)[3]	4AP, 4AU: 400 4AP, 4AU: 230 (220)[3]	I I	--[4]
4FL voltage regulators					
4FL transformer-type	6.8 ...190	400	400	I	--[4]
4CJ, 4CQ variable-ratio transformers					
4CJ toroidal-core variable-ratio transformers	2.07 ... 9.66	400	0 ... 400 stepless	I	--[4]
4CQ pillar-type variable-ratio transformers	16 ... 240	400	0 ... 400 stepless	I	--[4]

1) c UL us max. 600 V.

2) For other ratings up to 400 kVA see the interactive Catalog CA 01 and A&D Mall.

3) Operating with 3 AC 380 V at the input terminals results in an output voltage of 3 AC 220 V.

4) More products can be found in the interactive Catalog CA01 and in the A&D Mall.

© Siemens AG 2008

4AM, 4AT Safety, Isolating, Control and Mains Transformers

4AM safety (mains transformers) and control transformers

Overview

- Version according to EN 61558-2-6, -2-1, -2-2
- CE, c UL us
- t_a = 40 °C/B
- AC 50/60 Hz
- Degree of protection IP00 (IP23 and IP54 on request)
- With screw terminals/flat connectors (Cage Clamp terminals on request)

; 4AM2 only

Selection and ordering data

With one input voltage

4AM40

Rated power P_n	Short-time rating $P_{shortt.}$ [1]	DT	Input voltage U_{1N} 230 V ± 5 %		Input voltage U_{1N} 400 V ± 5 %	PS*	Copper weight per unit approx.	Total weight per unit approx.
kVA	kVA		Order No.		Order No.		kg	kg
Output voltage U_{2N}: 24 V			Standard version[2]		Standard version[2]			
0.025	--[3]	▶	**4AM23 42-4TN00-0EA0**	▶	**4AM23 42-5AN00-0EA0**	1 unit	0.110	0.600
0.04	--[3]	▶	**4AM26 42-4TN00-0EA0**	▶	**4AM26 42-5AN00-0EA0**	1 unit	0.150	0.800
0.063	0.19	▶	**4AM32 42-4TN00-0EA0**	▶	**4AM32 42-5AN00-0EA0**	1 unit	0.240	1.400
0.1	0.31	▶	**4AM34 42-4TN00-0EA0**	▶	**4AM34 42-5AN00-0EA0**	1 unit	0.260	2.000
0.16	0.49	▶	**4AM38 42-4TN00-0EA0**	▶	**4AM38 42-5AN00-0EA0**	1 unit	0.320	2.700
0.25	0.85	▶	**4AM40 42-4TN00-0EA0**	▶	**4AM40 42-5AN00-0EA0**	1 unit	0.590	3.700
0.315	1.12	▶	**4AM43 42-4TN00-0EA0**	▶	**4AM43 42-5AN00-0EA0**	1 unit	0.670	4.500
0.4	1.44	▶	**4AM46 42-4TN00-0EA0**	▶	**4AM46 42-5AN00-0EA0**	1 unit	1.100	5.400
0.5	2	▶	**4AM48 42-4TN00-0EA0**	▶	**4AM48 42-5AN00-0EA0**	1 unit	1.100	7.000
0.63	2.35	▶	**4AM52 42-4TN00-0EA0**	▶	**4AM52 42-5AN00-0EA0**	1 unit	1.700	7.900
0.8	3.4	▶	**4AM55 42-4TN00-0EA0**	▶	**4AM55 42-5AN00-0EA0**	1 unit	1.900	11.000
1	5	▶	**4AM57 42-4TN00-0EA0**		**4AM57 42-5AN00-0EA0**	1 unit	2.000	14.000

4AM40

Rated power P_n	Short-time rating $P_{shortt.}$ [1]	DT	Input voltage U_{1N} 230 V ± 5 %		Input voltage U_{1N} 400 V ± 5 %	PS*	Copper weight per unit approx.	Total weight per unit approx.
Output voltage U_{2N}: 42 V			Standard version[2]		Standard version[2]			
0.025	--[3]		**4AM23 42-4TV00-0EA0**		**4AM23 42-5AV00-0EA0**	1 unit	0.110	0.600
0.04	--[3]		**4AM26 42-4TV00-0EA0**		**4AM26 42-5AV00-0EA0**	1 unit	0.150	0.800
0.063	0.19	▶	**4AM32 42-4TV00-0EA0**	▶	**4AM32 42-5AV00-0EA0**	1 unit	0.240	1.400
0.1	0.31	▶	**4AM34 42-4TV00-0EA0**	▶	**4AM34 42-5AV00-0EA0**	1 unit	0.260	2.000
0.16	0.49	▶	**4AM38 42-4TV00-0EA0**	▶	**4AM38 42-5AV00-0EA0**	1 unit	0.320	2.700
0.25	0.85	▶	**4AM40 42-4TV00-0EA0**	▶	**4AM40 42-5AV00-0EA0**	1 unit	0.590	3.700
0.315	1.12		**4AM43 42-4TV00-0EA0**		**4AM43 42-5AV00-0EA0**	1 unit	0.670	4.500
0.4	1.44		**4AM46 42-4TV00-0EA0**		**4AM46 42-5AV00-0EA0**	1 unit	1.100	5.400
0.5	2		**4AM48 42-4TV00-0EA0**		**4AM48 42-5AV00-0EA0**	1 unit	1.100	7.000
0.63	2.35		**4AM52 42-4TV00-0EA0**		**4AM52 42-5AV00-0EA0**	1 unit	1.700	7.900
0.8	3.4		**4AM55 42-4TV00-0EA0**		**4AM55 42-5AV00-0EA0**	1 unit	1.900	11.000
1	5		**4AM57 42-4TV00-0EA0**		**4AM57 42-5AV00-0EA0**	1 unit	2.000	14.000

In European voltage version or multi-voltage version

4AM40

Rated power P_n	Short-time rating $P_{shortt.}$ [1]	DT	Input voltage U_{1N} 400/230 V ± 5 %	DT	Input voltage U_{1N} 550–525–500–480–460–440–415–400–380–230–208 V	PS*	Copper weight per unit approx.	Total weight per unit approx.
kVA	kVA		Order No.		Order No.		kg	kg
Output voltage U_{2N}: 24 V			Standard version[2]		Standard version[2]			
0.063	0.19	▶	**4AM32 42-8JN00-0EA0**	▶	**4AM32 42-8DN00-0EA0**	1 unit	0.340	1.500
0.1	0.31	▶	**4AM34 42-8JN00-0EA0**	▶	**4AM34 42-8DN00-0EA0**	1 unit	0.360	2.100
0.16	0.49	▶	**4AM38 42-8JN00-0EA0**	▶	**4AM38 42-8DN00-0EA0**	1 unit	0.450	2.800
0.25	0.85	▶	**4AM40 42-8JN00-0EA0**	▶	**4AM40 42-8DN00-0EA0**	1 unit	0.820	3.900
0.315	1.12		**4AM43 42-8JN00-0EA0**	▶	**4AM43 42-8DN00-0EA0**	1 unit	1.000	4.800
0.4	1.44		**4AM46 42-8JN00-0EA0**	▶	**4AM46 42-8DN00-0EA0**	1 unit	1.500	5.800
0.5	2		**4AM48 42-8JN00-0EA0**	▶	**4AM48 42-8DN00-0EA0**	1 unit	1.500	7.400
0.63	2.35		**4AM52 42-8JN00-0EA0**	▶	**4AM52 42-8DN00-0EA0**	1 unit	2.400	8.600
0.8	3.4		**4AM55 42-8JN00-0EA0**		**4AM55 42-8DN00-0EA0**	1 unit	2.600	12.000
1	5		**4AM57 42-8JN00-0EA0**		**4AM57 42-8DN00-0EA0**	1 unit	2.800	15.000

[1] For p.f. = 0.5 and $U_2 = 0.95 \times U_{2N}$.

[2] For types 4AM32 to 4AM40, standard rail mounting is integrated in the standard version. Types 4AM23, 4AM26 and 4AM43 to 4AM48 can also be supplied with standard rail mounting.

[3] Available only as safety transformer (mains transformer); not possible as control transformer.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview

- Version according to EN 61558-2-4, -2-2, -2-1
- CE, c UL us
- t_a = 40 °C/B
- AC 50/60 Hz
- Degree of protection IP00 (IP23 and IP54 on request)
- With screw terminals/flat connectors (Cage Clamp terminals on request)

; 4AM2 only

Selection and ordering data

With one input voltage

	Rated power P_n	Short-time rating $P_{shortt.}$ 1)	DT	Input voltage U_{1N} 230 V ± 5 %		Input voltage U_{1N} 400 V ± 5 %	PS*	Copper weight per unit approx.	Total weight per unit approx.
	kVA	kVA		Order No.		Order No.		kg	kg
Output voltage U_{2N}: 110 V				Standard version 2)3)		Standard version 2)3)			
4AM40	0.025	--4)		**4AM23 42-4TJ10-0FA0**		**4AM23 42-5AJ10-0FA0**	1 unit	0.110	0.600
	0.04	--4)		**4AM26 42-4TJ10-0FA0**		**4AM26 42-5AJ10-0FA0**	1 unit	0.150	0.800
	0.063	0.19	▶	**4AM32 42-4TJ10-0FA0**	▶	**4AM32 42-5AJ10-0FA0**	1 unit	0.240	1.400
	0.1	0.31	▶	**4AM34 42-4TJ10-0FA0**	▶	**4AM34 42-5AJ10-0FA0**	1 unit	0.260	2.000
	0.16	0.49	▶	**4AM38 42-4TJ10-0FA0**	▶	**4AM38 42-5AJ10-0FA0**	1 unit	0.320	2.700
	0.25	0.85	▶	**4AM40 42-4TJ10-0FA0**	▶	**4AM40 42-5AJ10-0FA0**	1 unit	0.590	3.700
	0.315	1.12	▶	**4AM43 42-4TJ10-0FA0**	▶	**4AM43 42-5AJ10-0FA0**	1 unit	0.670	4.500
	0.4	1.44	▶	**4AM46 42-4TJ10-0FA0**	▶	**4AM46 42-5AJ10-0FA0**	1 unit	1.100	5.400
	0.5	2	▶	**4AM48 42-4TJ10-0FA0**	▶	**4AM48 42-5AJ10-0FA0**	1 unit	1.100	7.000
	0.63	2.35	▶	**4AM52 42-4TJ10-0FA0**	▶	**4AM52 42-5AJ10-0FA0**	1 unit	1.700	7.900
	0.8	3.4	▶	**4AM55 42-4TJ10-0FA0**	▶	**4AM55 42-5AJ10-0FA0**	1 unit	1.900	11.000
	1	5	▶	**4AM57 42-4TJ10-0FA0**	▶	**4AM57 42-5AJ10-0FA0**	1 unit	2.000	14.000
	1.6	7.3		**4AM61 42-4TJ10-0FA0**	▶	**4AM61 42-5AJ10-0FA0**	1 unit	4.100	19.000
	2	9.7		**4AM64 42-4TJ10-0FA0**	▶	**4AM64 42-5AJ10-0FA0**	1 unit	4.700	23.000
	2.5	13.3		**4AM65 42-4TJ10-0FA0**	▶	**4AM65 42-5AJ10-0FA0**	1 unit	6.400	29.000
Output voltage U_{2N}: 230 V				Standard version 2)3)		Standard version 2)3)			
4AM40	0.025	--4)	▶	**4AM23 42-4TT10-0FA0**	▶	**4AM23 42-5AT10-0FA0**	1 unit	0.110	0.600
	0.04	--4)	▶	**4AM26 42-4TT10-0FA0**	▶	**4AM26 42-5AT10-0FA0**	1 unit	0.150	0.800
	0.063	0.19	▶	**4AM32 42-4TT10-0FA0**	▶	**4AM32 42-5AT10-0FA0**	1 unit	0.240	1.400
	0.1	0.31	▶	**4AM34 42-4TT10-0FA0**	▶	**4AM34 42-5AT10-0FA0**	1 unit	0.260	2.000
	0.16	0.49	▶	**4AM38 42-4TT10-0FA0**	▶	**4AM38 42-5AT10-0FA0**	1 unit	0.320	2.700
	0.25	0.85	▶	**4AM40 42-4TT10-0FA0**	▶	**4AM40 42-5AT10-0FA0**	1 unit	0.590	3.700
	0.315	1.12	▶	**4AM43 42-4TT10-0FA0**	▶	**4AM43 42-5AT10-0FA0**	1 unit	0.670	4.500
	0.4	1.44	▶	**4AM46 42-4TT10-0FA0**	▶	**4AM46 42-5AT10-0FA0**	1 unit	1.100	5.400
	0.5	2	▶	**4AM48 42-4TT10-0FA0**	▶	**4AM48 42-5AT10-0FA0**	1 unit	1.100	7.000
	0.63	2.35	▶	**4AM52 42-4TT10-0FA0**	▶	**4AM52 42-5AT10-0FA0**	1 unit	1.700	7.900
	0.8	3.4	▶	**4AM55 42-4TT10-0FA0**	▶	**4AM55 42-5AT10-0FA0**	1 unit	1.900	11.000
	1	5	▶	**4AM57 42-4TT10-0FA0**	▶	**4AM57 42-5AT10-0FA0**	1 unit	2.000	14.000
	1.6	7.3	▶	**4AM61 42-4TT10-0FA0**	▶	**4AM61 42-5AT10-0FA0**	1 unit	4.100	19.000
	2	9.7	▶	**4AM64 42-4TT10-0FA0**	▶	**4AM64 42-5AT10-0FA0**	1 unit	4.700	23.000
	2.5	13.3	▶	**4AM65 42-4TT10-0FA0**	▶	**4AM65 42-5AT10-0FA0**	1 unit	6.400	29.000

In European voltage version or multi-voltage version

	Rated power P_n	Short-time rating $P_{shortt.}$ 1)	DT	Input voltage U_{1N} 400/230 V ± 5 %	DT	Input voltage U_{1N} 550–525–500–480–460–440–415–400–380–240–230–208 V	PS*	Copper weight per unit approx.	Total weight per unit approx.
	kVA	kVA		Order No.		Order No.		kg	kg
Output voltage U_{2N}: 2 × 115 V				Standard version 2)		Standard version 2)			
4AM40	0.063	0.19	▶	**4AM32 42-8JD40-0FA0**	▶	**4AM32 42-8DD40-0FA0**	1 unit	0.340	1.500
	0.1	0.31	▶	**4AM34 42-8JD40-0FA0**	▶	**4AM34 42-8DD40-0FA0**	1 unit	0.360	2.100
	0.16	0.49	▶	**4AM38 42-8JD40-0FA0**	▶	**4AM38 42-8DD40-0FA0**	1 unit	0.450	2.800
	0.25	0.85	▶	**4AM40 42-8JD40-0FA0**	▶	**4AM40 42-8DD40-0FA0**	1 unit	0.820	3.900
	0.315	1.12	▶	**4AM43 42-8JD40-0FA0**	▶	**4AM43 42-8DD40-0FA0**	1 unit	1.000	4.800
	0.4	1.44	▶	**4AM46 42-8JD40-0FA0**	▶	**4AM46 42-8DD40-0FA0**	1 unit	1.500	5.800
	0.5	2	▶	**4AM48 42-8JD40-0FA0**	▶	**4AM48 42-8DD40-0FA0**	1 unit	1.500	7.400
	0.63	2.35	▶	**4AM52 42-8JD40-0FA0**	▶	**4AM52 42-8DD40-0FA0**	1 unit	2.400	8.600
	0.8	3.4	▶	**4AM55 42-8JD40-0FA0**	▶	**4AM55 42-8DD40-0FA0**	1 unit	2.600	12.000
	1	5	▶	**4AM57 42-8JD40-0FA0**	▶	**4AM57 42-8DD40-0FA0**	1 unit	2.800	15.000
	1.6	7.3	▶	**4AM61 42-8JD40-0FA0**	▶	**4AM61 42-8DD40-0FA0**	1 unit	5.700	20.000
	2	9.7		**4AM64 42-8JD40-0FA0**	▶	**4AM64 42-8DD40-0FA0**	1 unit	6.500	24.000
	2.5	13.3		**4AM65 42-8JD40-0FA0**	▶	**4AM65 42-8DD40-0FA0**	1 unit	8.900	32.000

1) For p.f. = 0.5 and $U_2 = 0.95 \times U_{2N}$.

2) For types 4AM32 to 4AM40, standard rail mounting is integrated in the standard version. Types 4AM23, 4AM26 and 4AM43 to 4AM48 can also be supplied with standard rail mounting.

3) 4AT complete units, 4 kVA to 10 kVA, on request.

4) Available only as isolating and mains transformer; not possible as control transformer.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

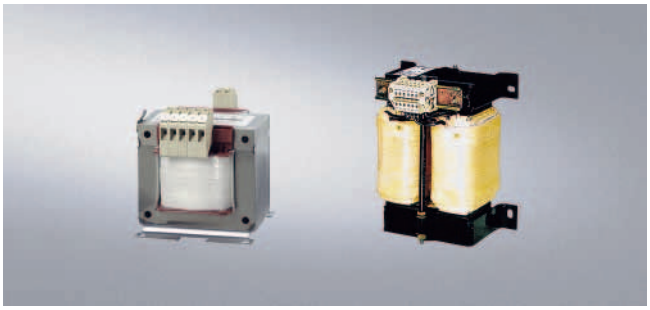
4AM, 4AT Safety, Isolating, Control and Mains Transformers

4AM, 4AT transformers with selectable voltages

Overview

- 4AM and 4AT transformers are configured as isolating, control and mains transformers according to EN 61558-2-4, -2-2, -2-1 or as safety, control and line transformers according to EN 61558-2-6, -2-2, -2-1, or as autotransformers according to EN 61558-2-13
- With selectable input and output voltages in the performance range from 0.025 kVA to 16 kVA (for autotransformers = type rating) and additional options
- CE, c UL us[1)]
- 4AM: t_a = 40 °C/B, 4AT: t_a = 55 °C/H
- Standard vector group: Ii0, for autotransformer: Ia0

[1)] The enclosures for the 4AM23 4 to 4AT43 2 transformers are c UL us-approved.



4AM with screw terminals/flat connectors (figure on the left) and 4AT with screw terminals (figure on the right)

Selection and ordering data

Rated power[1)] P_n with degree of protection IP00	IP23	IP54	Short-time rating $P_{shortt.}$	Selectable rated voltages U_{1N}, U_{2N}	DT	Order No. stem	Standard options					PS*	Copper weight per unit approx.[3)]	Trans-former weight per unit approx.	Total weight incl. enclosure per unit approx.
kVA	kVA	kVA	kVA										kg	kg	kg
4AM transformers															
0.025	0.023	0.02	--	12 ... 690 V, with c UL us max. 600 V (including tappings)		**4AM23 4**	Two tappings in the range ±5 % of the rated input or output voltage for constant output	One tapping on the input or output side for falling output	One additional separate winding on the input or output side	Shield winding (connection routed to terminal). Not possible for autotransformers.	Standard rail mounting[2)]	1 unit	0.110	0.600	1.900
0.04	0.036	0.032	--			**4AM26 4**						1 unit	0.150	0.800	2.100
0.063	0.057	0.05	0.19			**4AM32 4**						1 unit	0.240	1.400	2.700
0.1	0.09	0.08	0.31			**4AM34 4**						1 unit	0.260	2.000	3.300
0.16	0.145	0.128	0.49			**4AM38 4**						1 unit	0.320	2.700	5.600
0.25	0.225	0.2	0.85			**4AM40 4**						1 unit	0.590	3.700	6.600
0.315	0.268	0.236	1.12			**4AM43 4**						1 unit	0.670	4.500	7.400
0.4	0.34	0.3	1.44			**4AM46 4**						1 unit	1.100	5.400	8.300
0.5	0.425	0.375	2			**4AM48 4**					--	1 unit	1.100	7.000	9.900
0.63	0.535	0.475	2.35			**4AM52 4**					--	1 unit	1.700	7.900	10.800
0.8	0.68	0.6	3.4			**4AM55 4**					--	1 unit	1.900	11.000	13.900
1	0.85	0.75	5			**4AM57 4**					--	1 unit	2.000	14.000	16.900
1.6	1.36	1.2	7.3			**4AM61 4**					--	1 unit	4.100	19.000	26.700
2	1.7	1.5	9.7			**4AM64 4**					--	1 unit	4.700	23.000	30.700
2.5	2.13	1.875	13.3			**4AM65 4**					--	1 unit	6.400	29.000	36.700
4AT transformers															
4	3.6	3.15	17.8	24 ... 690 V, with c UL us max. 600 V (including tappings)		**4AT30 3**					--	1 unit	6.600	27.000	34.700
5	4.5	4	19			**4AT36 1**					--	1 unit	5.200	32.000	39.700
6.3	5.6	5	24.5			**4AT36 3**					--	1 unit	8.700	37.000	44.700
8	7.1	6.3	31.1			**4AT39 1**					--	1 unit	9.900	45.000	58.900
10	9	8	36.4			**4AT39 3**					--	1 unit	17.000	52.000	65.900
11.2	10	--	48.3			**4AT43 0**					--	1 unit	12.000	62.000	75.900
12.5	11.2	--	53.8			**4AT43 1**					--	1 unit	15.000	65.200	79.100
14	12.5	--	58.7			**4AT43 2**					--	1 unit	19.000	69.300	83.200
16	14	--	81.2			**4AT45 0**					--	1 unit	16.000	83.200	127.200

[1)] For autotransformers = type rating.

[2)] Types 4AM32 4 to 4AM40 4 have integrated standard rail mounting.

[3)] The actual copper weight is listed in the price notice or the quotation.

For more information see the interactive catalog CA 01 and A&D Mall.

Before ordering, please ask for the complete Order No.: MD_Anfrage.aud@siemens.com.

Options

- Cage Clamp terminals, up to 24 A.
- Fuse terminals:
  Device protection fuses for secondary-side short-circuit and overload protection with rated currents ≤ 6.3 A and a rated voltage of max. 440 V AC can be mounted on the 4AM transformers; screw or Cage Clamp terminals possible.
- Rating plates made of metal:
  One separately packed rating plate made of metal can be supplied per 4AM and 4AT transformer.
- Deviations from the standard vector groups Ii0 or Ia0 for autotransformers must be specified when ordering.

*** You can order this quantity or a multiple thereof. For other units and versions see A&D Mall.**

© Siemens AG 2008

Overview

- 4BT transformers designed as matching, auto-[1] or converter transformers according to DIN VDE 0532-6
- With selectable input and output voltages in the performance range from 18 kVA to 250 kVA from 100 V to 1000 V and additional options
- CE, cULus[2]
- t_a = 55 °C/H
- Standard vector group: Ii0, for autotransformer: Ia0

[1] For autotransformers = type rating.

[2] cULus approvals for voltages ≤ 600 V (incl. tappings) and degree of protection IP00.

4BT

Selection and ordering data

Rated power[1] P_n for degree of protection IP00, IP20, IP23[2]	IP23	Selectable rated voltages U_{1N}, U_{2N}	DT	Order No. stem	Additional price for standard options					PS*	Copper weight per unit approx.[3]	Trans-former weight per unit approx.	Total weight including enclosure per unit approx.
kVA	kVA										kg	kg	kg
18	16	100 ... 1000 V, with cULus ≤ 600 V (including tappings)		**4BT45 0**	Two tappings in the range ±5 % of the rated input or output voltage for constant output	One tapping on the input or output side for falling output	One additional separate winding on the input or output side	Shield winding (connection routed to terminal). Not possible for autotransformers.	Installation in protective enclosures IP20, IP23	1 unit	18.500	85.000	129.000
20	18			**4BT47 0**						1 unit	16.000	104.000	148.000
22.5	20			**4BT47 1**						1 unit	20.500	106.000	150.000
25	22.5			**4BT47 2**						1 unit	26.500	112.000	156.000
28	25			**4BT51 0**						1 unit	25.000	109.000	160.000
31.5	28			**4BT52 0**						1 unit	26.500	122.000	173.000
35.5	32			**4BT53 0**						1 unit	28.000	135.000	186.000
40	36			**4BT54 0**						1 unit	26.000	159.000	220.000
45	40.5			**4BT54 1**						1 unit	33.000	166.000	227.000
50	45			**4BT55 0**						1 unit	34.000	183.000	244.000
63	56.5			**4BT56 0**						1 unit	45.000	214.000	275.000
80	72			**4BT58 1**						1 unit	46.000	259.000	364.000
100	90			**4BT59 0**						1 unit	60.500	302.000	407.000
125	112.5			**4BT60 1**						1 unit	78.000	355.000	460.000
160	144			**4BT62 1**						1 unit	100.000	444.000	579.000
200	180			**4BT63 0**						1 unit	129.000	523.000	658.000
250	225			**4BT65 0**						1 unit	134.500	646.000	781.000

Before ordering, please ask for the complete Order No.: MD_Anfrage.aud@siemens.com.

[1] For autotransformers = type rating.

[2] No power reduction for ambient temperatures ≤ 40 °C.

[3] The actual copper weight is listed in the price notice or the quotation.

Options

- Thermistor transformer protection:
  4BT power transformers can be supplied with thermistor transformer protection for warning and/or disconnection.
- Rating plates made of metal:
  One separately packed rating plate made of metal can be supplied per 4BT transformer.
- Deviations from the standard vector groups Ii0 or Ia0 for autotransformers must be specified when ordering.

Further versions with higher outputs up to 1250 kVA are available on request.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

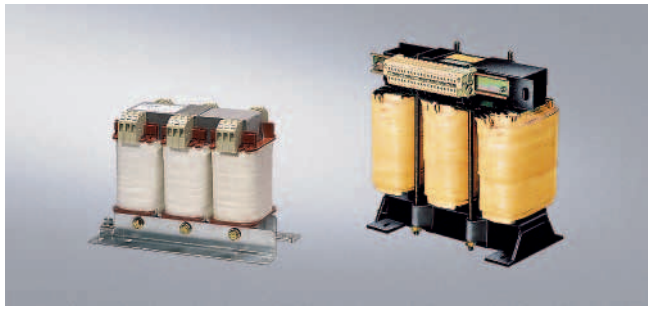
4AP, 4AU Safety, Isolating, Control and Mains Transformers

4AP, 4AU isolating, control and mains transformers

Overview

- According to EN 61558-2-4, -2-2, -2-1
- CE, cULus
- 4AP: t_a = 40 °C/B, 4AU: t_a = 55 °C/H
- AC 50/60 Hz
- Degree of protection IP00 (IP23 and IP54 on request)

; 4AP1 only



4AP2 (figure on the left) and 4AU (figure on the right)

Selection and ordering data

In two-voltage version

	Rated power P_n	Short-time rating $P_{shortt.}$ 1)	DT	Input voltage U_{1N} 3 AC Y 500–400 V/ Δ 289–230 V	PS*	Copper weight per unit approx.	Total weight per unit approx.
	kVA	kVA		Order No.		kg	kg
Output voltage U_{2N}: 3 AC Y 400 V/ Δ 230 V							
4AU	0.16	--2)	▶	**4AP17 42-8BC40-0HA0**	1 unit	0.800	3.100
	0.25	--2)	▶	**4AP18 42-8BC40-0HA0**	1 unit	1.300	4.200
	0.4	--2)	▶	**4AP19 42-8BC40-0HA0**	1 unit	1.200	5.400
	0.63	1.8	▶	**4AP20 42-8BC40-0HA0**	1 unit	2.700	6.900
	1	3.5	▶	**4AP21 42-8BC40-0HA0**	1 unit	3.300	10.800
	1.6	6.9	▶	**4AP25 42-8BC40-0HA0**	1 unit	4.100	18.100
	2.5	11	▶	**4AP27 42-8BC40-0HA0**	1 unit	4.800	25.800
	4	20	▶	**4AP30 42-8BC40-0HA0**	1 unit	9.200	38.500
	6.3	28	▶	**4AU30 32-8BC40-0HA0**	1 unit	13.500	43.000
	8	32	▶	**4AU36 12-8BC40-0HA0**	1 unit	10.000	53.000
	10	39	▶	**4AU36 32-8BC40-0HA0**	1 unit	16.300	60.000
	12.5	49	▶	**4AU39 12-8BC40-0HA0**	1 unit	18.000	73.000
	16	55	▶	**4AU39 32-8BC40-0HA0**	1 unit	32.800	89.000

Multi-voltage version

	Rated power P_n	Short-time rating $P_{shortt.}$ 1)	DT	Input voltage U_{1N} 3 AC Y 520–500–480–460–440–420–400–380–360 V/ Δ 300–289–277–266–254–240–230–220–208 V	PS*	Copper weight per unit approx.	Total weight per unit approx.
	kVA	kVA		Order No.		kg	kg
Output voltage U_{2N}: 3 AC Y 400 V/ Δ 230 V							
4AU	0.63	1.8		**4AP20 42-8CC40-0HA0**	1 unit	2.800	7.100
	1	3.5		**4AP21 42-8CC40-0HA0**	1 unit	2.900	10.400
	1.6	6.9		**4AP25 42-8CC40-0HA0**	1 unit	4.800	19.700
	2.5	11		**4AP27 42-8CC40-0HA0**	1 unit	5.200	27.000
	4	20		**4AP30 42-8CC40-0HA0**	1 unit	9.400	39.400
	6.3	28		**4AU30 32-8CC40-0HA0**	1 unit	16.000	47.000
	8	32		**4AU36 12-8CC40-0HA0**	1 unit	13.000	56.000
	10	39		**4AU36 32-8CC40-0HA0**	1 unit	21.000	65.000
	12.5	49		**4AU39 12-8CC40-0HA0**	1 unit	24.000	78.000
	16	55		**4AU39 32-8CC40-0HA0**	1 unit	43.000	99.000

1) For p.f. = 0.5 and $U_2 = 0.95 \times U_{2N}$.

2) Available only as isolating and mains transformer; not possible as control transformer.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview

- 4AP and 4AU transformers are configured as isolating, control and mains transformers according to EN 61558-2-4, -2-2, -2-1 or as safety, control and line transformers according to EN 61558-2-6, -2-2, -2-1, or as autotransformers according to EN 61558-2-13
- With selectable input and output voltages in the performance range from 0.025 kVA to 16 kVA (for autotransformers = type rating) and additional options
- CE, c UL us
- 4AP: t_a = 40 °C/B, 4AU: t_a = 55 °C/H
- Standard vector group: Dyn5, for autotransformer: Ya0

4AP2 (figure on the left) and 4AU (figure on the right)

Selection and ordering data

Rated power[1] P_n with degree of protection IP00	IP23	IP54	Short-time rating $P_{shortt.}$	Selectable rated voltages U_{1N}, U_{2N}	DT	Order No. stem	Standard options				PS*	Copper weight per unit approx.[2]	Trans-former weight per unit approx.	Total weight including enclosure per unit approx.
kVA	kVA	kVA										kg	kg	kg
4AP transformers														
0.16	0.14	0.11	--	12 V to 690 V, (line-to-line voltage U_L) Y or Δ for c UL us max. 600 V (including tappings)		**4AP17 4**	Two tappings in the range ± 5 % of the rated input or output voltage for constant output	One tapping on the input or output side for falling output; neutral point connected to terminal	One additional separate winding on the input or output side	Shield winding (connection routed to terminal). This is not possible for autotransformers.	1 unit	0.700	3.100	6.000
0.25	0.23	0.2	--			**4AP18 4**					1 unit	1.250	4.400	7.300
0.4	0.35	0.32	--			**4AP19 4**					1 unit	1.100	5.400	8.300
0.63	0.57	0.44	1.8			**4AP20 4**					1 unit	2.800	7.100	14.800
1	0.9	0.8	3.5			**4AP21 4**					1 unit	3.300	10.700	18.400
1.6	1.44	1.12	6.9			**4AP25 4**					1 unit	3.700	17.700	25.400
2.5	2.25	2	11			**4AP27 4**					1 unit	4.800	23.800	31.500
4	3.2	2.8	20			**4AP30 4**					1 unit	8.000	34.300	42.000
5	4	3.5	25			**4AP30 5**					1 unit	12.700	39.700	47.400
4AU transformers														
6.3	5	4.4	28	24 V to 690 V, (line-to-line voltage U_L) Y or Δ at c UL us max. 600 V (including tappings)		**4AU30 3**					1 unit	11.600	42.000	49.700
8	6.8	5.6	31.5			**4AU36 1**					1 unit	10.000	52.000	65.900
10	8	7.1	39			**4AU36 3**					1 unit	15.000	57.000	70.900
12.5	10	8.8	49			**4AU39 1**					1 unit	17.200	67.000	80.900
16	12.5	11.2	55			**4AU39 3**					1 unit	30.000	81.000	94.900

Before ordering, please ask for the complete Order No.: MD_Anfrage.aud@siemens.com.

1) For autotransformers = type rating.

2) The actual copper weight is listed in the price notice or the quotation.

3) The specified rating is a typical maximum short-time rating at p.f. = 0.5.

Options

- Rating plates made of metal:
  One separately packed rating plate made of metal can be supplied per 4AP transformer.
- Deviations from the standard vector groups Dyn5 or Ya0 for autotransformers must be specified when ordering.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

4BU Power Transformers

4BU transformers with selectable voltages

Overview

- 4BU power transformers and 4BU power transformers with cULus approval designed as matching[1], auto- or converter transformers
- With selectable input and output voltages from 100 V to 1000 V (line-to-line voltage U_L) Y or Δ In the performance range from 18 kVA to 400 kVA and additional options
- DIN VDE 0532-6
- CE, cULus[2] (see Selection and Ordering Data)
- t_a = 40 °C/H and optional t_a = 55 °C/H
- Standard vector group: Dyn5, for autotransformer: Ya0

1) For autotransformers = type rating.

2) cULus approvals for voltages ≤ 600 V (incl. tappings) and degree of protection IP00 apply on for 4BU43 33 to 4BU65 33.

4BU

Selection and ordering data

4BU power transformers

Rated power[1] P_n with degree of protection IP00, IP20[2]	IP23	DT	Standard Order No. stem	USA and Canada Order No. stem	Standard options						PS*	Copper weight per unit approx.[3][4]	Trans-former weight per unit approx.[3][4]	Total weight including enclosure per unit approx.[3][4]
kVA	kVA											kg	kg	kg
18	16		**4BU43 32**	**4BU43 33**	Two tappings in the range ±5 % of the rated input or output voltage for constant output	One tapping on the input or output side for falling output; neutral point connected to terminal	One additional separate winding on the input or output side	Shield winding (connection routed to terminal). Not possible for autotransformers.	Installation in protective enclosures IP20, IP23	Rated ambient temperature t_a = 55 °C/H	1 unit	21.000	101.000	145.000
20	18		**4BU43 42**	**4BU43 43**							1 unit	27.000	105.000	149.000
22.5	20		**4BU43 52**	**4BU43 53**							1 unit	36.000	115.000	159.000
25	22.5		**4BU45 32**	**4BU45 33**							1 unit	26.000	131.000	175.000
28	25		**4BU45 42**	**4BU45 43**							1 unit	34.000	139.000	183.000
31.5	28		**4BU47 32**	**4BU47 33**							1 unit	30.500	166.000	210.000
35.5	32		**4BU47 42**	**4BU47 43**							1 unit	40.000	174.000	218.000
40	36		**4BU47 52**	**4BU47 53**							1 unit	52.500	188.000	232.000
45	40.5		**4BU52 32**	**4BU52 33**							1 unit	49.000	185.000	236.000
50	45		**4BU53 32**	**4BU53 33**							1 unit	52.000	205.000	256.000
56	50		**4BU53 42**	**4BU53 43**							1 unit	67.000	219.000	270.000
63	56.5		**4BU54 32**	**4BU54 33**							1 unit	46.500	262.000	323.000
71	63.5		**4BU54 42**	**4BU54 43**							1 unit	60.500	276.000	337.000
80	72		**4BU55 32**	**4BU55 33**							1 unit	65.000	306.000	367.000
91	81.5		**4BU56 32**	**4BU56 33**							1 unit	68.000	343.000	404.000
100	90		**4BU56 42**	**4BU56 43**							1 unit	84.500	359.000	420.000
112	100.5		**4BU58 32**	**4BU58 33**							1 unit	60.500	425.000	530.000
125	112.5		**4BU58 42**	**4BU58 43**							1 unit	76.500	440.000	545.000
140	126		**4BU58 52**	**4BU58 53**							1 unit	97.500	462.000	567.000
160	144		**4BU59 32**	**4BU59 33**							1 unit	104.000	516.000	621.000
180	162		**4BU60 32**	**4BU60 33**							1 unit	106.000	579.000	684.000
200	180		**4BU62 32**	**4BU62 33**							1 unit	112.000	678.000	813.000
225	202.5		**4BU62 42**	**4BU62 43**							1 unit	146.000	711.000	846.000
250	225		**4BU62 52**	**4BU62 53**							1 unit	185.000	751.000	886.000
280	252		**4BU63 32**	**4BU63 33**							1 unit	187.000	834.000	969.000
315	283.5		**4BU63 42**	**4BU63 43**							1 unit	244.000	891.000	1026.000
355	319.5		**4BU64 32**	**4BU64 33**							1 unit	251.000	997.000	1132.000
400	360		**4BU65 32**	**4BU65 33**							1 unit	280.000	1128.000	1263.000

Before ordering, please ask for the complete Order No.: MD_Anfrage.aud@siemens.com.

1) For autotransformers = type rating.

2) No power reduction for ambient temperatures ≤ 40 °C.

3) All weights are based on t_a = 40 °C/H, at t_a = 55 °C/H other weights apply. The actual copper weight is listed in the price notice or the quotation.

4) All of the specified weights apply to 4BU43 32 to 4BU65 32 power transformers; other weights apply for 4BU43 33 to 4BU65 33.

Options

- Thermistor transformer protection: 4BU power transformers can be supplied with thermistor transformer protection for warning and/or disconnection.
- Rating plates made of metal: One separately packed rating plate made of metal can be supplied per 4BU transformer.
- Deviations from the standard vector groups Dyn5 or Ya0 for autotransformers must be specified when ordering.

Further versions with higher outputs up to 1250 kVA are available on request.

*** You can order this quantity or a multiple thereof. For other units and versions see A&D Mall.**

© Siemens AG 2008

Power Supplies

11

11/2 **Introduction**

4AV Non-Stabilized Power Supplies

Filtered for Supply of Electronic Controls

11/3 4AV2, 4AV4 power supplies, filtered, single-phase

11/4 4AV3, 4AV5 power supplies, filtered, 3-phase

6EP Stabilized Power Supplies

SITOP 6EP Power Supplies

11/5 LOGO!Power, single-phase

SITOP smart, single-phase

11/6 SITOP modular, basic units 24 V, add-on modules

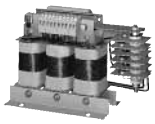
© Siemens AG 2008

Introduction

Overview

4AV non-stabilized power supplies

		4AV21/23	**4AV20/22/24/26**	**4AV4**	**4AV3**	**4AV5**
Filtered for supply of electronic controls						
Ripple		< 5 %	< 5 %	< 5 %	< 5 %	< 5 %
Phase		1	1	1	3	3
Rated input voltage	V AC	115 ... 415	115 ... 415	230 ... 415	200 ... 600	400 ... 415
Rated output voltage according to EN 61131-2 suitable for SIMATIC systems	V DC	24	24	24	24	24
Rated output current	A	1 ... 4.2	2.5 ... 18	1.5 ... 10	15 ... 180	25, 35
Connection		Screw terminals/ flat connectors	Screw terminals/ flat connectors or Cage Clamp terminals	Screw terminals/ flat connectors or Cage Clamp terminals	Screw terminals/ flat connectors	Screw terminals/ flat connectors
Mounting		Standard rail mounting	Screw and/or standard rail mounting	Screw and/or standard rail mounting	Screw mounting	Screw mounting
cULus approval at 60 °C		Yes	Yes	No	Partially	No

			
		4AV98[1]	**4AV96**[1]
Unfiltered for supply of general loads			
Ripple		48.3 %	< 5 %
Phase		1	3
Rated input voltage	V AC	230 or 400	400
Rated output voltage	V DC	24	30-27-24
Rated output current/ rated power		50 ... 500 W	4 ... 25 A
Connection		Screw terminals/ flat connectors	Screw terminals/ flat connectors
Mounting		Screw mounting	Screw mounting
cULus approval		No	No

1) Other products can be found in the A&D Mall.

6EP stabilized power supplies

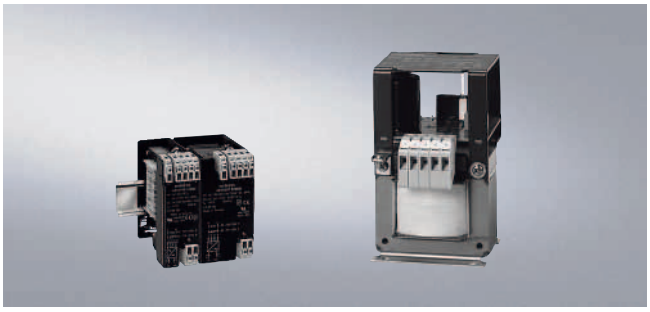
		6EP1 LOGO!Power	**6EP1 SITOP smart**	**6EP1 SITOP modular**	**6EP1 SITOP uninterruptible**
Phase		1	1	1, 2, 3	1
Rated input voltage	V	100 ... 240 AC	48 ... 220 DC, 120 ... 230 AC, 120/230 AC	120/230 ... 500 AC, 120/230 AC, 3 AC 400 ... 500	24 DC
Rated output voltage	V DC	5, 12, 15, 24	24, 3 ... 52	24	24
Rated output current	A	1.3 ... 6.3	0.375 ... 10	5 ... 40	6, 15, 40
Connection		Screw terminals	Screw terminals	Screw terminals	Screw terminals
Mounting		Standard rail mounting	Standard rail mounting	Standard rail mounting	Standard rail mounting
Approval		UL, cUL	UL, cUL	UL, cUL	UL, cUL

More power supply products can be found in the Catalog KT 10.1 or on the Internet at http://www.siemens.com/sirius-supplying and http://www.siemens.com/sitop.

© Siemens AG 2008

Overview

- Rated output voltage U_{2N} 24 V DC according to EN 61131-2[1] and SIMATIC at input voltage +6 ... -10 % and load 0 ... 100 %
- Safety transformers according to EN 61558-2-6
- 4AV21, 4AV23: CE, c UL us at 60 °C; 4AV20, 4AV22, 4AV24, 4AV26: CE, c UL us at 60 °C; 4AV41: CE
- 4AV2: t_a = max. 60 °C/B, 4AV41: t_a = 40 °C/B
- Varistor suppressor circuit
- Status LED
- With screw terminals/flat connectors (Cage Clamp) see A&D Mall
- EMC: according to EN 62041
  4AV2 suitable for connection to the public supply (residential buildings) and industrial networks (industrial buildings):
  4AV4 suitable for connection to industrial networks (industrial buildings):
- Ripple < 5 %.



4AV21, 4AV23 (left) and 4AV20, 4AV22 to 4AV24 (right)

[1] EN 61131-2: equipment specification for power supply and interface for programmable controllers.

Selection and ordering data

Rated output voltage U_{2N} 24 V DC

CE, c UL us,

Rated output current I_d 60 °C/B EN 61558 c UL us	40 °C/B EN 61558	DT	Rated input voltage U_{1N}[1] 230 (240) - 115 (120) V	PS*	Copper weight per unit approx.	Total weight per unit approx.	DT	Rated input voltage U_{1N}[1] 400 (415) V	PS*	Copper weight per unit approx.	Total weight per unit approx.
DC A	DC A		Order No.		kg	kg		Order No.		kg	kg
Integrated standard rail mounting											
1	1.2	▶	**4AV21 02-2EB00-0A**	1 unit	0.600	1.500	▶	**4AV21 06-2EB00-0A**	1 unit	0.600	1.500
3.5	4.2	▶	**4AV23 02-2EB00-0A**	1 unit	0.900	2.500	▶	**4AV23 06-2EB00-0A**	1 unit	0.900	2.500

[1] During operation at the mains voltages listed in brackets, the upper limit for 24 V DC according to EN 61131-2 at +6 % mains voltage is met for a basic load of 10 %. Under no-load operation, 30.6 V can be achieved with types 4AV2 and 31.4 V with types 4AV4.

4AV2: CE, c UL us, ; 4AV41: CE,

Rated output current I_d 60 °C/B EN 61558 c UL us	40 °C/B EN 61558	DT	Rated input voltage U_{1N}[1] 400 (415) - 230 (240) V with tapping ± 15 V	PS*	Copper weight per unit approx.	Total weight per unit approx.	DT	Rated input voltage U_{1N} 400 (415) - 230 (240) - 115 (120) V	PS*	Copper weight per unit approx.	Total weight per unit approx.
DC A	DC A		Order No.		kg	kg		Order No.		kg	kg
Screw mounting[2]											
2.5	3	▶	**4AV20 00-2EB00-0A**	1 unit	0.620	2.300	▶	**4AV20 01-2EB00-0A**	1 unit	0.620	2.300
5	6	▶	**4AV22 00-2EB00-0A**	1 unit	0.600	4.900	▶	**4AV22 01-2EB00-0A**	1 unit	0.600	4.900
10	12	▶	**4AV24 00-2EB00-0A**	1 unit	0.900	7.500	▶	**4AV24 01-2EB00-0A**	1 unit	0.900	7.500
15	18	▶	**4AV26 00-2EB00-0A**	1 unit	2.300	9.800	▶	**4AV26 01-2EB00-0A**	1 unit	2.300	9.800
--	1.5	▶	**4AV41 01-2EB00-0A**	1 unit	0.300	1.400		--			
--	3	▶	**4AV41 03-2EB00-0A**	1 unit	0.310	2.300		--			
--	6	▶	**4AV41 06-2EB00-0A**	1 unit	0.510	4.000		--			
--	10	▶	**4AV41 10-2EB00-0A**	1 unit	1.100	5.300		--			
Standard rail mounting											
2.5	3	▶	**4AV20 00-2EB00-0A**	1 unit	0.620	2.300	▶	**4AV20 01-2EB00-0A**	1 unit	0.620	2.300
5	6		**4AV22 00-2EB00-0B**	1 unit	0.600	4.900		**4AV22 01-2EB00-0B**	1 unit	0.600	4.900
10	12		**4AV24 00-2EB00-0B**	1 unit	0.900	7.500		**4AV24 01-2EB00-0B**	1 unit	0.900	7.500
--	1.5		**4AV41 01-2EB00-0B**	1 unit	0.300	1.400		--			
--	3	▶	**4AV41 03-2EB00-0A**	1 unit	0.310	2.300		--			
--	6	▶	**4AV41 06-2EB00-0A**	1 unit	0.510	4.000		--			
--	10		**4AV41 10-2EB00-0B**	1 unit	1.100	5.300		--			

[1] During operation at the mains voltages listed in brackets, the upper limit for 24 V DC according to EN 61131-2 at +6 % mains voltage is met for a basic load of 10 %. Under no-load operation, 30.6 V can be achieved with types 4AV2 and 31.4 V with types 4AV4.

[2] Types 4AV20, 4AV41 03 and 4AV41 06 are equipped with an integrated standard rail mounting as standard.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

4AV Non-Stabilized Power Supplies

Filtered for Supply of Electronic Controls

4AV3, 4AV5 power supplies, filtered, 3-phase

Overview

- Rated output voltage U_{2N} 24 V DC according to EN 61131-2[1] and SIMATIC at input voltage +6 ... -10 % and load 0 ... 100 %
- Safety transformer according to EN 61558-2-6
- 4AV30 to 4AV35: CE, cULus at 60 °C; 4AV36, 4AV38, 4AV51: CE
- 4AV3: t_a = max. 60 °C/B, 4AV51: t_a = 40 °C/B
- Varistor suppressor circuit
- Status LED
- With screw terminals/flat connectors
- EMC: according to EN 62041 4AV3 suitable for connection to the public supply (residential buildings) and industrial networks (industrial buildings) 4AV5 suitable for connection to industrial networks (industrial buildings)
- Ripple < 5 %.

4AV30 to 4AV33 (figure on the left) and 4AV38 (figure on the right)

[1] EN 61131-2: equipment specification for power supply and interface for programmable controllers.

Selection and ordering data

Rated output voltage U_{2N} 24 V DC

4AV31 to 4AV35: CE, cULus, ; 4AV36, 4AV38, 4AV51 CE,

Rated output current I_d 60 °C/B EN 61558 cULus	Rated output current I_d 40 °C/B EN 61558	Additional capacitance	Ripple	Backup time at U_1 = U_{1N} -10 %	DT	Rated input voltage U_{1N} Order No.	DT	Rated input voltage U_{1N} Order No.	PS*	Copper weight per unit approx.	Total weight per unit approx.
DC A	DC A	µF	%	ms						kg	kg
Standard versions											
						400 (415) V with tapping ± 20 V,					
--	25	--	< 5	--		**4AV51 25-2EB00-0A**			1 unit	2.000	10.300
--	35	--	< 5	--		**4AV51 35-2EB00-0A**			1 unit	3.400	14.500
						Y 400 (415) V with tapping ± 20 V, Δ 230 V with tapping ± 10 V		500-400 (415) V			
10	12	--	< 5	--	▶	**4AV30 00-2EB00-0A**		**--**	1 unit	1.600	5.000
15	18	--	< 5	--	▶	**4AV31 00-2EB00-0A**	▶	**4AV31 01-2EB00-0A**	1 unit	1.600	6.500
20	24	--	< 5	--	▶	**4AV32 00-2EB00-0A**		**--**	1 unit	2.400	8.000
30	36	--	< 5	--	▶	**4AV33 00-2EB00-0A**	▶	**4AV33 01-2EB00-0A**	1 unit	2.600	11.000
40	48	--	< 5	--	▶	**4AV34 00-2FB00-0A**		**--**	1 unit	4.900	17.000
50	60	--	< 5	--	▶	**4AV35 00-2FB00-0A**	▶	**4AV35 01-2FB00-0A**	1 unit	4.100	21.000
Without cULus (unfiltered)											
80	96		< 5	--		**--**	▶	**4AV36 01-2EB00-0A**	1 unit	8.600	32.000
150	180	--	< 5	--		**--**	▶	**4AV38 01-2EB00-0A**	1 unit	14.400	46.000
								575 (600)-500-460 (480)-400 (415)-230 (240)-200 V			
9	11	--	< 5	--			▶	**4AV30 02-2EB00-0A**	1 unit	1.600	5.000
13.5	16	--	< 5	--			▶	**4AV31 02-2EB00-0A**	1 unit	1.600	6.500
18	21.5	--	< 5	--			▶	**4AV32 02-2EB00-0A**	1 unit	2.400	8.000
27	32.5	--	< 5	--			▶	**4AV33 02-2EB00-0A**	1 unit	2.600	11.000
36	43	--	< 5	--			▶	**4AV34 02-2FB00-0A**	1 unit	4.900	17.000
45	54	--	< 5	--			▶	**4AV35 02-2FB00-0A**	1 unit	4.100	21.000
With additional capacitors (aluminum electrolyte)											
						Y 400 (415) V with tapping ± 20 V, Δ 230 V with tapping ± 10 V		500-400 (415) V			
10	12	10000	2	1		**4AV30 00-2EB00-0C**		**--**	1 unit	1.600	5.200
15	18	10000	3	0.6		**4AV31 00-2EB00-0C**		**4AV31 01-2EB00-0C**	1 unit	1.600	6.700
20	24	10000	3	0.4		**4AV32 00-2EB00-0C**		**--**	1 unit	2.400	8.200
30	36	10000	4	0.7		**4AV33 00-2EB00-0C**		**4AV33 01-2EB00-0A**	1 unit	2.600	11.200
40	48	10000	3	0.7		**4AV34 00-2FB00-0C**		**--**	1 unit	4.900	17.200
50	60	10000	4	0.3		**4AV35 00-2FB00-0C**		**4AV35 01-2FB00-0C**	1 unit	4.100	21.200
Without cULus (unfiltered)											
80	96	2 × 10000	4	0.2		**--**		**4AV36 01-2EB00-0C**	1 unit	8.600	32.400
150	180	3 × 10000	4	0.2		**--**		**4AV38 01-2EB00-0C**	1 unit	14.400	46.600

*** You can order this quantity or a multiple thereof. For other units and versions see A&D Mall.**

© Siemens AG 2008

Selection and ordering data

Enclosures
54 mm and
72 mm wide

Enclosure
90 mm wide

6EP1 731-2BA00,
6EP1 331-2BA10

6EP1 332-2BA10

6EP1 333-2.A01

6EP1 334-2.A01

6EP1 353-2BA00

Version	Input Rated voltage $U_{e\ Rated}$	Output Rated voltage $U_{a\ Rated}$	Rated current $I_{a\ Rated}$	Dimensions (W x H x D)	DT	Order No.	PS*	Weight per unit approx.
			A	mm				kg
Logo!Power power supplies, 5 V								
3 A	100 V … 240 V AC (85 … 264 V)	5 V DC ± 3 %	3	54 x 90 x 55	►	**6EP1 311-1SH02**	1 unit	0.170
6.3 A	100 V … 240 V AC (85 … 264 V)	5 V DC ± 3 %	6.3	72 x 90 x 55	►	**6EP1 311-1SH12**	1 unit	0.250
Logo!Power power supplies, 12 V								
1.9 A	100 V … 240 V AC (85 … 264 V)	12 V DC ± 3 %	1.9	54 x 90 x 55	►	**6EP1 321-1SH02**	1 unit	0.170
4.5 A	100 V … 240 V AC (85 … 264 V)	12 V DC ± 3 %	4.5	72 x 90 x 55	►	**6EP1 322-1SH02**	1 unit	0.250
Logo!Power power supplies, 15 V								
1.9 A	100 V … 240 V AC (85 … 264 V)	15 V DC ± 3 %	1.9	54 x 90 x 55	►	**6EP1 351-1SH02**	1 unit	0.170
4 A	100 V … 240 V AC (85 … 264 V)	15 V DC ± 3 %	4	72 x 90 x 55	►	**6EP1 352-1SH02**	1 unit	0.250
Logo!Power power supplies, 24 V								
1.3 A	100 V … 240 V AC (85 … 264 V)	24 V DC ± 3 %	1.3	54 x 90 x 55	►	**6EP1 331-1SH02**	1 unit	0.170
2.5 A	100 V … 240 V AC (85 … 264 V)	24 V DC ± 3 %	2.5	72 x 90 x 55	►	**6EP1 332-1SH42**	1 unit	0.250
4 A	100 V … 240 V AC (85 … 264 V)	24 V DC ± 3 %	4	90 x 90 x 55	►	**6EP1 332-1SH51**	1 unit	0.340
SITOP smart, power supplies 24 V								
0.375 A	48 V ... 220 V DC (30 V ... 264 V DC, 30 V ... 187 V AC)	24 V DC ± 3 %	0.375 A	22.5 x 80 x 91	►	**6EP1 731-2BA00**	1 unit	0.140
0.5 A	120 V ... 230 V AC (93 V ... 264 V AC)	24 V DC ± 3 %	0.5 A	22.5 x 80 x 91	►	**6EP1 331-2BA10**	1 unit	0.110
Limitation of input current harmonics according to EN 61000-3-2								
2.5 A	120/230 V AC (85 ... 132 V/ 170 ... 264 V)	24 V DC ± 3 %	2 A	32.5 x 125 x 125	►	**6EP1 332-2BA10**	1 unit	0.320
Limitation of input current harmonics according to EN 61000-3-2								
5 A	120/230 V AC (85 ... 132 V/ 170 ... 264 V)	24 V DC ± 3 %	5 A	50 x 125 x 125	►	**6EP1 333-2BA01**	1 unit	0.500
5 A	120/230 V AC (85 ... 132 V/ 170 ... 264 V)	24 V DC ± 3 %	5 A	50 x 125 x 125	►	**6EP1 333-2AA01**	1 unit	0.500
Limitation of input current harmonics according to EN 61000-3-2								
10 A	120/230 V AC (85 ... 132 V/ 170 ... 264 V)	24 V DC ± 3 %	10 A	70 x 125 x 125	►	**6EP1 334-2BA01**	1 unit	0.800
10 A	120/230 V AC (85 ... 132 V/ 170 ... 264 V)	24 V DC ± 3 %	10 A	70 x 125 x 125	►	**6EP1 334-2AA01**	1 unit	0.750
SITOP smart, power supplies 3 ... 52 V								
Limitation of input current harmonics according to EN 61000-3-2, adjustable output voltage 3 ... 52 V, output max. 10 A or 120 W								
max. 10 A or 120 W	120/230 V AC (85 ... 132 V/ 170 ... 264 V)	3 V ... 52 V DC ± 1 %	10 A	75 x 125 x 125	►	**6EP1 353-2BA00**	1 unit	0.900

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

SITOP modular, basic units 24 V, Add-on modules

Selection and ordering data

6EP1 333-3BA00

6EP1 334-3BA00

6EP1 .36-3BA00

6EP1 436-3BA01

6EP1 .37-3BA00

Version	Input Rated voltage $U_{e\ Rated}$	Output Rated voltage $U_{a\ Rated}$	Rated current $I_{a\ Rated}$	Dimensions (W x H x D) mm	DT	Order No.	PE (UNIT, SET, M)	Weight per PU approx. kg
Power supplies 24 V								
5 A	120/230 V ... 500 V AC (85 ... 132 V/ 176 ... 550 V)	24 V DC ± 3 %	5 A	70 x 125 x 125	▶	**6EP1 333-3BA00**	1	1.200
10 A	120/230 V ... 500 V AC (85 ... 132 V/ 176 ... 550 V)	24 V DC ± 3 %	10 A	90 x 125 x 125	▶	**6EP1 334-3BA00**	1	1.400
20 A	120/230 V AC (85 ... 132 V/ 176 ... 264 V)	24 V DC ± 3 %	20 A	160 x 125 x 125	▶	**6EP1 336-3BA00**	1	2.200
20 A	3 AC 400 ... 500 V (320 ... 550 V)	24 V DC ± 3 %	20 A	160 x 125 x 125	▶	**6EP1 436-3BA00**	1	2.000
20 A	3 AC 400 V ... 500 V (360 ... 550 V)	24 V DC ± 3 %	20 A	70 x 125 x 125	D	**6EP1 436-3BA01**	1	1.200
40 A	120/230 V AC (85 ... 132 V/ 176 ... 264 V)	24 V DC ± 3 %	40 A	240 x 125 x 125	▶	**6EP1 337-3BA00**	1	2.900
40 A	3 AC 400 V ... 500 V (320 ... 550 V)	24 V DC ± 3 %	40 A	240 x 125 x 125	▶	**6EP1 437-3BA00**	1	3.200

6EP1 961-3BA10

6EP1 961-3BA00,
6EP1 961-3BA20

6EP1 961-2BA00

Input Rated voltage $U_{e\ Rated}$	Output Rated voltage $U_{a\ Rated}$	Rated current $I_{a\ Rated}$	Dimensions (W x H x D) mm	DT	Order No.	PS*	Weight per PU approx. kg
Signaling modules							
--	--	--	25 x 125 x 125	▶	**6EP1 961-3BA10**	1 unit	0.150
Redundancy modules							
24 V DC (24 ... 28.8 V)	U_e -approx. 0.5 V	20 A	70 x 125 x 125	▶	**6EP1 961-3BA20**	1 unit	1.000
SITOP select diagnostics modules, 4-fold							
24 V DC	23.5 V DC	2 A ... 10 A	72 x 90 x 90	▶	**6EP1 961-2BA00**	1 unit	0.400
Buffer modules							
24 V DC (24 ... 28.8 V)	U_e -approx. 1 V	40 A	70 x 125 x 125	▶	**6EP1 961-3BA00**	1 unit	1.200

For other units and versions, see Catalog KT 10.1.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Planning and Configuration with SIRIUS

12

12/2 Motor Starter ES

12/4 ECOFAST ES

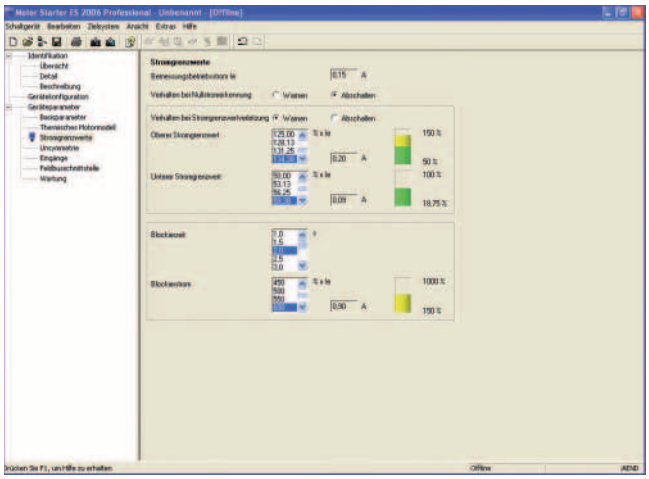
12/5 SIMOCODE ES

12/7 Soft Starter ES

© Siemens AG 2008

Motor Starter ES

Overview



Motor Starter ES for parameterization, monitoring, diagnostics and testing of motor starters

Motor Starter ES is used for start-up, parameterization, diagnostics, documentation and the preventative maintenance of the High-Feature motor starters of the SIMATIC ET 200S, ET 200pro and ECOFAST product families.

Interfacing is performed
- either through the serial device interface (applicable to ET 200S/ET 200pro/ECOFAST) or
- with PROFIBUS DP V1 capable motor starters from any point in PROFIBUS (applies for ET 200pro/ECOFAST).

Using Motor Starter ES, the communication-capable motor starters are easily parameterized during start-up, monitored during normal operation and successfully diagnosed for service purposes. Preventative maintenance is supported by a function for reading out diverse statistical data (e.g. operating hours, operating cycles, cut-off currents, etc.). The user is supported during these procedures with comprehensive Help functions and plain text displays.

Motor Starter ES can either be used as a stand-alone program or it can be integrated into STEP 7 V5.1 SP3 upwards using an object manager.

The following components are required for a **serial** connection:

ET 200S motor starters, High-Feature:
- Control module 2DI DC 24 V COM
  3RK1 903-0CH10
- LOGO! PC cable
  6ED1 057-1AA00-0BA0

ET 200pro motor starters:
- RS 232 interface cable
  3RK1 922-2BP00

ECOFAST High-Feature motor starters (interface cable):
- PC cable
  3RK1 911-0BN20.

© Siemens AG 2008

Selection and ordering data

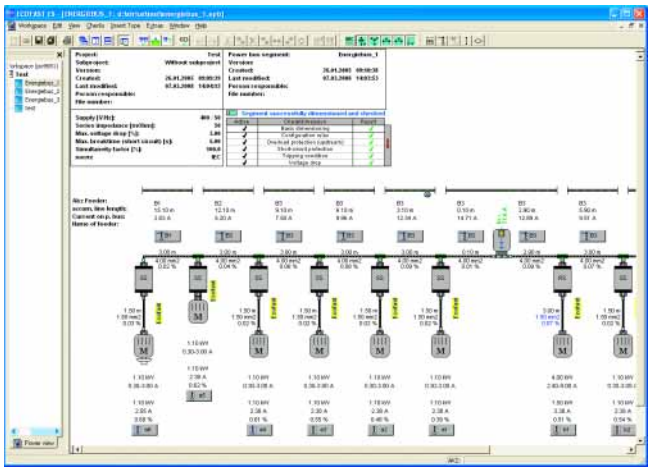
Version	DT	Order No.	PS*	Weight per PU approx.
				kg
Motor Starter ES 2006 Smart Single license Comprising: • Motor Starter ES for parameterization, monitoring, diagnostics and testing of the ECOFAST motor starters, SIMATIC ET 200S High-Feature starters and SIMATIC ET 200pro motor starters using a serial connection - With Online Help German/English selectable - Operating system: Windows 2000/XP • System requirements: - Cable for serial communication through a serial interface - CD-ROM drive		**3ZS1 310-1CC10-0YA0**	1 unit	0.230
Motor Starter ES 2006 Professional Single license Comprising: • Motor Starter ES for parameterization, monitoring, diagnostics and testing of the ECOFAST motor starters, SIMATIC ET 200S High-Feature starters and SIMATIC ET 200pro motor starters using PROFIBUS DP or a serial interface - With Online Help German/English selectable - Operating system: Windows 2000/XP • STEP7 Object Manager (OM) For integrating the ECOFAST starters as S7 slaves in SIMATIC S7 For calling Motor Starter ES from STEP7		**3ZS1 310-2CC10-0YA0**	1 unit	0.230
Motor Starter ES 2006 Professional Upgrade Single license Comprising: • Upgrade from Switch ES Motor Starter 2004 or Motor Starter ES Smart 2005 to Motor Starter ES 2006 Professional		**3ZS1 310-2CC10-0YE0**	1 unit	0.230
Accessories for ET 200S motor starters, High-Feature				
Control modules 2DI DC 24 V COM Digital input module with 2 inputs for local motor starter functions for mounting onto the front of motor starters Operational voltage 24 V DC (supplied from U_1), short-circuit resistant, floating contact with serial interface for connecting to Motor Starter ES Connection through LOGO! PC cable, max. cable length (out and back) 50 m		**3RK1 903-0CH10**	1 unit	0,025
LOGO! PC cables For connecting the High-Feature motor starter with Motor Starter ES interface to a PC		**6ED1 057-1AA00-0BA0**	1 unit	0.159
Accessories for ET 200pro motor starters				
RS 232 interface cables For serial data connection between an ET 200pro motor starter and a laptop/PC/PG		**3RK1 922-2BP00**	1 unit	0.330
Accessories for ECOFAST motor starters, High-Feature (interface cable)				
PC cables		**3RK1 911-0BN20**	1 unit	0.162

*** You can order this quantity or a multiple thereof.**
For other products and versions see A&D Mall.

© Siemens AG 2008

ECOFAST ES

Overview



ECOFAST ES for configuring, calculating and documenting of applications

ECOFAST ES configuring tool

The ECOFAST system is an open and innovative system solution for distributed applications and sets new standards in equipping machines and plants for automation, low-voltage controlgear and drive technology. The system therefore offers a high degree of safety and availability during operation in addition to high time and cost savings during planning and commissioning/mounting.

The convenient ECOFAST ES configuring software reduces configuring times even further and enables reliable configuring right from the start. ECOFAST ES reduces errors and effort during configuring, calculating and documenting of applications.

ECOFAST ES provides the following advantages:

- Graphic user interface for selecting and interconnecting stations on the power bus
- The components are identified down to the unique order number and entered in parts/quantity lists
- Automatic interface and function testing by means of logic rules (e.g. motor brakes, selectivity, etc.)
- Cable characteristics and laying specifications are taken into account in the calculation
- Plug-in connections are adapted automatically
- Division of projects into levels of hierarchy is possible
- The software finally calculates and checks the configuration according to currently valid standards and state of the art
- If necessary, an error list with hints for possible solutions (on-line help) can be output
- The configuration can be optimized automatically
- Choice of German, English and French as operating language.

System requirements

ECOFAST ES V1.4 supports all standard PCs with the Windows operating system. Minimum hardware and software requirements need to be met to work with ECOFAST ES V1.4; efficient operation is possible with the recommended values.

System requirements	Minimum	Recommended
Operating system (with service pack)	Windows 2000 or Windows XP Professional	
Processor	Pentium 800 MHz	Pentium 1000 MHz[1)]
Graphics cards		
• Resolution	1024 x 768	1280 x 1024
• Colors, number	256	True Color
Main memory	512 MB RAM	> 512 MB RAM
Free space on hard disk	At least 50 MB[2)]	
CD-ROM drive[3)]	Yes, for the installation of ECOFAST ES V1.4	

1) More powerful platforms may be necessary when working with options.
2) Additional free space recommended, e.g. for swap-out file.
3) CD-ROM drive not required for using ECOFAST ES V1.4.

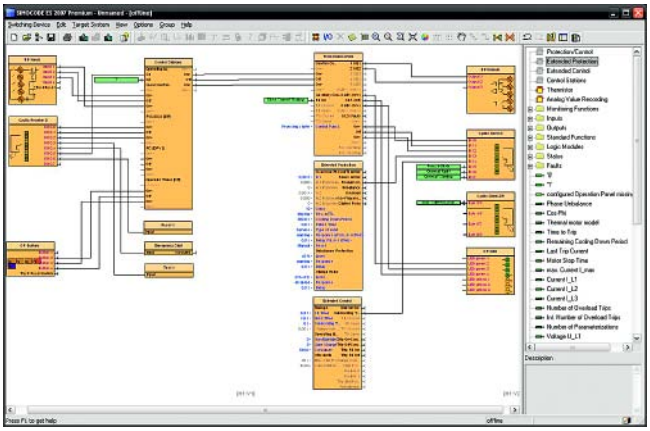
Selection and ordering data

Version	DT	Order No.	PS*	Weight per PU approx.
				kg
ECOFAST ES, basic package V1.4 Graphic configuring tool for SIRIUS drive solutions • Operator prompting for selecting products • Configuring the supply system according to standards • Documentation, parts lists, quantity lists • Operating languages: German, English, French Type of delivery: CD, single license		**3ZS1 200-0CC14-0YA0**	1 unit	0.100

*** You can order this quantity or a multiple thereof.**
For other products and versions see A&D Mall.

© Siemens AG 2008

Overview



SIMOCODE ES Graphic: Easy and ergonomic parameterizing of SIMOCODE pro

SIMOCODE ES

SIMOCODE ES is the central software for SIMOCODE pro start-up, operation and diagnostics. Two versions are available:

- **SIMOCODE ES Professional** for connection to one or several devices through PROFIBUS DP or point-to-point directly on the device through the system interface
- **SIMOCODE ES Smart** for direct connection to SIMOCODE pro through the system interface on the device

SIMOCODE ES Professional

SIMOCODE ES Professional provides convenient configuration and diagnostics of SIMOCODE pro from a central position through PROFIBUS. By displaying all operating, service and diagnostics data, SIMOCODE ES supplies important information when maintenance work is required or in the event of a fault, thus helping to prevent faults or to localize and rectify them once they have occurred. Unnecessary plant downtimes are prevented by being able to change parameters online even during operation.

The following information is just an excerpt of that presented in clearly arranged dialogs:

- Warnings, faults, signals
- Measured values and measuring curves
- Operating hours, downtimes etc.
- Fault protocol

Control functions, protection functions and the wiring of the control circuit are implemented in SIMOCODE pro on a software basis and are configured with SIMOCODE ES.

Using the OM SIMOCODE pro object manager, which forms part of SIMOCODE ES Professional, SIMOCODE ES Professional can be integrated in and activated from SIMATIC STEP 7. This allows easy and S7-consistent configuration and device parameterization. Hence SIMOCODE pro is totally integrated in SIMATIC S7.

The advantages at a glance

- Easy parameterization reduces the amount of engineering work and shortens start-up times
- Clearly arranged plant documentation by graphic display (SIMOCODE ES Graphic)
- Detailed information, also when there are faults, is a help for maintenance personnel and shortens downtimes
- Stand-alone version and integration in SIMATIC STEP 7 enable universal use
- Parameters can be changed even during operation
- Consistent data storage and easy configuration thanks to integration in TIA (Totally Integrated Automation).

SIMOCODE ES Smart

Ergonomically designed tools are required for the time-saving start-up of a switchboard. SIMOCODE ES Smart provides the user with the same functions as SIMOCODE ES Professional. The only difference is: Parameterizing takes place directly on the device.

SIMOCODE ES Smart is provided by SIMOCODE pro to serve as a user-friendly and clearly arranged interface for direct parameterization and start-up on the device. The integrated, flexible printing function allows comprehensive plant documentation or partial documentation of selected or changed parameters.

SIMOCODE ES Graphic

This software package can be used together with SIMOCODE ES Smart/Professional.

SIMOCODE ES Graphic expands the user interface of SIMOCODE ES Smart/Professional with a graphical editor and thus supports extremely ergonomic and user-friendly parameterization with Drag & Drop.

Inputs and outputs of function blocks can be graphically wired and parameters can be set. The configured functions can be described in greater detail using random comments and the device parameterization can be documented graphically - this speeds up start-up and simplifies the documentation.

© Siemens AG 2008

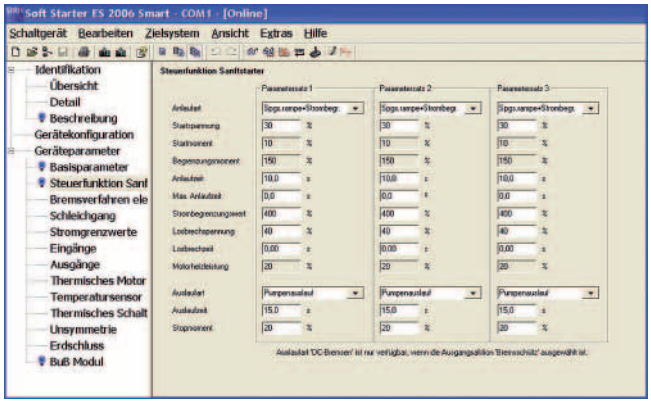
Selection and ordering data

Version	DT	Order No.	PS*	Weight per PU approx.
				kg
SIMOCODE ES Smart Parameterization and service software for SIMOCODE pro for parameterizing through the system interface on the device • Runs on PC/PG under Windows 2000/XP • Without PC cable Type of delivery: CD, single license		**3ZS1 312-1CC10-0YA0**	1 unit	0.230
SIMOCODE ES Professional Parameterization and service software for SIMOCODE pro for parameterizing over PROFIBUS or the system interface on the device, including STEP 7 object manager • Runs on PC/PG under Windows 2000/XP • Without PC cable Type of delivery: CD, single license		**3ZS1 312-2CC10-0YA0**	1 unit	0.230
SIMOCODE ES Graphic Optional expansion of SIMOCODE ES Smart/ Professional with a graphical editor for user-friendly parameterization by means of Drag & Drop Requirements (minimum): Installed SIMOCODE ES Smart 2004 with SP1 or installed SIMOCODE ES Professional 2004 with SP1		**3ZS1 312-3CC10-0YA0**	1 unit	0.230
Accessories				
PC cables For PC/PG communication with SIMOCODE pro through the system interface, for connecting to the serial interface of the PC/PG		**3UF7 940-0AA00-0**	1 unit	0.150

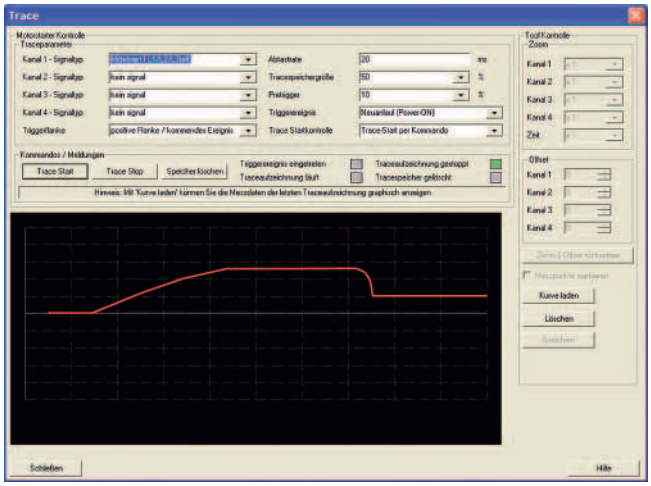
*** You can order this quantity or a multiple thereof.**
For other products and versions see A&D Mall.

© Siemens AG 2008

Overview



Easy and clearly arranged parameter setting of the 3RW44 soft starter with Soft Starter ES 2006 Smart



Graphic presentation of measured values with the trace function (oscilloscope function) of Soft Starter ES 2006 Smart

Soft Starter ES 2006 is used for the start-up, parameterization, diagnostics and documentation of the SIRIUS 3RW44 soft starter range for High-Feature applications.

With the Soft Starter ES 2006 Smart software version, interfacing is by PC or PG and a special connection cable through the serial interface provided on the soft starter.

With the Soft Starter ES 2006 Professional software version, interfacing through PROFIBUS is possible in addition if the soft starter is equipped with the optional PROFIBUS communication module.

Using Soft Starter ES 2006, the SIRIUS 3RW44 soft starters for High-Feature applications are easily parameterized during start-up, monitored during normal operation and successfully diagnosed for service purposes. The device parameters can be conveniently set offline at the PC and then easily transferred to the soft starter locally during the subsequent start-up.

Main features of the program include:

- Clear and easily manageable setting of device functions and their parameters (online/offline)
- Storage and printout of set parameters for data security
- Clear diagnostics function of the soft starter and display of all key measured values
- Log book with fault and event storage
- Oscilloscope function for recording measured values and events
- Choice of German/English as operating language.

System requirements for use of the software with the soft starters:

- Soft starter requirements for operation with Soft Starter ES 2006 Smart software:
  - SIRIUS 3RW44 soft starter, firmware version *E04* or higher. Installed in soft starters delivered after December 2005
- Soft starter requirements for operation with Soft Starter ES 2006 Professional software:
  - SIRIUS 3RW44 soft starter, firmware version *E05* or higher. Installed in soft starters delivered after May 2006
- PC system requirements:
  - Operating system: Windows 2000 Professional or Windows XP Professional
  - Processor: ≥ 800 MHz
  - Free space on hard disk: approx. 150 MB
  - CD-ROM drive
  - Serial interface
- Serial connection cable (PC – soft starter):
  - Connection cable: 3UF7 940-0AA00-0
- PROFIBUS communication module for 3RW44 soft starters for integrating the 3RW44 soft starter in the PROFIBUS network
  - 3RW4 900-0KC00.

© Siemens AG 2008

Selection and ordering data

Version	DT	Order No.	PS*	Weight per PU approx.
				kg
Soft Starter ES 2006 Smart Parameterization and service software for SIRIUS 3RW44 soft starters for parameterizing through the system interface on the device. Executes on PC/PG under Windows 2000/XP Professional. Delivered without PC cable. Type of delivery: CD, single license • System requirements: - Operating system: Windows 2000 Professional or Windows XP Professional - Processor: ≥ 800 MHz - Free space on hard disk: approx. 150 MB - CD-ROM drive - Serial PC cable	►	**3ZS1 313-1CC10-0YA0**	1 unit	0.230
Soft Starter ES 2006 Professional Parameterization and service software for SIRIUS 3RW44 soft starters for parameterizing through the system interface on the device with optional PROFIBUS communication module. Executes on PC/PG under Windows 2000/XP Professional. Delivered without PC cable. Type of delivery: CD, single license includes STEP 7 Object Manager (OM) for integrating the SIRIUS 3RW44 soft starters as S7 slaves in SIMATIC S7 for calling Soft Starter ES 2006 Professional from STEP 7 • System requirements: - Operating system: Windows 2000 Professional or Windows XP Professional - Processor: ≥ 800 MHz - Free space on hard disk: approx. 150 MB - CD-ROM drive - Optional PROFIBUS communication module integrated in the soft starter (interfacing through PROFIBUS) - Serial PC cable (for connection through soft starter device interface)	►	**3ZS1 313-2CC10-0YA0**	1 unit	0.230
Accessories				
PC cables Connection cable for PC/PG communication with SIRIUS 3RW44 soft starters and for connecting to the serial interface of the PC/PG		**3UF7 940-0AA00-0**	1 unit	0.150
PROFIBUS communication modules for 3RW44 soft starters Modules can be plugged into the soft starters for integrating the starters in the PROFIBUS network		**3RW4 900-0KC00**	1 unit	0.320

*** You can order this quantity or a multiple thereof.**
For other products and versions see A&D Mall.

© Siemens AG 2008

Power Management System

13

System Overview

13/2 - Overview

13/3 - More information

SENTRON
Multifunction Measuring Instruments

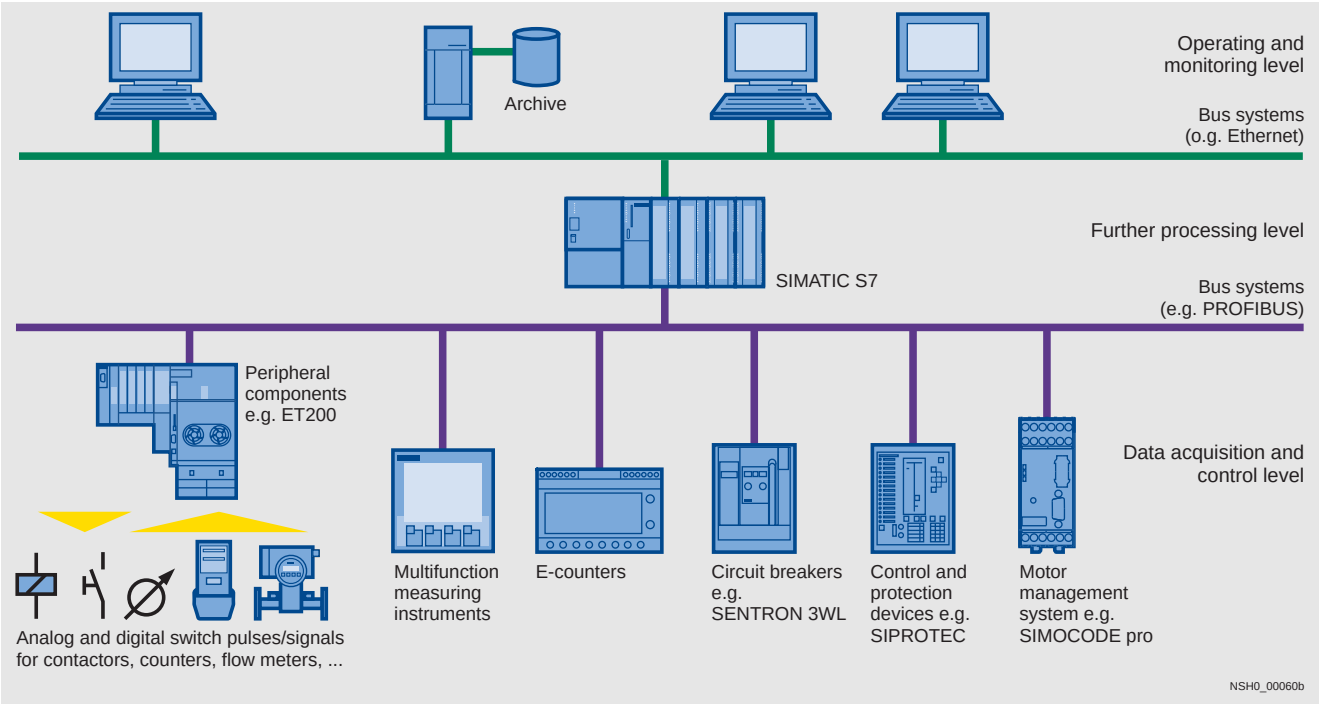
PAC3200 Multifunction Measuring Instruments

13/4 - Overview

13/4 - Selection and ordering data

© Siemens AG 2008

Overview



The increase in power prices over the past few years has led to higher operating costs and can pose a threat to a company's competitiveness.

The goal of the power management system is to optimize operating costs and increase plant availability.

The system is based on service-proven industrial technology and meets special demands of quality and availability. As an element of Totally Integrated Automation and Totally Integrated Power, the power management system guarantees the consistency of products and systems, the use of standard components, a uniform operating philosophy and a reduced amount of engineering work.

In other words: With power management you can make full use of all the potential for optimization provided by a consistent power management solution.

Various power distribution products can be integrated in the power management system. They include hardware and software components such as the SIMATIC powercontrol power management software, multifunction measuring instruments, communication-capable SENTRON circuit breakers, the SIMOCODE pro motor management system, E-counters or protection equipment such as SIPROTEC.

Apart from performing their initial function of protecting the power distribution, modern communication-capable switching and protecting devices are also able to deliver additional information such as device status, setting parameters and measured values.

Non-communication-capable field devices are connected to the PROFIBUS through I/O modules such as the ET200. The related power data are thus made available with the help of pulse inputs or converters and the device status is recorded through digital I/Os.

Recording the consumption data of other types of energy is possible using suitable measuring equipment through the central or distributed I/Os of the SIMATIC S7.

Components for the Power Management System

The power management system comprises both hardware components and software components.

The hardware components are:

- Multifunction power meters for measuring the power data
- Communication-capable switching and protection devices
- SIMOCODE pro motor management system
- E-counters
- Protection equipment such as SIPROTEC.

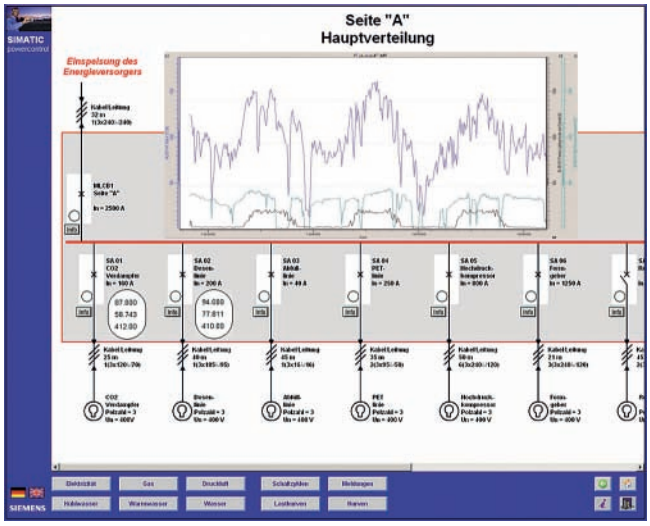
The software components are:

- SIMATIC powercontrol power management software
- SIMATIC powercost

© Siemens AG 2008

Software components

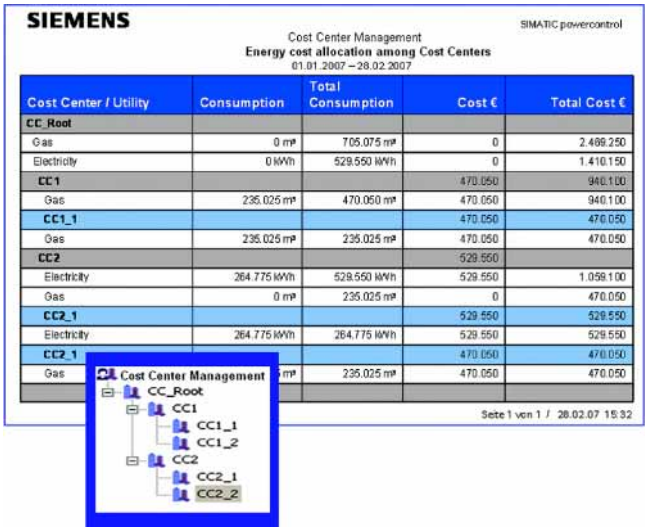
SIMATIC powercontrol



SIMATIC powercontrol throws light on power flows - from infeed through distribution to loads - in order to permanently reduce the operating costs of power distribution systems:

- Central overview of all the power flows in a power distribution system
- Detailed overview of all switch states
- Knowledge of the demand profile from the continuous acquisition of power data
- Detailed consumption information and load-related assignment of amounts of power and costs
- Display and archiving of the consumption values, e.g. as 15-minute mean values
- Combination of different power types in one tool

SIMATIC powercost



SIEMENS

SIMATIC powercontrol

Cost Center Management
Energy cost allocation among Cost Centers
01.01.2007 – 28.02.2007

Cost Center / Utility	Consumption	Total Consumption	Cost €	Total Cost €
CC_Root				
Gas	0 m³	705.075 m³	0	2.469.250
Electricity	0 kWh	529.550 kWh	0	1.410.150
CC1			470.050	940.100
Gas	235.025 m³	470.050 m³	470.050	940.100
CC1_1			470.050	470.050
Gas	235.025 m³	235.025 m³	470.050	470.050
CC2			529.550	
Electricity	264.775 kWh	529.550 kWh	529.550	1.059.100
Gas	0 m³	235.025 m³	0	470.050
CC2_1			529.550	529.550
Electricity	264.775 kWh	264.775 kWh	529.550	529.550
CC2_1			470.050	470.050
Gas	m³	235.025 m³	470.050	470.050

Seite 1 von 1 / 28.02.07 15:32

SIMATIC powercost is the cost center module of SIMATIC powercontrol for automatic and load-related assignment of power and costs to individual company units:

- Low-cost, secure, and load-related energy assignment
- Flexible and transparent cost determination
- Easy and open display of results

More information

More information about the software components of the Power Management System, see Chapter 18 and on the Internet at:
http://www.siemens.com/powermanagementsystem

© Siemens AG 2008

PAC3200 multifunction measuring instruments

Overview

Multifunction measuring instruments monitor your electrical installations and provide a precise picture of your power distribution and consumption

The SENTRON PAC3200 is a control panel instrument for measuring and indicating more than 50 power distribution variables such as voltage, current, power, electrical work and frequency with their minimum, maximum and mean values. Its compact design makes it an ideal replacement for all conventional analog indicating instruments.

A large, backlit graphic display can be read even from great distances. User-friendly, intuitive operation is made possible by multilingual plain text displays in combination with four function buttons.

SENTRON PAC3200 offers numerous communication options in addition to one digital input and one digital output. An optional PROFIBUS DP expansion module is available for integration in a higher-level power management system.

The advantages of the SENTRON PAC3200 at a glance:

- Three-phase control panel measuring device for measuring electrical variables
- Measuring more than 50 variables such as phase voltage and phase-to-phase voltage, current, power, work, power factor, frequency, etc.
- High measuring accuracy for electrical work; Class 0.5S according to IEC 62053-22
- Can be used for single-phase measurements as well as for multiphase measurements in 3 and 4-conductor networks
- Can be connected directly to three-phase industrial networks up to 690/400 V (CATIII)
- Measuring higher voltages using a voltage transformer; adjustable transformer ratio
- For x/1A and x/5A current transformers; adjustable transformer ratio and current direction
- Multi-range power supply unit (95 ... 240 V AC ±10 % / 45 … 65 Hz and 140 ... 340 V DC ±10 %)
- Slot for expansion modules such as the SENTRON PAC PROFIBUS DP communication module
- Small space requirement thanks to compact design (96 x 96 mm, mounting depth 51 or 73 mm with module)
- Large, graphic LCD display with intuitive user operation using function buttons
- IP65 using standard sealing
- Multifunctional digital input, for example for detecting counting pulses or for monitoring the status of switching devices
- Multifunctional digital output, for example for emitting active or reactive power pulses (S0) or for indicating limit value violations
- Monitoring up to 6 limit values; connecting the limit values with logical AND / OR operations
- Measuring period averages for active and reactive power with minimum and maximum value
- Operating hours meter for monitoring the load running time
- Integrated Ethernet interface (for future use)

Selection and ordering data

	Version	DT	Order No.	PS*	Weight per PU approx. kg
7KM2112-0BA00-3AA0	**SENTRON PAC3200** Control panel instrument 96 x 96 mm Screw terminals for connecting current and voltage U_C: 95…240 V AC/140…340 V DC U_e: 3~ 690/400 V I_e: /1 A or /5 A		**7KM2112-0BA00-3AA0**	1 unit	0.3
7KM9300-0AB00-0AA0	**PAC PROFIBUS DP** Expansion module for SENTRON PAC3200		**7KM9300-0AB00-0AA0**	1 unit	0.045

© Siemens AG 2008

SIVACON Power Distribution Boards, Busway Systems and Cubicle Systems

14

14/2 **Introduction**

8PS Busbar Trunking Systems
14/4 Introduction
14/6 Features overview
CD-K System - 25 ... 40 A
14/8 Introduction
14/10 Trunking units
14/12 Feeder units
14/13 Outgoing plugs
14/14 Accessories
BD01 System - 40 ... 160 A
14/16 Introduction
14/17 Trunking units, junction units, feeder units
14/18 Outgoing units for international use
14/22 Accessories

ALPHA FIX Terminal Blocks
14/24 ALPHA FIX 8WA terminals with screw connection
14/27 ALPHA FIX 8WH terminals with spring-type connection
14/32 ALPHA FIX 8WH terminals with insulation displacement connection
14/33 Accessories for 8WA and 8WH

Components for 8US, 8UC, 4NC Distribution Systems: 8US Busbar Systems
40 mm Busbar Systems
14/35 Base assemblies
14/36 Busbar adapters and device holders
60 mm Busbar Systems
14/38 Base assemblies up to 630 A
14/40 Base assemblies up to 1600 A
14/41 Busbar adapters and device holders
14/43 Bus-mounting fuse bases
Accessories
14/44 Supply and connection technologies
14/45 Mounting accessories

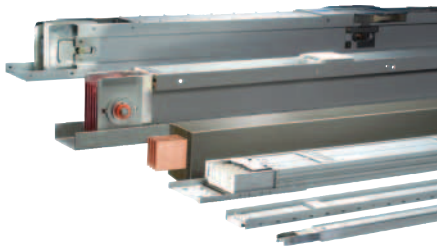
Components for 8US, 8UC, 4NC Distribution Systems: 4NC Current Transformers for Measuring Purposes
14/46 Classes 1 and 3, from 50 to 1500 A

© Siemens AG 2008

Introduction

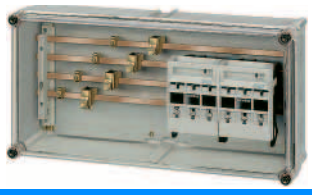
Overview

8PV power distribution boards and motor control centers up to 6300 A	8MC, 8MF system cubicles 8MR, 8ME cubicle air-conditioning
Reliable, economical, flexible and communication-capable	System cubicles for individual solutions including cubicle air-conditioning for optimum operating conditions
For all applications in infrastructure and process industry	For a wide range of applications in tough environments and in laboratories, offices and medical practices
In circuit breaker design	Flexible expansion levels and types of delivery
In fixed-mounted design	Coordinated logistical and delivery concepts
In 3NJ4 in-line design, fixed-mounted	Degree of protection up to IP55
In 3NJ6 in-line design, plugged in	For heavy integrated equipment up to 1000 kg
In plug-in design	System cubicles in EMC version
In withdrawable design	System cubicles in earthquake-proof version
Degree of protection up to IP54	In all RAL colors, including special colors
Type-tested	
Tested for resistance to internal arcing faults	
Tested for resistance to earthquakes	
For more information see A&D Mall.	For more information see A&D Mall.



ALPHA 630-DIN floor-mounted distribution boards	Busway systems
Up to 630 A	Modular system
For applications in non-residential and industrial buildings	Tested standard components
Flexible types of delivery (flat pack or preassembled)	Degree of protection up to IP55
Modular system	Time-saving mounting
Many different assembly kits for individual expansion	Standard outgoing units and ancillary equipment units
Safety class 1 and safety class 2	Easy retrofitting
Depth 210 mm, 250 mm and 320 mm	Well arranged network topology
Degree of protection up to IP55	Type-tested low-voltage controlgear combination according to IEC/EN 60439-1 and -2
For more information see A&D Mall.	For more information see A&D Mall.

© Siemens AG 2008



ALPHA 8HP molded-plastic distribution systems

Modular system with 5 enclosure sizes	Enclosures with NP fuse switch disconnectors
Empty enclosures	Meter enclosures
Enclosures for modular devices	Enclosures with main control and EMERGENCY-STOP switch
Enclosures with LV HRC fuse base	

ALPHA 8HP molded-plastic distribution systems

The 8HP distribution system is a modular system for low-voltage small distribution boards, control panels and power distribution boards.

The optimum design of these high-quality materials fulfills all the demands made on modern enclosures. This includes:

- Total insulation
- Corrosion resistance
- Mechanical strength
- Simple finish
- Temperature resistance
- Maintenance free
- Flame retardant, self-extinguishing
- Halogen-free (thus preventing consequential damage resulting from external fire), excludes cable space cover
- Lightweight components

It can be installed in all industrial plants, power stations, in large public or private buildings and in public utilities as well as in office buildings and residential buildings.

The components of the 8HP distribution system fulfill the requirements specified for type-tested low-voltage controlgear combinations (TTA) according to EN 60439-1. The enclosure corresponds to the protective measure "total insulation" according to DIN VDE 0100 Part 410.

ALPHA FIX terminal blocks

Terminal blocks with screw, spring-loaded and insulation displacement connection are used for the space-saving connection of incoming and outgoing lines in switchgear and distribution boards.

Standards: IEC 60664-1, IEC 60999, IEC 60947-7-1 and IEC 60947-7-2.

The terminals are finger-safe according to IEC 60529 and EN 50274 (except for bare terminals and solder connections on 8WA1).

8US busbar systems with 40 and 60 mm busbar center-to-center spacing

Compared to conventional configuration in switchgear and control cubicles, this technique allows important cost savings and offers the following advantages: mechanical fixing and electrical contacting are achieved in one action; input wiring is dispensable, use of busbar terminals is reduced to a minimum and it provides a double utilization of the busbar space. All this is effective especially in cases where many outgoing units of the same performance range are required.

During operation, an easily traceable arrangement and rapid and uncomplicated replacement of single devices and assemblies are the most effective advantages. The busbar adapter system is completely finger-safe because it is covered by adapters and switching device holders. A high operational reliability is therefore guaranteed.

4NC current transformers

Window-type current transformers: The conductor to be measured (busbar or cable) is passed through the window opening and creates the primary circuit of the window-type current transformer.

Pin-wound transformers: An economical solution especially for small primary currents of 5 to 75 A is achieved when the conductor to be measured is pin-wound several times for use as a pin-wound transformer.

The rated power of transformers is specified in VA. The actual load rating should be similar to the rated power; a lower actual load rating (underburden) increases the overcurrent factor and measuring devices may be damaged in case of a short-circuit, a higher actual load rating (overburden) has a negative effect on the accuracy.

With a frequency of 60 Hz the rated power increases to 1.2 times. With $16^2/_3$ Hz the output power decreases to $^1/_3$ of the rated power.

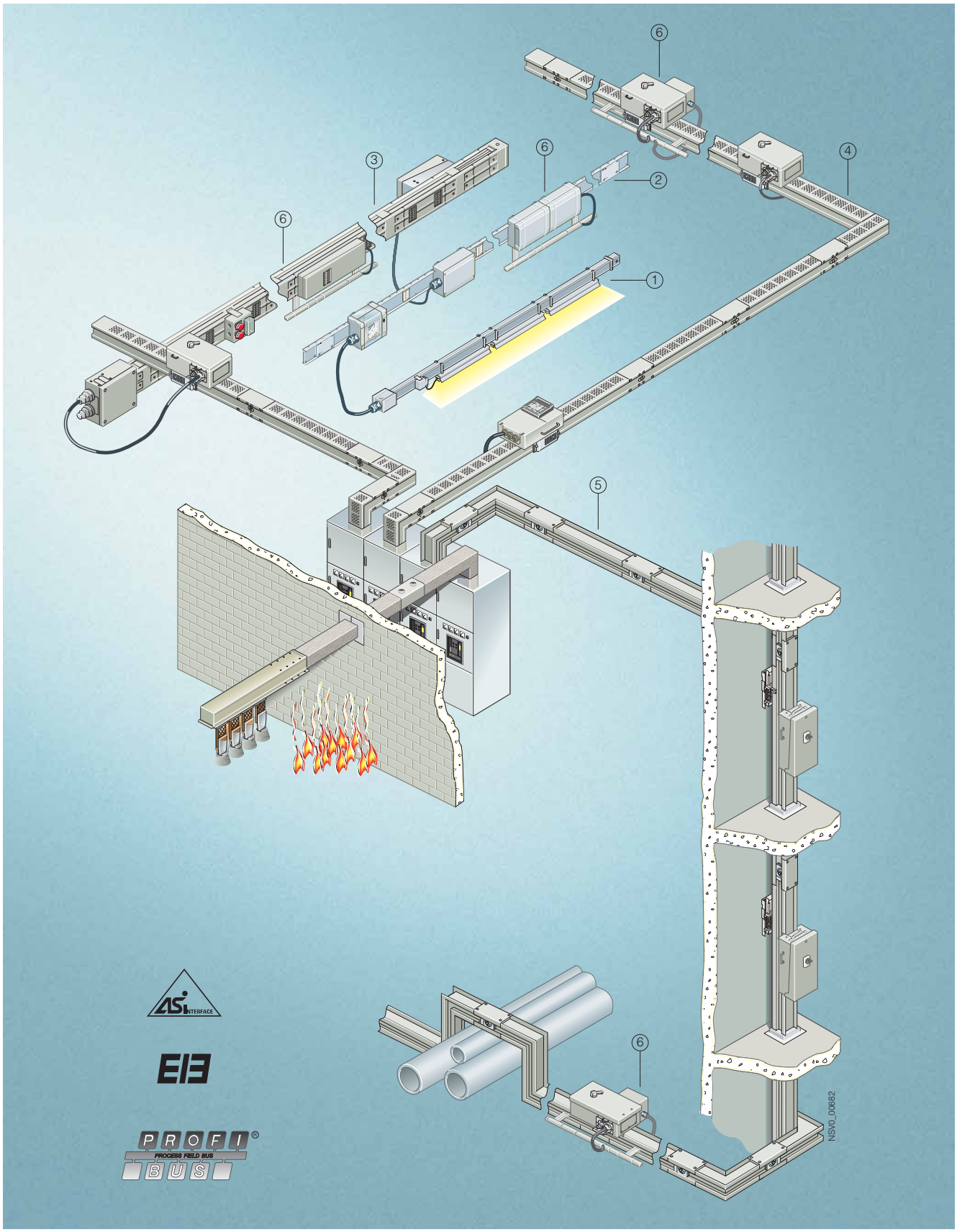
Rated secondary current I_{sn}	
1 A	5 A
Particularly suitable for longer measuring leads. Cable losses of only 4 % in contrast to 5 A current transformers.	5 A current transformers create 25 times the power losses on measuring leads as compared with 1 A current transformers. These stray losses result in higher power in the case of long cables. Only recommended for use with short measuring leads.

Accuracy class	
Class 1	Class 3
Operation measurement, internal metering	Coarse measurement
Current error ±1 % at $1 \times I_{pn}$ and $1.2 \times I_{pn}$	Current error ±3 % at $0.5 \times I_{pn}$ and $1.2 \times I_{pn}$

© Siemens AG 2008

Introduction

Overview



© Siemens AG 2008

Benefits

① CD-K system up to 40 A

The versatile busbar trunking system for area-wide power distribution to lighting systems:

- Versatile thanks to high degree of protection up to IP55
- Lower planning costs through simple configuration
- Time-saving mounting through plug-in quick connector
- Optimum utilization of the busbar line through tap-off points fitted to both sides
- Uniform current loading of the conductors through splitting of the subsequent tap-off plugs among the individual phases
- Tap-off plugs allow fast and flexible load relocation

② BD01 system up to 160 A

The busbar trunking system for power distribution in craft business and the skilled trades:

- Degree of protection up to IP55
- Flexible power supply
- Easy and quick planning
- Time-saving mounting
- Reliable mechanical and electrical connection technology
- High stability, low weight
- Few basic modules required
- Storage-friendly system
- Variable changes of direction
- Versatile tap-off units
- Positive opening and closing of tap-off points

③ BD2 system up to 1250 A

The busbar trunking system for operation in the harsh industrial world.

- Degree of protection up to IP55
- Easy and quick planning
- Time-saving and economical mounting
- Reliable and safe operation
- Flexible modular system with simple solutions for every application
- Early planning of the power distribution system without exact knowledge of load locations
- Early readiness for operation thanks to fast and simple mounting
- Innovative design: No more compensation boxes to compensate elongation
- Codable tap-off units and tap-off points
- Sealable throughout

④ LD system up to 5000 A

The busbar trunking system for optimized power distribution in industry:

- High degree of protection IP54
- Quick and easy mounting
- Reliable and safe operation
- Space-saving, compact design up to 5000 A in one enclosure
- Outgoing load feeders up to 1250 A
- Type-tested connection to distribution boards and transformers

⑤ LX system up to 6300 A

The busbar trunking system for power conveyance and distribution in buildings:

- Degree of protection up to IP55
- Quick and easy mounting
- Reliable and safe operation
- Outgoing load feeders up to 1250 A
- Type-tested connection to distribution boards and transformers

LR System

The busbar trunking system for power conveyance under extreme ambient conditions (IP68):

Detailed information about this system is available from the Siemens branch located close to you.

⑥ Communication-capable busbar trunking systems

Communication-capable function expansions for combination with known tap-off units:

- Can be used with the BD01, BD2, LD and LX systems
- Uses:
  - Lighting control for large areas
  - Remote switching and signaling in the industrial sector
  - Consumption recording of decentral power tap-off units
- Connection to the bus systems EIB, AS-Interface and PROFIBUS
- Easy contacting of the bus cable by insulation piercing method
- Easy and quick planning
- Flexible expansions and modifications
- Module system
- Retrofitting of existing installations

More information

Selection aid for busbar trunking systems (MobileSpice)

Busbar Trunking systems up to 1250 A can be ordered using the selection aid.

The following configurators are available:

- SIVACON 8PS CD-K system, 25 ... 40 A
- SIVACON 8PS BD01 system, 40 ... 160 A
- SIVACON 8PS BD2 system, 160 .... 1250 A

This selection aid can be accessed through the A&D Mall and is also included in the CD-ROM catalog CA 01. This CD-ROM is available free of charge from your Siemens sales office.

Manual

Planning with SIVACON 8PS Busbar Trunking Systems up to 6300 A

(available soon)

Leaflet

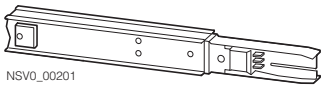
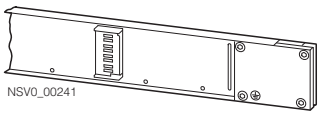
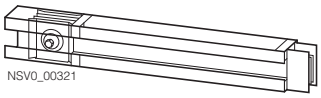
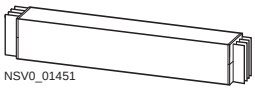
Busbar Trunking Systems for Safe and Flexible Power Distribution up to 6300 A

(Order No. E20001-A220-P309)

© Siemens AG 2008

Features overview

Overview

Busbar Trunking systems	Rated current A	Rated operational voltage V AC	Frequency Hz	Number of active conductors	Degree of protection	Ambient temperature, min./max. °C
CD-K  NSV0_00201	30 40 2 x 25 2 x 40	400	50 ... 60	2, 3, 4, 2 x 4 PE = enclosure	Up to IP55	–5/+40
BD01  NSV0_00241	40 63 100 125 160	400	50 ... 60	4 PE = enclosure	Up to IP55	–5/+40
BD2A **BD2C** NSV0_00421	160 ... 400, 500 ... 1250	690	50 ... 60	5	Up to IP55	–5/+40
LDA1 ... LDA8 **LDC2 ... LDC8** NSV0_00681	1100 ... 4000, 2000 ... 5000	1000	50 ... 60	4 or 5	Up to IP54	–5/+40
LXA01 ... LXA10 **LXC01 ... LXC10**  NSV0_00321	800 ... 4500, 1000 ... 6300	1000	50 ... 60	3, 4, 5, 6 PE = enclosure	Up to IP55	–5/+40
LRC01 ... LRC29  NSV0_01451	630 ... 6300	1000	50 ... 60	4, 5	IP68	–5/+40

© Siemens AG 2008

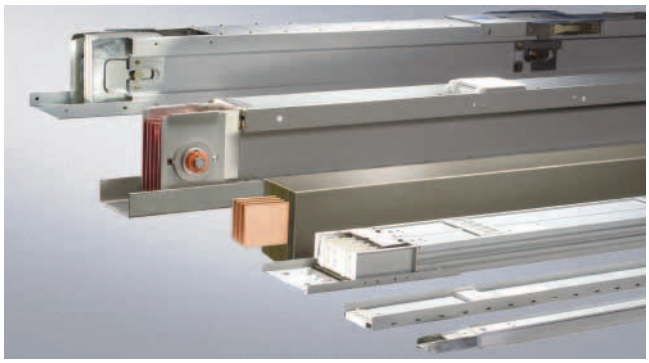
Mounting position	Length m	Tap-off points	Tap-off units	Material	Fire load kWh/m	Can be combined with communication-capable tap-off units for
Upright	2 3	On one side every 0.5 or 1 m On two sides every 0.5 or 1 m	Up to 16 A	Insulated copper conductor, painted sheet-steel enclosure	0.1 ... 0.48	--
Upright, flat (tap-off points downward)	2 3	On one side every 0.5 or 1 m	Up to 63 A	Insulated aluminium or copper conductor, painted sheet-steel enclosure	0.76	Lighting control
Upright, flat and vertical	0.5 ... 3.25	Without On two sides offset every 0.25 or 0.5 m	Up to 630 A	Aluminium or copper busbars, painted sheet-steel enclosure	0.6 ... 0.67 (without tap-off points)	Lighting control, remote switching and signaling, consumption recording
Horizontal, upright and vertical	0.5 ... 3.2	Without On one side every 1 m On two sides every 1 m	Up to 1250 A	Insulated aluminium or copper busbars, painted sheet-steel enclosure	4.16 ... 8.83 (without tap-off points)	Remote switching and signaling, consumption recording
Horizontal, upright and vertical	0.35 ... 3	Without On one side every 0.5 m On two sides every 0.5 m	Up to 1250 A	Insulated aluminium or copper busbars, painted aluminium enclosure	1.95 ... 11.07 (without tap-off points)	Remote switching and signaling, consumption recording
Horizontal, upright and vertical	0.5 ... 3	Without On one side selectable	Up to 630 A	Epoxy resin system, copper busbars	--	--

For selection and ordering data see Catalog LV 70
"SIVACON 8PS Busway Systems CD-K, BD01, BD2 up to 1250 A".

© Siemens AG 2008

Introduction

Overview



Trunking units for currents from 40 to 6300 A

When it comes to developing a power distribution concept, including the configuring of systems and system components, it is necessary to coordinate the requirements and possibilities of the end-user with those of the manufacturer.

With this in mind, the individual systems are described along with their technical features and applications. Another element is the graphic representation of the various busbar trunking elements. All details of importance for the planning work are specially emphasized and explained.

In LV 70, chapters 3 to 5, you will find ideas for a ready-to-use planning solution. For example, dimensioning principles are presented and in-depth information given on subjects such as system design, short-circuit protection, fire protection through compartmentalization or functional endurance.

Services and engineering tools are available from Siemens to simplify the drawing up of customer specifications.

Busbar trunking systems

The strengths of busbar trunking lie in the conveyance and distribution and the switching and protecting of electrical power.

The integration of automation and building management systems in the Siemens busbar trunking systems results in additional benefits and at the same time increases the flexibility of the busbar trunking.

The combination of standard tap-off units with standard ancillary equipment units ensures efficiency particularly in planning, installation and operation.

Advantages of the system solution during planning:

- Modular system
- Tested standard components
- Free choice of bus system
- Use of common bus systems

Advantages of the system solution during start-up:

- Easy and quick installation
- Start-up in steps possible
- Flexible in case of expansions and modifications

Advantages of the system solution during operation:

- Transparency of switching states
- Central recording of power costs
- Increase in plant availability as a result of immediate detection of the type of fault and its location
- Preventive maintenance through recording of operating hours and operating cycles

General information

When developing the planning concept of a power supply system it is necessary not only to consider the standards and specifications in force but also to clarify the correlations between economy and technology. Electrical equipment such as distribution boards and transformers must be dimensioned and selected so that they represent an optimum in their entirety and not just individually.

All components must be sufficiently dimensioned for the loads which arise in the event of a fault as well as during operation at rated values. Other decisive points to be considered when drawing up the power concept are:

- The type, utilization and shape of building (e.g. high-rise, flat-roof and number of storeys)
- Determination of load centers and fixing of possible supply routes and locations for transformers and main distribution boards
- Fixing of building-related rating values according to specific area loads depending on the building's use
- Standards and requirements imposed by the building authorities
- Requirements imposed by the power supply companies

The result will never be a single solution but several versions which must be assessed with regard to their technical and economic implications. The following requirements are paramount in this connection:

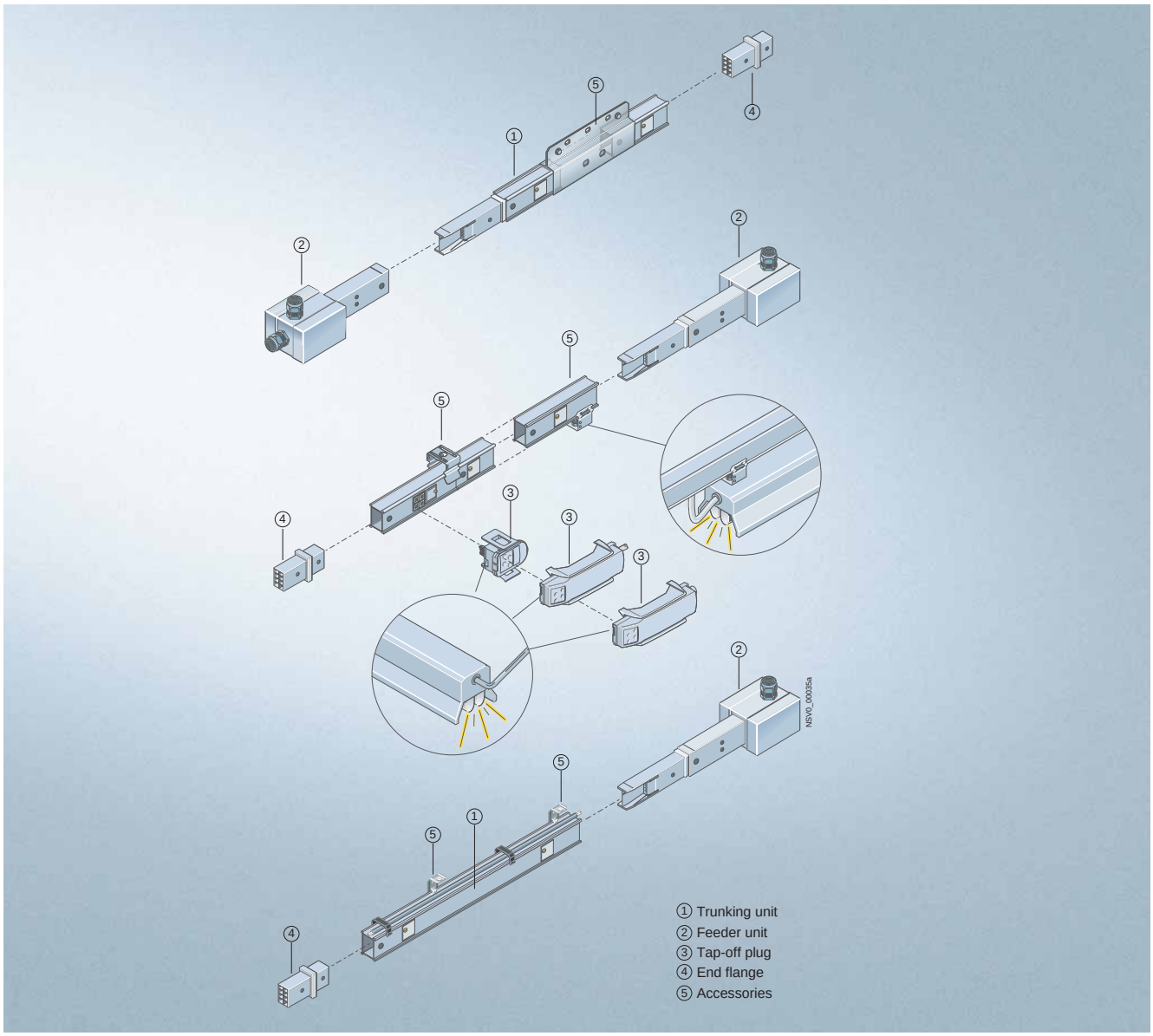
- Easy and clear-cut planning
- Long endurance
- High availability
- Low fire load
- Flexible adaptation to alterations in the building

In most applications these requirements are easily met by the use of suitable busbar trunking. For this reason, busbar trunking rather than the cable installation method is being used more and more often by engineering offices for the conveyance and distribution of power. Siemens offers busbar trunking from 25 to 6300 A:

- The CD-K busbar system from 25 to 40 A for supplying power to lights and miniature loads
- The BD01 busbar system from 40 to 160 A for supplying power to workshops with tap-off units up to 63 A
- The BD2 system from 160 to 1250 A for supplying power to medium-size loads in buildings and in industry
- The LD system for supplying power to loads with medium power consumption and in industry
- The LX sandwich system for the distribution of large amounts of power in buildings
- The LR encapsulated system for the conveyance of power in extreme ambient conditions (IP68)

© Siemens AG 2008

Overview



Version

Type-tested low-voltage controlgear combination (TTA) according to

- IEC/EN 60439-1
- IEC/EN 60439-2

Degree of protection

- High degree of protection to IP54 of the standard version
- Increase to IP55 with accessories

Components

Trunking units

- 3-, 4-, 5- and 3/5-conductor system
- Equipment on one side:
  - 2 or 3 tap-off units spaced 1 m apart
  - 5 tap-off units spaced 0.5 m apart
- Equipment on two sides:
  - 2, 3 or 5 tap-off units spaced 1 m apart
  - 2, 3 or 5 tap-off units spaced 0.5 m apart
- Lengths of 2 and 3 m
- Plug-in connection
- Codable tap-off points

Feeder units

- Initial infeeds
- End feeder units

Tap-off plugs

- 3-pole, 10 and 16 A, Lx (phase can be plugged over optionally to L1, L2, L3), N and PE
- 5-pole, 10 and 16 A, L1, L2, L3, N, PE

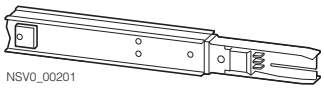
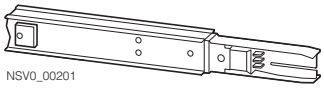
Accessories

- End flanges
- Fixing brackets
- Suspension hooks
- Suspension brackets
- Cable fixture
- Coding sets
- Degree of protection IP55

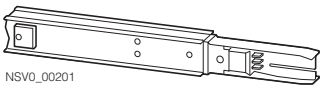
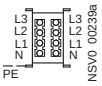
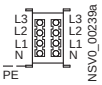
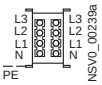
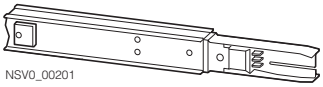
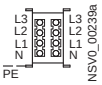
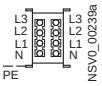
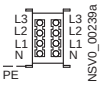
© Siemens AG 2008

Trunking units

Selection and ordering data

Version	Length	Conductors	Tap-off points Number	Tap-off points Distance	DT	Type	Order No.	PS*	Weight per unit approx.
	m			m					kg
Rated current I_e = 30 A, tap-off points on one side									
Trunking units Sheet-steel enclosure, color similar to RAL 9002 (white-gray), codable tap-off points  NSV0_00201	3	3-pole 	3	1		**CD-K-1302-3**	**BVP:211151**	6 units	2.450
	3	4-pole 	3	1		**CD-K-1303-3**	**BVP:211152**	6 units	2.550
	2	5-pole 	2	1		**CD-K-1304-2**	**BVP:211153**	6 units	1.850
	3	5-pole 	3	1		**CD-K-1304-3**	**BVP:211154**	6 units	2.650
	3	5-pole 	5	0.5		**CD-K-1304-3-05**	**BVP:211155**	6 units	2.650
Rated current I_e = 40 A, tap-off points on one side									
Trunking units Sheet-steel enclosure, color similar to RAL 9002 (white-gray), codable tap-off points  NSV0_00201	3	3-pole 	3	1		**CD-K-1402-3**	**BVP:211156**	6 units	2.450
	3	4-pole 	3	1		**CD-K-1403-3**	**BVP:211157**	6 units	2.550
	2	5-pole 	2	1		**CD-K-1404-2**	**BVP:211158**	6 units	1.850
	3	5-pole 	3	1		**CD-K-1404-3**	**BVP:211159**	6 units	2.650
	3	5-pole 	5	0.5		**CD-K-1404-3-05**	**BVP:211160**	6 units	2.850

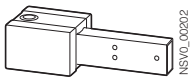
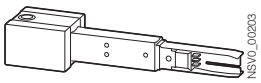
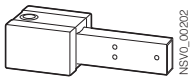
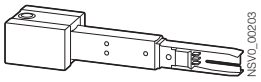
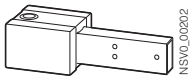
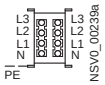
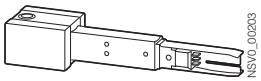
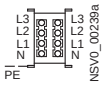
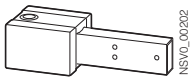
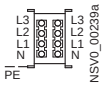
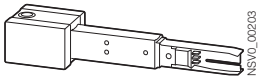
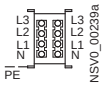
© Siemens AG 2008

Version	Length	Conductors	Tap-off points Number	Distance	DT	Type	Order No.	PS*	Weight per unit approx.
	m			m					kg
Rated current I_e = 2 × 25 A, tap-off points on two sides									
Trunking units Sheet-steel enclosure, color similar to RAL 9002 (white-gray), codable tap-off points  NSV0_00201	2	2 × 5-pole 	2; 1	1		**CD-K-2254-2**	**BVP:211161**	1 unit	2.350
	3	2 × 5-pole 	3; 2	1		**CD-K-2254-3**	**BVP:211162**	1 unit	3.650
	3	2 × 5-pole 	5; 5	0.5		**CD-K-2254-3-05**	**BVP:211163**	1 unit	3.650
	2	5- + 3-pole	2; 1	1		**CD-K-2254/2-2**	**BVP:610352**	6 units	2.350
	3	5- + 3-pole	3; 2	1		**CD-K-2254/2-3**	**BVP:610353**	6 units	3.650
	3	5- + 3-pole	5; 5	0.5		**CD-K-2254/2-3-05**	**BVP:610354**	6 units	3.650
Rated current I_e = 2 × 40 A, tap-off points on two sides									
Trunking units Sheet-steel enclosure, color similar to RAL 9002 (white-gray), codable tap-off points  NSV0_00201	2	2 × 5-pole 	2; 1	1		**CD-K-2404-2**	**BVP:610001**	6 units	2.350
	3	2 × 5-pole 	3; 2	1		**CD-K-2404-3**	**BVP:610002**	6 units	3.650
	3	2 × 5-pole 	5; 5	0.5		**CD-K-2404-3-05**	**BVP:610003**	6 units	3.650
	2	5- + 3-pole	2; 1	1		**CD-K-2404/2-2**	**BVP:610357**	6 units	2.350
	3	5- + 3-pole	3; 2	1		**CD-K-2404/2-3**	**BVP:610358**	6 units	3.650
	3	5- + 3-pole	5; 5	0.5		**CD-K-2404/2-3-05**	**BVP:610359**	6 units	3.650

© Siemens AG 2008

Feeder units

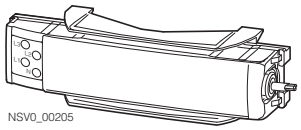
Selection and ordering data

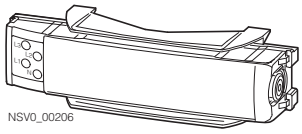
Version	Length	Conductors	DT	Type	Order No.	PS*	Weight per unit approx.
	m						kg
Feeder units, incl. CD-EF end flange Molded-plastic enclosure, terminals for 2.5 to 10 mm² cables, cable entry from 3 sides, suitable for plastic cable glands with strain relief, M25 or M32 (not included in scope of supply)							
Rated current I_e = 30 A, tap-off points on one side							
Entry feeder unit 	0.23	5-pole		**CD-K-1304-EA**	**BVP:211164**	1 unit	0.320
End feeder unit 	0.23	5-pole		**CD-K-1304-EE**	**BVP:211165**	1 unit	0.450
Rated current I_e = 40 A, tap-off points on one side							
Entry feeder unit 	0.23	5-pole		**CD-K-1404-EA**	**BVP:211166**	1 unit	0.320
End feeder unit 	0.23	5-pole		**CD-K-1404-EE**	**BVP:211167**	1 unit	0.450
Rated current I_e = 2 × 25 A, tap-off points on two sides							
Entry feeder unit 	0.23	2 × 5-pole 		**CD-K-2254-EA**	**BVP:211168**	1 unit	0.420
End feeder unit 	0.23	2 × 5-pole 		**CD-K-2254-EE**	**BVP:211169**	1 unit	0.500
Rated current I_e = 2 × 40 A, tap-off points on two sides							
Entry feeder unit 	0.23	2 × 5-pole 		**CD-K-2404-EA**	**BVP:610004**	1 unit	0.420
End feeder unit 	0.23	2 × 5-pole 		**CD-K-2404-EE**	**BVP:610005**	1 unit	0.500

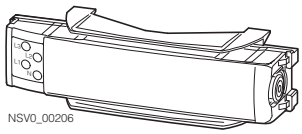
© Siemens AG 2008

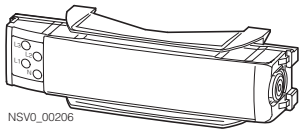
Selection and ordering data

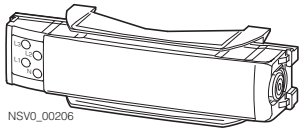
Version	Outgoing cable Length	Outgoing cable Cross-section	Rated current I_e	DT	Type	Order No.	PS*	Weight per unit approx.
	m	mm²	A					kg
Tap-off plugs with cable								
Halogen-free cable according to IEC 60754-1 and flame-retardant according to IEC 60332-1								
3-pole, can be changed over to L1 or L2 or L3, with N and PE; without fuses	0.8	3 × 1.5	10		**CD-K-A3SO-1**	**BVP:610376**	10 units	0.100
	3	3 × 1.5	10		**CD-K-A3SO-3**	**BVP:610377**	10 units	0.230
	4	3 × 1.5	10		**CD-K-A3SO-4**	**BVP:610378**	10 units	0.320
5-pole, L1 or L2, L3, N and PE; without fuses	0.8	5 × 1.5	10		**CD-K-A5SO-1**	**BVP:610381**	10 units	0.120
	3	5 × 1.5	10		**CD-K-A5SO-3**	**BVP:610382**	10 units	0.400
3-pole, can be changed over to L1, L2 or L3, with N and PE; with holder for 1 cylindrical fuse 8.5 × 31.5 mm, type gG (IEC) or gL (VDE), (quick)	0.8	3 × 1.5	16		**CD-K-A3M-1**	**BVP:211198**	5 units	0.220
	3	3 × 1.5	16		**CD-K-A3M-3**	**BVP:211199**	10 units	0.460
Tap-off plugs with terminals								
With plastic M20 cable grommet, connection using 2.5 mm² terminal								
3-pole, can be changed over to L1 or L2 or L3, with N and PE; without fuses	--	--	16		**CD-K-A3O-0**	**BVP:211196**	10 units	0.100
5-pole, L1 or L2, L3, N and PE; without fuses	--	--	16		**CD-K-A5O-0**	**BVP:211200**	10 units	0.120
3-pole, can be changed over to L1, L2 or L3, with N and PE; with holder for 1 cylindrical fuse 8.5 x 31.5 mm, type gG (IEC) or gL (VDE), (quick)	--	--	16		**CD-K-A3M-0**	**BVP:211197**	10 units	0.155
5-pole, L1, L2, L3, N and PE; with holder for 3 cylindrical fuses 8.5 x 31.5 mm, type gG (IEC) or gL (VDE), (quick)	--	--	16		**CD-K-A5M-0**	**BVP:211201**	10 units	0.170







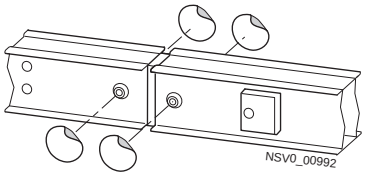
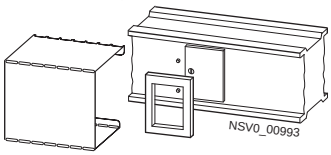
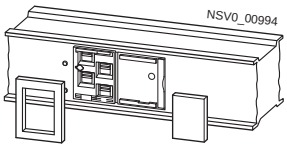
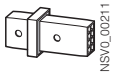




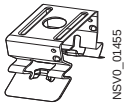
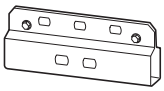
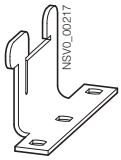
© Siemens AG 2008

Accessories

Selection and ordering data

Version	DT	Type	Order No.	PS*	Weight per unit approx.
					kg
Accessories for degree of protection IP55					
IP55 mounting sets for connection point (1 set = 4 units) 		**CD-FS**	**BVP:611060**	1 unit	0.001
IP55 mounting sets for tap-off point 		**CD-FAS**	**BVP:610360**	5 units	0.600
IP55 mounting sets for tap-off plug 		**CD-SAK**	**BVP:610361**	5 units	0.200
Coding					
Coding sets for tap-off points					
		CD-K1	**BVP:211202**	10 units	0.002
		CD-K2	**BVP:211203**	10 units	0.002
		CD-K3	**BVP:211204**	10 units	0.002
Mounting parts					
End flanges 		**CD-EF**	**BVP:052124**	1 unit	0.100
Connection fixtures (1 set = 14 units)		**CD-CAP**	**BVP:611072**	1 unit	0.001

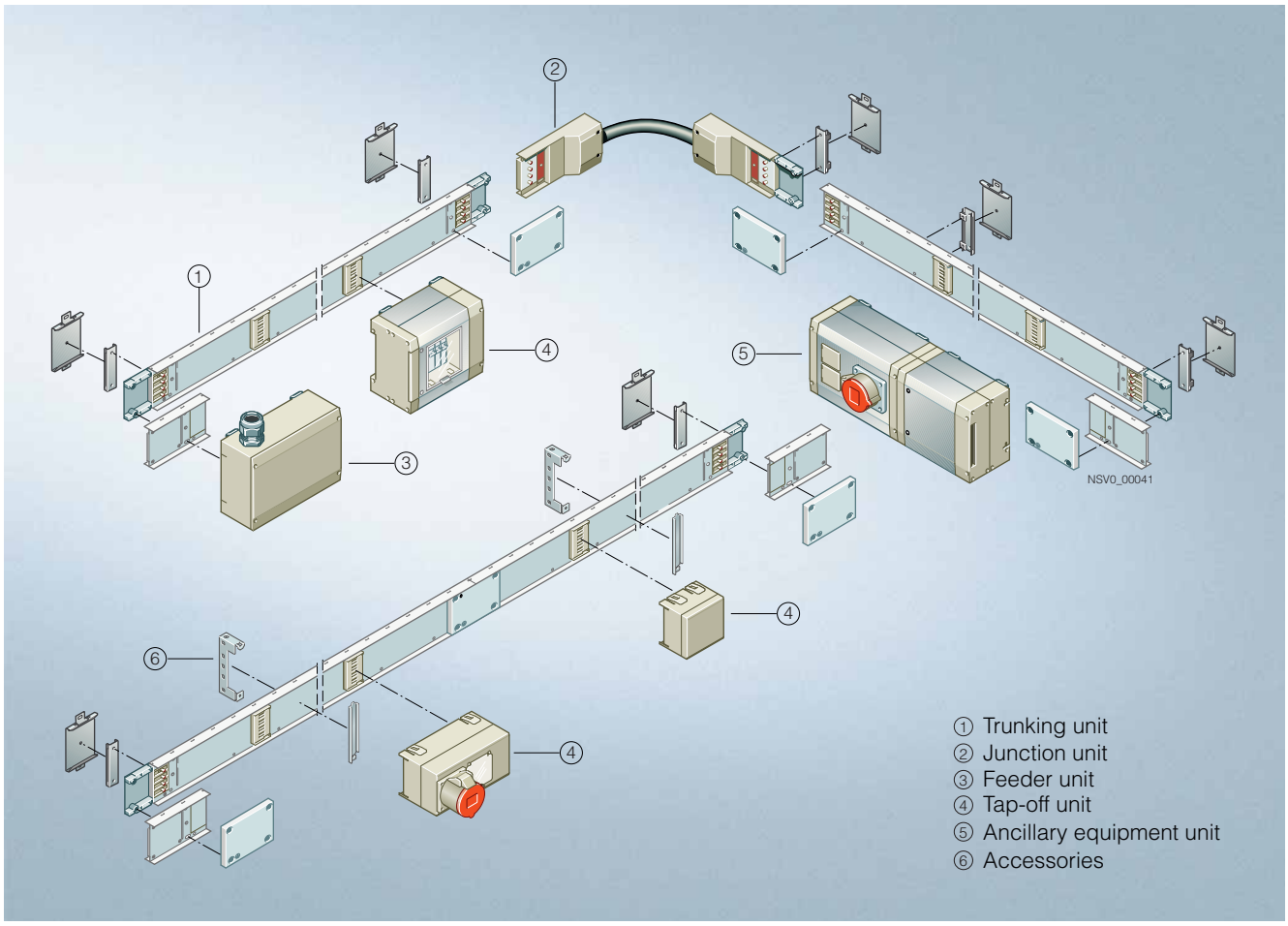
© Siemens AG 2008

Version	DT	Type	Order No.	PS*	Weight per unit approx.
					kg
Mounting					
Snap-on fixing brackets For mounting trunking units and luminaires (balanced load)  NSV0_01455		**CD-BAC**	**BVP:611391**	36 units	0.020
Suspension hooks For suspension by cable or pendant or chain in conjunction with CD-BAC or CD-BC fixing bracket NSV0_00214		**CD-H**	**BVP:086012**	1 unit	0.030
Hanger brackets For suspension by cable or pendent or chain (also for increased mechanical rigidity at the connecting points)  NSV0_00215		**CD-BA**	**BVP:025377**	1 unit	0.314
Snap-on fixing brackets For mounting trunking units in combination with CD-H suspension hooks or threaded rods and for fixing lamps (balanced load) NSV0_00216		**CD-BC**	**BVP:203519**	12 units	0.016
Cable clips For securing cables alongside trunking units NSV0_00232		**CD-CL**	**BVP:203520**	10 units	0.003
Fixing brackets For underfloor mounting  NSV0_00217		**CD-BUF**	**BVP:272546**	12 units	0.037

© Siemens AG 2008

Introduction

Overview



Version

Type-tested low-voltage switchgear combination (TTA) according to

- IEC/EN 60439-1
- IEC/EN 60439-2

Degree of protection

- High degree of protection IP54 with tap-off points at sides and bottom
- Degree of protection IP50 with tap-off points at the top
- Degree of protection increase to IP55 with accessories

Components

Trunking units

- 5-wire system
- 2 or 3 tap-off units spaced 1 m apart
- 4 or 6 tap-off units spaced 0.5 m apart
- Lengths of 2 m and 3 m

Junction units

- Flexible change of direction

Feeder units

- Universal infeed

Tap-off units

- ... 63 A
- With built-in parts or for customized device installation
- For 3, 4 or 8 modular widths (MW)
- Without or with device installation unit

Ancillary equipment units

- For 4 or 8 modular widths (MW)
- Without or with device installation unit
- Without or with socket assembly

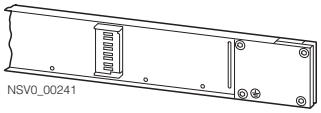
Accessories

- Mounting sets for degree of protection IP55
- Fixing and suspending
- Coding sets
- Fire protection kit S90

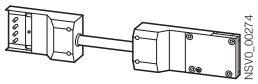
© Siemens AG 2008

Selection and ordering data

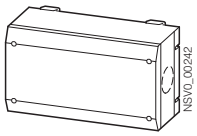
Version	Rated current	Length	Tap-off points Number	Tap-off points Distance	DT	Type	Order No.	PS*	Weight per unit approx.
	A	m		m					kg
Trunking units									
Sheet-steel enclosure, color similar to RAL 7035 (light gray), codable tap-off points	40	3	6	0.5		**BD01-40-3-0.5**	**BVP:034253**	1 unit	4.350
			3	1		**BD01-40-3-1**	**BVP:233551**	1 unit	4.350
		2	4	0.5		**BD01-40-2-0.5**	**BVP:034254**	1 unit	3.000
			2	1		**BD01-40-2-1**	**BVP:233552**	1 unit	3.000
	63	3	6	0.5		**BD01-63-3-0.5**	**BVP:034255**	1 unit	4.600
			3	1		**BD01-63-3-1**	**BVP:233553**	1 unit	4.600
		2	4	0.5		**BD01-63-2-0.5**	**BVP:034256**	1 unit	3.200
			2	1		**BD01-63-2-1**	**BVP:233555**	1 unit	3.200
	100	3	6	0.5		**BD01-100-3-0.5**	**BVP:034257**	1 unit	5.200
			3	1		**BD01-100-3-1**	**BVP:233556**	1 unit	5.200
		2	4	0.5		**BD01-100-2-0.5**	**BVP:034258**	1 unit	3.600
			2	1		**BD01-100-2-1**	**BVP:233557**	1 unit	3.600
	125	3	6	0.5		**BD01-125-3-0.5**	**BVP:090163**	1 unit	5.200
			3	1		**BD01-125-3-1**	**BVP:233559**	1 unit	5.200
		2	4	0.5		**BD01-125-2-0.5**	**BVP:090161**	1 unit	3.600
			2	1		**BD01-125-2-1**	**BVP:233560**	1 unit	3.600
	160	3	6	0.5		**BD01-160-3-0.5**	**BVP:090164**	1 unit	8.000
			3	1		**BD01-160-3-1**	**BVP:233563**	1 unit	8.000
		2	4	0.5		**BD01-160-2-0.5**	**BVP:090162**	1 unit	5.400
			2	1		**BD01-160-2-1**	**BVP:233567**	1 unit	5.400

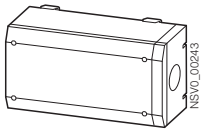


Version	Rated current	Length	DT	Type	Order No.	PS*	Weight per unit approx.
	A	m					kg
Junction units							
Flexible change of direction	100	0.5		**BD01-R1**	**BVP:034260**	1 unit	1.200
		1		**BD01-R2**	**BVP:034261**	1 unit	2.050
	160	0.5		**BD01-160-R1**	**BVP:090166**	1 unit	1.750
		1		**BD01-160-R2**	**BVP:090167**	1 unit	3.050



Version	Rated current	Conductor cross-section	DT	Type	Order No.	PS*	Weight per unit approx.
	A	mm^2					kg
Feeder units							
Molded-plastic enclosure, with 2 end flanges Can be fitted at all connection terminals and the busbar run ends, can be combined with BD01-GK... ancillary equipment units							
• 6 cable entries from 4 sides	100	50[1)]		**BD01-E**	**BVP:034259**	1 unit	1.000
• Cable entry from 2 sides	160	95[2)]		**BD01-160-E**	**BVP:090165**	1 unit	1.400





Use plastic cable glands with strain relief (not included in scope of supply).

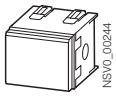
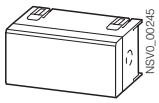
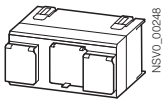
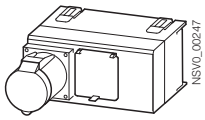
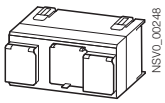
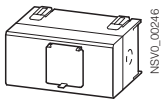
1) Use M32, M40 or M50 cable glands.

2) Use M63 cable glands.

© Siemens AG 2008

Tap-off units for international use

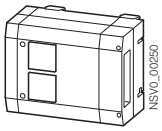
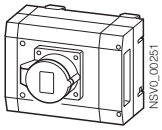
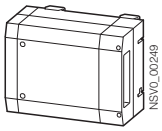
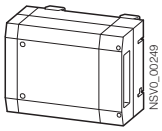
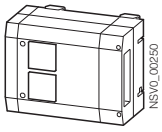
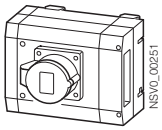
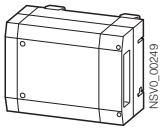
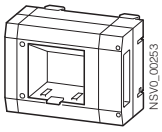
Selection and ordering data

Version	Rated current	Rated operational voltage	DT	Type	Order No.	PS*	Weight per unit approx.
	A	V					kg
Tap-off units, molded plastic, size 01							
With fuse base For 1 cylindrical fuse 10 × 38 mm 	16	400		**BD01-AK01X/ZS**	**BVP:087483**	1 unit	0.300
Tap-off units, molded plastic, size 02							
With fuse base For 3 cylindrical fuses 10 × 38 mm 	32	400		**BD01-AK02X/ZS3**	**BVP:085090**	1 unit	0.400
Tap-off units, molded plastic, size 02, with component mounting unit							
With 1-pole miniature circuit breaker 16 A, characteristic B							
• With 2 Schuko socket outlets 16 A 	16	230		**BD01-AK02M0/ 2SD163A161**	**BVP:085096**	1 unit	0.700
• With 1 CEE socket outlet 16 A, 3-pole 	16	230		**BD01-AK02M0/ CEE163A161**	**BVP:090170**	1 unit	0.700
• With 2-pole RCCB 16 A/30 mA and with 2 Schuko socket outlets 16 A 	16	230		**BD01-AK02M0/ 2SD163FIA161**	**BVP:090168**	1 unit	0.950
Freely assignable (P_V max. 13 W), 3 MW (MW = modular width), with integrated standard mounting rail 	32	400		**BD01-AK02M0/F**	**BVP:085093**	1 unit	0.500

Adapter ring/screw adapter, fuse links and screw cap are not included in scope of supply.

Use plastic cable glands with strain relief (not included in scope of supply).

© Siemens AG 2008

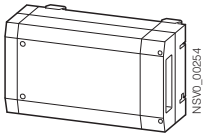
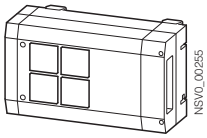
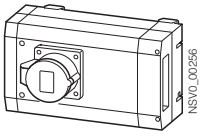
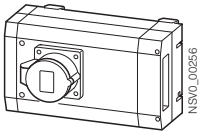
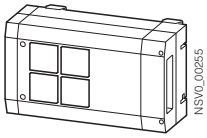
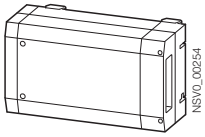
Version	Rated current	Rated operational voltage	DT	Type	Order No.	PS*	Weight per unit approx.
	A	V					kg
Tap-off units, aluminum, size 1							
With 1-pole fuse base D01							
• With 2 Schuko socket outlets 16 A 	16	230		**BD01-AK1X/ 2SD163S14**	**BVP:034268**	1 unit	1.400
• With 1 CEE socket outlet 16 A, 3-pole 	16	230		**BD01-AK1X/ CEE163S14**	**BVP:034270**	1 unit	1.380
With 3-pole fuse base 3 × D01 	16	400		**BD01-AK1X/S14**	**BVP:034264**	1 unit	1.400
With 3-pole fuse base 3 × D02 	35	400		**BD01-AK1X/S18**	**BVP:034265**	1 unit	1.400
With 1-pole miniature circuit breaker 16 A, characteristic B							
• With 2 Schuko socket outlets 16 A 	16	230		**BD01-AK1X/ 2SD163A161**	**BVP:034269**	1 unit	1.470
• With 1 CEE socket outlet 16 A, 3-pole 	16	230		**BD01-AK1X/ CEE163A161**	**BVP:034271**	1 unit	1.435
Freely assignable (P_V max. 13 W), 4 MW (MW = modular width), with integrated standard mounting rail 	35	400		**BD01-AK1X/F**	**BVP:034272**	1 unit	1.000
Freely assignable (P_V max. 13 W), 4 MW (MW = modular width), with integrated standard mounting rail 	35	400		**BD01-AK1M1/F**	**BVP:034273**	1 unit	1.000

Adapter ring/screw adapter, fuse links and screw cap are not included in scope of supply.

Use plastic cable glands with strain relief (not included in scope of supply).

© Siemens AG 2008

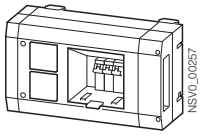
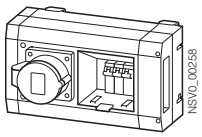
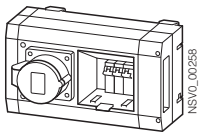
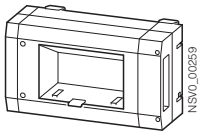
Tap-off units for international use

Version	Rated current	Rated operational voltage	DT	Type	Order No.	PS*	Weight per unit approx.
	A	V					kg
Tap-off units, aluminum, size 2							
With 3-pole fuse base S27/S33 							
• With 3-pole fuse base S27, gauge screw system	25	400		**BD01-AK2X/S27**	**BVP:034274**	1 unit	1.700
• With 3-pole fuse base S33, gauge screw system	63	400		**BD01-AK2HX/S33**	**BVP:233568**	1 unit	1.700
With 2 × 1-pole fuse base D01 and with 4 Schuko socket outlets 16 A 	16	230		**BD01-AK2X/ 4SD163S14**	**BVP:034277**	1 unit	2.000
With 3 × 1-pole fuse base D01 and with 1 CEE socket outlet 16 A, 5-pole 	16	400		**BD01-AK2X/ CEE165S14**	**BVP:034279**	1 unit	1.850
With 3 × 1-pole fuse base D02 and with 1 CEE socket outlet 32 A, 5-pole 	32	400		**BD01-AK2X/ CEE325S18**	**BVP:034281**	1 unit	2.000
With 2 × 1-pole miniature circuit breaker 16 A, characteristic B, and with 4 Schuko socket outlets 16 A 	16	230		**BD01-AK2X/ 4SD163A161**	**BVP:034278**	1 unit	2.100
Freely assignable, 8 MW (MW = modular width), with integrated standard mounting rail 							
• Freely assignable (P_v max. 16 W)	35	400		**BD01-AK2X/F**	**BVP:034283**	1 unit	1.300
• Freely assignable (P_v max. 22.5 W)	63	400		**BD01-AK2HX/F**	**BVP:233570**	1 unit	1.300

Adapter ring/screw adapter, fuse links and screw cap are not included in scope of supply.

Use plastic cable glands with strain relief (not included in scope of supply).

© Siemens AG 2008

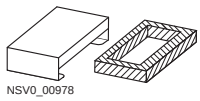
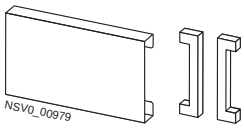
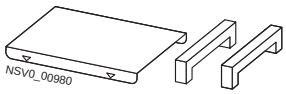
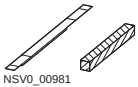
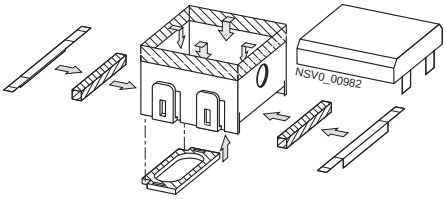
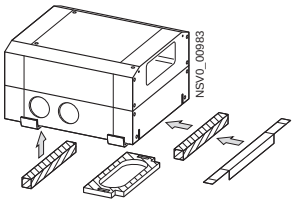
Version	Rated current	Rated operational voltage	DT	Type	Order No.	PS*	Weight per unit approx.
	A	V					kg
Tap-off units, aluminum, size 2, with component mounting unit							
With 1-pole miniature circuit breaker 16 A, characteristic B, with 2-pole RCCB 16 A/30 mA and with 2 Schuko socket outlets 16 A 	16	230		**BD01-AK2M1/ 2SD163FIA161**	**BVP:034276**	1 unit	2.000
With 3-pole miniature circuit breaker 16 A, characteristic C, and with 1 CEE socket outlet 16 A, 5-pole 	16	400		**BD01-AK2M1/ CEE165A163**	**BVP:034280**	1 unit	2.000
With 3-pole miniature circuit breaker 32 A, characteristic C, and with 1 CEE socket outlet 32 A, 5-pole 	32	400		**BD01-AK2M1/ CEE325A323**	**BVP:034282**	1 unit	2.100
Freely assignable, 8 MW (MW = modular width), with integrated standard mounting rail 							
• Freely assignable (P_v max. 16 W)	35	400		**BD01-AK2M2/F**	**BVP:034284**	1 unit	1.360
• Freely assignable (P_v max. 22.5 W)	63	400		**BD01-AK2HM2/F**	**BVP:233571**	1 unit	1.360

Use plastic cable glands with strain relief (not included in scope of supply).

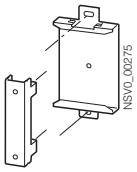
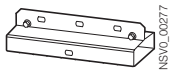
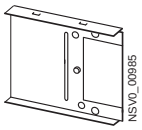
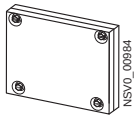
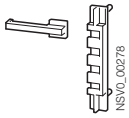
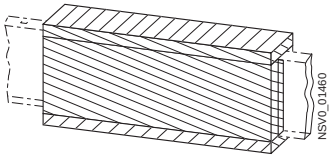
© Siemens AG 2008

Accessories

Selection and ordering data

Version	DT	Type	Order No.	PS*	Weight per unit approx.
					kg
Accessories for degree of protection IP55					
For tap-off points  NSV0_00978		**BD01-FAS**	**BVP:610363**	5 units	0.100
For connection points  NSV0_00979		**BD01-FS**	**BVP:610362**	5 units	0.150
For feeder units					
• Mounting position at the bottom  NSV0_00980		**BD01-FES**	**BVP:610364**	1 unit	0.150
• Mounting position at the side or top  NSV0_00981		**BD01-KS**	**BVP:611057**	1 unit	0.030
For tap-off units					
• Size 01X, 02X  NSV0_00982	Size 01	**BD01-AK01X-IP55**	**BVP:610365**	1 unit	0.050
	Size 02	**BD01-AK02X-IP55**	**BVP:610366**	1 unit	0.050
• Size 1X, 2X  NSV0_00983	Size 1	**BD01-AK1X-IP55**	**BVP:610367**	1 unit	0.050
	Size 2	**BD01-AK2X-IP55**	**BVP:610368**	1 unit	0.050

© Siemens AG 2008

Version	Rated current I_e	DT	Type	Order No.	PS*	Weight per unit approx.
	A					kg
Mounting						
Universal fixing brackets 	--		**BD01-B**	**BVP:034262**	1 unit	0.167
Suspension brackets	--		**BD01-BA**	**BVP:081945**	1 unit	0.167
Hanger brackets • For suspension by cable or pendant chain • At the connection point 	--		**BD01-BAP**	**BVP:203522**	1 unit	0.576
Mounting parts						
End flanges 	--		**BD01-EF**	**BVP:611071**	1 unit	0.300
Joint blocks For linking of trunking units 	100 160		**BD01-100-KB** **BD01-160-KB**	**BVP:201966** **BVP:201967**	1 unit 1 unit	0.350 0.350
Coding						
Coding sets • 4 coding positions 	--		**BD01-K**	**BVP:034263**	10 units	0.010
Fire protection						
Fire protection kits For mounting by the customer with fire protection plates and fixing screws 	--		**BD01-S90**	**BVP:611354**	1 unit	1.500
Fire protection approval kits (required only for Germany)	--		**BD01-S90-ZUL-D**	**BVP:611373**	1 unit	0.200

© Siemens AG 2008

ALPHA FIX 8WA terminals with screw connection

Selection and ordering data

	Version	Order No.	PG	PS*/ P. unit
				Unit(s)
8WA1 through-type, PE and PEN terminals				
Terminal size 2.5 mm²				
8WA1 011-1DF11	**Through-type terminals** • Rated uninterrupted current 24 A • Rated insulation voltage 800 V • Width 6 mm			
	Versions			
	• Single terminals			
	- Beige	**8WA1 011-1DF11**	041	100 units
	- Blue	**8WA1 011-1BF23**	041	50 units
	- Red	**8WA1 011-1BF21**	041	50 units
	- Green-yellow	**8WA1 011-1PF11**	041	50 units
	- Orange	**8WA1 011-1BF22**	041	50 units
	- Yellow	**8WA1 011-1BF26**	041	50 units
	- Black	**8WA1 011-1BF24**	041	50 units
	- Green	**8WA1 011-1BF25**	041	50 units
	• Terminal blocks			
	- Beige, 3-pole, width 18 mm	**8WA1 011-3DF21**	041	10 units
	- Beige, 10-pole, width 61 mm, with designation 1 ... 10	**8WA1 011-0DF22**	041	20 units
	- Beige, 10-pole, width 61 mm, without designation	**8WA1 011-0DF21**	041	20 units
	PE through-type terminals Width 6 mm			
	• One screw terminal	**8WA1 011-1PF01**	041	50 units
	• Two screw terminals	**8WA1 011-1PF00**	041	50 units
Terminal size 4 mm²				
8WA1 011-1DG11	**Through-type terminals** • Rated uninterrupted current 32 A • Rated insulation voltage 800 V • Width 6.5 mm			
	Versions			
	• Single terminals			
	- Beige	**8WA1 011-1DG11**	041	100 units
	- Blue	**8WA1 011-1BG11**	041	50 units
	- Red	**8WA1 011-1BG21**	041	50 units
	- Green-yellow	**8WA1 011-1PG11**	041	50 units
	- Orange	**8WA1 011-1BG22**	041	50 units
	- Black	**8WA1 011-1BG24**	041	50 units
	• Terminal blocks			
	- Beige, 3-pole, width 19.5 mm	**8WA1 011-3DG21**	041	10 units
	- Beige, 10-pole, width 65.5 mm, with designation 1 ... 10	**8WA1 011-0DG22**	041	20 units
	- Beige, 10-pole, width 65.5 mm, without designation	**8WA1 011-0DG21**	041	20 units
	PE through-type terminals Width 7.2 mm			
	• One screw terminal	**8WA1 011-1PG01**	041	50 units
	• Two screw terminals	**8WA1 011-1PG00**	041	50 units
Terminal size 6 mm²				
8WA1 011-1DH11	**Through-type terminals** • Rated uninterrupted current 41 A • Rated insulation voltage 800 V • Width 8 mm			
	Versions			
	• Single terminals			
	- Beige	**8WA1 011-1DH11**	041	50 units
	- Blue	**8WA1 011-1BH23**	041	50 units
	- Green-yellow	**8WA1 011-1PH11**	041	50 units
	- Black	**8WA1 011-1BH24**	041	50 units
	• Terminal blocks			
	- Beige, 3-pole, width 24.5 mm	**8WA1 011-3DH21**	041	20 units
	PE through-type terminals Width 6 mm			
	• One screw terminal, width 6 mm, also for use as shield terminal	**8WA1 010-1PH01**	041	50 units
	• Two screw terminals, width 8 mm	**8WA1 011-1PH00**	041	50 units

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

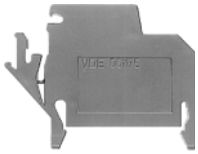
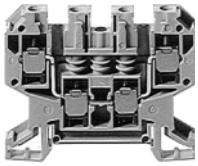
© Siemens AG 2008

	Version	Order No.	PG	PS*/ P. unit Unit(s)
8WA through-type, PE and PEN terminals				
Terminal size 16 mm²				
8WA1 204	**Through-type terminals** • Rated uninterrupted current 76 A • Rated insulation voltage 800 V • Width 10 mm			
	Versions			
	• Single terminals			
	- Beige	**8WA1 204**	041	20 units
	- Blue	**8WA1 011-1BK11**	041	10 units
	• Terminal blocks			
	- 3-pole, width 30 mm	**8WA1 304**	041	20 units
	PE through-type terminals and PEN terminals Width 12 mm	**8WA1 011-1PK00**	041	25 units
Terminal size 35 mm²				
8WA1 205	**Through-type terminals** • Rated uninterrupted current 125 A • Rated insulation voltage 800 V • Width 16 mm			
	Versions			
	• Single terminals			
	- Beige	**8WA1 205**	041	20 units
	- Blue	**8WA1 011-1BM11**	041	10 units
	• Terminal blocks			
	- 3-pole, width 48 mm	**8WA1 305**	041	20 units
	PE through-type terminals and PEN terminals • for I = 125 A • Width 16 mm	**8WA1 011-1PM00**	041	25 units
Terminal size 70 mm²				
8WA1 206	**Through-type terminals** • Rated uninterrupted current 192 A • Rated insulation voltage 800 V • Width 25 mm			
	Versions			
	• Beige	**8WA1 206**	041	10 units
	• Blue	**8WA1 011-1BP11**	041	10 units
Accessories				
	Thermoplast end retainers Width 10 mm	**8WA1 808**	041	50 units
	Insulation plates			
	• For terminal size 2.5 ... 6 mm²	**8WA1 825**	041	50 units
	• For terminal size 16 and 35 mm²	**8WA1 822-7TK00**	041	50 units
	Link rails			
	• For terminal size 2.5 mm²			
	- For two terminals	**8WA1 895**	041	50 units
	- For three terminals	**8WA1 896**	041	50 units
	- For four terminals	**8WA1 897**	041	20 units
	- For ten terminals	**8WA1 898**	041	10 units
	• For terminal size 4 mm²			
	- For two terminals	**8WA1 850**	041	50 units
	- For three terminals	**8WA1 851**	041	50 units
	- For four terminals	**8WA1 852**	041	20 units
	- For ten terminals	**8WA1 853**	041	10 units
	• For terminal size 6 mm²			
	- For two terminals	**8WA1 885**	041	50 units
	- For three terminals	**8WA1 886**	041	50 units
	- For four terminals	**8WA1 887**	041	20 units
	- For ten terminals	**8WA1 888**	041	10 units
	• For terminal size 16 mm²			
	- For two terminals	**8WA1 842**	041	20 units
	- For three terminals	**8WA1 845**	041	20 units
	- For four terminals	**8WA1 848**	041	10 units
	- For ten terminals	**8WA1 802**	041	10 units
	• For terminal size 35 mm²			
	- For two terminals	**8WA1 828**	041	20 units
	- For three terminals	**8WA1 803**	041	20 units
	- For ten terminals	**8WA1 804**	041	10 units
	• For terminal size 70 mm²			
	- For two terminals	**8WA1 216**	041	20 units
	Barriers			
	• For terminal size 1 to 4 mm²	**8WA1 820**	041	50 units
	• For terminal size 6 and 16 mm²	**8WA1 821**	041	50 units
	• For terminal size 35 mm²	**8WA1 823**	041	25 units
	• For terminal size 70 mm²	**8WA1 824**	041	25 units

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

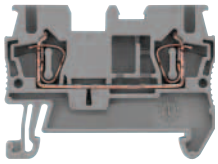
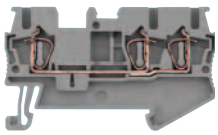
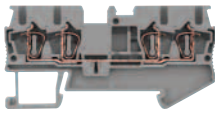
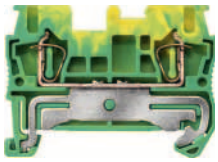
ALPHA FIX 8WA terminals with screw connection

	Version	Order No.	PG	PS*/ P. unit
				Unit(s)
8WA1 neutral isolating terminals, blue, for neutral busbars 6 x 6 mm				
 8WA1 011-1NF01	Neutral isolating terminals, terminal size 2.5 mm²	**8WA1 011-1NF01**	041	50 units
	Neutral isolating terminals, terminal size 4 mm²	**8WA1 011-1NG31**	041	50 units
	Neutral isolating terminals, terminal size 6 mm²	**8WA1 011-1NH01**	041	50 units
	Neutral isolating terminals, terminal size 16 mm²	**8WA1 604**	041	50 units
8WA1 Insta or three-tier terminals				
Terminal size 2.5 mm²				
8WA1 011-3JF16	**Insta terminals** • Rated uninterrupted current 24 A • Rated insulation voltage - 400 V between phase conductors - 250 V between phase and protective conductors and for neutral isolating distance • Width 6 mm			
	Versions			
	• PE, L, L	**8WA1 011-3JF16**	041	50 units
	• PE, L, N	**8WA1 011-3JF17**	041	50 units
	• L, L	**8WA1 011-3JF18**	041	50 units
	• PE, L, NT	**8WA1 011-3JF20**	041	50 units
	Accessories			
	Insulation plates, for terminal size 2.5 ... 6 mm²	**8WA1 825**	041	50 units
	Feeder terminals, for neutral busbars			
	• Connection up to 4 mm²	**8WA2 867**	041	50 units
	• Connection up to 25 mm²	**8WA2 868**	041	50 units
	• Connection up to 35 mm²	**8WA2 870**	041	50 units
	End retainers, thermoplast	**8WA1 808**	041	50 units
	N/NP bars	**8GF9 324-2**	042	10 units
	Link rails, for Insta terminals			
	• For two terminals	**8WA1 822-7VF02**	041	50 units
	• For three terminals	**8WA1 822-7VF03**	041	50 units
	• For four terminals	**8WA1 822-7VF04**	041	20 units
	• For ten terminals	**8WA1 822-7VF10**	041	10 units
	Barriers, for Insta terminals	**8WA1 822-7TH00**	041	50 units
8WA two-tier terminals				
Terminal size 4 mm²				
 8WA1 011-6DG11	**Two-tier terminals** • Rated uninterrupted current 32 A • Rated insulation voltage 690 V (with end plate 800 V) • Width 6.5 mm			
	Versions			
	• Beige			
	- 1-pole	**8WA1 011-6DG11**	041	50 units
	- 2-pole, with 2 electrically isolated links	**8WA1 011-2DG11**	041	50 units
	Accessories			
	Jumpers			
	• For top level with 2-pole terminals	**8WA1 822-7VG00**	041	50 units
	• For bottom level with 1-pole and 2-pole terminals	**8WA1 822-7VG01**	041	50 units
	Link rails			
	• For top level with 2-pole terminals			
	- For two terminals	**8WA1 850**	041	50 units
	- For three terminals	**8WA1 851**	041	50 units
	- For four terminals	**8WA1 852**	041	20 units
	- For ten terminals	**8WA1 853**	041	10 units
	• For bottom level with 1-pole and 2-pole terminals			
	- For two terminals	**8WA1 835**	041	50 units
	- For ten terminals	**8WA1 838**	041	10 units
	Barriers	**8WA1 823**	041	25 units

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

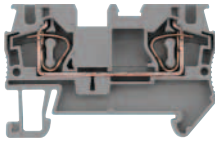
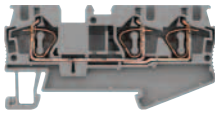
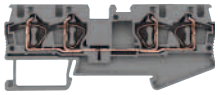
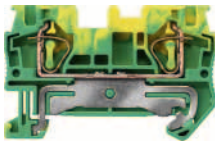
	Version	Order No.	PG	PS*/ P. unit
				Unit(s)
8WH through-type and PE terminals				
Terminal size 2.5 mm²				
 8WH2 000-0AF00	**Through-type terminals, two connection points** • Terminal width 5.2 mm • IEC 60947-7-1 - I = 31 A - U = 800 V • EN 50019 - I = 25/21 A - U = 550 V			
	Versions			
	• Gray	**8WH2 000-0AF00**	044	50 units
	• Blue	**8WH2 000-0AF01**	044	50 units
	• Orange	**8WH2 000-0AF04**	044	50 units
	• Red	**8WH2 000-0AF02**	044	50 units
	• Black	**8WH2 000-0AF08**	044	50 units
	• Green	**8WH2 000-0AF03**	044	50 units
	• White	**8WH2 000-0AF05**	044	50 units
	• Yellow	**8WH2 000-0AF06**	044	50 units
	Accessories			
	Compartment partitions, for terminal size 1.5 ... 4 mm² and two connection points	**8WH9 070-0AA00**	044	50 units
	Covers, for terminal size 1.5 ... 2.5 mm² and two connection points	**8WH9 000-1GA00**	044	50 units
 8WH2 003-0AF00	**Through-type terminals, three connection points** • Terminal width 5.2 mm • IEC 60947-7-1 - I = 28 A - U = 800 V • EN 50019 - I = 25/21 A - U = 550 V			
	Versions			
	• Gray	**8WH2 003-0AF00**	044	50 units
	• Blue	**8WH2 003-0AF01**	044	50 units
	Accessories			
	Compartment partitions, for terminal size 1.5 ... 4 mm² and three connection points	**8WH9 070-0GA00**	044	50 units
	Covers, for terminal size 2.5 mm² and 3 connection points	**8WH9 000-2GA00**	044	50 units
 8WH2 004-0AF00	**Through-type terminals, four connection points** • Terminal width 5.2 mm • IEC 60947-7-1 - I = 28 A - U = 800 V • EN 50019 - I = 24/21 A - U = 550 V			
	Versions			
	• Gray	**8WH2 004-0AF00**	044	50 units
	• Blue	**8WH2 004-0AF01**	044	50 units
	Accessories			
	Compartment partitions, for terminal size 1.5 ... 4 mm² and four connection points	**8WH9 070-0HA00**	044	50 units
	Covers, for terminal size 2.5 mm² and four connection points	**8WH9 000-4GA00**	044	50 units
	Cover segments, for terminal size 1.5 ... 2.5 mm²	**8WH9 000-0GA00**	044	10 units
 8WH2 000-0CF07	**PE through-type terminals**			
	Versions			
	• Two connection points	**8WH2 000-0CF07**	044	50 units
	• Three connection points	**8WH2 003-0CF07**	044	50 units
	• Four connection points	**8WH2 004-0CF07**	044	50 units
	Accessories			
	Covers, for terminal size 1.5 ... 2.5 mm²			
	• For two connection points	**8WH9 000-1GA00**	044	50 units
	• For three connection points	**8WH9 000-2GA00**	044	50 units
	• For four connection points	**8WH9 000-4GA00**	044	50 units
	Cover segments, for terminal size 1.5 ... 2.5 mm²	**8WH9 000-0GA00**	044	10 units

14

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

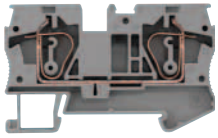
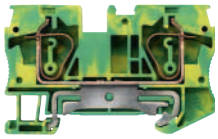
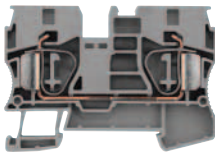
© Siemens AG 2008

ALPHA FIX 8WH terminals with spring-type connection

	Version	Order No.	PG	PS*/ P. unit
				Unit(s)
8WH through-type and PE terminals				
Terminal size 4 mm²				
 8WH2 000-0AG00	**Through-type terminals, two connection points** • Terminal width 6.2 mm • IEC 60947-7-1 - I = 40 A - U = 800 V • EN 50019 - I = 34/30 A - U = 550 V			
	Versions			
	• Gray	**8WH2 000-0AG00**	044	50 units
	• Blue	**8WH2 000-0AG01**	044	50 units
	• Orange	**8WH2 000-0AG04**	044	50 units
	• Red	**8WH2 000-0AG02**	044	50 units
	• Black	**8WH2 000-0AG08**	044	50 units
	• Green	**8WH2 000-0AG03**	044	50 units
	• White	**8WH2 000-0AG05**	044	50 units
	• Yellow	**8WH2 000-0AG06**	044	50 units
	Accessories			
	Compartment partitions, for terminal size 1.5 ... 4 mm² and two connection points	**8WH9 070-0AA00**	044	50 units
	Covers, for terminal size 4 mm² and two connection points	**8WH9 003-1GA00**	044	50 units
 8WH2 003-0AG00	**Through-type terminals, three connection points** • Terminal width 6.2 mm • IEC 60947-7-1 - I = 40 A - U = 800 V • EN 50019 - I = 34/29 A - U = 550 V			
	Versions			
	• Gray	**8WH2 003-0AG00**	044	50 units
	• Blue	**8WH2 003-0AG01**	044	50 units
	Accessories			
	Compartment partitions, for terminal size 1.5 ... 4 mm² and three connection points	**8WH9 070-0GA00**	044	50 units
	Covers, for terminal size 4 mm² and three connection points	**8WH9 003-2GA00**	044	50 units
	Cover segments, for terminal size 4 mm²	**8WH9 003-0GA00**	044	10 units
 8WH2 004-0AG00	**Through-type terminals, four connection points** • Terminal width 6.2 mm • IEC 60947-7-1 - I = 40 A - U = 800 V • EN 50019 - I = 34/25 A - U = 550 V			
	Versions			
	• Gray	**8WH2 004-0AG00**	044	50 units
	• Blue	**8WH2 004-0AG01**	044	50 units
	Accessories			
	Compartment partitions, for terminal size 1.5 ... 4 mm² and four connection points	**8WH9 070-0HA00**	044	50 units
	Covers, for terminal size 4 mm² and four connection points	**8WH9 003-4GA00**	044	50 units
	Cover segments, for terminal size 4 mm²	**8WH9 003-0GA00**	044	10 units
 8WH2 000-0CG07	**PE through-type terminals, terminal width 6.2 mm**			
	Versions			
	• Two connection points	**8WH2 000-0CG07**	044	50 units
	• Three connection points	**8WH2 003-0CG07**	044	50 units
	• Four connection points	**8WH2 004-0CG07**	044	50 units
	Accessories			
	Covers, for terminal size 4 mm²			
	• For two connection points	**8WH9 003-1GA00**	044	50 units
	• For three connection points	**8WH9 003-2GA00**	044	50 units
	• For four connection points	**8WH9 003-4GA00**	044	50 units
	Cover segments, for terminal size 4 mm²	**8WH9 003-0GA00**	044	10 units

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

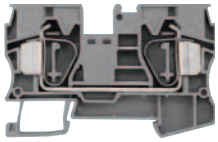
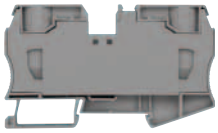
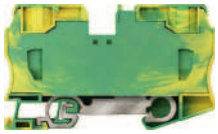
	Version	Order No.	PG	PS*/ P. unit
				Unit(s)
8WH through-type and PE terminals				
Terminal size 6 mm²				
 8WH2 000-0AH00	**Through-type terminals, two connection points** • Terminal width 8.2 mm • IEC 60947-7-1 - I = 52 A - U = 800 V • EN 50019 - I = 45/36 A - U = 550 V			
	Versions			
	• Gray	**8WH2 000-0AH00**	044	50 units
	• Blue	**8WH2 000-0AH01**	044	50 units
	Accessories			
	Compartment partitions, for terminal size 6 mm²	**8WH9 070-0DA00**	044	50 units
	Covers, for terminal size 6 mm²	**8WH9 004-1GA00**	044	50 units
	Reducing bridges, for terminal size 6 mm², on spring-loaded terminals 2.5 and 4 mm²	**8WH9 020-0FC10**	044	10 units
 8WH2 000-0CH07	**PE through-type terminals, two connection points** • Terminal width 8.2 mm	**8WH2 000-0CH07**	044	50 units
	Accessories			
	Covers, for terminal size 6 mm²	**8WH9 004-1GA00**	044	50 units
8WH2 003-0AH00	**Through-type terminals, three connection points** • Terminal width 8.2 mm • IEC 60947-7-1 - I = 52 A - U = 800 V • EN 50019 - I = 46/36 A - U = 550 V			
	Versions			
	• Gray	**8WH2 003-0AH00**	044	50 units
	• Blue	**8WH2 003-0AH01**	044	50 units
	Accessories			
	Covers, for terminal size 6 mm² and 3 connection points	**8WH9 004-2GA00**	044	50 units
	Reducing bridges, for terminal size 6 mm², on spring-loaded terminals 2.5 and 4 mm²	**8WH9 020-0FC10**	044	10 units
8WH2 003-0CH07	**PE through-type terminals, three connection points** • Terminal width 8.2 mm	**8WH2 003-0CH07**	044	50 units
	Accessories			
	Covers, for terminal size 6 mm² and 3 connection points	**8WH9 004-2GA00**	044	50 units
Terminal size 10 mm²				
 8WH2 000-0AJ00	**Through-type terminals** • Terminal width 10.2 mm • IEC 60947-7-1 - I = 65 A - U = 800 V • EN 50019 - I = 50/63 A - U = 550 V			
	Versions			
	• Gray	**8WH2 000-0AJ00**	044	50 units
	• Blue	**8WH2 000-0AJ01**	044	50 units
	Accessories			
	Covers, for terminal size 10 mm²	**8WH9 005-1GA00**	044	50 units
	Reducing bridges, for terminal size 10 mm², on spring-loaded terminals 2.5 and 4 mm²	**8WH9 020-0AC10**	044	10 units
8WH2 000-0CJ07	**PE through-type terminals** • Terminal width 10.2 mm - I = 65 A	**8WH2 000-0CJ07**	044	50 units
	Accessories			
	Covers, for terminal size 10 mm²	**8WH9 005-1GA00**	044	50 units
	Plug-in bridges, for terminal width 10.2 mm	**8WH9 020-6EC10**	044	10 units

14

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

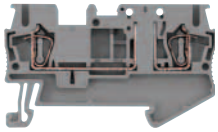
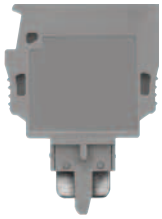
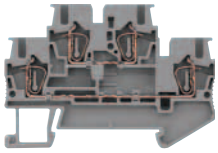
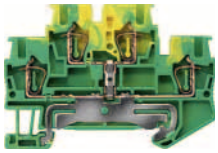
© Siemens AG 2008

ALPHA FIX 8WH terminals with spring-type connection

	Version	Order No.	PG	PS*/ P. unit Unit(s)
8WH through-type and PE terminals				
Terminal size 16 mm²				
 8WH2 000-0AK00	**Through-type terminals** • Terminal width 12 mm • IEC 60947-7-1 - I = 90 A - U = 800 V • EN 50019 - I = 65/82 A - U = 550 V			
	Versions			
	• Gray	**8WH2 000-0AK00**	044	50 units
	• Blue	**8WH2 000-0AK01**	044	50 units
	Accessories			
	Covers, for terminal size 16 mm²	**8WH9 006-1GA00**	044	50 units
	Reducing bridges, for terminal size 16 mm², on spring-loaded terminals 2.5 and 4 mm²	**8WH9 020-0BC10**	044	10 units
	Plug-in bridges, for terminal width 12 mm	**8WH9 020-6FC10**	044	10 units
8WH2 000-0CK07	**PE through-type terminals** • Terminal width 12 mm - I = 90 A	**8WH2 000-0CK07**	044	25 units
	Accessories			
	Covers, for terminal size 16 mm²	**8WH9 006-1GA00**	044	50 units
	Plug-in bridges, for terminal width 12 mm	**8WH9 020-6FC10**	044	10 units
Terminal size 35 mm²				
 8WH2 000-0AM00	**Through-type terminals, terminal size 35 mm²** • Insulated on both sides • Terminal width 16 mm • IEC 60947-7-1 - I = 125 A - U = 800 V • EN 50019 - I = 108 A - U = 750 V			
	Versions			
	• Gray	**8WH2 000-0AM00**	044	10 units
	• Blue	**8WH2 000-0AM01**	044	10 units
	Accessories			
	Reducing bridges, for terminal size 35 mm² • For linking terminal sizes 2.5 and 4 mm² • For linking terminal sizes 16 mm²	**8WH9 020-0EC10** **8WH9 020-0DC10**	044 044	10 units 10 units
	Plug-in bridges, for terminal width 16 mm	**8WH9 020-6GC10**	044	10 units
 8WH2 000-0CM07	**PE through-type terminals, terminal size 35 mm²** • Insulated on both sides • Terminal width 16 mm - I = 125 A	**8WH2 000-0CM07**	044	10 units
	Accessories			
	Plug-in bridges, for terminal width 16 mm	**8WH9 020-6GC10**	044	10 units
8WH fuse terminals				
Terminal size 4 mm²				
8WH2 000-1GG08	**Fuse terminals, for G fuse links 5 x 20 mm** • Terminal width 6.2 mm • With fuse - I_{max} = 6.3 A, only short-circuit protection stand-alone 4 W, group 2.5 W - U = 250 V, overload protection, stand-alone 4 W, group 1.6 W • As isolating terminals - I = 6.3 A - U = 250 V			
	Versions			
	• Without illuminated indicator	**8WH2 000-1GG08**	044	50 units
	• Illuminated indicator 15 ... 30 V	**8WH2 000-1JG38**	044	50 units
	• Illuminated indicator 30 ... 60 V	**8WH2 000-1JG68**	044	50 units
	• Illuminated indicator 110 ... 250 V	**8WH2 000-1MG08**	044	50 units
	Accessories			
	Compartment partitions, for terminal sizes 1.5 and 4 mm² and two connection points	**8WH9 070-0AA00**	044	50 units

*** You can order this quantity or a multiple thereof. For other units and versions see A&D Mall.**

© Siemens AG 2008

	Version	Order No.	PG	PS*/ P. unit
				Unit(s)
8WH isolating terminals				
Terminal size 2.5 mm²				
 8WH2 000-6AF00	**Isolating terminals** • Gray • Terminal width 5.2 mm - Current and voltage are determined by the plug used - I = 16 A - U = 400 V			
	Versions			
	• Two connection points	**8WH2 000-6AF00**	044	50 units
	• Three connection points	**8WH2 003-6AF00**	044	50 units
	• Four connection points	**8WH2 004-6AF00**	044	50 units
Accessories				
	Isolating plugs Orange	**8WH9 040-0DB04**	044	50 units
8WH9 040-3DB08	**Fused plugs** • Black • I_{max}: 6.3 A • Can be inscribed with labels, flat, for terminal width 5.2 mm	**8WH9 040-3DB08**	044	10 units
 8WH9 040-0BB00	**Component plugs**	**8WH9 040-0DB00**	044	10 units
	Compartment partitions, for terminal size 2.5 mm² • For three connection points • For four connection points	 **8WH9 070-0GA00** **8WH9 070-0HA00**	 044 044	 50 units 50 units
	Cover segments, for terminal size 1.5 and 2.5 mm² and three or four connection points	**8WH9 000-0GA00**	044	10 units
8WH two-tier terminals				
Terminal size 2.5 mm²				
 8WH2 020-0AF00	**Two-tier terminals** • Terminal width 5.2 mm • IEC 60947-7-1 - I = 26 A - U = 500 V • EN 50019 - I = 23/19 A - U = 420 V			
	Versions			
	• Gray			
	- Without potential link, 2-pole	**8WH2 020-0AF00**	044	50 units
	- With potential link, 1-pole	**8WH2 025-0AF00**	044	50 units
	• Blue			
	- Without potential link, 2-pole	**8WH2 020-0AF01**	044	50 units
	- With potential link, 1-pole	**8WH2 025-0AF01**	044	50 units
 8WH2 020-0CF07	**PE two-tier terminals, two connection points on one level** • Terminal width 5.2 mm	**8WH2 020-0CF07**	044	50 units
Accessories				
	Covers, for terminal size 1.5 ... 2.5 mm²	**8WH9 000-1VA00**	044	50 units

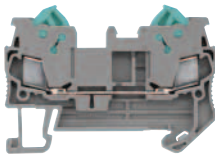
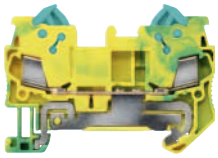
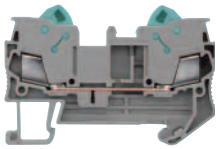
14

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

ALPHA FIX 8WH terminals with insulation displacement connection

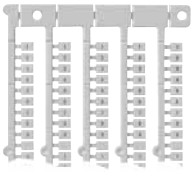
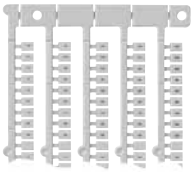
Selection and ordering data

	Version	Order No.	PG	PS*/ P. unit
				Unit(s)
Through-type and PE terminals				
Terminal size 1.5 mm²				
 8WH3 000-0AE00	**Through-type terminals** • Terminal width 5.2 mm - I = 17.5 A - U = 800 V • EN 50019 - I = 16 A - U = 550 V			
	Versions			
	• Gray			
	- Two connection points	**8WH3 000-0AE00**	044	50 units
	- Three connection points	**8WH3 003-0AE00**	044	50 units
	- Four connection points	**8WH3 004-0AE00**	044	50 units
	• Blue			
	- Two connection points	**8WH3 000-0AE01**	044	50 units
	- Three connection points	**8WH3 003-0AE01**	044	50 units
	- Four connection points	**8WH3 004-0AE01**	044	50 units
 8WH3 000-0CE07	**PE through-type terminals** • Terminal width 5.2 mm			
	Versions			
	• Two connection points	**8WH3 000-0CE07**	044	50 units
	• Three connection points	**8WH3 003-0CE07**	044	50 units
	• Four connection points	**8WH3 004-0CE07**	044	50 units
	Accessories			
	Cover segments, for terminal size 1.5 mm² and three or four connection points	**8WH9 001-0AA00**	044	50 units
Terminal size 2.5 mm²				
 8WH3 000-0AF00	**Through-type terminals** • Terminal width 6.2 mm - I = 24 A - U = 800 V			
	Versions			
	• Gray			
	- Two connection points	**8WH3 000-0AF00**	044	50 units
	- Three connection points	**8WH3 003-0AF00**	044	50 units
	• Blue			
	- Two connection points	**8WH3 000-0AF01**	044	50 units
	- Three connection points	**8WH3 003-0AF01**	044	50 units
8WH3 000-0CF07	**PE through-type terminals** • Terminal width 6.2 mm			
	Versions			
	• Two connection points	**8WH3 000-0CF07**	044	50 units
	• Three connection points	**8WH3 003-0CF07**	044	50 units
Accessories				
	Compartment partitions, for terminal size 1.5 ... 2.5 mm²			
	• Two connection points	**8WH9 070-0JA00**	044	50 units
	• Three connection points	**8WH9 070-0KA00**	044	50 units
	• Four connection points	**8WH9 070-0LA00**	044	50 units
	Modular test plugs			
	• For terminal width 5.2 mm	**8WH9 010-0EB02**	044	10 units
	• For terminal width 6.2 mm	**8WH9 010-0FB02**	044	10 units
	Covers			
	• For terminal size 1.5 mm²			
	- Two connection points	**8WH9 001-1AA00**	044	50 units
	- Three connection points	**8WH9 001-2AA00**	044	50 units
	- Four connection points	**8WH9 001-4AA00**	044	50 units
	• For terminal size 2.5 mm²			
	- Two connection points	**8WH9 000-1AA00**	044	50 units
	- Three connection points	**8WH9 000-2AA00**	044	50 units

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

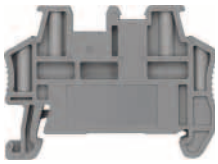
Selection and ordering data

	Version	Order No.	PG	PS*/ P. unit
				Unit(s)
8WA labeling accessories				
Labeling plates with inscription				
 Vertical inscription (8WA8 860-0AA)	**Inscription labels, type 8WA8 860/861** • Label size 5 mm x 7 mm • Letter height 2 mm • Grid size 6.2 mm			
	Versions			
	• Vertical inscription	**8WA8 860-□□□**	041	200 units
	• Horizontal inscription	**8WA8 861-□□□**	041	200 units
	Inscription			
	• 1 ... 5 (40 x)	**0BA**		
	• 6 … 10 (40 x)	**0BB**		
	• 11 … 15 (40 x)	**0BC**		
	• 16 … 20 (40 x)	**0BD**		
	• 21 … 25 (40 x)	**0BE**		
 Horizontal inscription (8WA8 861-0AA)	• 26 … 30 (40 x)	**0BF**		
	• 31 … 35 (40 x)	**0BG**		
	• 36 … 40 (40 x)	**0BH**		
	• 41 … 45 (40 x)	**0BJ**		
	• 46 … 50 (40 x)	**0BK**		
	• 51 … 55 (40 x)	**0BL**		
	• 56 … 60 (40 x)	**0BM**		
	• 61 … 65 (40 x)	**0BN**		
	• 66 … 70 (40 x)	**0BP**		
	• 71 … 75 (40 x)	**0BQ**		
8WH labeling accessories, labeling plates with inscription				
Terminal width 5.2 mm				
8WH8 120-2AB05	**Labels, front, with vertical inscription** • Consecutive numbers			
	- 1 ... 10 (10 ×)	**8WH8 120-2AB05**	044	100 units
	- 11 ... 20 (10 ×)	**8WH8 120-2AB15**	044	100 units
	- 21 ... 30 (10 ×)	**8WH8 120-2AB25**	044	100 units
8WH8 120-2AA15	- 31 ... 40 (10 ×)	**8WH8 120-2AB35**	044	100 units
	- 41 ... 50 (10 ×)	**8WH8 120-2AB45**	044	100 units
	- 51 ... 60 (10 ×)	**8WH8 120-2AB55**	044	100 units
	- 61 ... 70 (10 ×)	**8WH8 120-2AB65**	044	100 units
	- 71 ... 80 (10 ×)	**8WH8 120-2AB75**	044	100 units
	- 81 ... 90 (10 ×)	**8WH8 120-2AB85**	044	100 units
	- 91 ... 100 (10 ×)	**8WH8 120-2AC05**	044	100 units
	• L1/L2/L3/N/PE	**8WH8 120-2AA15**	044	100 units
8WH8 110-2AA05	**Labels, front, without inscription**	**8WH8 110-2AA05**	044	100 units
8WH8 111-2AA05	**Labels, flat, without inscription**	**8WH8 111-2AA05**	044	100 units
Terminal width 6.2 mm				
8WH8 120-3AB05	**Labels, front, with vertical inscription** • Consecutive numbers			
	- 1 ... 10 (10 ×)	**8WH8 120-3AB05**	044	100 units
	- 11 ... 20 (10 ×)	**8WH8 120-3AB15**	044	100 units
	- 21 ... 30 (10 ×)	**8WH8 120-3AB25**	044	100 units
	- 31 ... 40 (10 ×)	**8WH8 120-3AB35**	044	100 units
	- 41 ... 50 (10 ×)	**8WH8 120-3AB45**	044	100 units
	- 51 ... 60 (10 ×)	**8WH8 120-3AB55**	044	100 units
8WH8 110-3AA05	**Labels, front, without inscription**	**8WH8 110-3AA05**	044	100 units
8WH8 111-3AA05	**Labels, flat, without inscription**	**8WH8 111-3AA05**	044	100 units
Terminal width 8.2 mm				
8WH8 120-4AB05	**Labels, front, with vertical inscription** • Consecutive numbers			
	- 1 ... 10 (10 ×)	**8WH8 120-4AB05**	044	100 units
	- 11 ... 20 (10 ×)	**8WH8 120-4AB15**	044	100 units
	- 21 ... 30 (10 ×)	**8WH8 120-4AB25**	044	100 units
8WH8 120-4AA15	- 31 ... 40 (10 ×)	**8WH8 120-4AB35**	044	100 units
	- 41 ... 50 (10 ×)	**8WH8 120-4AB45**	044	100 units

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

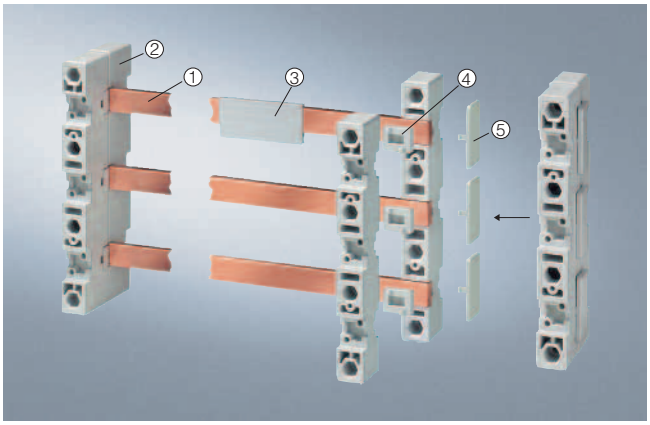
Accessories for 8WA and 8WH

	Version	Order No.	PG	PS*/ P. unit Unit(s)
Terminal width 8.2 mm				
8WH8 110-4AA05	**Labels, front, without inscription**	**8WH8 110-4AA05**	044	100 units
8WH8 111-3AA05	**Labels, flat, without inscription**	**8WH8 111-4AA05**	044	100 units
Terminal width 10 mm				
8WH8 120-5AB05	**Labels, front, with vertical inscription**			
	• Consecutive numbers			
	- 1 ... 10 (10 ×)	**8WH8 120-5AB05**	044	100 units
8WH8 120-5AA15	- 11 ... 20 (10 ×)	**8WH8 120-5AB15**	044	100 units
	- 21 ... 30 (10 ×)	**8WH8 120-5AB25**	044	100 units
	- 31 ... 40 (10 ×)	**8WH8 120-5AB35**	044	100 units
8WH8 120-5AA25	• L1/L2/L3/N/PE	**8WH8 120-5AA15**	044	100 units
	• U/V/W/N/Grounding	**8WH8 120-5AA25**	044	100 units
8WH8 110-5AA05	**Labels, front, without inscription**	**8WH8 110-5AA05**	044	100 units
8WH8 111-5AA05	**Labels, flat, without inscription**	**8WH8 111-5AA05**	044	100 units
Terminal width 15 mm				
	Labels, flat, without inscription	**8WH8 111-7AA05**	044	100 units
8WH mounting accessories				
 8WH9 150-0CA00	**Quick-assembly end retainers** • Can be inscribed with labels, front, for terminal width 5.2 mm and terminal strip marker	**8WH9 150-0CA00**	044	50 units
	Through-type connectors • Gray • I_{max}: 16 A	**8WH9 020-8AB00**	044	50 units
8WH9 020-6AC10	**Plug-in bridges**			
	• For terminal width 4.2 mm			
	- 2-pole	**8WH9 020-6AC10**	044	50 units
	- 3-pole	**8WH9 020-6AD10**	044	50 units
	- 4-pole	**8WH9 020-6AE10**	044	50 units
	- 5-pole	**8WH9 020-6AF10**	044	50 units
	- 10-pole	**8WH9 020-6AL10**	044	10 units
	- 20-pole	**8WH9 020-6AS10**	044	10 units
	• For terminal width 5.2 mm			
	- 2-pole	**8WH9 020-6BC10**	044	50 units
	- 3-pole	**8WH9 020-6BD10**	044	50 units
	- 4-pole	**8WH9 020-6BE10**	044	50 units
	- 5-pole	**8WH9 020-6BF10**	044	50 units
	- 10-pole	**8WH9 020-6BL10**	044	10 units
	- 20-pole	**8WH9 020-6BS10**	044	10 units
	- 50-pole	**8WH9 020-6BT10**	044	10 units
	• For terminal width 6.2 mm			
	- 2-pole	**8WH9 020-6CC10**	044	50 units
	- 3-pole	**8WH9 020-6CD10**	044	50 units
	- 4-pole	**8WH9 020-6CE10**	044	50 units
	- 5-pole	**8WH9 020-6CF10**	044	50 units
	- 10-pole	**8WH9 020-6CL10**	044	10 units
	- 20-pole	**8WH9 020-6CS10**	044	10 units
	- 50-pole	**8WH9 020-6CT10**	044	10 units
	• For terminal width 8.2 mm			
	- 2-pole	**8WH9 020-6DC10**	044	10 units
	- 3-pole	**8WH9 020-6DD10**	044	10 units
	- 4-pole	**8WH9 020-6DE10**	044	10 units
	- 5-pole	**8WH9 020-6DF10**	044	10 units
	- 10-pole	**8WH9 020-6DL10**	044	10 units
	• For terminal width 10 mm, 2-pole	**8WH9 020-6EC10**	044	10 units
	• For terminal width 12 mm, 2-pole	**8WH9 020-6FC10**	044	10 units
	• For terminal width 16 mm, 2-pole	**8WH9 020-6GC10**	044	10 units
8WH9 200-0AA00	**Screwdrivers** For actuating the tension spring			
	Versions			
	• 0.4 x 2.5 mm	**8WH9 200-0AA00**	044	10 units
	• 0.4 x 3.5 mm	**8WH9 200-0AB00**	044	10 units
	• 0.8 x 4.0 mm	**8WH9 200-0AC00**	044	10 units
	• 1.0 x 5.5 mm	**8WH9 200-0AD00**	044	10 units

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

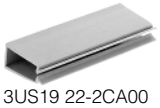
© Siemens AG 2008

Overview



① Flat copper profile
② Busbar support
③ Cover profile
④ Inlay part
⑤ Covering cap

Selection and ordering data

	Description		DT	Order No.	PS*	Weight per PU approx. kg
	②④⑤ Busbar supports					
	End and intermediate holders for flat copper profiles					
3US19 03-3AB00	12 x 5 mm,12 x 10 mm, 15 x 5 mm,15 x 10 mm 3-pole, with inside fixing (PU = 2 busbar supports including inlay parts for bar thickness 5 mm and lateral finger-safe covering caps)			**8US19 03-3AB00**	1 unit	0.184
3US19 03-5AA00	5-pole 12 x 5 mm and 12 x 10 mm with inside fixing	L1–L3 + N + PE/N		**8US19 03-5AA00**	1 unit	0.137
	① Flat copper profiles (flat profile, approx. 2.4 m long, bare, according to EN 12167)					
8WC5	12 × 5 mm			**8WC5 023**	1 unit	1.100
	15 × 5 mm			**8WC5 021**	1 unit	1.550
	③ Cover profiles for busbars					
 3US19 22-2CA00	12 × 5 mm	1000 mm long		**8US19 22-2CA00**	10 units	0.200
	15 × 5 mm	1000 mm long		**3US19 22-2AA00**	10 units	0.156

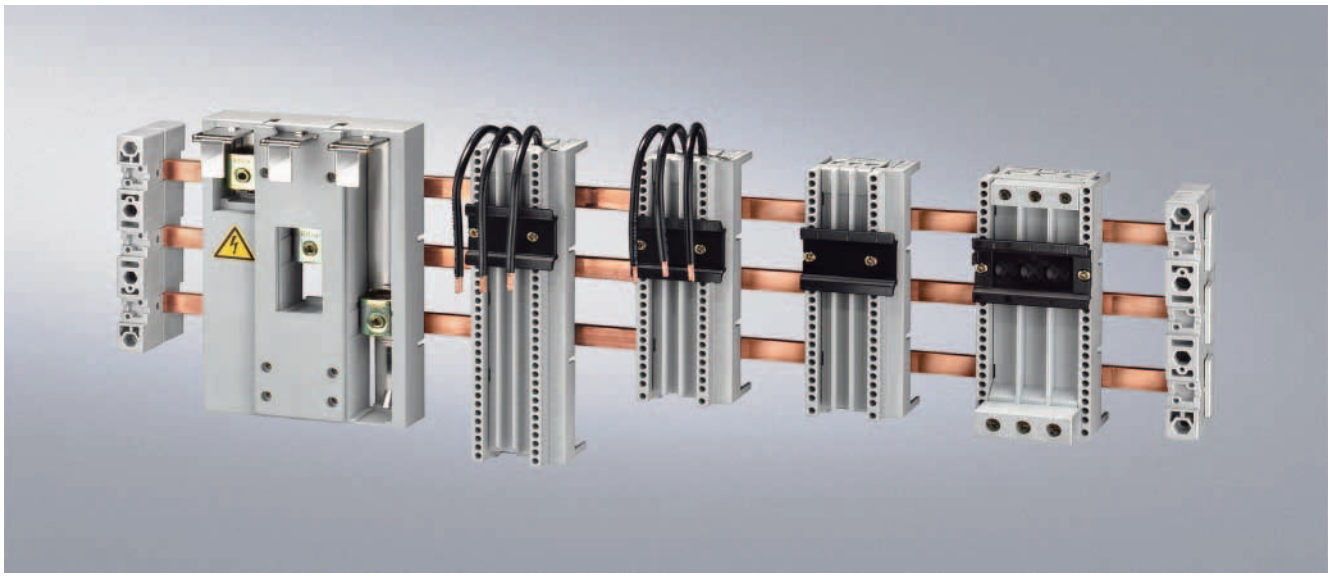
14

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Busbar adapters and device holders

Overview



Selection and ordering data

For copper busbars according to DIN 46433, width 12 mm and 15 mm, thickness: 5 mm and 10 mm

	Busbar device adapters	Number of mounting rails (35 mm)	Rated current	Connecting cable	Adapter length	Adapter width	Rated voltage	DT	Order No.	PS*	Weight per PU approx.
			A	AWG	mm	mm	V				kg
	For SIRIUS										
	Size S00/S0										
	Motor starter protector/circuit breaker	1	25	12	121	45	690	▶	**8US10 51-5DJ07**	1 unit	0.106
	Motor starter protector/circuit breaker + lateral auxiliary switch	1	25	12	121	55	690	▶	**8US10 61-5DJ07**	1 unit	0.119
	Contactors + overload relays	1	25	12	139	45	690	▶	**8US10 51-5DK07**	1 unit	0.164
	Direct start load feeders	1	25	12	182	45	690	▶	**8US10 51-5DM07**	1 unit	0.184
	Reversing feeder adapter	1	25	12	182	45	690	▶	**8US10 51-5DM07**	1 unit	0.184
	+								+		
	Device holders	1	--	--	182	45	--	▶	**8US10 50-5AM00**	1 unit	0.182
	+								+		
	Connecting plates (2 units needed for attachment)	--	--	--	--	--	--	▶	**8US19 98-1AA00**	100 units	0.100
	Size S00 – spring-loaded										
	Direct start load feeders	1	12.5	14	182	45	690	▶	**8US10 51-5CM47**	1 unit	0.193
	Size S2										
	Motor starter protector/circuit breaker	1	56	8	139	55	690	▶	**8US10 61-5FK08**	1 unit	0.231
	Motor starter protector/circuit breakers/ + lateral auxiliary switch	1	56	8	139	55	690	▶	**8US10 61-5FK08**	1 unit	0.231
	Contactors + overload relay	1	56	8	182	55	690	▶	**8US10 61-5FM08**	1 unit	0.278
	Direct start load feeders	1	56	8	242	55	690	▶	**8US10 61-5FP08**	1 unit	0.308

Direct start load feeder

Connecting plate

Reversing feeder

Connecting plate

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Busbar device adapters	Number of mounting rails (35 mm)	Rated current	Connecting cable	Adapter length	Adapter width	Rated voltage	DT	Order No.	PS*	Weight per PU approx.
		A	AWG	mm	mm	V				kg
Size S3										
Motor starter protector/circuit breakers	--	100	Busbars	182	70	Up to 460[1]	▶	**8US11 11-4SM00**	1 unit	0.541
Motor starter protector/circuit breakers	1	100	4	182	72	Up to 690[2]	▶	**8US10 11-4TM00**	1 unit	0.478
For 3VL circuit breakers[3)4)]										
3VL1	--	160	Busbars	175	108	690		**8US10 11-4SL01**	1 unit	0.585
3VL2	--	160	Busbars	175	108	690		**8US10 11-4SL01**	1 unit	0.585
With terminals (at top) for any arrangement of components										
1.5 to 4 mm²	1	25	--	139	45	690		**8US10 50-5RK07**	1 unit	0.149
1.5 to 4 mm²	1	25	--	182	45	690		**8US10 50-5RM07**	1 unit	0.177
16 mm² (top) and 35 mm² (bottom)[5]	1	80	--	139	54	690		**8US10 60-5AK00**	1 unit	0.295
Device holders for lateral attachment to busbar device adapters of the same length										
Device holders	1	--	--	139	45	--		**8US10 50-5AK00**	1 unit	0.149
Device holders	1	--	--	139	55	--		**8US10 60-5AK08**	1 unit	0.162
Device holders	1	--	--	182	45	--	▶	**8US10 50-5AM00**	1 unit	0.182
Device holders	1	--	--	182	55	--	▶	**8US10 60-5AM00**	1 unit	0.197
Connecting plates (2 units needed for attachment)	--	--	--	--	--	--	▶	**8US19 98-1AA00**	100 units	0.100
Side modules for extending busbar device adapters and device holders of the same length										
Side modules	--	--	--	139	13.5	--		**8US19 98-2BK00**	4 units	0.023
Side modules	--	--	--	182	13.5	--		**8US19 98-2BM00**	4 units	0.036

8US10 11-4SL01

8US10 50-5RM07

8US10 60-5AK00

8US10 60-5AM00

8US19 98-1AA00

8US19 98-2BM00

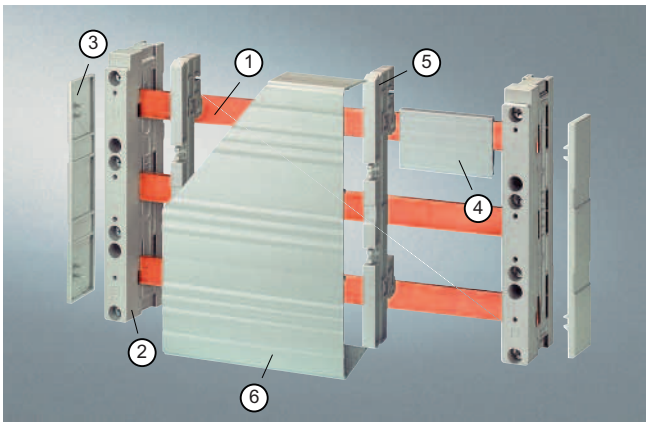
[1] ≤ 400 V max. 50 kA, 400 to 460 V max. 25 kA.
[2] Up to 525 V max. 30 kA, 525 to 690 V max. 12 kA.
[3] Observe the short-circuit strength of the busbar system. Short-circuit strength > 50 kA on request.
[4] For 3VL circuit breakers with box terminal line-side only.
[5] Can be used simultaneously as incoming unit and outgoing unit.

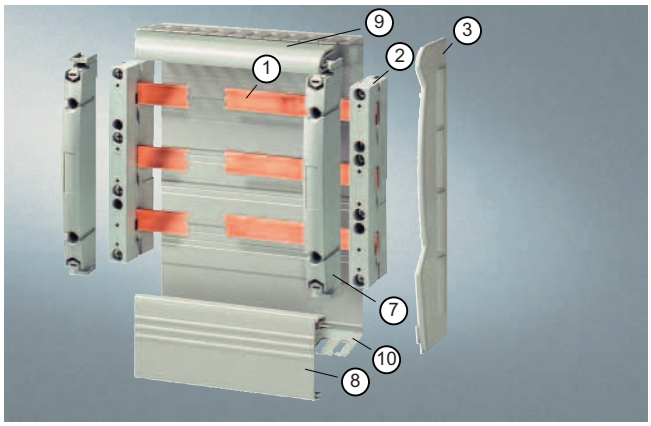
* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Base assemblies up to 630 A

Overview





1. Flat copper profile
2. Busbar support
3. End cover
4. Cover profile
5. Support for blanking cover
6. Blanking cover
7. Holder for edge profile and partition profile
8. Edge profile for base 290 mm
9. Edge profile for base 230 mm
10. Base for 4-pole system

Selection and ordering data

	Description		DT	Order No.	PS*	Weight per PU approx. kg
8US19 23-5AA00	**② Busbar supports**					
	End and intermediate holders for flat copper profiles 12 x 5 mm, 12 x 10 mm, 15 x 5 mm, 15 x 10 mm, 20 x 5 mm, 20 x 10 mm, 25 x 5 mm, 25 x 10 mm, 30 x 5 mm, 30 x 10 mm					
	2-pole, with outside fixing			**8US19 23-5AA00**	10 units	0.200
	3-pole, with outside fixing	L1–L3		**8US19 23-2AA01**	10 units	0.200
	3-pole, with inside fixing	L1–L3		**8US19 23-3AA01**	10 units	0.200
	4-pole, with inside fixing	L1–L3 + PE/N		**8US19 23-4AA00**	10 units	0.269
8US19 23-3AA01						
5SH3 506	**N-/PE busbar supports for flat copper profiles 12 x 5 mm, 12 x 10 mm, 15 x 5 mm, 15 x 10 mm, 20 x 5 mm, 20 x 10 mm, 25 x 5 mm, 25 x 10 mm, 30 x 5 mm, 30 x 10 mm**					
	Attachment to 8US19 23-2AA01 or independent installation			**5SH3 506**	4 units	0.060
8US19 22-1AC00, 5SH3 534	**③ End covers**					
	For covering unterminated busbar ends					
	For 8US19 23-2AA01 or 8US19 23-3AA01	L1–L3		**8US19 22-1AC00**	10 units	0.020
	4-pole, for 8US19 23-4AA00 (1 pack = 2 units, 1x right, 1x left)	L1–L3 + PE/N		**8US19 22-1AB00**	1 unit	0.055
	For 5SH3 532 holder					
	Height 230 mm (3-pole)			**5SH3 533**	4 units	0.038
	Height 290 mm (4-pole or 3-pole + cable duct) (1 pack = 2 units, 1 x right, 1 x left)			**5SH3 534**	4 units	0.048

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

8US19 22-2CA00

8US19 22-2AA00

5SH3 528

5SH3 530

5SH3 536

5SH3 537

5SH3 527

5SH3 531

8WC5

	Description			DT	Order No.	PS*	Weight per PU approx. kg
	④ Cover profiles for busbars						
	12 mm × 5 mm	1000 mm long			**8US19 22-2CA00**	10 units	0.200
	20 × 5 mm, 20 × 5 mm, 25 × 5 mm, 30 × 5 mm	1000 mm long			**8US19 22-2AA00**	10 units	0.156
	12 x 10 mm, 15 x 10 mm, 20 × 10 mm, 25 x 10 mm, 30 × 10 mm	1000 mm long			**8US19 22-2BA00**	10 units	0.105
	⑦ Holders for edge profiles						
	For 5SH3 528 and 5SH3 530				**5SH3 532**	2 units	0.106
	Edge profiles[1]						
	⑨ For base 230 mm	1100 mm long	17 × 36 mm		**5SH3 528**	2 units	0.311
	⑧ For base 290 mm	1100 mm long	77 × 36 mm		**5SH3 530**	2 units	0.583
	⑤ Supports for blanking covers (for blanking covers)						
	Mounting on busbar (2 units per section of blanking cover)	1000 mm long	190 mm wide		**5SH3 536**	4 units	0.040
	⑥ Blanking covers						
	Mounting on 5SH3 536 support for blanking cover	1000 mm long	202 mm wide		**5SH3 537**	2 units	0.075
	⑩ Bases						
	3-pole system	1100 mm long	230 mm wide		**5SH3 526**	2 units	1.100
	4-pole system (or 3-pole system with cable duct)	1100 mm long	290 mm wide		**5SH3 527**	2 units	1.300
	Partitions (for additional touch protection on systems without base)						
	Slotted	1100 mm long	17 × 86 mm		**5SH3 531**	2 units	0.365
	Closed	1100 mm long	17 × 86 mm		**8US19 22-1HA00**	4 units	0.070
	① Flat copper profiles (flat profile, approx. 2 m long, bare, according to EN 12167)						
	12 × 5 mm				**8WC5 123**	1 unit	1.100
	15 × 5 mm				**8WC5 121**	1 unit	1.550
	20 × 5 mm				**8WC5 126**	1 unit	1.780
	25 × 5 mm				**8WC5 131**	1 unit	2.240
	30 × 5 mm				**8WC5 133**	1 unit	2.680
	20 × 10 mm				**8WC5 128**	1 unit	3.200
	30 × 10 mm				**8WC5 134**	1 unit	5.360
	Flat copper profiles (flat profile, approx. 2.4 m long, tinned, according to EN 12167)						
	12 × 5 mm				**8WC5 051**	1 unit	1.100
	15 × 5 mm				**8WC5 052**	1 unit	1.550
	20 × 5 mm				**8WC5 053**	1 unit	1.780
	25 × 5 mm				**8WC5 054**	1 unit	2.240
	30 × 5 mm				**8WC5 055**	1 unit	2.680
	20 × 10 mm				**8WC5 063**	1 unit	3.200
	30 × 10 mm				**8WC5 065**	1 unit	5.360

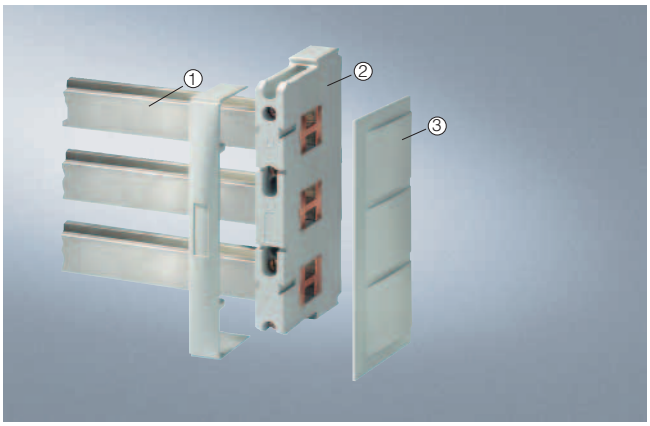
[1] When configuring a 3-pole busbar system with the base 230 mm, only ⑨ 5SH3 528 is required.
When configuring a 4-pole busbar system (or a 3-pole with cable duct) with the 290 mm base, ⑨ 5SH3 528 and ⑧ 5SH3 530 are required.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Base assemblies up to 1600 A

Overview



① Flat copper profile
② Busbar support
③ End cover

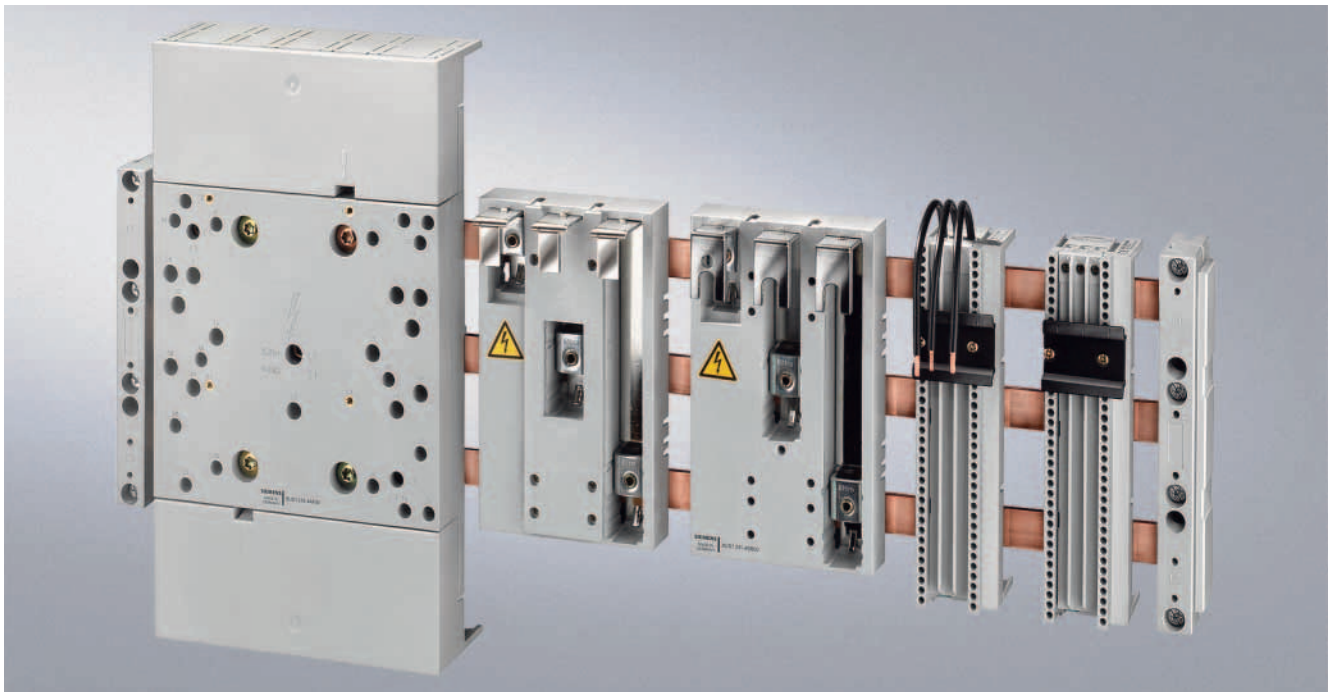
Selection and ordering data

	Description		DT	Order No.	PS*	Weight per PU approx.
						kg
8US19 43-3AA00	**Busbar supports** 3-pole, end and intermediate holder with finger-safe busbar cover (1 pack = 2 busbar supports + finger-safe end covers)	L1–L3		**8US19 43-3AA00**	1 unit	1.310
8US19 48-2AA00	**Flat copper profiles (approx. 2.4 m long, tinned)** Special profile up to 1600 A	720 mm^2		**8US19 48-2AA00**	1 unit	15.360
	Cover profiles For flat copper profile	1000 mm long		**8US19 22-2DA00**	5 units	0.200

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview



Selection and ordering data

For copper busbars according to DIN 46433, width 12 mm to 30 mm, thickness 5 mm and 10 mm, and special profiles up to 1600 A

	Busbar device adapters	Number of mounting rails (35 mm)	Rated current	Connecting cable	Adapter length	Adapter width	Rated voltage	DT	Order No.	PS*	Weight per PU approx.
			A	AWG	mm	mm	V				kg
Direct start load feeders	**For SIRIUS**										
	Size S00/S0										
	Motor starter protector/circuit breaker	1	25	12	182	45	690	►	**8US12 51-5DM07**	1 unit	0.183
	Contactors + overload relay	1	25	12	182	45	690	►	**8US12 51-5DM07**	1 unit	0.183
	Direct start load feeders	1	25	12	182	45	690	►	**8US12 51-5DM07**	1 unit	0.183
	Reversing feeder adapter +	1	25	12	182	45	690	►	**8US12 51-5DM07** +	1 unit	0.183
	Device holders +	1	--	--	182	45	--	►	**8US12 50-5AM00** +	1 unit	0.158
Connecting plate	Connecting plates (2 units needed for attachment)	--	--	--	--	--	--	►	**8US19 98-1AA00**	100 units	0.100
	Size S00 – spring-loaded										
	Direct start load feeders	1	12.5	14	182	45	690	►	**8US12 51-5CM47**	1 unit	0.190
Reversing feeder	**Size S2**										
	Motor starter protector/circuit breaker	1	56	8	182	55	690	►	**8US12 61-5FM08**	6 units	0.263
	Contactors + overload relay	1	56	8	182	55	690	►	**8US12 61-5FM08**	6 units	0.263
	Direct start load feeders	1	56	8	242	55	690	►	**8US12 61-5FP08**	1 unit	0.292
	Reversing feeder adapter +	1	56	8	242	55	690	►	**8US12 61-5FP08** +	1 unit	0.292
	Device holders[1] +	--	--	--	242	54	--	►	**8US12 60-5AP00** +	1 unit	0.243
Connecting plate	Connecting plates (2 units needed for attachment)	--	--	--	--	--	--	►	**8US19 98-1AA00**	100 units	0.100

[1] Spacer and fixing screw for reversing contactor are included in the scope of supply.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Busbar adapters and device holders

Busbar device adapters	Number of mounting rails (35 mm)	Rated current	Connecting cable	Adapter length	Adapter width	Rated voltage	DT	Order No.	PS*	Weight per PU approx.
		A	AWG	mm	mm	V				kg
For SIRIUS										
Size S3										
Motor starter protector/circuit breaker	--	100	Busbars	182	70	Up to 460[2]	▶	**8US11 11-4SM00**	1 unit	0.541
Motor starter protectors/circuit breaker[1]	1	100	4	182	72	Up to 690[3]		**8US12 11-4TM00**	1 unit	0.498
For 3VL circuit breakers[4][5]										
3VL1	--	160	Busbars	175	108	690		**8US12 11-4SL01**	1 unit	0.597
3VL2	--	160	Busbars	175	108	690		**8US12 11-4SL01**	1 unit	0.597
3VL3	--	250	Busbars	175	108	690		**8US12 11-4SL00**	1 unit	0.662
3VL1 to 3VL4 and also with RCD module	--	400	M10 stud terminal	320	184	690		**8US12 10-4AF00** + **8US19 27-4AF01**	1 unit 1 unit	2.769 0.575
For switch disconnectors										
3KA52[6], 3KA53[5], 3KL52[5], 3KL53[5]	--	630	M10 bolt terminal	320	184	690		**8US12 10-4AF00**	1 unit	2.769
3KA55[5], 3KA57[5], 3KA58[5], 3KL55[5], 3KL57[5]	--	630	M10 bolt terminal	320	250	690		**8US12 10-4AG00**	1 unit	3.060
For 3NP5 fuse switch disconnectors										
3NP50 60 (NH00)	--	160	Busbars	175	108	690		**8US12 91-4SB00**	1 unit	0.551
3NP52[5], 3NP53[5], 3NP54[7]	--	630	M10 bolt terminal	320	250	690		**8US12 10-4AG00**	1 unit	3.060
Busbar device adapters with terminals (at top) for any arrangement of components										
1.5 ... 4 mm²	1	25	--	182	45	690		**8US12 50-5RM07**	1 unit	0.174
Device holders for lateral attachment to busbar device adapters of the same length										
Device holders	1	--	--	182	45	--	▶	**8US12 50-5AM00**	1 unit	0.158
Device holders	1	--	--	182	55	--	▶	**8US12 60-5AM00**	4 units	0.202
Device holders	--	--	--	242	54	--	▶	**8US12 60-5AP00**	1 unit	0.243
Connecting plates (2 units needed for attachment)	--	--	--	--	--	--	▶	**8US19 98-1AA00**	100 units	0.100
Side modules for extending busbar device adapters and device holders of the same length										
Side modules	--	--	--	182	13.5	--		**8US19 98-2BM00**	4 units	0.036

8US12 11-4SL01

8US12 50-5RM07

8US19 98-1AA00

1) According to UL508 rated current 80 A.
2) ≤ 400 V max. 50 kA, 400 ... 460 V max. 25 kA.
3) Up to 525 V max. 30 kA, 525 ... 690 V max. 12 kA.
4) Observe the short-circuit strength of the busbar system. Short-circuit strength > 50 kA on request.
5) For 3VL circuit breakers with box terminal line-side only.
6) Without connecting cables. The connecting cable between adapter and device should be manufactured in accordance with the rated current as a round cable, e.g. H07V-R with cable lug, or as a ribbon cable for a M10 bolt terminal.
7) Without connecting cables. The connecting cable between adapter and device should be manufactured in accordance with the rated current as a round cable, e.g. H07V-R, bared at both ends for tunnel terminals

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

- According to DIN VDE 0636
- With open captive ± screws
- For attachment to industry-standard, unprocessed copper busbars with 12 mm to 30 mm bar width.

For copper busbars according to DIN 46433, width 12 to 30 mm, thickness 5 and 10 mm, and special profiles up to 1600 A

	Size	Rated current	Rated voltage	DT	Order No.	PS*	Weight per PU approx.
		A	V				kg
	Mounting components						
	NEOZED SR60 bus-mounting bases						
5SG6 202	For 5 mm bar thickness, for NEOZED adapter sleeves, 3-pole						
	D02	63	400		**5SG6 202**	4 units	0.141
	Excess width with space for wiring						
	D02	63	400		**5SG6 204**	4 units	0.154
5SG6 203	10 mm bar thickness NEOZED adapter sleeves 3-pole						
	D02	63	400		**5SG6 203**	4 units	0.138
	Excess width with space for wiring						
	D02	63	400		**5SG6 205**	4 units	0.149
	DIAZED SR60 bus-mounting bases						
5SF6 .14	For bar thickness 5 mm, for use of DIAZED adapter rings SR60, 3-pole						
	DII	25	500		**5SF6 014**	2 units	0.230
	DIII	63	690		**5SF6 214**	2 units	0.318
5SF6 .15	For use of DIAZED screw adapters 3-pole						
	DII	25	500		**5SF6 015**	2 units	0.222
	DIII	63	690		**5SF6 215**	2 units	0.310
	For bar thickness 10 mm For use of DIAZED SR60 adapter rings 3-pole						
	DII	25	500		**5SF6 016**	2 units	0.233
	DIII	63	690		**5SF6 216**	2 units	0.316
	For use of DIAZED screw adapters 3-pole						
	DII	25	500		**5SF6 017**	2 units	0.220
	DIII	63	690		**5SF6 217**	2 units	0.328
	Mounting components						
NEOZED SR60 covers	**NEOZED SR60 covers**						
	D02		27		**5SH5 241**	4 units	0.026
	Excess width with space for wiring						
	D02		36		**5SH5 242**	4 units	0.031
	With double width for more free space for wiring						
	D02		54		**5SH5 243**	4 units	0.040
DIAZED SR60 covers	**DIAZED SR60 covers**						
	DII		42		**5SH2 042**	2 units	0.050
	DIII		57		**5SH2 242**	2 units	0.061
	With double width for more free space for wiring						
	DII		84		**5SH2 043**	2 units	0.084
	DIII		114		**5SH2 243**	2 units	0.106

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

	Description	Length/ width	Conductor cross-section	Application	DT	Order No.	PS*	Weight per PU approx.
		mm	mm²	System				kg
	Infeeds							
	Terminal plate with cover							
	3-pole	200 long, 54 wide	6 ... 50	60 mm		**8US19 21-1BA00**	1 unit	0.397
	3-pole	200 long, 81 wide	35 ... 120	60 mm		**8US19 21-1AA00**	1 unit	0.607
	Outgoing modules for PE/N							
	Connection module for 4-pole (PE/N) up to 16 mm must be attached to an adapter/device holder	242 long, 18 wide		60 mm		**8US12 00-0AA00**	1 unit	0.142
	Terminals for circular conductors[1)2)]							
	Busbar thickness 5 mm[3)]							
	12 × 5 mm, 15 × 5 mm, 20 × 5 mm[4)], 25 × 5 mm[4)], 30 × 5 mm[4)]		1.5 ... 16	40 mm, 60 mm	▶	**8US19 21-2AA00**	100 units	0.100
			4 ... 35		▶	**8US19 21-2AB00**	50 units	0.046
			16 ... 70		▶	**8US19 21-2AD00**	50 units	0.072
			16 ... 120		▶	**8US19 21-2AC00**	50 units	0.107
			1.5 ... 16	40 mm, 60 mm	▶	**8US19 21-2AA01**	15 units	0.020
			4 ... 35		▶	**8US19 21-2AB01**	15 units	0.020
			16 ... 70		▶	**8US19 21-2AD01**	15 units	0.020
			16 ... 120		▶	**8US19 21-2AC01**	15 units	0.020
	20 × 5 mm, 25 × 5 mm, 30 × 5 mm		95 ... 185	60 mm	▶	**8US19 41-2AA01**	6 units	0.315
			150 ... 300		▶	**8US19 41-2AA02**	3 units	0.425
	Busbar thickness 10 mm							
	12 × 10 mm, 15 × 10 mm, 20 × 10 mm[4)], 25 × 10 mm[4)], 30 × 10 mm[4)]		1.5 ... 16	40 mm, 60 mm	▶	**8US19 21-2BA00**	100 units	0.020
			4 ... 35		▶	**8US19 21-2BB00**	50 units	0.040
			16 ... 70		▶	**8US19 21-2BD00**	50 units	0.070
			16 ... 120		▶	**8US19 21-2BC00**	50 units	0.100
			1.5 ... 16	40 mm, 60 mm	▶	**8US19 21-2BA01**	15 units	0.020
			4 ... 35		▶	**8US19 21-2BB01**	15 units	0.040
			16 ... 70		▶	**8US19 21-2BD01**	15 units	0.070
			16 ... 120		▶	**8US19 21-2BC01**	15 units	0.100
	20 × 10 mm, 25 × 10 mm, 30 × 10 mm		95 ... 185	60 mm	▶	**8US19 41-2AA01**	6 units	0.315
			150 ... 300		▶	**8US19 41-2AA02**	3 units	0.425
	Covering caps for terminals for circular conductors (attachment to busbar)							
	For terminals up to 120 mm²	200 long, 84 wide		40 mm, 60 mm	▶	**8US19 22-1GA00**	10 units	0.126
	For terminals up to 300 mm²[5)]	200 long, 270 wide		60 mm	▶	**8US19 22-1GA02**	1 unit	0.696
	Terminals							
	For cable lugs up to 240 mm², 10 mm bar thickness	(bolts threaded M10)		60 mm		**8US19 41-2AC00**	6 units	0.368
	For copper bars or laminated conductors							
	20 × 5 mm, 20 × 10 mm, 25 × 5 mm, 25 × 10 mm, 30 × 5 mm, 30 × 10 mm			60 mm		**8US19 41-2BB00**	6 units	0.307
	for 2 × 40 × 10 mm			60 mm		**8US19 41-2BA00**	3 units	0.824

1) 40 mm system: When using the 8US19 03-3AB00 busbar support in combination with the 8US19 21-2.D0. or 8US19 21-2.C0. terminals, U_i is reduced to 690 V.

2) 40 mm system: When using the 8US19 03-5AA00 busbar support with a 12 x 10 mm busbar, U_i is reduced to
a) 690 V when using the 8US19 21-2.A0. or 8US19 21-2.B0. terminals
b) 480 V when using the 8US19 21-2.C0. or 8US19 21-2.D0. terminals.

3) Cannot be used on a special profile up to 1600 A.

4) This bar only for 60 mm systems.

5) Only for 20 × 5 mm, 20 × 10 mm, 25 × 5 mm, 25 × 10 mm, 30 × 5 mm and 30 × 10 mm.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

For copper busbars according to DIN 46433, width 12 to 30 mm, thickness 5 and 10 mm, and special profiles up to 1600 A

	Description	Length	Width	Use	DT	Order No.	PS*	Weight per PU approx.
		mm	mm	System				kg
	Extension and connection terminals							
	Busbar connection pieces for bars							
	20 × 5 mm, 20 × 10 mm, 25 × 5 mm, 25 × 10 mm, 30 × 5 mm, 30 × 10 mm	40		60 mm		**8US19 21-2BE00**	6 units	0.070
	12 × 5 mm, 12 × 10 mm, 15 × 5 mm, 15 × 10 mm, 20 × 5 mm, 20 × 10 mm	55		40 mm, 60 mm		**8US19 21-2BF00**	12 units	0.070
	Mounting rails (35 mm) – plastic							
	Complete with fixing screws		45	40 mm, 60 mm		**8US19 98-7CA15**	10 units	0.009
			55	40 mm, 60 mm		**8US19 98-7CA16**	10 units	0.100
			72	40 mm, 60 mm		**8US19 98-4AA00**	10 units	0.143
			90	40 mm, 60 mm		**8US19 98-7CA08**	10 units	0.187
			110	40 mm, 60 mm		**8US19 98-7CA10**	10 units	0.219
	Connection holders							
	For fixing the motor starter protector to the mounting rail[1] (for SIRIUS size S00/S0)			40 mm, 60 mm		**8US19 98-1DA00**	20 units	0.100
	Screw holders							
	For supplementary screw fixing of the feeder (for SIRIUS size S00/S0)			40 mm, 60 mm		**8US19 98-1CA00**	20 units	0.100
	Spacers							
	Fixes the feeder to the busbar adapter (for SIRIUS size S00/S0)			40 mm, 60 mm	►	**8US19 98-1BA00**	100 units	0.100
	Connecting plates							
	For mechanical linking of busbar adapter and device holder (2 units per combination)			40 mm, 60 mm	►	**8US19 98-1AA00**	100 units	0.100
	Outgoing terminal rails for busbar adapters							
	Complete with supporting element for attachment to busbar adapter and device holder							
	3 × 2.5 mm^2 (400 V) and 4 × 1.5 mm^2 (250 V)	91	45	40 mm, 60 mm		**8US19 98-8AM07**	1 unit	0.061
	7 × 2.5 mm^2 (400 V)	91	54	40 mm, 60 mm		**8US19 98-8AA10**	1 unit	0.072

[1] For 45 and 55 mm mounting rail.

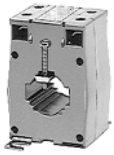
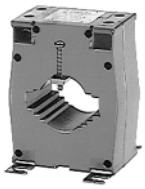
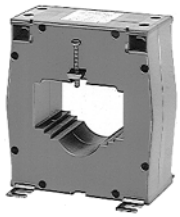
14

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Classes 1 and 3, from 50 to 1500 A

Selection and ordering data

	Rated primary current I_{pn}	Rating P_n	DT	Rated secondary current 1 A	PS*	Weight per PU approx.	DT	Rated secondary current 5 A	PS*	Weight per PU approx.
	A	VA		Order No.		kg		Order No.		kg
Class 3										
	• For circular conductors with max. diameter 17.5 mm • For busbars up to max. 12 × 10 mm									
	50	2.5		**4NC51 12-0BC20**	1 unit	0.428		**4NC51 12-2BC20**	1 unit	0.426
	60	2.5		**4NC51 13-0BC20**	1 unit	0.432		**4NC51 13-2BC20**	1 unit	0.430
	75	2.5		**4NC51 15-0BC20**	1 unit	0.425		**4NC51 15-2BC20**	1 unit	0.431
Class 1										
	• For circular conductors with max. diameter 17.5 mm • For 1 busbar up to max. 12 × 10 mm									
	100	2.5		**4NC51 17-0CC20**	1 unit	0.335		**4NC51 17-2CC20**	1 unit	0.340
	150	2.5		**4NC51 21-0CC20**	1 unit	0.327		**4NC51 21-2CC20**	1 unit	0.327
	200	5		**4NC51 22-0CE20**	1 unit	0.356		**4NC51 22-2CE20**	1 unit	0.339
	250	5		**4NC51 23-0CE20**	1 unit	0.352		**4NC51 23-2CE20**	1 unit	0.345
	• For circular conductors with max. diameter 28 mm • For 1 busbar up to max. 30 × 10 mm • For 2 busbar up to max. 25 × 5 mm									
	200	5		**4NC52 22-0CE20**	1 unit	0.464		**4NC52 22-2CE20**	1 unit	0.467
	250	5		**4NC52 23-0CE20**	1 unit	0.477		**4NC52 23-2CE20**	1 unit	0.474
	300	5		**4NC52 24-0CE20**	1 unit	0.363		**4NC52 24-2CE20**	1 unit	0.356
	400	5		**4NC52 25-0CE20**	1 unit	0.373		**4NC52 25-2CE20**	1 unit	0.379
	• For circular conductors with max. diameter 36 mm • For 1 busbar up to max. 50 × 10 mm • For 2 busbar up to max. 40 × 5 mm									
	400	5		**4NC53 25-0CE20**	1 unit	0.469		**4NC53 25-2CE20**	1 unit	0.452
	500	5		**4NC53 26-0CE20**	1 unit	0.410		**4NC53 26-2CE20**	1 unit	0.406
	600	5		**4NC53 27-0CE20**	1 unit	0.424		**4NC53 27-2CE20**	1 unit	0.425
	750	5		**4NC53 28-0CE20**	1 unit	0.391		**4NC53 28-2CE20**	1 unit	0.379
	• For circular conductors with max. diameter 45 mm • For 1 busbar up to max. 60 × 10 mm • For 2 busbar up to max. 60 × 10 mm • For 3 busbar up to max. 60 × 5 mm									
	1000	10		**4NC54 31-0CH20**	1 unit	0.644		**4NC54 31-2CH20**	1 unit	0.660
	1250	10		**4NC54 33-0CH20**	1 unit	0.667		**4NC54 33-2CH20**	1 unit	0.631
	1500	10		**4NC54 34-0CH20**	1 unit	0,713		**4NC54 34-2CH20**	1 unit	0.669

4NC51 window-type current transformers, used as pin-wound transformers, Classes 1 and 3, from 5 to 75 A

	Basic type		**4NC51 12**	**4NC51 13**	**4NC51 15**	**4NC51 17**	**4NC51 21**	**4NC51 22**	**4NC51 23**
	Rated primary current	A	50	60	75	100	150	200	250
	Rating	VA	2.5	2.5	2.5	2.5	2.5	5	5
	Primary current to be measured		Number of required pin windings						
		A	**Class 3**			**Class 1**			
		5	10	--	--	--	--	--	--
		10	5	6	--	10	--	--	--
		15	--	4	5	--	10	--	--
		20	--	3	--	5	--	10	--
		25	2	--	3	4	6	8	8
		30	--	2	--	--	5	--	--
		40	--	--	--	--	--	5	--
		50	--	--	--	2	3	4	5
		75	--	--	--	--	2	--	--

4NC51 used as pin-wound transformer

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

SENTRON Switching and Protection Devices – Air Circuit Breakers

15

15/2 **Introduction**

3WL Air Circuit Breakers

3WL Air Circuit Breakers/Non-Automatic Air Circuit Breakers up to 6300 A (AC)

15/5 General data
15/9 3-pole, fixed-mounted versions
15/11 3-pole, withdrawable versions
15/13 4-pole, fixed-mounted versions
15/15 4-pole, withdrawable versions
15/17 Options
15/21 Accessories/spare parts

© Siemens AG 2008

Introduction

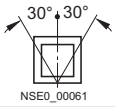
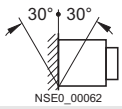
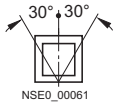
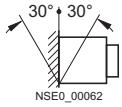
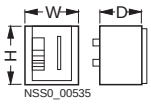
Overview

Size I

Size II

Size III

Air circuit breakers

3WL air circuit breakers/non-automatic air circuit breakers up to 6300 A (AC)					**3WL non-automatic air circuit breakers up to 4000 A (DC)**
Size		I, II, III			II
Rated current I_n	A	630, 800, 1000, 1250, 1600, 2000, 2500, 3200, 4000, 5000, 6300			1000, 2000, 4000
Number of poles		3-pole, 4-pole			3-pole, 4-pole
Rated operational voltage U_e	V AC V DC	Up to 690/1000 --			-- Up to 1000
Rated ultimate short-circuit breaking capacity at 500 V AC		Size I	Size II	Size III	
	kA	55/66	66/80/100	100/150 (3-pole), 130 (4-pole)	30/25/20 (at 300/600/1000 V DC)
Endurance	Operating cycles	20000	15000	10000	15000
Mounting position		 NSE0_00061  NSE0_00062			 NSE0_00061  NSE0_00062
Degree of protection With cover Without cover (with door sealing frame)		 IP55 IP41			 IP55 IP41
Dimensions 3-/4-pole					
 NSS0_00535	W mm	320/410	460/590	704/914	460/590
	H mm D mm	434 291	434 291	434 291	434 291
	H mm D mm	465.5 471	465.5 471	465.5 471	465.5 471

	NSE0_01106a	NSE0_01107	NSE0_01108	NSE0_01109	NSE0_01110	NSE0_01111
Type	ETU15B	ETU25B	ETU27B	ETU45B	ETU55B	ETU76B
Electronic trip units for SENTRON 3WL circuit breakers						
Overload protection	✓	✓	✓	✓	✓	✓
Short-time delayed short-circuit protection	--	✓	✓	✓	✓	✓
Instantaneous short-circuit protection	✓	✓	✓	✓	✓	✓
Neutral conductor protection	--	--	✓	✓	✓	✓
Ground-fault protection	--	--	✓	❑	❑	❑
Zone Selective Interlocking	--	--	--	❑	❑	❑
LCD, 4-line	--	--	--	❑	--	--
LCD, graphic	--	--	--	--	--	✓
Communication through PROFIBUS DP	--	--	--	❑	❑	❑
Measurement function *Plus*	--	--	--	❑	❑	❑
Selectable parameter sets	--	--	--	--	✓	✓
Parameters freely programmable	--	--	--	--	✓	✓
CubicleBUS	--	--	--	✓	✓	✓

✓ Standard
-- Not available

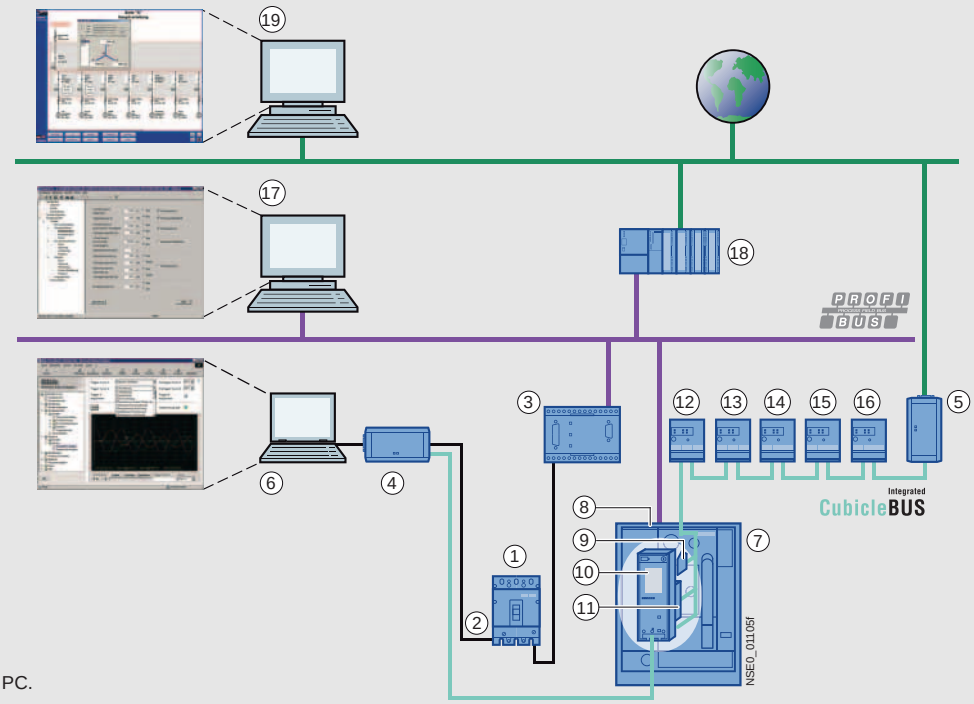
❑ Optional

ECO switching capacity N
Standard switching capacity S
High switching capacity H
Very high switching capacity C
DC switching capacity

3WL air circuit breakers/non-automatic air circuit breakers according to UL 489 up to 5000 A, see A&D Mall.

© Siemens AG 2008

Communication-capable circuit breakers



1. SENTRON 3VL
2. LCD ETU release
3. COM10 PROFIBUS module including ZSI
4. Breaker Data Adapter (BDA)
5. BDA *Plus* with Ethernet interface
6. Browser-capable input and output device (e.g. notebook)
7. SENTRON 3WL
8. COM15 PROFIBUS module or COM16 MODBUS module
9. Breaker Status Sensor (BSS)
10. Electronic release ETU
11. Metering function *Plus*
12. ZSI module
13. Digital output module as relay
14. Digital output module as relay, configurable
15. Analog output module
16. Digital input module
17. Switch ES Power on PC[1)]
18. PLC e.g. SIMATIC S7
19. SIMATIC powercontrol

1) For MODBUS Win PM, Net on PC.

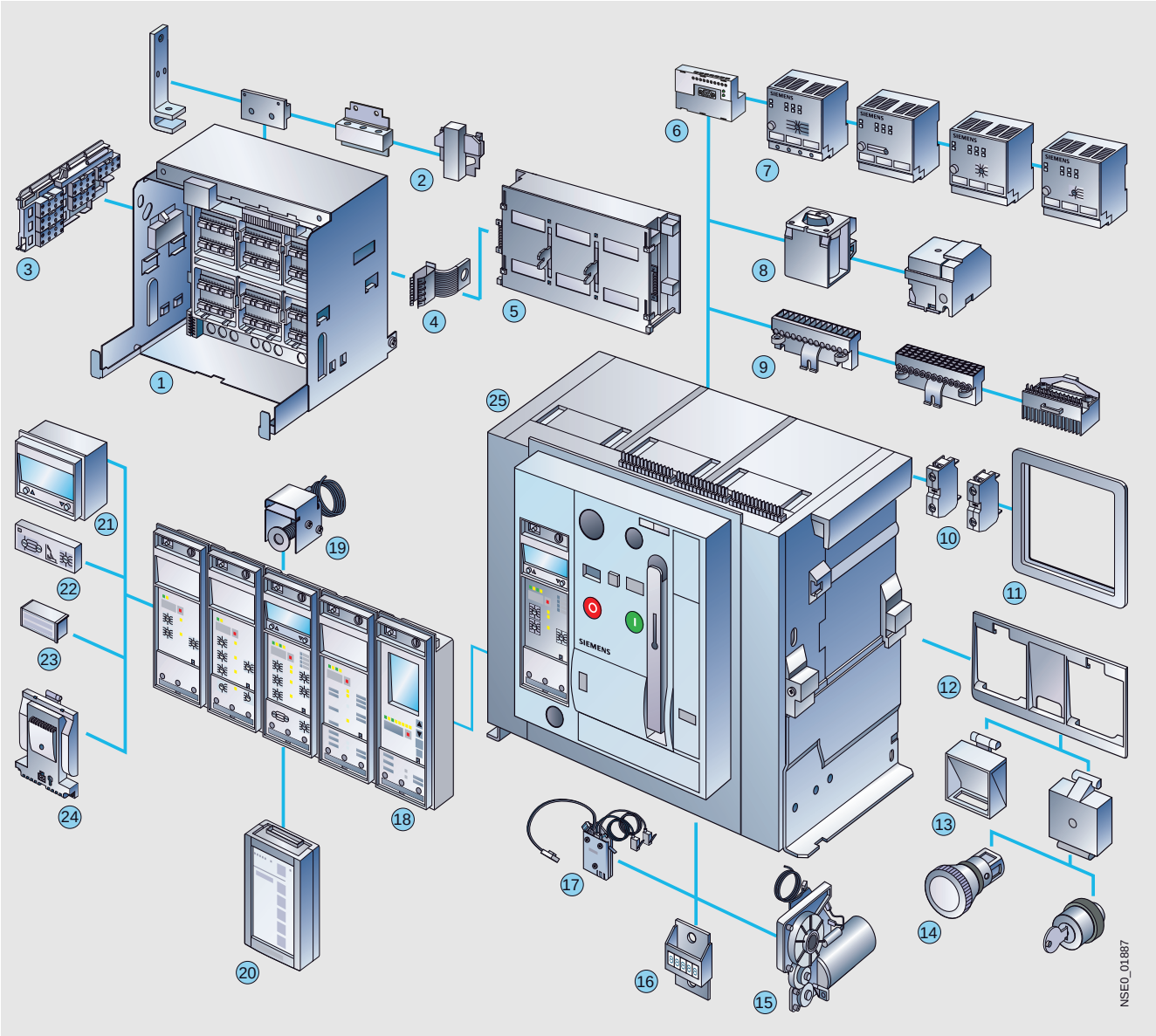
Features

- Coordinated communication concept using the PROFIBUS DP or MODBUS, ranging from 16 A to 6300 A with SENTRON 3VL and SENTRON 3WL
- The high level of modularity of circuit breakers and accessories allows easy retrofitting of all communication components
- Significant additional benefits for the switchboard due to the possibility of linking up external input and output modules to the circuit breaker-internal **Cubicle**BUS of the SENTRON 3WL
- Innovative software products for parameterization, operation, monitoring, and diagnostics of SENTRON circuit breakers, both locally or via PROFIBUS DP, MODBUS or Ethernet/Intranet/Internet
- Complete integration of the SENTRON circuit breakers into the Totally Integrated Power and Totally Integrated Automation solutions

© Siemens AG 2008

Introduction

SENTRON 3WL:
Superior individual products integrated into uniform power distribution systems - up to and including industry-specific industrial and infrastructure solutions



1. Guide frame
2. Main circuit connection, front, flange, horizontal, vertical
3. Position indicator switch
4. Grounding contact, leading
5. Shutter
6. COM15 PROFIBUS modules or COM16 MODBUS modules
7. External **Cubicle**BUS modules
8. Closing solenoid, auxiliary trip unit
9. Auxiliary conductor plug-in system
10. Auxiliary switch block
11. Door sealing frame
12. Interlocking set for base plate
13. Transparent panel, function insert
14. EMERGENCY-STOP pushbutton, key operated
15. Motorized operating mechanism
16. Operating cycles counter
17. Breaker Status Sensor (BSS)
18. Protective devices with device holder, electronic trip units (ETU)
19. Remote reset solenoid
20. Breaker Data Adapter (BDA)
21. Four-line display
22. Ground-fault protection module
23. Rated current module
24. Measuring function module
25. Circuit breaker

© Siemens AG 2008

Benefits

Low space requirements

The SENTRON 3WL devices require very little space. Size I devices (up to 1600 A) fit into a 400 mm wide switchgear panel. Size III devices (up to 6300 A) are the smallest of their kind and with their construction width of 704 mm fit into a 800 mm wide switchgear panel.

Modular design

Components like auxiliary trip units, motorized operating mechanisms, electronic trip units, current sensors, auxiliary circuit signaling switches, automatic reset devices, interlocks and engagement operating mechanisms can all be exchanged or retrofitted at a later stage, thus allowing the circuit breaker to be adapted to new, changing requirements.

The main contact elements can all be replaced in order to increase the endurance of the circuit breaker.

Retrofittable modules for electronic trip units

Modularity is one of the main features of the new SENTRON 3WL circuit breakers.
Special LCDs, ground-fault modules, rated current modules and communication modules for the electronic trip units are available for fast and easy retrofitting and adaptation to changing requirements.

Communication

The use of modern communication-capable circuit breakers opens up completely new possibilities in terms of start-up, parameterization, diagnostics, maintenance and operation. This allows many different ways of reducing costs and improving productivity in industrial plants, buildings and infrastructure projects to be achieved.

- Fast and reliable parameterization
- Timely information and response can prevent plant stoppages
- Effective diagnostics management
- Measured values are the basis for efficient load management, for drawing up power demand profiles and for assigning energy to cost centers
- Preventive maintenance reduces the risk of expansive plant down-times

Application

- As incoming-feeder, distribution, tie, and outgoing-feeder circuit breakers in electrical installations.
- For switching and protecting motors, capacitors, generators, transformers, busbars and cables.

Due to the reinforced use of electronic control systems, the demands made on air circuit breakers in terms of operator control and monitoring of network processes have increased.

The extensive, coordinated SENTRON range of devices covers all applications between 16 A and 6300 A with compact and air circuit breakers.

The AC devices are available as circuit breakers and non-automatic air circuit breakers. DC devices are only available as non-automatic air circuit breakers.

Standards

SENTRON 3WL circuit breakers comply with:

- IEC 60947-2, EN 60947-2
- Climate-proof according to IEC 60068-2-30.

Also available with UL 489.

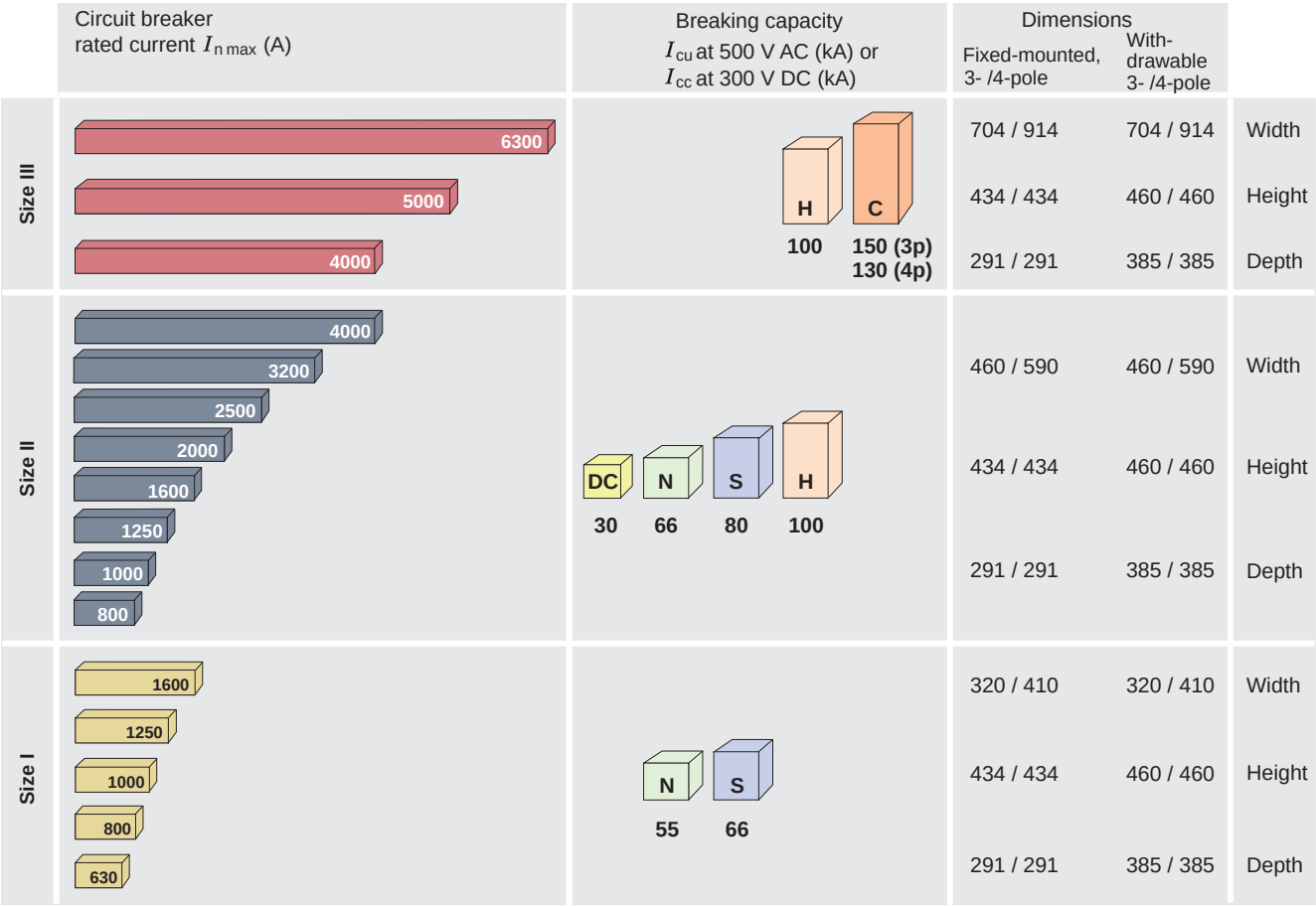
For further specifications see Appendix LV 1 2008.

© Siemens AG 2008

3WL Air Circuit Breakers/Non-Automatic Air Circuit Breakers up to 6300 A (AC)

General data

Design



The dimension for the depth of the circuit breaker is from the circuit breaker rear to the inner surface of the closed switchgear door.

NSE0_00887 n

Overview of SENTRON 3WL circuit breakers/non-automatic air circuit breakers

Versions

- Rated currents: 630 to 6300 A
- 3 sizes for different rated current ranges
- 3 and 4-pole versions
- Rated operational voltage up to 690 V AC and 1000 V DC. Special versions up to 1000 V AC available
- 4 different switching capacity classes in the range from 55 to 150 kA for AC applications and one switching capacity class for DC applications.

The SENTRON 3WL circuit breakers are supplied complete with operating mechanism (manual operating mechanism with mechanical closing), electronic trip unit and auxiliary switches (2 NO contacts + 2 NC contacts in the standard version), and can be equipped with auxiliary trip units.

Installation types

Fixed-mounted or withdrawable version

Ambient temperatures

The SENTRON 3WL circuit breakers are climate-proof according to IEC 60068-2-30. They are intended for use in enclosed areas where no severe operating conditions (e.g. dust, corrosive vapors, damaging gases) are present.

When installed in dusty and damp areas, suitable enclosures must be provided.

Coordinated dimensions

The dimensions of SENTRON 3WL circuit breakers only differ in terms of the width of the device which depends on the number of poles and the size.

Due to the nature of the design, the dimensions of devices with a withdrawable version are determined by the dimensions of the guide frames, which are slightly larger.

Non-automatic air circuit breakers

One special version of circuit breaker is utilized as a non-automatic air circuit breaker. The non-automatic air circuit breakers are designed without an electronic trip unit system and do not perform any protection duties for the system.

One potential application is the use as a bus coupler in systems with parallel feed-ins.

The versions and features can be selected according to those of the circuit breakers.

Operating mechanisms

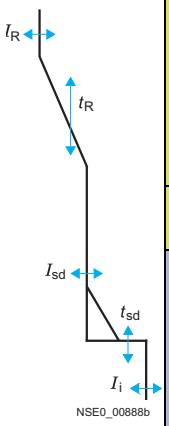
The circuit breakers are available with various optional operating mechanisms:

- Manual operating mechanism with mechanical closing (standard design)
- Manual operating mechanism with mechanical and electrical closing
- Motorized operating mechanism with mechanical and electrical closing.

The operating mechanisms with electrical closing can be used for synchronization tasks.

© Siemens AG 2008

3WL Air Circuit Breakers/Non-Automatic Air Circuit Breakers up to 6300 A (AC)



Protection functions Parameterization by			ETU15B D	ETU25B D	ETU27B D & S	ETU45B D & S
Functional overview of the electronic trip unit system						
	L	**Overload protection**	✓	✓	✓	✓
		Function can be switched on/off	--	--	--	--
		Setting range $I_R = I_n \times$ ...	0.5-0.55-0.6-0.65-0.7-0.75-0.8-0.85-0.9-1	0.4-0.45-0.5-0.55-0.6-0.65-0.7-0.8-0.9-1	0.4-0.45-0.5-0.55-0.6-0.65-0.7-0.8-0.9-1	0.4-0.45-0.5-0.55-0.6-0.65-0.7-0.8-0.9-1
		Switchable overload protection (I^2t- or I^4t-dependent function)	--	--	--	✓
		Setting range for time-lag class t_R at I^2t	10 s fixed	10 s fixed	10 s fixed	2-3.5-5.5-8-10-14-17-21-25-30 s
		Setting range for time-lag class t_R at I^4t	--	--	--	1-2-3-4-5 s
		Thermal image can be switched on/off	--	--	--	✓
		Phase failure sensitivity	--	At t_{sd} = 20 ms (M)	At t_{sd} = 20 ms (M)	At t_{sd} = 20 ms (M)
	N	**Neutral conductor protection**	--	--	✓	✓
		Function can be switched on/off	--	--	✓	✓
		N conductor setting range $I_N = I_n \times$ ...	--	--	1	0.5 ... 1
	S	**Short-time delayed short-circuit protection**	--	✓	✓	✓
		Function can be switched on/off	--	--	--	✓
		Setting range $I_{sd} = I_n \times$ ...	--	1.25-1.5-2-2.5-3-4-6-8-10-12	1.25-1.5-2-2.5-3-4-6-8-10-12	1.25-1.5-2-2.5-3-4-6-8-10-12
		Setting range for delay time t_{sd}	--	0-M-100-200-300-400 ms	0-M-100-200-300-400 ms	M-100-200-300-400 ms
		Switchable short-time delayed short-circuit protection (I^2t-dependent function)	--	--	--	✓
		Setting range for delay time t_{sd} at I^2t	--	--	--	100-200-300-400 ms
		Zone Selective Interlocking function	--	--	--	By **Cubicle**BUS-Module
	I	**Instantaneous short-circuit protection**	✓	✓	✓	✓
		Function can be switched on/off	--	--	--	✓
		Setting range $I_i = I_n \times$ ...	2-3-4-5-6-7-8	Fixed for $I_i \geq 20 \times I_n$, max. 50 kA	Fixed for $I_i \geq 20 \times I_n$, max. 50 kA	1.5-2.2-3-4-6-8-10-12-0.8 x I_{cs}
	G	**Ground-fault protection**	--	--	✓ Fixed mounted	❑ Module can be retrofitted
		Tripping and alarm function	--	--	--	✓
		Tripping function can be switched on/off	--	--	✓	✓
		Alarm function can be switched on/off	--	--	--	--
		Detection of the ground-fault current through summation current formation with internal or external N conductor transformer	--	--	✓	✓
		Detection of ground-fault current through external transformer	--	--	--	✓
		Setting range of the operating current I_g for tripping	--	--	A-B-C-D-E	A-B-C-D-E
		Setting range of the operating current I_g for alarm	--	--	--	A-B-C-D-E
		Setting range of the delay time t_g	--	--	100-200-300-400-500 ms	100-200-300-400-500 ms
		Switchable ground-fault protection characteristic curve (I^2t-dependent function)	--	--	--	✓
		Setting range for delay time t_g at I^2t	--	--	--	100-200-300-400-500 ms
		Zone Selective Interlocking ground-fault protect. function	--	--	--	By **Cubicle**BUS-Module
Parameter set switchover						
		Switchable between parameter set A and B	--	--	--	--
LCD						
		Alphanumeric LCD (4-line)	--	--	--	❑
		Graphical LCD (24 V, external power supply required)	--	--	--	--
Communication						
		CubicleBUS integrated	--	--	--	✓
		Communication-capable through PROFIBUS DP	--	--	--	✓
Measurement function						
		Measurement-function capable with measurement function *Plus*	--	--	--	✓
LED display						
		Electronic trip unit active	✓	✓	✓	✓
		Alarm	✓	✓	✓	✓
		ETU fault	✓	✓	✓	✓
		L-release	--	✓	✓	✓
		S-release	--	✓	✓	✓
		I-release	--	✓	✓	✓
		N-release	--	--	✓	✓
		G-release	--	--	✓	✓ (only with ground-fault protection module)
		G-alarm	--	--	--	✓ (only with ground-fault protection module)
		Release through extended protection function	--	--	--	✓
		Communication	--	--	--	✓

Delay time figures given in ms.
M = Motor protection, corresponds to 20 ms.
D = Rotary coding switch
D & S = Rotary coding and slide switch

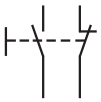
✓ Available.
-- Not available.
❑ Optional.

© Siemens AG 2008

3WL Air Circuit Breakers/Non-Automatic Air Circuit Breakers up to 6300 A (AC)

General data

Protection functions Parameterization by	ETU15B D	ETU25B D	ETU27B D & S	ETU45B D & S
Functional overview of the electronic trip unit system				
Signals from signal switches with external CubicleBUS **modules (relays)**				
Overload warning	--	--	--	✓
Load shedding, load receiving	--	--	--	✓
Leading signal overload trip 200 ms	--	--	--	✓
Temperature alarm	--	--	--	✓
Phase unbalance	--	--	--	✓
Instantaneous short-circuit release	--	--	--	✓
Short-time delayed short-circuit release	--	--	--	✓
Overload trip	--	--	--	✓
Neutral conductor release	--	--	--	✓
Ground-fault protection release	--	--	--	✓ (only with ground-fault protection module)
Ground-fault alarm	--	--	--	✓ (only with ground-fault protection module)
Auxiliary relay	--	--	--	✓
ETU fault	--	--	--	✓



NSE00891

Delay time figures given in ms.
M = Motor protection, corresponds to 20 ms.
D = Rotary coding switch
D & S = Rotary coding and slide switch

✓ Available.
-- Not available.
❑Optional.

Increment size for adjustment of M			
From ... to	**Increment size**	**From ... to**	**Increment size**
0 ... 1	0.1	1000 ... 1600	50
1 ... 100	1	1600 ... 10000	100
100 ... 500	5	10000 ... max	1000
500 ... 1000	10		

Setting range of the operating current I_g		
	Size I and size II	**Size III**
A	100 A	400 A
B	300 A	600 A
C	600 A	800 A
D	900 A	1000 A
E	1200 A	1200 A

© Siemens AG 2008

3WL Air Circuit Breakers/Non-Automatic Air Circuit Breakers up to 6300 A (AC)

Selection and ordering data

Size	Max. rated circuit breaker current $I_{n\,max.}$	Rated current[1] I_n	I_{cu} up to 55/66 kA at 500 V, ECO switching capacity N			I_{cu} up to 66/80 kA at 500 V, standard switching capacity S			PS*	Weight per PU approx.
					Order No. Order No. supplements, see page 15/17			Order No. Order No. supplements, see page 15/17		
	A	A	kA	DT		kA	DT			kg
Horizontal main circuit connection										
I	630	630	55		**3WL11 06-2□□32-....**	66		**3WL11 06-3□□32-....**	1 unit	43.000
I	800	800	55		**3WL11 08-2□□32-....**	66		**3WL11 08-3□□32-....**	1 unit	43.000
I	1000	1000	55		**3WL11 10-2□□32-....**	66		**3WL11 10-3□□32-....**	1 unit	43.000
I	1250	1250	55		**3WL11 12-2□□32-....**	66		**3WL11 12-3□□32-....**	1 unit	43.000
I	1600	1600	55		**3WL11 16-2□□32-....**	66		**3WL11 16-3□□32-....**	1 unit	43.000
II	800	800	66		**3WL12 08-2□□32-....**	80		**3WL12 08-3□□32-....**	1 unit	56.000
II	1000	1000	66		**3WL12 10-2□□32-....**	80		**3WL12 10-3□□32-....**	1 unit	56.000
II	1250	1250	66		**3WL12 12-2□□32-....**	80		**3WL12 12-3□□32-....**	1 unit	56.000
II	1600	1600	66		**3WL12 16-2□□32-....**	80		**3WL12 16-3□□32-....**	1 unit	56.000
II	2000	2000	66		**3WL12 20-2□□32-....**	80		**3WL12 20-3□□32-....**	1 unit	56.000
II	2500	2500	66		**3WL12 25-2□□32-....**	80		**3WL12 25-3□□32-....**	1 unit	59.000
II	3200	3200	66		**3WL12 32-2□□32-....**	80		**3WL12 32-3□□32-....**	1 unit	64.000
Vertical main circuit connection										
I	630	630	55		**3WL11 06-2□□31-....**	66		**3WL11 06-3□□31-....**	1 unit	43.000
I	800	800	55		**3WL11 08-2□□31-....**	66		**3WL11 08-3□□31-....**	1 unit	43.000
I	1000	1000	55		**3WL11 10-2□□31-....**	66		**3WL11 10-3□□31-....**	1 unit	43.000
I	1250	1250	55		**3WL11 12-2□□31-....**	66		**3WL11 12-3□□31-....**	1 unit	43.000
I	1600	1600	55		**3WL11 16-2□□31-....**	66		**3WL11 16-3□□31-....**	1 unit	43.000
II	800	800	66		**3WL12 08-2□□31-....**	80		**3WL12 08-3□□31-....**	1 unit	56.000
II	1000	1000	66		**3WL12 10-2□□31-....**	80		**3WL12 10-3□□31-....**	1 unit	56.000
II	1250	1250	66		**3WL12 12-2□□31-....**	80		**3WL12 12-3□□31-....**	1 unit	56.000
II	1600	1600	66		**3WL12 16-2□□31-....**	80		**3WL12 16-3□□31-....**	1 unit	56.000
II	2000	2000	66		**3WL12 20-2□□31-....**	80		**3WL12 20-3□□31-....**	1 unit	56.000
II	2500	2500	66		**3WL12 25-2□□31-....**	80		**3WL12 25-3□□31-....**	1 unit	59.000
II	3200	3200	66		**3WL12 32-2□□31-....**	80		**3WL12 32-3□□31-....**	1 unit	64.000
II	4000	4000	66		**3WL12 40-2□□31-....**	80		**3WL12 40-3□□31-....**	1 unit	85.000
Front main circuit connection, single hole										
I	630	630	55		**3WL11 06-2□□33-....**	66		**3WL11 06-3□□33-....**	1 unit	43.000
I	800	800	55		**3WL11 08-2□□33-....**	66		**3WL11 08-3□□33-....**	1 unit	43.000
I	1000	1000	55		**3WL11 10-2□□33-....**	66		**3WL11 10-3□□33-....**	1 unit	43.000
I	1250	1250	55		**3WL11 12-2□□33-....**	66		**3WL11 12-3□□33-....**	1 unit	43.000
I	1600	1600	55		**3WL11 16-2□□33-....**	66		**3WL11 16-3□□33-....**	1 unit	43.000
II	800	800	66		**3WL12 08-2□□33-....**	80		**3WL12 08-3□□33-....**	1 unit	56.000
II	1000	1000	66		**3WL12 10-2□□33-....**	80		**3WL12 10-3□□33-....**	1 unit	56.000
II	1250	1250	66		**3WL12 12-2□□33-....**	80		**3WL12 12-3□□33-....**	1 unit	56.000
II	1600	1600	66		**3WL12 16-2□□33-....**	80		**3WL12 16-3□□33-....**	1 unit	56.000
II	2000	2000	66		**3WL12 20-2□□33-....**	80		**3WL12 20-3□□33-....**	1 unit	56.000
II	2500	2500	66		**3WL12 25-2□□33-....**	80		**3WL12 25-3□□33-....**	1 unit	59.000
II	3200	3200	66		**3WL12 32-2□□33-....**	80		**3WL12 32-3□□33-....**	1 unit	64.000
Front main circuit connection, double hole										
I	630	630	55		**3WL11 06-2□□34-....**	66		**3WL11 06-3□□34-....**	1 unit	43.000
I	800	800	55		**3WL11 08-2□□34-....**	66		**3WL11 08-3□□34-....**	1 unit	43.000
I	1000	1000	55		**3WL11 10-2□□34-....**	66		**3WL11 10-3□□34-....**	1 unit	43.000
I	1250	1250	55		**3WL11 12-2□□34-....**	66		**3WL11 12-3□□34-....**	1 unit	43.000
I	1600	1600	55		**3WL11 16-2□□34-....**	66		**3WL11 16-3□□34-....**	1 unit	43.000
II	800	800	66		**3WL12 08-2□□34-....**	80		**3WL12 08-3□□34-....**	1 unit	56.000
II	1000	1000	66		**3WL12 10-2□□34-....**	80		**3WL12 10-3□□34-....**	1 unit	56.000
II	1250	1250	66		**3WL12 12-2□□34-....**	80		**3WL12 12-3□□34-....**	1 unit	56.000
II	1600	1600	66		**3WL12 16-2□□34-....**	80		**3WL12 16-3□□34-....**	1 unit	56.000
II	2000	2000	66		**3WL12 20-2□□34-....**	80		**3WL12 20-3□□34-....**	1 unit	56.000
II	2500	2500	66		**3WL12 25-2□□34-....**	80		**3WL12 25-3□□34-....**	1 unit	59.000
II	3200	3200	66		**3WL12 32-2□□34-....**	80		**3WL12 32-3□□34-....**	1 unit	64.000

Non-automatic air circuit breakers[2]	Order No. supplements	Order No. supplements
Without electronic trip unit	**AA**	**AA**
Electronic trip units		
Version without ground-fault protection		
ETU15B: Protection functions LI	**BB**	**BB**
ETU25B: Protection functions LSI	**CB**	**CB**
ETU45B: Protection functions LSIN[3]	**EB**	**EB**
ETU45B: Protection functions LSIN[3] with 4-line display	**FB**	**FB**
ETU55B: Protection functions LSIN[3]	**JB**	**JB**
ETU76B: Protection functions LSIN[3] with pixel graphics display	**NB**	**NB**
Version with ground-fault protection		
ETU27B: Protection functions LSING[4]	**DG**	**DG**
ETU45B: Protection functions LSING[3)5)]	**EG**	**EG**
ETU45B: Protection functions LSING[3)5)] with 4-line display	**FG**	**FG**
ETU55B: Protection functions LSING[3)5)]	**JG**	**JG**
ETU76B: Protection functions LSING[3)5)] with pixel graphics display	**NG**	**NG**

Standard Order No. supplements (for further Order No. supplements, see page 15/17)

Manual operating mechanism with mechanical closing		
Without 1st and 2nd auxiliary trip units; auxiliary switch 2 NC + 2 NO	**1AA2**	**1AA2**

For footnotes see next page.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3WL Air Circuit Breakers/Non-Automatic Air Circuit Breakers up to 6300 A (AC)

3-pole, fixed-mounted versions

Size	Max. rated circuit breaker current $I_{n\,max.}$	Rated current[1] I_n	I_{cu} up to 100 kA at 500 V, high switching capacity H		Order No. Order No. supplements, see page 15/17	PS*	Weight per PU approx.
	A	A	kA	DT			kg
Horizontal main circuit connection							
II	800	800	100		**3WL12 08-4□□32-....**	1 unit	56.000
II	1000	1000	100		**3WL12 10-4□□32-....**	1 unit	56.000
II	1250	1250	100		**3WL12 12-4□□32-....**	1 unit	56.000
II	1600	1600	100		**3WL12 16-4□□32-....**	1 unit	56.000
II	2000	2000	100		**3WL12 20-4□□32-....**	1 unit	56.000
II	2500	2500	100		**3WL12 25-4□□32-....**	1 unit	59.000
II	3200	3200	100		**3WL12 32-4□□32-....**	1 unit	64.000
III	4000	4000	100		**3WL13 40-4□□32-....**	1 unit	82.000
III	5000	5000	100		**3WL13 50-4□□32-....**	1 unit	82.000
Vertical main circuit connection							
II	800	800	100		**3WL12 08-4□□31-....**	1 unit	56.000
II	1000	1000	100		**3WL12 10-4□□31-....**	1 unit	56.000
II	1250	1250	100		**3WL12 12-4□□31-....**	1 unit	56.000
II	1600	1600	100		**3WL12 16-4□□31-....**	1 unit	56.000
II	2000	2000	100		**3WL12 20-4□□31-....**	1 unit	56.000
II	2500	2500	100		**3WL12 25-4□□31-....**	1 unit	59.000
II	3200	3200	100		**3WL12 32-4□□31-....**	1 unit	64.000
II	4000	4000	100		**3WL12 40-4□□31-....**	1 unit	85.000
III	4000	4000	100		**3WL13 40-4□□31-....**	1 unit	82.000
III	5000	5000	100		**3WL13 50-4□□31-....**	1 unit	82.000
III	6300	6300	100		**3WL13 63-4□□31-....**	1 unit	82.000
Front main circuit connection, single hole							
II	800	800	100		**3WL12 08-4□□33-....**	1 unit	56.000
II	1000	1000	100		**3WL12 10-4□□33-....**	1 unit	56.000
II	1250	1250	100		**3WL12 12-4□□33-....**	1 unit	56.000
II	1600	1600	100		**3WL12 16-4□□33-....**	1 unit	56.000
II	2000	2000	100		**3WL12 20-4□□33-....**	1 unit	56.000
II	2500	2500	100		**3WL12 25-4□□33-....**	1 unit	59.000
II	3200	3200	100		**3WL12 32-4□□33-....**	1 unit	64.000
III	4000	4000	100		**3WL13 40-4□□33-....**	1 unit	82.000
Front main circuit connection, double hole							
II	800	800	100		**3WL12 08-4□□34-....**	1 unit	56.000
II	1000	1000	100		**3WL12 10-4□□34-....**	1 unit	56.000
II	1250	1250	100		**3WL12 12-4□□34-....**	1 unit	56.000
II	1600	1600	100		**3WL12 16-4□□34-....**	1 unit	56.000
II	2000	2000	100		**3WL12 20-4□□34-....**	1 unit	56.000
II	2500	2500	100		**3WL12 25-4□□34-....**	1 unit	59.000
II	3200	3200	100		**3WL12 32-4□□34-....**	1 unit	64.000
III	4000	4000	100		**3WL13 40-4□□34-....**	1 unit	82.000

	Order No. supplements
Non-automatic air circuit breakers[2] Without electronic trip unit	**AA**
Electronic trip units	
Versions without ground-fault protection	
ETU15B: Protection functions LI	**BB**
ETU25B: Protection functions LSI	**CB**
ETU45B: Protection functions LSIN[3]	**EB**
ETU45B: Protection functions LSIN[3] with 4-line display	**FB**
ETU55B: Protection functions LSIN[3]	**JB**
ETU76B: Protection functions LSIN[3] with pixel graphics display	**NB**
Versions with ground-fault protection	
ETU27B: Protection functions LSING[4]	**DG**
ETU45B: Protection functions LSING[3)5)]	**EG**
ETU45B: Protection functions LSING[3)5)] with 4-line display	**FG**
ETU55B: Protection functions LSING[3)5)]	**JG**
ETU76B: Protection functions LSING[3)5)] with pixel graphics display	**NG**
Standard Order No. supplements **(for further Order No. supplements, see page 15/17)**	
Manual operating mechanism with mechanical closing Without 1st and 2nd auxiliary trip units; auxiliary switch 2 NC + 2 NO	**1AA2**

1) The rated current is determined by the rated current module. For the standard version, the supplied module is equal to the maximum rated current. If a lower rated current is required, adaptation is by order code on page 15/17.

2) For permissible rated short-time current I_{cc} and rated short-circuit making capacity I_{cm} for non-automatic air circuit breakers, see Technical Information LV 1 T, "Technical Specifications".

3) Current transformers for protection of the N conductor and current transformers for detection of the ground-fault current in the grounded neutral point of the transformer are to be ordered separately, see page 15/23.

4) Current transformers for protection of the N conductor are to be ordered separately, see page 15/23.

5) ETU45B to ETU76B with ground-fault protection module GFM AT (alarm and tripping), see page 15/23.

*** You can order this quantity or a multiple thereof. For other units and versions see A&D Mall.**

© Siemens AG 2008

3WL Air Circuit Breakers/Non-Automatic Air Circuit Breakers up to 6300 A (AC)

Selection and ordering data

Size	Max. rated circuit breaker current $I_{n\,max.}$	Rated current[1] I_n	I_{cu} up to 55/66 kA at 500 V, ECO switching capacity N		Order No. Order No. supplements, see page 15/17	I_{cu} up to 66/80 kA at 500 V, standard switching capacity S		Order No. Order No. supplements, see page 15/17	PS*	Weight per PU approx.
	A	A	kA	DT		kA	DT			kg
Without guide frames (for guide frames, see page 15/22)										
I	630	630	55		**3WL11 06-2□□35-....**	66		**3WL11 06-3□□35-....**	1 unit	45.000
I	800	800	55		**3WL11 08-2□□35-....**	66		**3WL11 08-3□□35-....**	1 unit	45.000
I	1000	1000	55		**3WL11 10-2□□35-....**	66		**3WL11 10-3□□35-....**	1 unit	45.000
I	1250	1250	55		**3WL11 12-2□□35-....**	66		**3WL11 12-3□□35-....**	1 unit	45.000
I	1600	1600	55		**3WL11 16-2□□35-....**	66		**3WL11 16-3□□35-....**	1 unit	45.000
II	800	800	66		**3WL12 08-2□□35-....**	80		**3WL12 08-3□□35-....**	1 unit	60.000
II	1000	1000	66		**3WL12 10-2□□35-....**	80		**3WL12 10-3□□35-....**	1 unit	60.000
II	1250	1250	66		**3WL12 12-2□□35-....**	80		**3WL12 12-3□□35-....**	1 unit	60.000
II	1600	1600	66		**3WL12 16-2□□35-....**	80		**3WL12 16-3□□35-....**	1 unit	60.000
II	2000	2000	66		**3WL12 20-2□□35-....**	80		**3WL12 20-3□□35-....**	1 unit	60.000
II	2500	2500	66		**3WL12 25-2□□35-....**	80		**3WL12 25-3□□35-....**	1 unit	63.000
II	3200	3200	66		**3WL12 32-2□□35-....**	80		**3WL12 32-3□□35-....**	1 unit	68.000
With guide frame, horizontal main circuit connection										
I	630	630	55		**3WL11 06-2□□36-....**	66		**3WL11 06-3□□36-....**	1 unit	70.000
I	800	800	55		**3WL11 08-2□□36-....**	66		**3WL11 08-3□□36-....**	1 unit	70.000
I	1000	1000	55		**3WL11 10-2□□36-....**	66		**3WL11 10-3□□36-....**	1 unit	70.000
I	1250	1250	55		**3WL11 12-2□□36-....**	66		**3WL11 12-3□□36-....**	1 unit	70.000
I	1600	1600	55		**3WL11 16-2□□36-....**	66		**3WL11 16-3□□36-....**	1 unit	70.000
II	800	800	66		**3WL12 08-2□□36-....**	80		**3WL12 08-3□□36-....**	1 unit	91.000
II	1000	1000	66		**3WL12 10-2□□36-....**	80		**3WL12 10-3□□36-....**	1 unit	91.000
II	1250	1250	66		**3WL12 12-2□□36-....**	80		**3WL12 12-3□□36-....**	1 unit	91.000
II	1600	1600	66		**3WL12 16-2□□36-....**	80		**3WL12 16-3□□36-....**	1 unit	91.000
II	2000	2000	66		**3WL12 20-2□□36-....**	80		**3WL12 20-3□□36-....**	1 unit	91.000
II	2500	2500	66		**3WL12 25-2□□36-....**	80		**3WL12 25-3□□36-....**	1 unit	102.000
II	3200	3200	66		**3WL12 32-2□□36-....**	80		**3WL12 32-3□□36-....**	1 unit	113.000
With guide frames, vertical main circuit connection										
I	630	630	55		**3WL11 06-2□□37-....**	66		**3WL11 06-3□□37-....**	1 unit	70.000
I	800	800	55		**3WL11 08-2□□37-....**	66		**3WL11 08-3□□37-....**	1 unit	70.000
I	1000	1000	55		**3WL11 10-2□□37-....**	66		**3WL11 10-3□□37-....**	1 unit	70.000
I	1250	1250	55		**3WL11 12-2□□37-....**	66		**3WL11 12-3□□37-....**	1 unit	70.000
I	1600	1600	55		**3WL11 16-2□□37-....**	66		**3WL11 16-3□□37-....**	1 unit	70.000
II	800	800	66		**3WL12 08-2□□37-....**	80		**3WL12 08-3□□37-....**	1 unit	91.000
II	1000	1000	66		**3WL12 10-2□□37-....**	80		**3WL12 10-3□□37-....**	1 unit	91.000
II	1250	1250	66		**3WL12 12-2□□37-....**	80		**3WL12 12-3□□37-....**	1 unit	91.000
II	1600	1600	66		**3WL12 16-2□□37-....**	80		**3WL12 16-3□□37-....**	1 unit	91.000
II	2000	2000	66		**3WL12 20-2□□37-....**	80		**3WL12 20-3□□37-....**	1 unit	91.000
II	2500	2500	66		**3WL12 25-2□□37-....**	80		**3WL12 25-3□□37-....**	1 unit	102.000
II	3200	3200	66		**3WL12 32-2□□37-....**	80		**3WL12 32-3□□37-....**	1 unit	113.000
II	4000	4000	66		**3WL12 40-2□□37-....**	80		**3WL12 40-3□□37-....**	1 unit	121.000
With guide frames, connecting flanges										
I	630	630	55		**3WL11 06-2□□38-....**	66		**3WL11 06-3□□38-....**	1 unit	70.000
I	800	800	55		**3WL11 08-2□□38-....**	66		**3WL11 08-3□□38-....**	1 unit	70.000
I	1000	1000	55		**3WL11 10-2□□38-....**	66		**3WL11 10-3□□38-....**	1 unit	70.000
I	1250	1250	55		**3WL11 12-2□□38-....**	66		**3WL11 12-3□□38-....**	1 unit	70.000
I	1600	1600	55		**3WL11 16-2□□38-....**	66		**3WL11 16-3□□38-....**	1 unit	70.000
II	800	800	66		**3WL12 08-2□□38-....**	80		**3WL12 08-3□□38-....**	1 unit	91.000
II	1000	1000	66		**3WL12 10-2□□38-....**	80		**3WL12 10-3□□38-....**	1 unit	91.000
II	1250	1250	66		**3WL12 12-2□□38-....**	80		**3WL12 12-3□□38-....**	1 unit	91.000
II	1600	1600	66		**3WL12 16-2□□38-....**	80		**3WL12 16-3□□38-....**	1 unit	91.000
II	2000	2000	66		**3WL12 20-2□□38-....**	80		**3WL12 20-3□□38-....**	1 unit	91.000
II	2500	2500	66		**3WL12 25-2□□38-....**	80		**3WL12 25-3□□38-....**	1 unit	102.000
II	3200	3200	66		**3WL12 32-2□□38-....**	80		**3WL12 32-3□□38-....**	1 unit	113.000

Non-automatic air circuit breakers[2]	Order No. supplements	Order No. supplements
Without electronic trip unit	**AA**	**AA**
Electronic trip units		
Versions without ground-fault protection		
ETU15B: Protection functions LI	**BB**	**BB**
ETU25B: Protection functions LSI	**CB**	**CB**
ETU45B: Protection functions LSIN[3]	**EB**	**EB**
ETU45B: Protection functions LSIN[3] with 4-line display	**FB**	**FB**
ETU55B: Protection functions LSIN[3]	**JB**	**JB**
ETU76B: Protection functions LSIN[3] with pixel graphics display	**NB**	**NB**
Versions with ground-fault protection		
ETU27B: Protection functions LSING[4]	**DG**	**DG**
ETU45B: Protection functions LSING[3)5)]	**EG**	**EG**
ETU45B: Protection functions LSING[3)5)] with 4-line display	**FG**	**FG**
ETU55B: Protection functions LSING[3)5)]	**JG**	**JG**
ETU76B: Protection functions LSING[3)5)] with pixel graphics display	**NG**	**NG**

Standard Order No. supplements (for further Order No. supplements for circuit breakers and guide frames, see page 15/17)

Manual operating mechanism with mechanical closing Without 1st and 2nd auxiliary trip units; auxiliary switch 2 NC + 2 NO	**1AA2**	**1AA2**

For footnotes see next page.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3WL Air Circuit Breakers/Non-Automatic Air Circuit Breakers up to 6300 A (AC)

3-pole, withdrawable versions

Size	Max. rated circuit breaker current $I_{n\,max.}$	Rated current[1] I_n	I_{cu} up to 100 kA at 500 V, high switching capacity H		Order No. / Order No. supplements, see page15/17	PS*	Weight per PU approx.
	A	A	kA	DT			kg
Without guide frames (for guide frames, see page 15/22)							
II	800	800	100		**3WL12 08-4□□35-....**	1 unit	60.000
II	1000	1000	100		**3WL12 10-4□□35-....**	1 unit	60.000
II	1250	1250	100		**3WL12 12-4□□35-....**	1 unit	60.000
II	1600	1600	100		**3WL12 16-4□□35-....**	1 unit	60.000
II	2000	2000	100		**3WL12 20-4□□35-....**	1 unit	60.000
II	2500	2500	100		**3WL12 25-4□□35-....**	1 unit	63.000
II	3200	3200	100		**3WL12 32-4□□35-....**	1 unit	68.000
III	4000	4000	100		**3WL13 40-4□□35-....**	1 unit	88.000
III	5000	5000	100		**3WL13 50-4□□35-....**	1 unit	88.000
III	6300	6300	100		**3WL13 63-4□□35-....**	1 unit	96.000
With guide frames, horizontal main circuit connection							
II	800	800	100		**3WL12 08-4□□36-....**	1 unit	91.000
II	1000	1000	100		**3WL12 10-4□□36-....**	1 unit	91.000
II	1250	1250	100		**3WL12 12-4□□36-....**	1 unit	91.000
II	1600	1600	100		**3WL12 16-4□□36-....**	1 unit	91.000
II	2000	2000	100		**3WL12 20-4□□36-....**	1 unit	91.000
II	2500	2500	100		**3WL12 25-4□□36-....**	1 unit	102.000
II	3200	3200	100		**3WL12 32-4□□36-....**	1 unit	113.000
III	4000	4000	100		**3WL13 40-4□□36-....**	1 unit	148.000
III	5000	5000	100		**3WL13 50-4□□36-....**	1 unit	148.000
With guide frames, vertical main circuit connection							
II	800	800	100		**3WL12 08-4□□37-....**	1 unit	91.000
II	1000	1000	100		**3WL12 10-4□□37-....**	1 unit	91.000
II	1250	1250	100		**3WL12 12-4□□37-....**	1 unit	91.000
II	1600	1600	100		**3WL12 16-4□□37-....**	1 unit	91.000
II	2000	2000	100		**3WL12 20-4□□37-....**	1 unit	91.000
II	2500	2500	100		**3WL12 25-4□□37-....**	1 unit	102.000
II	3200	3200	100		**3WL12 32-4□□37-....**	1 unit	113.000
III	4000	4000	100		**3WL13 40-4□□37-....**	1 unit	148.000
III	5000	5000	100		**3WL13 50-4□□37-....**	1 unit	148.000
III	6300	6300	100		**3WL13 63-4□□37-....**	1 unit	166.000
With guide frames, connecting flanges							
II	800	800	100		**3WL12 08-4□□38-....**	1 unit	91.000
II	1000	1000	100		**3WL12 10-4□□38-....**	1 unit	91.000
II	1250	1250	100		**3WL12 12-4□□38-....**	1 unit	91.000
II	1600	1600	100		**3WL12 16-4□□38-....**	1 unit	91.000
II	2000	2000	100		**3WL12 20-4□□38-....**	1 unit	91.000
II	2500	2500	100		**3WL12 25-4□□38-....**	1 unit	102.000
II	3200	3200	100		**3WL12 32-4□□38-....**	1 unit	113.000
III	4000	4000	100		**3WL13 40-4□□38-....**	1 unit	148.000

Non-automatic air circuit breakers[2]	Order No. supplements
Without electronic trip unit	**AA**
Electronic trip units	
Versions without ground-fault protection	
ETU15B: Protection functions LI	**BB**
ETU25B: Protection functions LSI	**CB**
ETU45B: Protection functions LSIN[3]	**EB**
ETU45B: Protection functions LSIN[3] with 4-line display	**FB**
ETU55B: Protection functions LSIN[3]	**JB**
ETU76B: Protection functions LSIN[3] with pixel graphics display	**NB**
Versions with ground-fault protection	
ETU27B: Protection functions LSING[4]	**DG**
ETU45B: Protection functions LSING[3][5]	**EG**
ETU45B: Protection functions LSING[3][5] with 4-line display	**FG**
ETU55B: Protection functions LSING[3][5]	**JG**
ETU76B: Protection functions LSING[3][5] with pixel graphics display	**NG**
Standard Order No. supplements (for further Order No. supplements for circuit breakers and guide frames, see page 15/17)	
Manual operating mechanism with mechanical closing Without 1st and 2nd auxiliary trip units; auxiliary switch 2 NC + 2 NO	**1AA2**

1) The rated current is determined by the rated current module. For the standard version, the supplied module is equal to the maximum rated current. If a lower rated current is required, adaptation is by order code on page 15/20.

2) For permissible rated short-time current I_{cc} and rated short-circuit making capacity I_{cm} for non-automatic air circuit breakers, see Technical Information LV 1 T, "Technical Specifications".

3) Current transformers for protection of the N conductor and current transformers for detection of the ground-fault current in the grounded neutral point of the transformer are to be ordered separately, see page 15/23.

4) Current transformers for protection of the N conductor are to be ordered separately, see page 15/23.

5) ETU45B to ETU76B with ground-fault protection module GFM AT (alarm and tripping), see page15/23.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3WL Air Circuit Breakers/Non-Automatic Air Circuit Breakers up to 6300 A (AC)

4-pole, fixed-mounted versions

Selection and ordering data

Size	Max. rated circuit breaker current $I_{n\,max.}$	Rated current[1] I_n	I_{cu} up to 55/66 kA at 500 V, ECO switching capacity N		Order No. / Order No. supplements, see page 15/17	I_{cu} up to 66/80 kA at 500 V, standard switching capacity S		Order No. / Order No. supplements, see page 15/17	PS*	Weight per PU approx.
	A	A	kA	DT		kA	DT			kg
Horizontal main circuit connection										
I	630	630	55		**3WL11 06-2□□42-....**	66		**3WL11 06-3□□42-....**	1 unit	50.000
I	800	800	55		**3WL11 08-2□□42-....**	66		**3WL11 08-3□□42-....**	1 unit	50.000
I	1000	1000	55		**3WL11 10-2□□42-....**	66		**3WL11 10-3□□42-....**	1 unit	50.000
I	1250	1250	55		**3WL11 12-2□□42-....**	66		**3WL11 12-3□□42-....**	1 unit	50.000
I	1600	1600	55		**3WL11 16-2□□42-....**	66		**3WL11 16-3□□42-....**	1 unit	50.000
II	800	800	66		**3WL12 08-2□□42-....**	80		**3WL12 08-3□□42-....**	1 unit	67.000
II	1000	1000	66		**3WL12 10-2□□42-....**	80		**3WL12 10-3□□42-....**	1 unit	67.000
II	1250	1250	66		**3WL12 12-2□□42-....**	80		**3WL12 12-3□□42-....**	1 unit	67.000
II	1600	1600	66		**3WL12 16-2□□42-....**	80		**3WL12 16-3□□42-....**	1 unit	67.000
II	2000	2000	66		**3WL12 20-2□□42-....**	80		**3WL12 20-3□□42-....**	1 unit	67.000
II	2500	2500	66		**3WL12 25-2□□42-....**	80		**3WL12 25-3□□42-....**	1 unit	71.000
II	3200	3200	66		**3WL12 32-2□□42-....**	80		**3WL12 32-3□□42-....**	1 unit	77.000
Vertical main circuit connection										
I	630	630	55		**3WL11 06-2□□41-....**	66		**3WL11 06-3□□41-....**	1 unit	50.000
I	800	800	55		**3WL11 08-2□□41-....**	66		**3WL11 08-3□□41-....**	1 unit	50.000
I	1000	1000	55		**3WL11 10-2□□41-....**	66		**3WL11 10-3□□41-....**	1 unit	50.000
I	1250	1250	55		**3WL11 12-2□□41-....**	66		**3WL11 12-3□□41-....**	1 unit	50.000
I	1600	1600	55		**3WL11 16-2□□41-....**	66		**3WL11 16-3□□41-....**	1 unit	50.000
II	800	800	66		**3WL12 08-2□□41-....**	80		**3WL12 08-3□□41-....**	1 unit	75.000
II	1000	1000	66		**3WL12 10-2□□41-....**	80		**3WL12 10-3□□41-....**	1 unit	75.000
II	1250	1250	66		**3WL12 12-2□□41-....**	80		**3WL12 12-3□□41-....**	1 unit	75.000
II	1600	1600	66		**3WL12 16-2□□41-....**	80		**3WL12 16-3□□41-....**	1 unit	67.000
II	2000	2000	66		**3WL12 20-2□□41-....**	80		**3WL12 20-3□□41-....**	1 unit	75.000
II	2500	2500	66		**3WL12 25-2□□41-....**	80		**3WL12 25-3□□41-....**	1 unit	71.000
II	3200	3200	66		**3WL12 32-2□□41-....**	80		**3WL12 32-3□□41-....**	1 unit	77.000
II	4000	4000	66		**3WL12 40-2□□41-....**	80		**3WL12 40-3□□41-....**	1 unit	103.000
Front main circuit connection, single hole										
I	630	630	55		**3WL11 06-2□□43-....**	66		**3WL11 06-3□□43-....**	1 unit	50.000
I	800	800	55		**3WL11 08-2□□43-....**	66		**3WL11 08-3□□43-....**	1 unit	50.000
I	1000	1000	55		**3WL11 10-2□□43-....**	66		**3WL11 10-3□□43-....**	1 unit	50.000
I	1250	1250	55		**3WL11 12-2□□43-....**	66		**3WL11 12-3□□43-....**	1 unit	50.000
I	1600	1600	55		**3WL11 16-2□□43-....**	66		**3WL11 16-3□□43-....**	1 unit	50.000
II	800	800	66		**3WL12 08-2□□43-....**	80		**3WL12 08-3□□43-....**	1 unit	67.000
II	1000	1000	66		**3WL12 10-2□□43-....**	80		**3WL12 10-3□□43-....**	1 unit	67.000
II	1250	1250	66		**3WL12 12-2□□43-....**	80		**3WL12 12-3□□43-....**	1 unit	67.000
II	1600	1600	66		**3WL12 16-2□□43-....**	80		**3WL12 16-3□□43-....**	1 unit	67.000
II	2000	2000	66		**3WL12 20-2□□43-....**	80		**3WL12 20-3□□43-....**	1 unit	67.000
II	2500	2500	66		**3WL12 25-2□□43-....**	80		**3WL12 25-3□□43-....**	1 unit	71.000
II	3200	3200	66		**3WL12 32-2□□43-....**	80		**3WL12 32-3□□43-....**	1 unit	77.000
Front main circuit connection, double hole										
I	630	630	55		**3WL11 06-2□□44-....**	66		**3WL11 06-3□□44-....**	1 unit	50.000
I	800	800	55		**3WL11 08-2□□44-....**	66		**3WL11 08-3□□44-....**	1 unit	50.000
I	1000	1000	55		**3WL11 10-2□□44-....**	66		**3WL11 10-3□□44-....**	1 unit	50.000
I	1250	1250	55		**3WL11 12-2□□44-....**	66		**3WL11 12-3□□44-....**	1 unit	50.000
I	1600	1600	55		**3WL11 16-2□□44-....**	66		**3WL11 16-3□□44-....**	1 unit	50.000
II	800	800	66		**3WL12 08-2□□44-....**	80		**3WL12 08-3□□44-....**	1 unit	67.000
II	1000	1000	66		**3WL12 10-2□□44-....**	80		**3WL12 10-3□□44-....**	1 unit	67.000
II	1250	1250	66		**3WL12 12-2□□44-....**	80		**3WL12 12-3□□44-....**	1 unit	67.000
II	1600	1600	66		**3WL12 16-2□□44-....**	80		**3WL12 16-3□□44-....**	1 unit	67.000
II	2000	2000	66		**3WL12 20-2□□44-....**	80		**3WL12 20-3□□44-....**	1 unit	67.000
II	2500	2500	66		**3WL12 25-2□□44-....**	80		**3WL12 25-3□□44-....**	1 unit	71.000
II	3200	3200	66		**3WL12 32-2□□44-....**	80		**3WL12 32-3□□44-....**	1 unit	77.000

Non-automatic air circuit breakers[2]	Order No. supplements	Order No. supplements
Without electronic trip unit	**AA**	**AA**
Electronic trip units		
Versions without ground-fault protection		
ETU15B: Protection functions LI	**BB**	**BB**
ETU25B: Protection functions LSI	**CB**	**CB**
ETU45B: Protection functions LSIN[3]	**EB**	**EB**
ETU45B: Protection functions LSIN[3] with 4-line display	**FB**	**FB**
ETU55B: Protection functions LSIN[3]	**JB**	**JB**
ETU76B: Protection functions LSIN[3] with pixel graphics display	**NB**	**NB**
Versions with ground-fault protection		
ETU27B: Protection functions LSING[4]	**DG**	**DG**
ETU45B: Protection functions LSING[3)5)]	**EG**	**EG**
ETU45B: Protection functions LSING[3)5)] with 4-line display	**FG**	**FG**
ETU55B: Protection functions LSING[3)5)]	**JG**	**JG**
ETU76B: Protection functions LSING[3)5)] with pixel graphics display	**NG**	**NG**

Standard Order No. supplements (for further Order No. supplements, see page 15/17)

Manual operating mechanism with mechanical closing Without 1st and 2nd auxiliary trip units; auxiliary switch 2 NC + 2 NO	**1AA2**	**1AA2**

For footnotes see next page.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3WL Air Circuit Breakers/Non-Automatic Air Circuit Breakers up to 6300 A (AC)

4-pole, fixed-mounted versions

Size	Max. rated circuit breaker current $I_{n\,max.}$	Rated current[1] I_n	I_{cu} up to 100 kA at 500 V, high switching capacity H		Order No. / Order No. supplements, see page15/17	PS*	Weight per PU approx.
	A	A	kA	DT			kg
Horizontal main circuit connection							
II	800	800	100		**3WL12 08-4□□42-....**	1 unit	67.000
II	1000	1000	100		**3WL12 10-4□□42-....**	1 unit	67.000
II	1250	1250	100		**3WL12 12-4□□42-....**	1 unit	67.000
II	1600	1600	100		**3WL12 16-4□□42-....**	1 unit	67.000
II	2000	2000	100		**3WL12 20-4□□42-....**	1 unit	67.000
II	2500	2500	100		**3WL12 25-4□□42-....**	1 unit	71.000
II	3200	3200	100		**3WL12 32-4□□42-....**	1 unit	77.000
III	4000	4000	100		**3WL13 40-4□□42-....**	1 unit	106.000
III	5000	5000	100		**3WL13 50-4□□42-....**	1 unit	99.000
Vertical main circuit connection							
II	800	800	100		**3WL12 08-4□□41-....**	1 unit	75.000
II	1000	1000	100		**3WL12 10-4□□41-....**	1 unit	75.000
II	1250	1250	100		**3WL12 12-4□□41-....**	1 unit	67.000
II	1600	1600	100		**3WL12 16-4□□41-....**	1 unit	67.000
II	2000	2000	100		**3WL12 20-4□□41-....**	1 unit	75.000
II	2500	2500	100		**3WL12 25-4□□41-....**	1 unit	71.000
II	3200	3200	100		**3WL12 32-4□□41-....**	1 unit	77.000
II	4000	4000	100		**3WL12 40-4□□41-....**	1 unit	103.000
III	4000	4000	100		**3WL13 40-4□□41-....**	1 unit	106.000
III	5000	5000	100		**3WL13 50-4□□41-....**	1 unit	99.000
III	6300	6300	100		**3WL13 63-4□□41-....**	1 unit	106.000
Front main circuit connection, single hole							
II	800	800	100		**3WL12 08-4□□43-....**	1 unit	67.000
II	1000	1000	100		**3WL12 10-4□□43-....**	1 unit	67.000
II	1250	1250	100		**3WL12 12-4□□43-....**	1 unit	67.000
II	1600	1600	100		**3WL12 16-4□□43-....**	1 unit	67.000
II	2000	2000	100		**3WL12 20-4□□43-....**	1 unit	67.000
II	2500	2500	100		**3WL12 25-4□□43-....**	1 unit	71.000
II	3200	3200	100		**3WL12 32-4□□43-....**	1 unit	77.000
III	4000	4000	100		**3WL13 40-4□□43-....**	1 unit	99.000
Front main circuit connection, double hole							
II	800	800	100		**3WL12 08-4□□44-....**	1 unit	67.000
II	1000	1000	100		**3WL12 10-4□□44-....**	1 unit	67.000
II	1250	1250	100		**3WL12 12-4□□44-....**	1 unit	67.000
II	1600	1600	100		**3WL12 16-4□□44-....**	1 unit	67.000
II	2000	2000	100		**3WL12 20-4□□44-....**	1 unit	67.000
II	2500	2500	100		**3WL12 25-4□□44-....**	1 unit	71.000
II	3200	3200	100		**3WL12 32-4□□44-....**	1 unit	77.000
III	4000	4000	100		**3WL13 40-4□□44-....**	1 unit	106.000

Non-automatic air circuit breakers[2]	Order No. supplements
Without electronic trip unit	**AA**
Electronic trip units	
Versions without ground-fault protection	
ETU15B: Protection functions LI	**BB**
ETU25B: Protection functions LSI	**CB**
ETU45B: Protection functions LSIN[3]	**EB**
ETU45B: Protection functions LSIN[3] with 4-line display	**FB**
ETU55B: Protection functions LSIN[3]	**JB**
ETU76B: Protection functions LSIN[3] with pixel graphics display	**NB**
Versions with ground-fault protection	
ETU27B: Protection functions LSING[4]	**DG**
ETU45B: Protection functions LSING[3][5]	**EG**
ETU45B: Protection functions LSING[3][5] with 4-line display	**FG**
ETU55B: Protection functions LSING[3][5]	**JG**
ETU76B: Protection functions LSING[3][5] with pixel graphics display	**NG**
Standard Order No. supplements (for further Order No. supplements, see page 15/17)	
Manual operating mechanism with mechanical closing Without 1st and 2nd auxiliary trip units; auxiliary switch 2 NC + 2 NO	**1AA2**

1) The rated current is determined by the rated current module. For the standard version, the supplied module is equal to the maximum rated current. If a lower rated current is required, adaptation is by order code on page 15/20.

2) For permissible rated short-time current I_{cc} and rated short-circuit making capacity I_{cm} for non-automatic air circuit breakers, see Technical Information LV 1 T, "Technical Specifications".

3) Current transformers for protection of the N conductor and current transformers for detection of the ground-fault current in the grounded neutral point of the transformer are to be ordered separately, see page 15/23. The internal transformers for N conductors can be ordered by adding the supplement "–Z" and the order code "F23".

4) Current transformers for protection of the N conductor are to be ordered separately, see page 15/23.

5) ETU45B to ETU76B with ground-fault protection module GFM AT (alarm and tripping), see page15/23.

*** You can order this quantity or a multiple thereof. For other units and versions see A&D Mall.**

© Siemens AG 2008

Selection and ordering data

Size	Max. rated circuit breaker current $I_{n\,max.}$	Rated current[1] I_n	I_{cu} up to 55/66 kA at 500 V, ECO switching capacity N		Order No. Order No. supplements, see page 15/17	I_{cu} up to 66/80 kA at 500 V, standard switching capacity S		Order No. Order No. supplements, see page 15/17	PS*	Weight per PU approx.
	A	A	kA	DT		kA	DT			kg
Without guide frames (for guide frames, see page 15/22)										
I	630	630	55		**3WL11 06-2□□45-....**	66		**3WL11 06-3□□45-....**	1 unit	54.000
I	800	800	55		**3WL11 08-2□□45-....**	66		**3WL11 08-3□□45-....**	1 unit	54.000
I	1000	1000	55		**3WL11 10-2□□45-....**	66		**3WL11 10-3□□45-....**	1 unit	54.000
I	1250	1250	55		**3WL11 12-2□□45-....**	66		**3WL11 12-3□□45-....**	1 unit	54.000
I	1600	1600	55		**3WL11 16-2□□45-....**	66		**3WL11 16-3□□45-....**	1 unit	54.000
II	800	800	66		**3WL12 08-2□□45-....**	80		**3WL12 08-3□□45-....**	1 unit	72.000
II	1000	1000	66		**3WL12 10-2□□45-....**	80		**3WL12 10-3□□45-....**	1 unit	72.000
II	1250	1250	66		**3WL12 12-2□□45-....**	80		**3WL12 12-3□□45-....**	1 unit	72.000
II	1600	1600	66		**3WL12 16-2□□45-....**	80		**3WL12 16-3□□45-....**	1 unit	72.000
II	2000	2000	66		**3WL12 20-2□□45-....**	80		**3WL12 20-3□□45-....**	1 unit	72.000
II	2500	2500	66		**3WL12 25-2□□45-....**	80		**3WL12 25-3□□45-....**	1 unit	76.000
II	3200	3200	66		**3WL12 32-2□□45-....**	80		**3WL12 32-3□□45-....**	1 unit	82.000
With guide frames, horizontal main circuit connection										
I	630	630	55		**3WL11 06-2□□46-....**	66		**3WL11 06-3□□46-....**	1 unit	84.000
I	800	800	55		**3WL11 08-2□□46-....**	66		**3WL11 08-3□□46-....**	1 unit	84.000
I	1000	1000	55		**3WL11 10-2□□46-....**	66		**3WL11 10-3□□46-....**	1 unit	84.000
I	1250	1250	55		**3WL11 12-2□□46-....**	66		**3WL11 12-3□□46-....**	1 unit	84.000
I	1600	1600	55		**3WL11 16-2□□46-....**	66		**3WL11 16-3□□46-....**	1 unit	84.000
II	800	800	66		**3WL12 08-2□□46-....**	80		**3WL12 08-3□□46-....**	1 unit	109.000
II	1000	1000	66		**3WL12 10-2□□46-....**	80		**3WL12 10-3□□46-....**	1 unit	109.000
II	1250	1250	66		**3WL12 12-2□□46-....**	80		**3WL12 12-3□□46-....**	1 unit	109.000
II	1600	1600	66		**3WL12 16-2□□46-....**	80		**3WL12 16-3□□46-....**	1 unit	109.000
II	2000	2000	66		**3WL12 20-2□□46-....**	80		**3WL12 20-3□□46-....**	1 unit	109.000
II	2500	2500	66		**3WL12 25-2□□46-....**	80		**3WL12 25-3□□46-....**	1 unit	123.000
II	3200	3200	66		**3WL12 32-2□□46-....**	80		**3WL12 32-3□□46-....**	1 unit	136.000
With guide frames, vertical main circuit connection										
I	630	630	55		**3WL11 06-2□□47-....**	66		**3WL11 06-3□□47-....**	1 unit	84.000
I	800	800	55		**3WL11 08-2□□47-....**	66		**3WL11 08-3□□47-....**	1 unit	84.000
I	1000	1000	55		**3WL11 10-2□□47-....**	66		**3WL11 10-3□□47-....**	1 unit	84.000
I	1250	1250	55		**3WL11 12-2□□47-....**	66		**3WL11 12-3□□47-....**	1 unit	84.000
I	1600	1600	55		**3WL11 16-2□□47-....**	66		**3WL11 16-3□□47-....**	1 unit	84.000
II	800	800	66		**3WL12 08-2□□47-....**	80		**3WL12 08-3□□47-....**	1 unit	109.000
II	1000	1000	66		**3WL12 10-2□□47-....**	80		**3WL12 10-3□□47-....**	1 unit	109.000
II	1250	1250	66		**3WL12 12-2□□47-....**	80		**3WL12 12-3□□47-....**	1 unit	109.000
II	1600	1600	66		**3WL12 16-2□□47-....**	80		**3WL12 16-3□□47-....**	1 unit	109.000
II	2000	2000	66		**3WL12 20-2□□47-....**	80		**3WL12 20-3□□47-....**	1 unit	109.000
II	2500	2500	66		**3WL12 25-2□□47-....**	80		**3WL12 25-3□□47-....**	1 unit	123.000
II	3200	3200	66		**3WL12 32-2□□47-....**	80		**3WL12 32-3□□47-....**	1 unit	136.000
II	4000	4000	66		**3WL12 40-2□□47-....**	80		**3WL12 40-3□□47-....**	1 unit	146.000
With guide frames, connecting flanges										
I	630	630	55		**3WL11 06-2□□48-....**	66		**3WL11 06-3□□48-....**	1 unit	84.000
I	800	800	55		**3WL11 08-2□□48-....**	66		**3WL11 08-3□□48-....**	1 unit	84.000
I	1000	1000	55		**3WL11 10-2□□48-....**	66		**3WL11 10-3□□48-....**	1 unit	84.000
I	1250	1250	55		**3WL11 12-2□□48-....**	66		**3WL11 12-3□□48-....**	1 unit	84.000
I	1600	1600	55		**3WL11 16-2□□48-....**	66		**3WL11 16-3□□48-....**	1 unit	84.000
II	800	800	66		**3WL12 08-2□□48-....**	80		**3WL12 08-3□□48-....**	1 unit	109.000
II	1000	1000	66		**3WL12 10-2□□48-....**	80		**3WL12 10-3□□48-....**	1 unit	109.000
II	1250	1250	66		**3WL12 12-2□□48-....**	80		**3WL12 12-3□□48-....**	1 unit	109.000
II	1600	1600	66		**3WL12 16-2□□48-....**	80		**3WL12 16-3□□48-....**	1 unit	109.000
II	2000	2000	66		**3WL12 20-2□□48-....**	80		**3WL12 20-3□□48-....**	1 unit	109.000
II	2500	2500	66		**3WL12 25-2□□48-....**	80		**3WL12 25-3□□48-....**	1 unit	123.000
II	3200	3200	66		**3WL12 32-2□□48-....**	80		**3WL12 32-3□□48-....**	1 unit	136.000

Non-automatic air circuit breakers[2]	Order No. supplements	Order No. supplements
Without electronic trip unit	**AA**	**AA**
Electronic trip units		
Versions without ground-fault protection		
ETU15B: Protection functions LI	**BB**	**BB**
ETU25B: Protection functions LSI	**CB**	**CB**
ETU45B: Protection functions LSIN[3]	**EB**	**EB**
ETU45B: Protection functions LSIN[3] with 4-line display	**FB**	**FB**
ETU55B: Protection functions LSIN[3]	**JB**	**JB**
ETU76B: Protection functions LSIN[3] with pixel graphics display	**NB**	**NB**
Versions with ground-fault protection		
ETU27B: Protection functions LSING[4]	**DG**	**DG**
ETU45B: Protection functions LSING[3)5)]	**EG**	**EG**
ETU45B: Protection functions LSING[3)5)] with 4-line display	**FG**	**FG**
ETU55B: Protection functions LSING[3)5)]	**JG**	**JG**
ETU76B: Protection functions LSING[3)5)] with pixel graphics display	**NG**	**NG**
Standard Order No. supplements (for further Order No. supplements for circuit breakers and guide frames, see page 15/17)		
Manual operating mechanism with mechanical closing Without 1st and 2nd auxiliary trip units; auxiliary switch 2 NC + 2 NO	**1AA2**	**1AA2**

For footnotes see next page.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3WL Air Circuit Breakers/Non-Automatic Air Circuit Breakers up to 6300 A (AC)

4-pole, withdrawable versions

Size	Max. rated circuit breaker current $I_{n\,max.}$	Rated current[1] I_n	I_{cu} up to 100 kA at 500 V, high switching capacity H		Order No. / Order No. supplements, see page15/17	PS*	Weight per PU approx.
	A	A	kA	DT			kg
Without guide frames (for guide frames, see page 15/22)							
II	800	800	100		**3WL12 08-4□□45-....**	1 unit	72.000
II	1000	1000	100		**3WL12 10-4□□45-....**	1 unit	72.000
II	1250	1250	100		**3WL12 12-4□□45-....**	1 unit	72.000
II	1600	1600	100		**3WL12 16-4□□45-....**	1 unit	72.000
II	2000	2000	100		**3WL12 20-4□□45-....**	1 unit	72.000
II	2500	2500	100		**3WL12 25-4□□45-....**	1 unit	76.000
II	3200	3200	100		**3WL12 32-4□□45-....**	1 unit	82.000
III	4000	4000	100		**3WL13 40-4□□45-....**	1 unit	106.000
III	5000	5000	100		**3WL13 50-4□□45-....**	1 unit	106.000
III	6300	6300	100		**3WL13 63-4□□45-....**	1 unit	108.000
With guide frames, horizontal main circuit connection							
II	800	800	100		**3WL12 08-4□□46-....**	1 unit	109.000
II	1000	1000	100		**3WL12 10-4□□46-....**	1 unit	109.000
II	1250	1250	100		**3WL12 12-4□□46-....**	1 unit	109.000
II	1600	1600	100		**3WL12 16-4□□46-....**	1 unit	109.000
II	2000	2000	100		**3WL12 20-4□□46-....**	1 unit	109.000
II	2500	2500	100		**3WL12 25-4□□46-....**	1 unit	123.000
II	3200	3200	100		**3WL12 32-4□□46-....**	1 unit	136.000
III	4000	4000	100		**3WL13 40-4□□46-....**	1 unit	190.000
III	5000	5000	100		**3WL13 50-4□□46-....**	1 unit	190.000
With guide frames, vertical main circuit connection							
II	800	800	100		**3WL12 08-4□□47-....**	1 unit	109.000
II	1000	1000	100		**3WL12 10-4□□47-....**	1 unit	109.000
II	1250	1250	100		**3WL12 12-4□□47-....**	1 unit	109.000
II	1600	1600	100		**3WL12 16-4□□47-....**	1 unit	109.000
II	2000	2000	100		**3WL12 20-4□□47-....**	1 unit	109.000
II	2500	2500	100		**3WL12 25-4□□47-....**	1 unit	123.000
II	3200	3200	100		**3WL12 32-4□□47-....**	1 unit	136.000
II	4000	4000	100		**3WL12 40-4□□47-....**	1 unit	146.000
III	4000	4000	100		**3WL13 40-4□□47-....**	1 unit	190.000
III	5000	5000	100		**3WL13 50-4□□47-....**	1 unit	190.000
III	6300	6300	100		**3WL13 63-4□□47-....**	1 unit	227.000
With guide frames, connecting flanges							
II	800	800	100		**3WL12 08-4□□48-....**	1 unit	109.000
II	1000	1000	100		**3WL12 10-4□□48-....**	1 unit	109.000
II	1250	1250	100		**3WL12 12-4□□48-....**	1 unit	109.000
II	1600	1600	100		**3WL12 16-4□□48-....**	1 unit	109.000
II	2000	2000	100		**3WL12 20-4□□48-....**	1 unit	109.000
II	2500	2500	100		**3WL12 25-4□□48-....**	1 unit	123.000
II	3200	3200	100		**3WL12 32-4□□48-....**	1 unit	136.000
III	4000	4000	100		**3WL13 40-4□□48-....**	1 unit	190.000

Non-automatic air circuit breakers[2]	Order No. supplements
Without electronic trip unit	**AA**
Electronic trip units	
Versions without ground-fault protection	
ETU15B: Protection functions LI	**BB**
ETU25B: Protection functions LSI	**CB**
ETU45B: Protection functions LSIN[3]	**EB**
ETU45B: Protection functions LSIN[3] with 4-line display	**FB**
ETU55B: Protection functions LSIN[3]	**JB**
ETU76B: Protection functions LSIN[3] with pixel graphics display	**NB**
Versions with ground-fault protection	
ETU27B: Protection functions LSING[4]	**DG**
ETU45B: Protection functions LSING[3])	**EG**
ETU45B: Protection functions LSING[3][5] with 4-line display	**FG**
ETU55B: Protection functions LSING[3][5]	**JG**
ETU76B: Protection functions LSING[3][5] with pixel graphics display	**NG**

Standard Order No. supplements (for further Order No. supplements for circuit breakers and guide frames, see page 15/17)

Manual operating mechanism with mechanical closing Without 1st and 2nd auxiliary trip units; auxiliary switch 2 NC + 2 NO	**1AA2**

1) The rated current is determined by the rated current module. For the standard version, the supplied module is equal to the maximum rated current. If a lower rated current is required, adaptation is by order code on page 15/20.

2) For permissible rated short-time current I_{cc} and rated short-circuit making capacity I_{cm} for non-automatic air circuit breakers, see Technical Information LV 1 T, "Technical Specifications".

3) Current transformers for protection of the N conductor and current transformers for detection of the ground-fault current in the grounded neutral point of the transformer are to be ordered separately, see page 15/23. The internal transformers for N conductors can be ordered by adding the supplement "–Z" and the order code "F23".

4) Current transformers for protection of the N conductor are to be ordered separately, see page 15/23.

5) ETU45B to ETU76B with ground-fault protection module GFM AT (alarm and tripping), see page15/23.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

				Order No. supplement 3WL1...-.....-□□□□
Operating mechanisms				
Manual operating mechanism with mechanical closing				1
Manual operating mechanism with mechanical and electrical closing, closing solenoid suitable for uninterrupted duty, 100 % ON period				
Closing solenoid				
AC 50/60 Hz V	V DC			
110	110 ... 125			2
230	220			3
Manual/motorized operating mechanism with mechanical and electrical closing, closing solenoid suitable for uninterrupted duty, 100 % ON period				
Motor		Closing solenoid		
AC 50/60 Hz V	V DC	AC 50/60 Hz V	V DC	
208 ... 240	220 ... 250	230	220	4
110 ... 127	110 ... 125	110	110 ... 125	5
--	24	--	24	6
To order different voltages for motorized operating mechanism and closing solenoid: "1" at the 13th digit of the Order No. and order codes, see page 15/20.				
1st auxiliary trip unit				
Without 1st auxiliary trip unit				A
Shunt trip unit suitable for uninterrupted duty, 100 % ON period Operating range 0.85 ... 1.1 x U_s				
U_s AC 50/60 Hz V	U_s V DC			
--	24			B
--	30			C
--	48			D
--	60			E
110	110 ... 125			F
230	220			G
2nd auxiliary trip unit				
Without 2nd auxiliary trip unit				A
Shunt trip unit suitable for uninterrupted duty, 100 % ON period Operating range 0.85 ... 1.1 x U_s				
U_s AC 50/60 Hz V	U_s V DC			
--	24			B
--	30			C
--	48			D
--	60			E
110	110 ... 125			F
230	220			G
Undervoltage trip unit, instantaneous (≤ 80 ms), short-delay (≤ 200 ms) Operating range 0.85 ... 1.1 x U_s				
U_s AC 50/60 Hz V	U_s V DC			
--	24			J
--	30			K
--	48			L
--	60			U
110 ... 127	110 ... 125			M
208 ... 240	220 ... 250			N
380 ... 415	--			P
Undervoltage trip unit, can be delayed between 0.2 s and 3.2 s Operating range 0.85 ... 1.1 x U_s				
U_s AC 50/60 Hz V	U_s V DC			
--	48			Q
110 ... 127	110 ... 125			R
208 ... 240	220 ... 250			S
380 ... 415	--			T
Auxiliary switches				
1st auxiliary switch block				
2 NO + 2 NC				2
1st + 2nd auxiliary switch block				
4 NO + 4 NC				4
6 NO + 2 NC				7
5 NO + 3 NC				8

© Siemens AG 2008

3WL Air Circuit Breakers/Non-Automatic Air Circuit Breakers up to 6300 A (AC)

Options

Add **"–Z"** to the complete Order No. and indicate the appropriate order code(s).

Order No. with "–Z"
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
3WL . . . . - . . . . . - . . . . - Z
and additional order code(s)
□□□ + . . . + . . .

Code for "Further versions"–**Z**

Operating manuals

Printed version		
	French/Italian	**A 1 1**
	Spanish/Portuguese	**A 1 2**

Special packaging

Special packaging for extended technical requirements	
Cardboard packaging with wax coating (moisture protection), internal bracing, tilt indicators	**A 6 0**

Rated current modules / Rating plugs

		Rated current I_n A	
Only one module is possible per circuit breaker (not in conjunction with electronic trip unit ETU15B). As standard the overcurrent releases are equipped with a rated current module which is equal to the maximum rated current circuit breaker ($I_{n\,max}$). The rated current of the selected rated current module must be smaller than $I_{n\,max}$.	For size I, II	250	**B 0 2**
		315	**B 0 3**
		400	**B 0 4**
		500	**B 0 5**
		630	**B 0 6**
		800	**B 0 8**
		1000	**B 1 0**
	For size I, II, III	1250	**B 1 2**
		1600	**B 1 6**
	For size II, III	2000	**B 2 0**
		2500	**B 2 5**
		3200	**B 3 2**
		4000	**B 4 0**
	For size III	5000	**B 5 0**
		6300	**B 6 3**

				Order code for fixed-mounted version	Order code for withdrawable version
Interlocks, covers, position indicator switches				□□□	□□□
Mutual mechanical interlockings (interlocking module with Bowden wire 2 m)	Fixed-mounted circuit breakers			**S 5 5**	**-- -- --**
	For withdrawable circuit breakers with guide frame			**--**	**R 5 5**
	For guide frames			**--**	**R 5 6**
	For withdrawable circuit breakers			**--**	**R 5 7**
Arc chute covers	3-pole				
Not available for - 1000 V version (order code "A05") - DC version - 4000 A size II	Size I			**--**	**R 1 0**
	Size II			**--**	**R 1 0**
	Size III			**--**	**R 1 0**
	4-pole				
	Size I			**--**	**R 1 0**
	Size II			**--**	**R 1 0**
	Size III			**--**	**R 1 0**
Shutters 2-part lockable with padlocks[1]	3-pole				
	Size I			**--**	**R 2 1**
	Size II			**--**	**R 2 1**
	Size III			**--**	**R 2 1**
	4-pole				
	Size I			**--**	**R 2 1**
	Size II			**--**	**R 2 1**
	Size III			**--**	**R 2 1**
Position indicator switches for guide frames	Connected position	Test position	Disconnected position		
					R 1 5
	1 CO	1 CO	1 CO	**--**	**R 1 6**
	3 CO	2 CO	1 CO	**--**	

[1] Padlocks not included in scope of supply.

© Siemens AG 2008

Add **"–Z"** to the complete Order No. and indicate the appropriate order code(s).		Order No. with **"–Z"** 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 **3WL** . . . . - . . . . . - . . . . **-Z** and additional order code(s) □□□ + . . . + . . .	
		Code for "Further versions" **-Z**	
		Order code for fixed-mounted version	Order code for fixed-mounted version
Locking devices		□□□	□□□
Locking devices against unauthorized closing, in the operator panels The disconnector unit fulfills the requirements for main circuit breakers according to EN 60204 (VDE 0113)	Made by CES	**S 0 1**	**S 0 1**
	Made by IKON	**S 0 3**	**S 0 3**
	Assembly kit FORTRESS or Castell[1)]	**S 0 5**	**S 0 5**
	Assembly kit for padlocks[2)]	**S 0 7**	**S 0 7**
	Made by Ronis	**S 0 8**	**S 0 8**
	Made by Profalux	**S 0 9**	**S 0 9**
EMERGENCY-STOP pushbuttons	Mushroom pushbutton instead of the mechanical OFF pushbutton	**S 2 4**	**S 2 4**

1) Locks must be ordered from the manufacturer.
2) Padlock not included in the scope of supply.

© Siemens AG 2008

3WL Air Circuit Breakers/Non-Automatic Air Circuit Breakers up to 6300 A (AC)

Options

Add **"–Z"** to the complete Order No. and indicate the appropriate order code(s).

Order No. with "–Z"
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
3WL . . . . - . . . . . - . . . . - Z
and additional order code(s)
□□□+. . . + . . .

Code for "Further versions"**–Z**

Lockout devices and remote resets

Automatic reset of the lockout device		**K 0 1**
Tripped signal switches[1)2)]	1 CO	**K 0 7**
Remote reset solenoid for displays and reset buttons including automatic reset of the lockout device		
AC 50/60 Hz V	V DC	
--	24	**K 1 0**
120	125	**K 1 2**
220 ... 240	220 ... 250	**K 1 3**

Motorized operating mechanisms and closing/opening solenoids

Motorized operating mechanisms
Only possible if the 13th digit of the Order No. = "1"

Motor

AC 50/60 Hz V	V DC	
--	24 ... 30	**M 0 1**
--	48 ... 60	**M 0 3**
110 ... 127	110 ... 125	**M 0 5**
208 ... 240	220 ... 250	**M 0 6**

Closing solenoids suitable for uninterrupted duty, 100 % On period –
Only possible if the 13th digit of the Order No. = "1"

Activation solenoids

AC 50/60 Hz V	V DC	
--	24	**M 2 1**
--	30	**M 2 2**
--	48	**M 2 3**
--	60	**M 2 4**
110	110	**M 2 5**
230	220	**M 2 6**

Closing solenoids[3)] **–** unsuitable for uninterrupted duty, 5 % On period –
Only possible if the 13th digit of the Order No. = "1"

Activation solenoids

AC 50/60 Hz V	V DC	
--	24	**M 3 1**
--	48	**M 3 3**
110 ... 127	110 ... 125	**M 3 5**
208 ... 240	220 ... 250	**M 3 6**

Opening solenoids (shunt trip unit) –
Unsuitable for uninterrupted duty, 5 % ON period

Activation solenoids

AC 50/60 Hz V	V DC	
--	24	**M 4 1**
--	48	**M 4 3**
110 ... 127	110 ... 125	**M 4 5**
208 ... 240	220 ... 250	**M 4 6**

Communication and measurement functions

Breaker status sensor (BSS)	**F 0 1**
PROFIBUS communications interfaces[4)] Including COM15 and breaker status sensor (BSS)	**F 0 2**
MODBUS communications interfaces[4)] Including COM16 and breaker status sensor (BSS)	**F 1 2**
Measurement function *Plus* (without PROFIBUS/MODBUS communications interface)[5)]	**F 0 5**

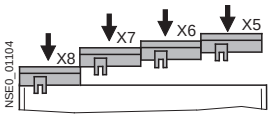
1) Not possible with communications interface option, order code "F02" or "F12".
2) Not available for non-automatic air circuit breakers.
3) Overexcited, i.e. closing time 25 ms (standard 60 ms).
4) If ordering withdrawable circuit breaker and guide frame separately, specify order code "F02" or "F12" for withdrawable circuit breaker only.
5) Additional voltage transformers are required for connection of the measurement function *Plus*, see A&D Mall.

© Siemens AG 2008

Overview

Determination of the number of auxiliary supply connectors required

This selection is only required if the guide frame is ordered under a separate Order No.



The required number of auxiliary supply connectors depends on:
- Operating mechanism type
- Electronic trip unit with/without current transformer
- Type and number of auxiliary trip units
- Number of auxiliary switches
- COM15/COM16 communication interface

		Number of auxiliary supply connectors	Terminal
a	**First auxiliary supply connector X6 always required.**	**1**	X6
b	**Operating mechanisms**		
b1	Manual operating mechanism with stored-energy feature with mechanical closing	**0**	
b2	Manual operating mechanism with stored-energy feature with mechanical and electrical closing	**0**	X6
b3	Manual/motorized operating mechanism with stored-energy feature with mechanical and electrical closing	**+1**	X5
c	**Electronic trip units**		
c1	Electronic trip units ETU15B, ETU25B, ETU27B	**0**	
c2	Electronic trip units ETU45B, ETU55B, ETU76B (internal Cubicle**BUS**)	**+1**	X8
	Connections for external current transformers for overload protection in the N conductor and ground-fault protection		
c3	Current transformer installed in the N conductor (required with 3-pole circuit breakers if c2 is not selected)	**+1**	X8
c4	Current transformer in the neutral point of the transformer (required if c2 or c3 is not selected)	**+1**	X8
d	**Auxiliary trip units**		
d1	With/without 1st auxiliary trip unit (shunt trip unit F1)	**0**	X6
d2	2nd auxiliary trip unit (shunt trip unit F2, undervoltage trip unit F3, delayable undervoltage trip unit F4)	**+1**	X5
e	**Auxiliary switch blocks**		
e1	1st auxiliary switch block 2 NO + 2 NC	**0**	X6
e2	1st and 2nd auxiliary switch block 4 NO + 4 NC or 6 NO + 2 NC or 5 NO + 3 NC (required if b3 or d2 is not selected)	**+1**	X5
f	**Communication modules**		
f1	Without communication module COM15/COM16	**0**	
f2	With communication module COM15/COM16 – occupies the entire terminal strip X7, making the following options no longer possible: • Tripped signal switch S24 • Stored-energy status indication S21 • Electrical ON button S10 • Signaling switch on first and second auxiliary trip unit S22 + S23	**+1**	X7
g	**Optional signals/accessories**		
g1	Tripped signal switch S24 (only possible if f2 is not selected)	**+1**	X7
g2	Stored-energy status indication S21 (only possible if f2 is not selected, required if g1 is not selected)	**+1**	X7
g3	Electrical ON button S10 (only possible if f2 is not selected, required if g1 or g2 is not selected)	**+1**	X7
g4	Signal switch on first auxiliary trip unit S22 (only possible if f2 is not selected, required if g1, g2 or g3 is not selected)	**+1**	X7
g5	Signal switch on second auxiliary trip unit S23 (only possible if f2 is not selected, required if g1, g2, g3 or g4 is not selected)	**+1**	X7
g6	Ready-to-close signaling switch S20	**0**	X6
g7	Motor shutdown switch S12 (only possible if motorized operating mechanism is selected)	**0**	X5
g8	Remote reset magnet F7 (required if c2 is not selected)	**+1**	X8
h	**Total number of auxiliary supply connectors**	**(max. 4)**	

Selection and ordering data

Guide frames for AC circuit breakers/non-automatic air circuit breakers, 3- and 4-pole, for 1000 V AC

Add **"–Z"** to the complete Order No. and indicate the appropriate order code(s).	Order No. with **"–Z"** and additional order code 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 **3WL9 2 1 . - . . . . . - . . . . -Z** □□□
	Code for "Further versions" **–Z**
Rated voltage 1000 V AC	
Size II, except 4000 A (switching capacity H)	**A 0 5**
Size III, not necessary with circuit breakers with very high switching capacity C	**A 0 5**

For ordering guide frames see page 15/22.

© Siemens AG 2008

3WL Air Circuit Breakers/Non-Automatic Air Circuit Breakers up to 6300 A (AC)

Accessories/spare parts

Guide frames for AC circuit breakers/non-automatic air circuit breakers

Size	Max. rated circuit breaker current $I_{n\,max.}$	Switching capacity I_{cu}	DT	Guide frames for 3-pole circuit breakers/ non-automatic air circuit breakers	PS*	Weight per PU approx.	Guide frames for 4-pole circuit breakers/ non-automatic air circuit breakers	PS*	Weight per PU approx.
	A			Order No. (Order No. supplements required according to table below)		kg	Order No. (Order No. supplements required according to table below)		kg
Front main circuit connection, single hole									
I	1000	... 100		**3WL9 211-1AA□□-□□A1**	1 unit	25.000	**3WL9 211-1BA□□-□□A1**	1 unit	30.000
I	1600	... 100		**3WL9 211-2AA□□-□□A1**	1 unit	25.000	**3WL9 211-2BA□□-□□A1**	1 unit	30.000
II	2000	... 100		**3WL9 212-3AA□□-□□A1**	1 unit	31.000	**3WL9 212-3BA□□-□□A1**	1 unit	37.000
II	2500	... 100		**3WL9 212-4AA□□-□□A1**	1 unit	39.000	**3WL9 212-4BA□□-□□A1**	1 unit	47.000
II	3200	... 100		**3WL9 212-5AA□□-□□A1**	1 unit	45.000	**3WL9 212-5BA□□-□□A1**	1 unit	54.000
III	4000	... 100		**3WL9 213-6AA□□-□□A1**	1 unit	60.000	**3WL9 213-6BA□□-□□A1**	1 unit	84.000
Front main circuit connection, double hole									
I	1000	... 100		**3WL9 211-1AB□□-□□A1**	1 unit	25.000	**3WL9 211-1BB□□-□□A1**	1 unit	30.000
I	1600	... 100		**3WL9 211-2AB□□-□□A1**	1 unit	25.000	**3WL9 211-2BB□□-□□A1**	1 unit	30.000
II	2000	... 100		**3WL9 212-3AB□□-□□A1**	1 unit	31.000	**3WL9 212-3BB□□-□□A1**	1 unit	37.000
II	2500	... 100		**3WL9 212-4AB□□-□□A1**	1 unit	39.000	**3WL9 212-4BB□□-□□A1**	1 unit	47.000
II	3200	... 100		**3WL9 212-5AB□□-□□A1**	1 unit	45.000	**3WL9 212-5BB□□-□□A1**	1 unit	54.000
III	4000	... 100		**3WL9 213-6AB□□-□□A1**	1 unit	60.000	**3WL9 213-6BB□□-□□A1**	1 unit	84.000
Horizontal main circuit connection									
I	1000	... 100		**3WL9 211-1AC□□-□□A1**	1 unit	25.000	**3WL9 211-1BC□□-□□A1**	1 unit	30.000
I	1600	... 100		**3WL9 211-2AC□□-□□A1**	1 unit	25.000	**3WL9 211-2BC□□-□□A1**	1 unit	30.000
II	2000	... 100		**3WL9 212-3AC□□-□□A1**	1 unit	31.000	**3WL9 212-3BC□□-□□A1**	1 unit	37.000
II	2500	... 100		**3WL9 212-4AC□□-□□A1**	1 unit	39.000	**3WL9 212-4BC□□-□□A1**	1 unit	47.000
II	3200	... 100		**3WL9 212-5AC□□-□□A1**	1 unit	45.000	**3WL9 212-5BC□□-□□A1**	1 unit	54.000
III	4000	... 100		**3WL9 213-6AC□□-□□A1**	1 unit	60.000	**3WL9 213-6BC□□-□□A1**	1 unit	84.000
III	5000	... 100		**3WL9 213-7AC□□-□□A1**	1 unit	60.000	**3WL9 213-7BC□□-□□A1**	1 unit	84.000
III	4000	... 130[1)]		**3WL9 213-6AC□□-□□C1**	1 unit	63.000	**3WL9 213-6BC□□-□□C1**	1 unit	87.000
III	5000	... 130[1)]		**3WL9 213-7AC□□-□□C1**	1 unit	63.000	**3WL9 213-7BC□□-□□C1**	1 unit	87.000
Vertical main circuit connection									
I	1000	... 100		**3WL9 211-1AD□□-□□A1**	1 unit	25.000	**3WL9 211-1BD□□-□□A1**	1 unit	30.000
I	1600	... 100		**3WL9 211-2AD□□-□□A1**	1 unit	25.000	**3WL9 211-2BD□□-□□A1**	1 unit	30.000
II	2000	... 100		**3WL9 212-3AD□□-□□A1**	1 unit	31.000	**3WL9 212-3BD□□-□□A1**	1 unit	37.000
II	2500	... 100		**3WL9 212-4AD□□-□□A1**	1 unit	39.000	**3WL9 212-4BD□□-□□A1**	1 unit	47.000
II	3200	... 100		**3WL9 212-5AD□□-□□A1**	1 unit	45.000	**3WL9 212-5BD□□-□□A1**	1 unit	54.000
II	4000	... 100		**3WL9 212-6AD□□-□□A1**	1 unit	52.000	**3WL9 212-6BD□□-□□A1**	1 unit	62.000
III	4000	... 100		**3WL9 213-6AD□□-□□A1**	1 unit	60.000	**3WL9 213-6BD□□-□□A1**	1 unit	84.000
III	5000	... 100		**3WL9 213-7AD□□-□□A1**	1 unit	60.000	**3WL9 213-7BD□□-□□A1**	1 unit	84.000
III	6300	... 100		**3WL9 213-8AD□□-□□A1**	1 unit	70.000	**3WL9 213-8BD□□-□□A1**	1 unit	119.000
III	4000	... 130[1)]		**3WL9 213-6AD□□-□□C1**	1 unit	63.000	**3WL9 213-6BD□□-□□C1**	1 unit	88.000
III	5000	... 130[1)]		**3WL9 213-7AD□□-□□C1**	1 unit	63.000	**3WL9 213-7BD□□-□□C1**	1 unit	88.000
III	6300	... 130[1)]		**3WL9 213-8AD□□-□□C1**	1 unit	74.000	**3WL9 213-8BD□□-□□C1**	1 unit	124.000

		Order No. supplements	
Number of auxiliary supply connectors			
Without		**0**	**0**
1 connector		**1**	**1**
2 connectors		**2**	**2**
3 connectors		**3**	**3**
4 connectors		**4**	**4**
For required number of auxiliary supply connectors, see table on page 15/21			
Type of auxiliary circuit connections			
Without		**0**	**0**
With screw connections (SIGUT)		**1**	**1**
With screwless connection method (tension spring)		**2**	**2**
Position indicator switches			
Without		**0**	**0**
Option 1	Connected position 1 changeover contact, test position 1 changeover contact, disconnected position 1 changeover contact	**1**	**1**
Option 2	Connected position 3 changeover contact, test position 2 changeover contacts, disconnected position 1 changeover contact	**2**	**2**
Shutters			
Without		**A**	**A**
With shutter, 2-part, lockable	Size I	**B**	**B**
	Size II		
	Size III		

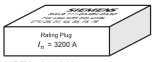
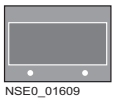
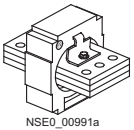
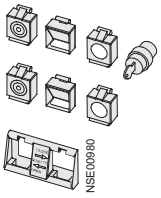
For rated voltage 1000 V AC see page 15/21.

All other accessory parts must be ordered by specifying "–Z" and the corresponding order code, see from page 15/18.

1) ... 150 kA: 3-pole
... 130 kA: 4-pole

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

	Designation	DT	Order No.	PS*	Weight per PU approx. kg
Rated current modules/Rating plugs[1]					
 NSE0_00992b 3WL9 111-0AA64-0AA0	For size	Rated current I_n (A)			
	I, II	250	**3WL9 111-0AA51-0AA0**	1 unit	0.010
		315	**3WL9 111-0AA52-0AA0**	1 unit	0.010
		400	**3WL9 111-0AA53-0AA0**	1 unit	0.010
		500	**3WL9 111-0AA54-0AA0**	1 unit	0.010
		630	**3WL9 111-0AA55-0AA0**	1 unit	0.010
		800	**3WL9 111-0AA56-0AA0**	1 unit	0.010
		1000	**3WL9 111-0AA57-0AA0**	1 unit	0.010
	I, II, III	1250	**3WL9 111-0AA58-0AA0**	1 unit	0.010
		1600	**3WL9 111-0AA61-0AA0**	1 unit	0.010
	II, III	2000	**3WL9 111-0AA62-0AA0**	1 unit	0.010
		2500	**3WL9 111-0AA63-0AA0**	1 unit	0.010
		3200	**3WL9 111-0AA64-0AA0**	1 unit	0.010
		4000	**3WL9 111-0AA65-0AA0**	1 unit	0.010
	III	5000	**3WL9 111-0AA66-0AA0**	1 unit	0.010
		6300	**3WL9 111-0AA67-0AA0**	1 unit	0.010
Ground-fault modules[2]					
NSE0_01027a 3WL9 111-0AT53-0AA0	**GFM AT 45B** (only for ETU45B) alarm and tripping		**3WL9 111-0AT53-0AA0**	1 unit	0.030
	GFM AT 55B–76B (only for ETU55B, ETU76B) alarm and tripping		**3WL9 111-0AT56-0AA0**	1 unit	0.030
Displays					
 NSE0_01609 3WL9 111-0AT81-0AA0	**4-line displays for ETU45B**		**3WL9 111-0AT81-0AA0**	1 unit	0.060
Transformers for neutral conductor protection					
NSE0_00990a 3WL9 111-0AA2.-0AA0	**Internal transformers for N conductors** (not for ETU release 2) Including wiring kit	Size I	**3WL9 111-0AA11-0AA0**	1 unit	0.200
		Size II	**3WL9 111-0AA12-0AA0**	1 unit	0.280
		Size III	**3WL9 111-0AA13-0AA0**	1 unit	0.500
	Internal transformers for N conductors for ETU release 2 Including wiring kit	Size I	**3WL9 111-0AA14-0AA0**	1 unit	0.200
		Size II	**3WL9 111-0AA15-0AA0**	1 unit	0.280
		Size III	**3WL9 111-0AA16-0AA0**	1 unit	0.500
	External transformers for N conductors (T5, see Technical Information LV 1 T, "Functions", "Measurement Method")	Size I	**3WL9 111-0AA21-0AA0**	1 unit	0.300
		Size II	**3WL9 111-0AA22-0AA0**	1 unit	0.380
		Size III	**3WL9 111-0AA23-0AA0**	1 unit	0.680
 NSE0_00991a 3WL9 111-0AA3.-0AA0	**External transformers for N conductors** With copper connection pieces (T5, see Technical Information LV 1 T, "Functions", "Measurement Method")	Size I	**3WL9 111-0AA31-0AA0**	1 unit	1.600
		Size II	**3WL9 111-0AA32-0AA0**	1 unit	4.260
		Size III	**3WL9 111-0AA33-0AA0**	1 unit	8.500
Locking devices					
 NSE00980 3WL9 111-0BA22-0AA0	**Protective covers for mechanical ON/OFF** Consisting of 2 transparent covers each for sealing or for attaching padlocks[3], cover with 6.35 mm hole (for tool actuation), lock mount for safety lock for key operation	Without safety lock	**3WL9 111-0BA21-0AA0**	1 unit	0.100
		Made by CES	**3WL9 111-0BA22-0AA0**	1 unit	0.300
		Made by IKON	**3WL9 111-0BA24-0AA0**	1 unit	0.300

[1] For replacement in existing circuit breakers please specify the circuit breaker ID No. when ordering.

[2] With the rated current module selected, the maximum rated current $I_{n\,max}$ of the circuit breaker must not be exceeded.
The following applies $I_n \leq I_{n\,max}$.

For direct measurement of the ground-fault current, e.g. in the neutral point of the transformer, a 1200 A/1 A current transformer, class 1, is required. The internal load of the SENTRON 3WL is 0.11 **Ω**. If the ground-fault current is to be determined using the vectorial sum of the phases, a transformer must be installed in the neutral conductor.

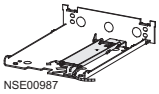
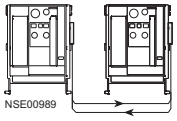
[3] Padlock not included in the scope of supply.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3WL Air Circuit Breakers/Non-Automatic Air Circuit Breakers up to 6300 A (AC)

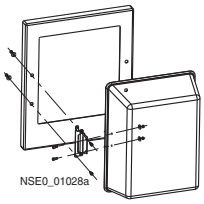
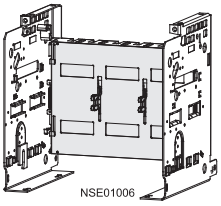
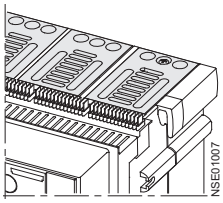
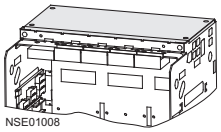
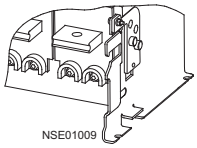
Accessories/spare parts

	Designation	DT	Order No.	PS*	Weight per PU approx.
					kg
Locking devices					
 NSE00987 3WL9 111-0BA83-0AA0	**To prevent movement of the withdrawable circuit breakers in disconnected positions,** consisting of Bowden wire and lock in the cabinet door	Made by CES	**3WL9 111-0BA81-0AA0**	1 unit	0.800
		Made by IKON	**3WL9 111-0BA83-0AA0**	1 unit	0.800
		Made by Profalux	**3WL9 111-0BA85-0AA0**	1 unit	0.800
		Made by Ronis	**3WL9 111-0BA86-0AA0**	1 unit	0.800
	Spare part for option **R81**, **R85**, **R86,** see "-Z" + order code, see A&D Mall.				
Interlocks					
 NSE00989 3WL9 111-0BB21-0AA0	**Mutual mechanical interlocking,** with 2000 mm Bowden wire (one required for each circuit breaker)	Fixed-mounted circuit breakers	**3WL9 111-0BB21-0AA0**	1 unit	2.700
		Spare part for option **S55,** see "-Z" + order code, page 15/18.			
		Module for withdrawable circuit breaker with frame	**3WL9 111-0BB24-0AA0**	1 unit	1.130
		Spare part for option **R55,** see "-Z" + order code, page 15/18.			
		When ordered separately			
		Module for guide frame	**3WL9 111-0BB22-0AA0**	1 unit	1.100
		Spare part for option **R56,** see "-Z" + order code, page 15/18.			
		Module for withdrawable circuit breaker	**3WL9 111-0BB23-0AA0**	1 unit	0.150
		Spare part for option **R57,** see "-Z" + order code, page 15/18.			
		Adapter for size III Withdrawable circuit breaker	**3WL9 111-0BB30-0AA0**	1 unit	On req.
Test devices					
	Manual testers release 2 for electronic trip units ETU15B to ETU76B[1] For testing the electronic trip unit functions		**3WL9 111-0AT32-0AA0**	1 unit	1.100
	Function testers For testing the tripping characteristics for electronic trip unit ETU15B to ETU76B		**3WL9 111-0AT44-0AA0**	1 unit	8.210

[1] The testing of converters is not possible for use of the ETU55B and the options "F30", "Protection of the N conductor under single-pole load", "F31" and 3WL9 111-0AK32 "EMC filter".

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

	Designation		DT	Order No.	PS*	Weight per PU approx. kg
Door sealing frames, covers, shutters						
 NSE0_01028a 3WL9 111-0AP02-0AA0	**Door sealing frames** Spare part for option **T40,** see A&D Mall.			**3WL9 111-0AP01-0AA0**	1 unit	0.360
	Protective covers, IP55 Cannot be used in conjunction with door sealing frames, cover removable and can be opened on both sides			**3WL9 111-0AP02-0AA0**	1 unit	1.600
	Shutters Spare part for option **R21,** see "-Z" + order code, page 15/18.					
 NSE01006 3WL9 111-0AP0.-0AA0	3-pole	Size I		**3WL9 111-0AP04-0AA0**	1 unit	0.500
		Size II		**3WL9 111-0AP06-0AA0**	1 unit	0.630
		Size III		**3WL9 111-0AP07-0AA0**	1 unit	0.860
	4-pole	Size I		**3WL9 111-0AP08-0AA0**	1 unit	0.600
		Size II		**3WL9 111-0AP11-0AA0**	1 unit	0.770
		Size III		**3WL9 111-0AP12-0AA0**	1 unit	1.070
Arc chutes						
 NSE01007 3WL9 111-0AS0.-0AA0	**Arc chutes**					
	690 V	Size I		**3WL9 111-0AS01-0AA0**	1 unit	1.110
		Size II		**3WL9 111-0AS02-0AA0**	1 unit	1.680
		Size III		**3WL9 111-0AS03-0AA0**	1 unit	2.980
	1000 V	Size II		**3WL9 111-0AS05-0AA0**	1 unit	3.140
		Size III		**3WL9 111-0AS06-0AA0**	1 unit	5.620
 NSE01008 3WL9 111-0AS3.-0AA0	**Arc chute covers**[1] Parts kit for guide frame Spare part for option **R10,** see "-Z" + order code, page 15/18.					
	3-pole	Size I		**3WL9 111-0AS32-0AA0**	1 unit	1.850
		Size II		**3WL9 111-0AS36-0AA0**	1 unit	2.600
		Size III		**3WL9 111-0AS38-0AA0**	1 unit	4.050
	4-pole	Size I		**3WL9 111-0AS42-0AA0**	1 unit	2.340
		Size II		**3WL9 111-0AS44-0AA0**	1 unit	3.300
		Size III		**3WL9 111-0AS46-0AA0**	1 unit	5.210
Coding for withdrawable part						
 NSE01009 3WL9 111-0AR12-0AA0	**Coding for withdrawable part** By customer, for 36 coding variants			**3WL9 111-0AR12-0AA0**	1 unit	0.400

[1] Not available for 1000 V version, DC version and size II with rated circuit breaker current of 4000 A.

15

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Options

Structure of the Order No.

3WL1 2 2 0 – 4 N G 3 1 – 1 F A 2

Example

5th position:	Size	Size II	2
6th and 7th positions:	Max. rated circuit breaker current $I_{n\,max}$	$I_{n\,max}$ = 2000 A	2 0
8th position:	Switching capacity class	High breaking capacity "H": 100 kA	4
9th position:	Electronic trip unit	ETU76B with pixel graphics display ...	N
10th position:	Electronic trip unit supplement	... with ground-fault protection	G
11th position:	Number of poles	3-pole	3
12th position:	Installation type	Fixed mounting, main circuit connections on rear, vertical	1
13th position:	Operating mechanism	Manual operating mechanism with mechanical closing	1
14th position:	1st auxiliary switch	Shunt trip units AC 50/60 Hz 110 V	F
15th position:	2nd auxiliary switch	Without 2nd auxiliary trip unit	A
16th position:	Auxiliary switch	2 NO + 2 NC	2

An important prerequisite for computer-based order processing is that order numbers must be structured according to standardized criteria.

They are used as an unambiguous means of communication for various purposes:

- Offer processing
  selection and configuration
- Order processing
  ordering
  order confirmation
  handling warehouse products
  order processing at the supply bases
  delivery and shipment
- Reporting and planning
- Service and warranty

The standardized structure ensures that only one Order No. has to be administered for one device.

This saves time and effort during planning, configuring, ordering and stock keeping, and consequently above all it saves costs.

The example opposite explains the various positions within an Order No.

Accessories: with first order (components are already mounted)

Example

3WL1 2 1 6 – 4 J G 3 1 – 1 F A 3 – Z F 0 2

"–Z" with order code	Communications connection "Standard" + Breaker Status Sensor (BSS) + communication module COM15 for connection to PROFIBUS DP	Z F 0 2

Additional accessory components can be ordered ready-mounted.

These supplements are identified by **"-Z"**.

Even with additional components, one Order No. is sufficient.

Accessories: for retrofitting (components for subsequent fitting)

Example

3WL9 1 1 1 – 0 B A 2 1 – 0 A A 0

Protective cover for mechanical ON/OFF without lock

Additional accessories which are not intended to be ready-mounted in the factory, such as spare parts for storage, can also be ordered separately from the circuit breaker.

Accessories for retrofitting are identified by the Order No. stem 3WL9.

Documentation

Operating manual Complete set	German/English	Order No.	**3ZX18 12-0WL00-0AN0**	Delivery time class C
	French/Italian	Order No.	**3ZX18 12-0WL00-0AJ0**	On request
	Spanish/Portuguese	Order No.	**3ZX18 12-0WL00-0AL0**	On request
Manual Communication	German	Order No.	**E20001-A210-P307**	
	English	Order No.	**E20001-A210-P307-X-7600**	

Free download of documentation from
http://www.siemens.com/lowvoltage/manuals

More information

Up-to-date information on the Internet at:
http://www.siemens.com/sentron

© Siemens AG 2008

SENTRON Switching and Protection Devices – Molded Case Circuit Breakers

16

16/2 **Introduction**

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

16/4 General data

16/11 3-pole

16/16 4-pole

16/20 Options

16/21 Accessories/spare parts

3VF2 Molded Case Circuit Breakers

3VF2 Molded Case Circuit Breakers up to 100 A

16/36 3-pole, fixed-mounted versions

4-pole, fixed-mounted versions

16/37 Accessories/spare parts

© Siemens AG 2008

Introduction

Overview

Type		VL160X/3VL1		VL160/3VL2		VL250/3VL3		VL400/3VL4	
Molded case circuit breakers									
3VL molded case circuit breakers up to 1600 A									
Rated current I_n at 50 °C ambient temperature[1]	A	16 to 160		26 to 160		80 to 250		125 to 400	
Number of poles		3	4	3	4	3	4	3	4
Rated operational voltage U_e									
AC 50/60 Hz	V	690	690	690	690	690	690	690	690
DC[2]	V	500	500	600	600	600	600	600	600
Electronic trip units									
Thermal-magnetic		✓	✓	✓	✓	✓	✓	✓	✓
Electronic ETU LCD		--	--	✓	✓	✓	✓	✓	✓
Replaceable		--	--	✓	✓	✓	✓	✓	✓
PROFIBUS module COM10		--	--	✓	✓	✓	✓	✓	✓
Dimensions									
A	mm	105	139	105	139	105	139	139	183
B	mm	157	157	175	175	175	175	279	279
C	mm	81	81	81	81	81	81	102	102
D	mm	107	107	107	107	107	107	138	138
Switching capacity I_{cu}/I_{cs} RMS value according to IEC 60947-2									
Standard switching capacity N[3]									
Up to 240 V AC	kA	65/65		65/65		65/65		65/65	
Up to 415 V AC	kA	40/40		40/40		40/40		45/45	
Up to 440 V AC	kA	25/20		25/20		25/20		35/26	
Up to 500/525 V AC	kA	18/14		25/20		25/20		25/20	
Up to 690 V AC	kA	8/4[5]		12/6		12/6		15/8	
Up to 250 V DC[4]	kA	30/30		32/32		32/32		32/32	
Up to 500 V DC[4]	kA	--		--		--		--	
Up to 600 V DC[4]	kA	--		--		--		--	
NEMA breaking capacity[6]									
Up to 480 V AC	kA	25		25		25		35	
Up to 600 V AC	kA	8[5]		12		12		20	
High switching capacity H[3]									
Up to 240 V AC	kA	100/75		100/75		100/75		100/75	
Up to 415 V AC	kA	70/70		70/70		70/70		70/70	
Up to 440 V AC	kA	42/32		50/38		50/38		50/38	
Up to 500/525 V AC	kA	30/23		40/30		40/30		40/30	
Up to 690 V AC	kA	12/6[5]		12/6		12/6		15/8	
Up to 250 V DC[4]	kA	30/30		32/32		32/32		32/32	
Up to 500 V DC[4]	kA	30/30		32/32		32/32		32/32	
Up to 600 V DC[4]	kA	--		--		--		--	
NEMA breaking capacity[6]									
Up to 480 V AC	kA	42		50		50		50	
Up to 600 V AC	kA	12[5]		12		12		20	
Very high switching capacity L[3]									
Up to 240 V AC	kA	--		200/150		200/150		200/150	
Up to 415 V AC	kA	--		100/75		100/75		100/75	
Up to 440 V AC	kA	--		75/50		75/50		75/50	
Up to 500/525 V AC	kA	--		50/38		50/38		50/38	
Up to 690 V AC	kA	--		12/6		12/6		15/8	
Up to 250 V DC[4]	kA	--		32/32		32/32		32/32	
Up to 500 V DC[4]	kA	--		32/32		32/32		32/32	
Up to 600 V DC[4]	kA	--		32/32		32/32		32/32	
NEMA breaking capacity[6]									
Up to 480 V AC	kA	--		75		75		75	
Up to 600 V AC	kA	--		12		12		20	

✓ Available
-- Not available
Standard switching capacity N
High switching capacity H
Very high switching capacity L

1) 3VF2 at 40 °C ambient temperature.
2) Rated DC voltage applies only for circuit breakers with thermal-magnetic trip unit.
3) At 240 V AC, 415 V AC and 525 V AC max. 5 % overvoltage, at 440 V AC, 500 V AC and 690 V AC max. 10 % overvoltage, at 250/500/600 V DC max. 5% overvoltage.

© Siemens AG 2008

	VL630/3VL5		VL800/3VL6		VL1250/3VL7		VL1600/3VL8		3VF2
	3VL molded case circuit breakers up to 1600 A								**3VF2 molded case circuit breakers up to 100 A**
	252 to 630		320 to 800		400 to 1250		640 to 1600		16 to 100
	3	4	3	4	3	4	3	4	3 and 4
	690 600	690 600	690 --	690 --	690 --	690 --	690 --	690 --	Up to 415 --
	✓	✓	--	--	--	--	--	--	✓
	✓	✓	✓	✓	✓	✓	✓	✓	--
	✓	✓	✓	✓	✓	✓	✓	✓	--
	✓	✓	✓	✓	✓	✓	✓	✓	--
	190 279 102 138	253 279 102 138	190 406 114 151	253 406 114 151	229 406 152 207	305 406 152 207	229 406 152 207	305 406 152 207	76/102 124 68 73
	65/65 45/45 35/26 25/20 20/10 32/32 -- -- 25 20		65/65 50/50 35/26 25/20 20/10 -- -- -- 25 20		65/35 50/25 35/26 25/20 20/10 -- -- -- 25 20		65/35 50/25 35/26 25/20 20/10 -- -- -- 25 20		65/33 18/9 -- -- -- -- -- -- -- --
	100/75 70/70 50/38 40/30 30/15 32/32 32/32 -- 50 30		100/75 70/70 50/38 40/30 30/15 -- -- -- 50 30		100/50 70/35 50/38 40/30 30/15 -- -- -- 50 30		100/50 70/35 50/38 40/30 30/15 -- -- -- 50 30		-- -- -- -- -- -- -- -- -- --
	200/150 100/75 75/50 50/38 35/17 32/32 32/32 32/32 65 35		200/150 100/75 75/50 50/38 35/17 -- -- -- 65 35		200/100 100/50 75/50 50/38 35/17 -- -- -- 65 35		200/100 100/50 75/50 50/38 35/17 -- -- -- 65 35		-- -- -- -- -- -- -- -- -- --

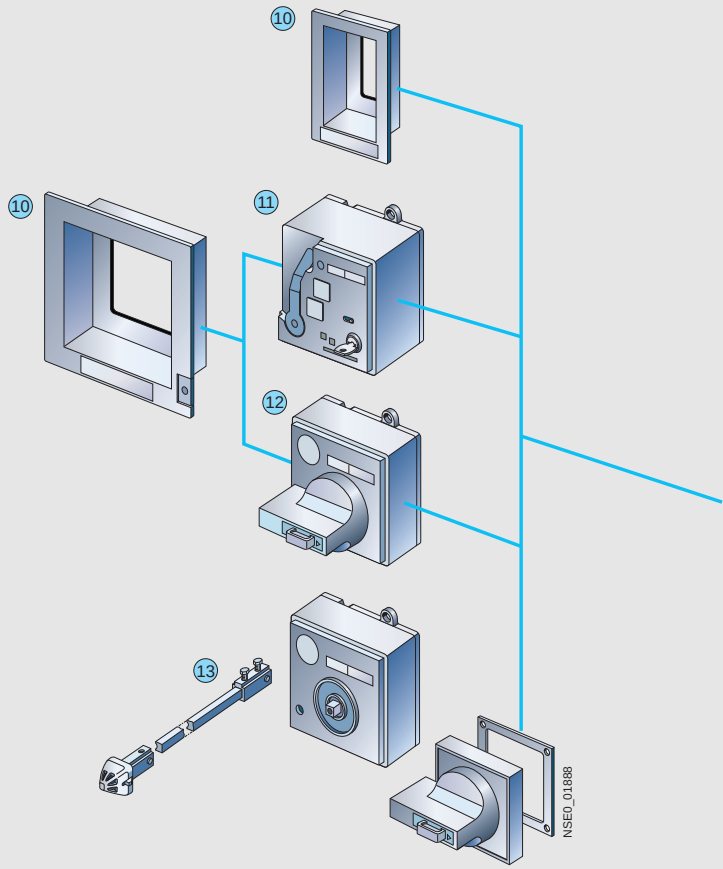
4) The maximum permitted DC voltage for each conducting path needs to be taken into account for DC switching applications; time constant t = 15 ms.

5) Rated current $I_n \geq 25$ A.

6) The NEMA breaking capacity can be found on the rating plate of each IEC circuit breaker.

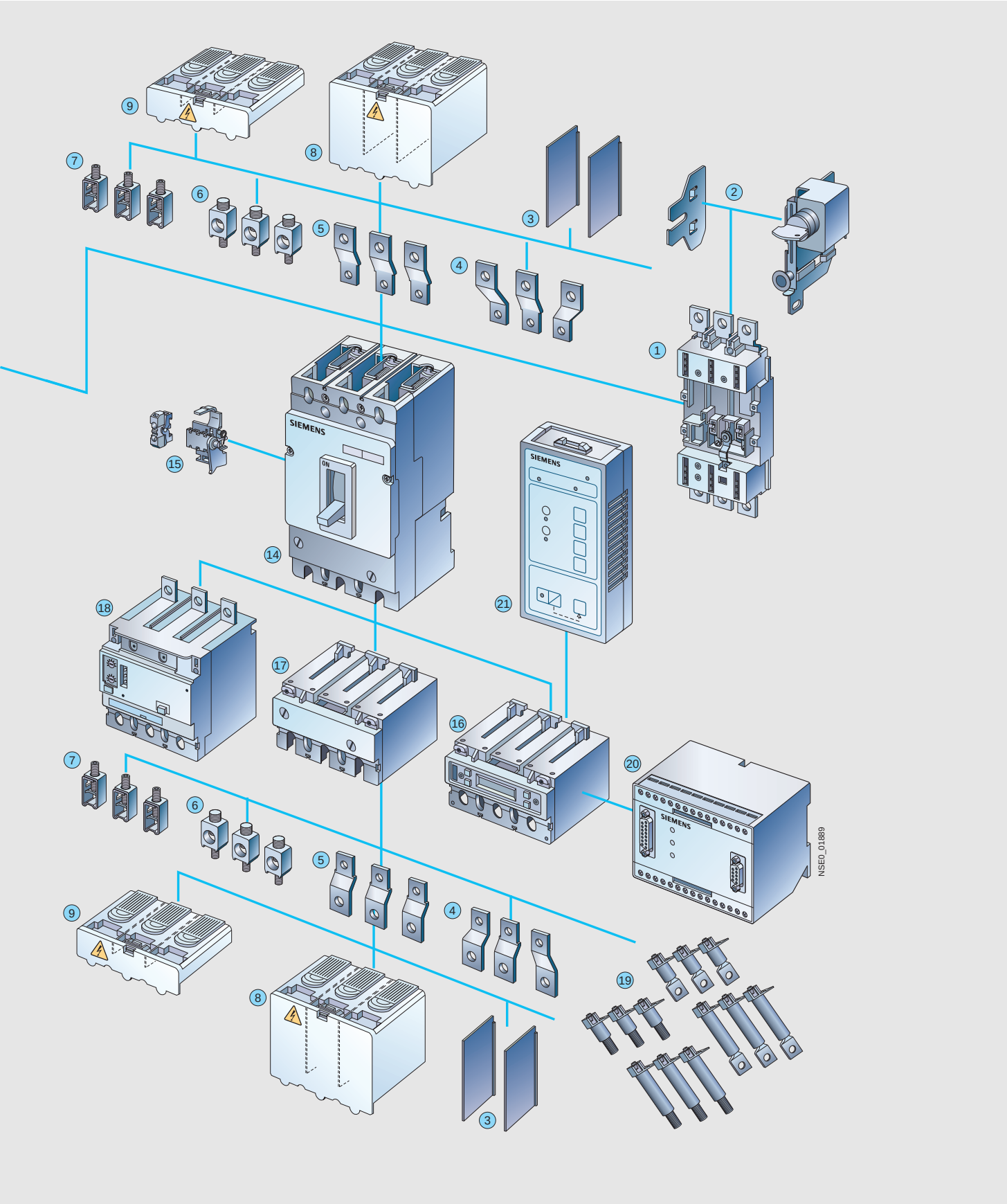
© Siemens AG 2008

Overview



1. Withdrawable/plug-in base
2. Side walls for withdrawable version
3. Phase barriers
4. Flared front busbar connecting bars
5. Straight connecting bars
6. Multiple feed-in terminal for Al/Cu
7. Box terminal for Cu
8. Extended terminal cover
9. Standard terminal cover
10. Masking frame/cover frame for door cut-out
11. Motorized operating mechanism with spring energy store
12. Front-operated rotary operating mechanism
13. Door-coupling rotary operating mechanism
14. SENTRON 3VL circuit breaker
15. Internal accessories
16. Solid-state overcurrent trip unit
17. Thermal/magnetic overcurrent trip unit
18. RCD module
19. Rear terminals – flat and round
20. COM10 communication module to the PROFIBUS DP
21. Function testers for electronic trip units

© Siemens AG 2008



© Siemens AG 2008

3VL Molded Case Circuit Breakers up to 1600 A

General data

Auxiliary switches

Auxiliary switches are used for indication and control.
The contacts of the auxiliary switch close and open together with the main contacts.

Alarm switches

The alarm switches (AS) are active when the circuit breaker has been tripped due to an overcurrent e.g. overload or short-circuit. However, they are also activated if the circuit breaker has been tripped by a shunt trip unit or undervoltage trip unit.

Installation of internal accessories

The insulated accessory subsections for installing accessories (auxiliary trip units and auxiliary switches/alarm switches) have the designations X1, X2 and X4.

The equipping of the circuit breaker with internal accessories and the configuration possibilities for circuit breakers with auxiliary trip units and auxiliary switches/alarm switches depend on the mounting position and size of the circuit breaker.

PLC control

The auxiliary and alarm switches can be used to send signals to programmable controllers. These switching blocks are part of the Siemens 3SB3 range.

Leading auxiliary switches

The leading auxiliary switches OFF to ON or ON to OFF are available as a retrofit set for rotary operating mechanisms.

Function

Current limiting

The SENTRON 3VL circuit breakers utilize the design principle of magnetic repulsion of the contacts. The contacts open before the anticipated peak value of the short-circuit current is achieved. The current-limiting effects of the SENTRON 3VL circuit breakers provide effective protection for system components against the thermal and dynamic effects of the short-circuit current in the event of an electrical fault.

Ground-fault protection

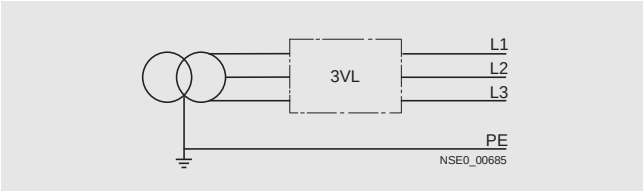
Ground-fault release "G" senses fault currents that flow to round and that can cause fire in the plant. Several circuit breakers connected in series can provide graduated discrimination by means of the adjustable delay time.

The following measurement methods can be used to detect neutral conductor and ground-fault currents:

Vectorial summation current formation (measurement method 1)

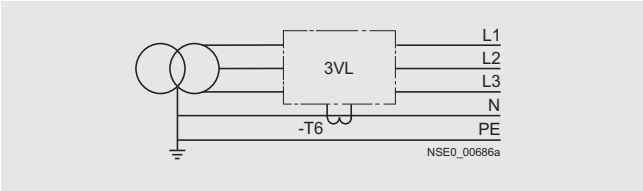
Ground-fault detection in symmetrically loaded systems

The three phase currents are evaluated with the help of the vectorial summation current formation.

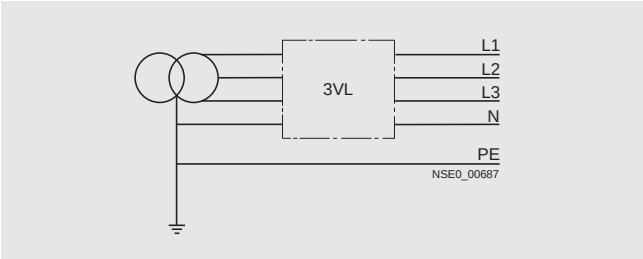


Ground-fault detection in asymmetrically loaded systems

The neutral conductor current is measured directly. For the 3-pole circuit breakers this measurement is only evaluated for ground-fault protection; for 4-pole circuit breakers it is also evaluated for neutral conductor overload protection.
The electronic trip unit determines the ground-fault current for the three phase currents and neutral conductor current by means of vectorial summation current formation.
For 4-pole circuit breakers, the fourth current transformer for the neutral conductor is installed internally.



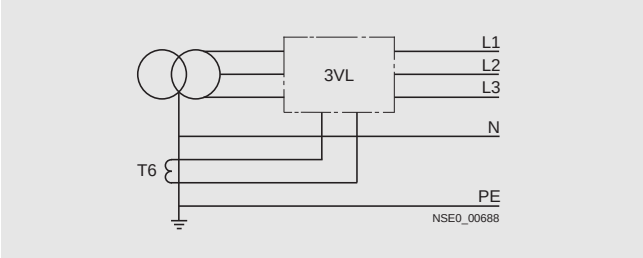
3-pole circuit breaker, current transformer in the neutral conductor



4-pole circuit breaker, current transformer installed internally

Direct detection of the ground-fault current through a current transformer in the grounded neutral point of the transformer (measurement method 2)

The current transformer is installed directly in the grounded neutral point of the transformer.



3-pole circuit breakers, current transformers in the grounded neutral point of the transformer

For RCD modules see "Accessories".
For external current transformers see "Accessories".

Transformer protection

The SENTRON 3VL circuit breakers protect power distribution systems against overload and short-circuit on the low-voltage side of the infeed transformer. The resulting requirements with respect to current-based and/or time-based discrimination are reliably fulfilled by the SENTRON 3VL circuit breakers for system protection – equipped with thermal-magnetic (TM) or solid-state overcurrent trip units (ETU or LCD ETU).

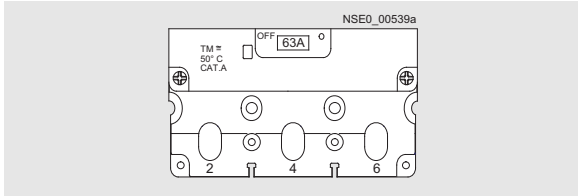
© Siemens AG 2008

Thermal-magnetic overcurrent trip units

NSE0_00689

Application: System protection – TM, LI/LIN function

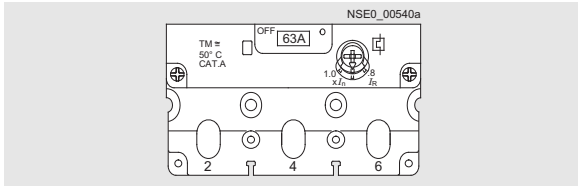
Overload protection, fixed, short-circuit protection, fixed; see "Selection and Ordering Data" for VL160X, trip units installed in the switch enclosure



NSE0_00690

Application: System protection – TM, LI/LIN function

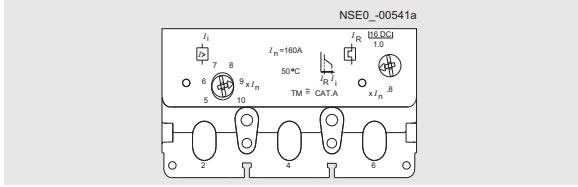
Overload protection adjustable I_R = 0.8 to 1 × I_n, short-circuit protection, fixed, see "Selection and Ordering Data" for VL160X, trip units installed in the switch enclosure



NSE0_00691

Application: System protection – TM, LI/LIN function

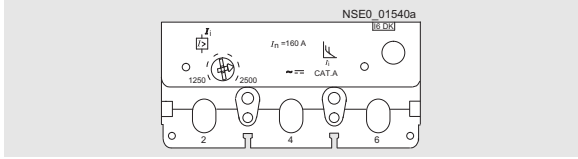
Overload protection adjustable I_R = 0.8 to 1 × I_n, short-circuit protection, adjustable I_i = 5 to 10 × I_n, for VL160 to VL630



NSE0_01539

Application: Starter protection – M, I function

Short-circuit protection, adjustable I_i = 7 to 15 × I_n, for VL160 to VL630[1)]



[1)] Size dependent, see "Selection and Ordering Data".

© Siemens AG 2008

3VL Molded Case Circuit Breakers up to 1600 A

General data

Electronic trip units ETU

For types
VL160 to VL1600

General information:

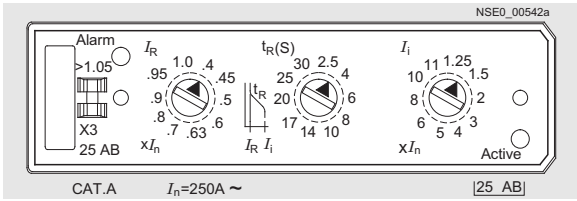
- No auxiliary voltage for tripping unit required
- All ETUs have a thermal image
- Flashing green LED indicates faultless operation of microprocessor
- Overload status ($I > 1.05 \times I_R$) is indicated by continuous yellow LED (alarm)
- Integrated self-test function
- Female connector for test unit

NSE0_00691

Application: System protection – ETU10, LI/LIN function

Overload protection I_R = 0.4; 0.45; 0.5 to 0.95; 1 × I_n, time-lag class t_R = 2.5 to 30

Short-circuit protection (instantaneous) I_i = 1.25 to 11 × I_n [1)]



NSE0_00920

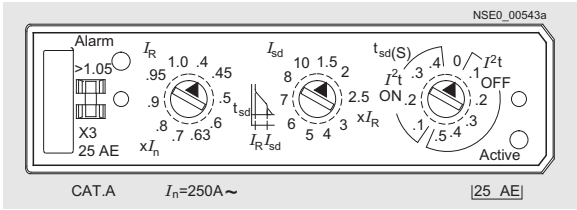
Application: System and generator protection – ETU20, LSI/LSIN function

Overload protection I_R = 0.4; 0.45; 0.5 to 0.95; 1 × I_n,

short-circuit protection (short-time delayed) I_{sd} = 1.5 to 10 × I_R [1)], t_{sd} = 0 to 0.5 s,

I^2t selectable on/off

Short-circuit protection (instantaneous) I_i = 11 × I_n (fixed) [1)]



[1)] Size dependent, see "Selection and Ordering Data".

© Siemens AG 2008

NSE0_00693

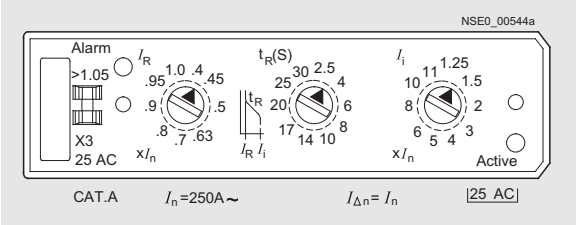
Application: System protection – ETU12, LIG/LING function

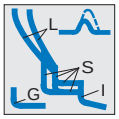
Overload protection I_R = 0.4; 0.45; 0.5 to 0.95; 1 × I_n, time-lag class t_R = 2.5 to 30

Short-circuit protection (instantaneous) I = 1.25 to 11 × I_n [1)]

For 4-pole circuit breakers:
Neutral conductor protection $I_n \leq$ 100 A, N: 100 %; $I_n \geq$ 125 A, N: 50 %

Ground-fault protection: Measurement method 1: (G_R) vectorial summation current formation for the currents of the three phases/and neutral conductor (four-conductor systems); $I_{\Delta n} = I_n$, versions "AC", "BD" (for Order No. supplements see "Selection and Ordering Data").





NSE0_00921

Application: System and generator protection – ETU22, LSIG/LSING function

Overload protection I_R = 0.4; 0.45; 0.5 to 0.95; 1 × I_n,

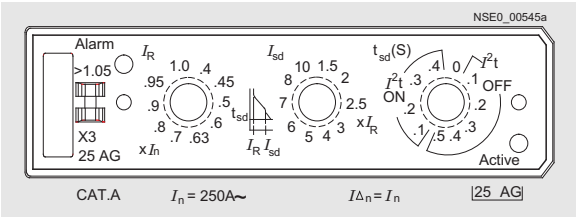
Short-circuit protection (short-time delayed) I_{sd} = 1.5 to 10 × I_R, t_{sd} = 0 to 0.5 s,

I^2t selectable on/off

Short-circuit protection (instantaneous) I_i = 11 × I_n (fixed) [1)]

For 4-pole circuit breakers:
Neutral conductor protection $I_n \leq$ 100 A, N: 100 %; $I_n \geq$ 125 A, N: 50 %

Ground-fault protection: Measurement method 1: (G_R) vectorial summation current formation for the currents of the three phases/and neutral conductor (four-conductor systems);
$I_{\Delta n} = I_n$, versions "AG", "BH" (for Order No. supplements see "Selection and Ordering Data").



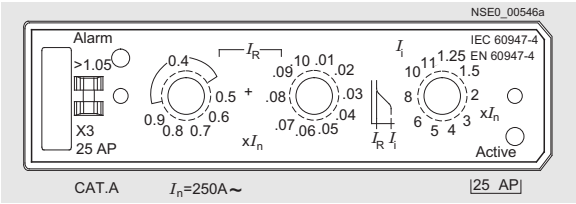
NSE0_00943

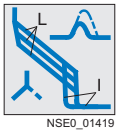
Application: Motor protection – ETU10M, LI function

Overload protection, finely adjustable I_R = 0.41; 0.42 to 0.98; 0.99; 1 × I_n,
trip class t_c = 10 (fixed)

Thermal image

Short-circuit protection (instantaneous) I_i = 1.25 to 11 × I_n [1)]
with phase failure sensitivity (40% I_R fixed)





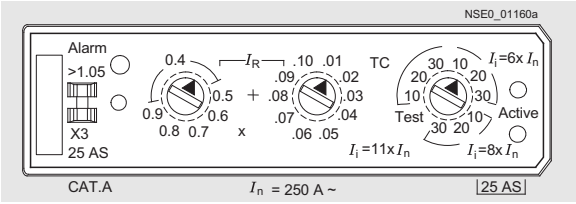
NSE0_01419

Application: Motor protection – ETU30M, LI function

Overload protection, finely adjustable I_R = 0.41; 0.42 to 0.98; 0.99; 1 × I_n,
trip class t_c = 10, 20, 30

Thermal image

Short-circuit protection (instantaneous) I_i = 6 to 11 × I_n
with phase failure sensitivity (40 % I_R fixed)



[1)] Size dependent, see "Selection and Ordering Data".

© Siemens AG 2008

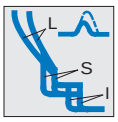
3VL Molded Case Circuit Breakers up to 1600 A

General data

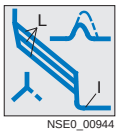
Electronic trip units LCD ETU

General information:

- No auxiliary voltage for tripping unit required
- Current indicator
- Illuminated LCD display indicates faultless operation of microprocessor
- The overload status (I > 105 % I_R) is indicated by "overload" on the LCD display
- User-friendly, menu-driven setting of protection parameters in absolute ampere values by means of keys
- Integrated self-test function
- Female connector for test unit
- Communication link to PROFIBUS DP is possible



NSE0_00696



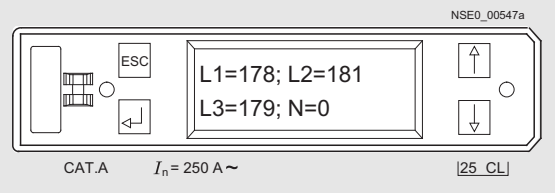
NSE0_00944

Application: System protection – ETU40, LSI/LSIN functions and motor protection – ETU40M, LI function

Overload protection I_R = 0.4 to 1 × I_n,
trip class t_c = 5 to 30 for ETU40M,
time-lag class t_R = 2.5 to 30 for ETU40

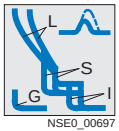
On/Off selectable thermal image,
with phase failure sensitivity for ETU40M
(5–50% I_R adjustable)

Short-circuit protection (short-time delayed) for ETU40
I_{sd} = 1.5 to 10 × I_R, t_{sd} = 0 to 0.5 s,



I^2t selectable on/off for ETU40

Short-circuit protection (instantaneous)
I_i = 1.25 to 11 × I_n [1)]



NSE0_00697

Application: System protection – ETU42, LSIG/LSING function

Overload protection I_R = 0.4 to 1 x I_n,
time-lag class t_R = 2.5 to 30

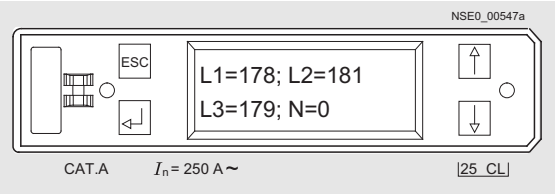
On/off selectable thermal image

Short-circuit protection (short-time delayed)
I_{sd} = 1.5 to 10 × I_R, t_{sd} = 0 to 0.5 s,

I^2t selectable on/off

Short-circuit protection (instantaneous)
I_i = 1.25 to 11 × I_n [1)]

Ground-fault protection: Measurement method 1:
(G_R) vectorial summation current formation for the currents of the three phases/and neutral conductor (four-conductor systems);
$I_{\Delta n}$ = 0.4 to 1 x I_n, versions "CL", "CM", "CN" (for Order No. supplements see "Selection and Ordering Data").



Measurement method 2:
(G_{GND}) direct detection of ground-fault current by means of current transformer, I_g = 0.4 to 1 × I_n, t_g = 0.1 to 0.5 s; version "CM" (for Order No. supplement see "Selection and Ordering Data").

For 4-pole circuit breakers:
Neutral conductor protection N: 50 to 100 % I_R adjustable or can be switched off.

[1)] Size dependent, see "Selection and Ordering Data".

Integration

Mounting

The SENTRON 3VL circuit breakers are suitable for use in open and enclosed switchboards and distribution systems.
The recommended mounting positions for the SENTRON 3VL circuit breakers are shown in the diagrams under "Technical specifications, permissible mounting position".

© Siemens AG 2008

Selection and ordering data

Type	Rated current I_n A	Set current of the inverse-time delayed overload release "L" I_R A	Operational current of instantaneous short-circuit release "I" I_i A	DT	Standard switching capacity N 40/50 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	High switching capacity H 70 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	Very high switching capacity L 100 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg
Fixed-mounted circuit breakers, VL160X to VL630, up to 630 A Thermal-magnetic overcurrent trip units												
System protection, TM, LI function With permanently fixed thermal overload releases, permanently set short-circuit releases												
VL160X/ 3VL1	16	16	300		**3VL17 96-1DA33-....**	1.900		**3VL17 96-2DA33-....**	1.900		--	
	20	20	300		**3VL17 02-1DA33-....**	1.900		**3VL17 02-2DA33-....**	1.900		--	
	25	25	300		**3VL17 25-1DA33-....**	2.000		**3VL17 25-2DA33-....**	2.000		--	
	32	32	300		**3VL17 03-1DA33-....**	2.000		**3VL17 03-2DA33-....**	2.000		--	
	40	40	600		**3VL17 04-1DA33-....**	2.000		**3VL17 04-2DA33-....**	2.000		--	
	50	50	600		**3VL17 05-1DA33-....**	2.000		**3VL17 05-2DA33-....**	2.000		--	
	63	63	600		**3VL17 06-1DA33-....**	2.000		**3VL17 06-2DA33-....**	2.000		--	
	80	80	1000		**3VL17 08-1DA33-....**	2.000		**3VL17 08-2DA33-....**	2.000		--	
	100	100	1000		**3VL17 10-1DA33-....**	2.000		**3VL17 10-2DA33-....**	2.000		--	
	125	125	1000		**3VL17 12-1DA33-....**	2.000		**3VL17 12-2DA33-....**	2.000		--	
	160	160	1500		**3VL17 16-1DA33-....**	2.000		**3VL17 16-2DA33-....**	2.000		--	
Connection type can be selected by assignment of the 12th position of the Order No. • Connection with box terminal • Connection with screw terminal[1]					**3** / **6**			**3** / **6**				
System protection, TM, LI function With adjustable thermal overload releases, permanently set short-circuit releases												
VL160X/ 3VL1	20	16- 20	300		**3VL17 02-1DD33-....**	1.900		**3VL17 02-2DD33-....**	1.900		--	
	32	25- 32	300		**3VL17 03-1DD33-....**	2.000		**3VL17 03-2DD33-....**	2.000		--	
	40	32- 40	600		**3VL17 04-1DD33-....**	2.000		**3VL17 04-2DD33-....**	2.000		--	
	50	40- 50	600		**3VL17 05-1DD33-....**	2.000		**3VL17 05-2DD33-....**	2.000		--	
	63	50- 63	600		**3VL17 06-1DD33-....**	2.000		**3VL17 06-2DD33-....**	2.000		--	
	80	63- 80	1000		**3VL17 08-1DD33-....**	2.000		**3VL17 08-2DD33-....**	2.000		--	
	100	80-100	1000		**3VL17 10-1DD33-....**	2.000		**3VL17 10-2DD33-....**	2.000		--	
	125	100-125	1000		**3VL17 12-1DD33-....**	2.000		**3VL17 12-2DD33-....**	2.000		--	
	160	125-160	1500		**3VL17 16-1DD33-....**	2.000		**3VL17 16-2DD33-....**	2.000		--	
Connection type can be selected by assignment of the 12th position of the Order No. • Connection with box terminal • Connection with screw terminal[1]					**3** / **6**			**3** / **6**				
System protection, TM, LI function With adjustable thermal overload releases, adjustable short-circuit releases												
VL160/ 3VL2	50	40- 50	300- 600		**3VL27 05-1DC33-....**	2.200		**3VL27 05-2DC33-....**	2.200		**3VL27 05-3DC33-....**	2.200
	63	50- 63	300- 600		**3VL27 06-1DC33-....**	2.200		**3VL27 06-2DC33-....**	2.200		**3VL27 06-3DC33-....**	2.200
	80	63- 80	400- 800		**3VL27 08-1DC33-....**	2.200		**3VL27 08-2DC33-....**	2.200		**3VL27 08-3DC33-....**	2.200
	100	80-100	500-1000		**3VL27 10-1DC33-....**	2.200		**3VL27 10-2DC33-....**	2.200		**3VL27 10-3DC33-....**	2.200
	125	100-125	625-1250		**3VL27 12-1DC33-....**	2.200		**3VL27 12-2DC33-....**	2.200		**3VL27 12-3DC33-....**	2.200
	160	125-160	800-1600		**3VL27 16-1DC33-....**	2.200		**3VL27 16-2DC33-....**	2.200		**3VL27 16-3DC33-....**	2.200
VL250/ 3VL3	200	160-200	1000-2000		**3VL37 20-1DC36-....**	2.300		**3VL37 20-2DC36-....**	2.300		**3VL37 20-3DC36-....**	2.300
	250	200-250	1200-2500		**3VL37 25-1DC36-....**	2.300		**3VL37 25-2DC36-....**	2.300		**3VL37 25-3DC36-....**	2.300
Connection type can be selected by assignment of the 12th position of the Order No. • Connection with box terminal • Connection with screw terminal[1]					**3** / **6**			**3** / **6**			**3** / **6**	
VL400/ 3VL4	200	160-200	1000-2000		**3VL47 20-1DC36-....**	5.700		**3VL47 20-2DC36-....**	5.700		**3VL47 20-3DC36-....**	5.700
	250	200-250	1200-2500		**3VL47 25-1DC36-....**	5.700		**3VL47 25-2DC36-....**	5.700		**3VL47 25-3DC36-....**	5.700
	315	250-315	1575-3150		**3VL47 31-1DC36-....**	5.700		**3VL47 31-2DC36-....**	5.700		**3VL47 31-3DC36-....**	5.700
	400	320-400	2000-4000		**3VL47 40-1DC36-....**	5.700		**3VL47 40-2DC36-....**	5.700		**3VL47 40-3DC36-....**	5.700
VL630/ 3VL5	315	250-315	1575-3150		**3VL57 31-1DC36-....**	9.000		**3VL57 31-2DC36-....**	9.000		**3VL57 31-3DC36-....**	9.000
	400	315-400	2000-4000		**3VL57 40-1DC36-....**	9.000		**3VL57 40-2DC36-....**	9.000		**3VL57 40-3DC36-....**	9.000
	500	400-500	2500-5000		**3VL57 50-1DC36-....**	9.000		**3VL57 50-2DC36-....**	9.000		**3VL57 50-3DC36-....**	9.000
	630	500-630	3250-6300		**3VL57 63-1DC36-....**	9.000		**3VL57 63-2DC36-....**	9.000		**3VL57 63-3DC36-....**	9.000

NSE0_00695

NSE0_00703

NSE0_00704

Package size for SENTRON molded case circuit breakers is 1 unit.*

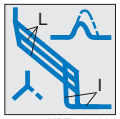
[1] Cannot be used in conjunction with RCD module.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3VL Molded Case Circuit Breakers up to 1600 A

3-pole

Type	Rated current I_n A	Set current of the inverse-time delayed overload release "L" I_R A	Operational current of instantaneous short-circuit release "I" I_i A	DT	Standard switching capacity N 40/50 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	High switching capacity H 70 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	Very high switching capacity L 100 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg
Fixed-mounted circuit breakers, VL160X to VL1600, up to 1600 A Magnetic and solid-state overcurrent trip units												
System protection and generator protection, ETU20, LSI function for time-based discrimination (t_{sd} = 0 to 0.5 s)												
NSE0_00922	63	0.4 ...1.0 × I_n	11 × I_n		**3VL27 06-1AE33-....**	2.400		**3VL27 06-2AE33-....**	2.400		**3VL27 06-3AE33-....**	2.400
	100	0.4 ...1.0 × I_n	11 × I_n		**3VL27 10-1AE33-....**	2.400		**3VL27 10-2AE33-....**	2.400		**3VL27 10-3AE33-....**	2.400
	160	0.4 ...1.0 × I_n	11 × I_n		**3VL27 16-1AE33-....**	2.400		**3VL27 16-2AE33-....**	2.400		**3VL27 16-3AE33-....**	2.400
VL160/3VL2												
VL250/3VL3	200	0.4 ...1.0 × I_n	11 × I_n		**3VL37 20-1AE36-....**	2.500		**3VL37 20-2AE36-....**	2.500		**3VL37 20-3AE36-....**	2.500
	250	0.4 ...1.0 × I_n	11 × I_n		**3VL37 25-1AE36-....**	2.500		**3VL37 25-2AE36-....**	2.500		**3VL37 25-3AE36-....**	2.500
Connection type can be selected by assignment of the 12th position of the Order No. • Connection with box terminal • Connection with screw terminal					**3** **6**			**3** **6**			**3** **6**	
VL400/3VL4	315	0.4 ...1.0 × I_n	11 × I_n		**3VL47 31-1AE36-....**	5.900		**3VL47 31-2AE36-....**	5.900		**3VL47 31-3AE36-....**	5.900
	400	0.4 ...1.0 × I_n	11 × I_n		**3VL47 40-1AE36-....**	5.900		**3VL47 40-2AE36-....**	5.900		**3VL47 40-3AE36-....**	5.900
VL630/3VL5	630	0.4 ...1.0 × I_n	10 × I_n		**3VL57 63-1AE36-....**	9.300		**3VL57 63-2AE36-....**	9.300		**3VL57 63-3AE36-....**	9.300
VL800/3VL6	800	0.4 ...1.0 × I_n	8 × I_n		**3VL67 80-1AE36-....**	16.000		**3VL67 80-2AE36-....**	16.000		**3VL67 80-3AE36-....**	16.000
VL1250/3VL7	1000	0.4 ...1.0 × I_n	11 × I_n		**3VL77 10-1AE36-....**	25.000		**3VL77 10-2AE36-....**	25.000		**3VL77 10-3AE36-....**	25.000
	1250	0.4 ...1.0 × I_n	10 × I_n		**3VL77 12-1AE36-....**	25.000		**3VL77 12-2AE36-....**	25.000		**3VL77 12-3AE36-....**	25.000
VL1600/3VL8 1)	1600	0.4 ...1.0 × I_n	9 × I_n		**3VL87 16-1AE30-....**	31.300		**3VL87 16-2AE30-....**	31.300		**3VL87 16-3AE30-....**	31.300
Motor and generator protection, ETU10M, LI function With permanently set trip class t_C = 10, with phase failure sensitivity												
NSE0_00705	63	25 ... 63	1.25-11 × I_n		**3VL27 06-1AP33-....**	2.400		**3VL27 06-2AP33-....**	2.400		**3VL27 06-3AP33-....**	2.400
	100	40 ...100	1.25-11 × I_n		**3VL27 10-1AP33-....**	2.400		**3VL27 10-2AP33-....**	2.400		**3VL27 10-3AP33-....**	2.400
	160	64 ...160	1.25-11 × I_n		**3VL27 16-1AP33-....**	2.400		**3VL27 16-2AP33-....**	2.400		**3VL27 16-3AP33-....**	2.400
VL160/3VL2												
VL250/3VL3	200	80 ... 200	1.25-11 × I_n		**3VL37 20-1AP36-....**	2.500		**3VL37 20-2AP36-....**	2.500		**3VL37 20-3AP36-....**	2.500
	250	100 ... 250	1.25-11 × I_n		**3VL37 25-1AP36-....**	2.500		**3VL37 25-2AP36-....**	2.500		**3VL37 25-3AP36-....**	2.500
Connection type can be selected by assignment of the 12th position of the Order No. • Connection with box terminal • Connection with screw terminal					**3** **6**			**3** **6**			**3** **6**	
VL400/3VL4	315	125 ... 315	1.25-11 × I_n		**3VL47 31-1AP36-....**	5.900		**3VL47 31-2AP36-....**	5.900		**3VL47 31-3AP36-....**	5.900
VL630/3VL5	500	200 ... 500	1.25-12.5 × I_n		**3VL57 50-1AP36-....**	9.300		**3VL57 50-2AP36-....**	9.300		**3VL57 50-3AP36-....**	9.300
Motor protection, ETU30M, LI function With adjustable trip class t_C = 10, 20, 30, with phase failure sensitivity												
 NSE0_01419	63	25 ... 63	6/8/11 × I_n		**3VL27 06-1AS33-....**	2.400		**3VL27 06-2AS33-....**	2.400		**3VL27 06-3AS33-....**	2.400
	100	40 ... 100	6/8/11 × I_n		**3VL27 10-1AS33-....**	2.400		**3VL27 10-2AS33-....**	2.400		**3VL27 10-3AS33-....**	2.400
	160	63 ... 160	6/8/11 × I_n		**3VL27 16-1AS33-....**	2.400		**3VL27 16-2AS33-....**	2.400		**3VL27 16-3AS33-....**	2.400
VL160/3VL2												
VL250/3VL3	200	80 ... 200	6/8/11 × I_n		**3VL37 20-1AS36-....**	2.500		**3VL37 20-2AS36-....**	2.500		**3VL37 20-3AS36-....**	2.500
	250	100 ... 250	6/8/11 × I_n		**3VL37 25-1AS36-....**	2.500		**3VL37 25-2AS36-....**	2.500		**3VL37 25-3AS36-....**	2.500
Connection type can be selected by assignment of the 12th position of the Order No. • Connection with box terminal • Connection with screw terminal					**3** **6**			**3** **6**			**3** **6**	
VL400/3VL4	315	125 ... 315	6/8/11 × I_n		**3VL47 31-1AS36-....**	5.900		**3VL47 31-2AS36-....**	5.900		**3VL47 31-3AS36-....**	5.900
VL630/3VL5	500	200 ... 500	6/8/12.5 × I_n		**3VL57 50-1AS36-....**	9.300		**3VL57 50-2AS36-....**	9.300		**3VL57 50-3AS36-....**	9.300

Package size for SENTRON molded case circuit breakers is 1 unit.*

1) Front busbar connection pieces are included in the scope of supply and are to be fitted by the customer.

*** You can order this quantity or a multiple thereof. For other units and versions see A&D Mall.**

© Siemens AG 2008

Type	Rated current I_n A	Set current of the inverse-time delayed overload release "L" I_R A	Operational current of instantaneous short-circuit release "I" I_i A	DT	Standard switching capacity N 40/50 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	High switching capacity H 70 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	Very high switching capacity L 100 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg
Fixed-mounted circuit breakers, VL160X to VL1600, up to 1600 A Magnetic and solid-state overcurrent trip units												
Circuit breakers for starter combinations, I function												
Without overload release, with adjustable short-circuit release												
NSE0_00707	63	–	450 ... 900		**3VL27 06-1DK33-....**	2.200		**3VL27 06-2DK33-....**	2.200		**3VL27 06-3DK33-....**	2.200
	100	–	750 ... 1500		**3VL27 10-1DK33-....**	2.200		**3VL27 10-2DK33-....**	2.200		**3VL27 10-3DK33-....**	2.200
	160	–	1250 ... 2500		**3VL27 16-1DK33-....**	2.200		**3VL27 16-2DK33-....**	2.200		**3VL27 16-3DK33-....**	2.200
VL160/3VL2												
VL250/3VL3	250	–	1750 ... 3500		**3VL37 25-1DK36-....**	2.300		**3VL37 25-2DK36-....**	2.300		**3VL37 25-3DK36-....**	2.300
Connection type can be selected by assignment of the 12th position of the Order No. • Connection with box terminal • Connection with screw terminal					**3** **6**			**3** **6**			**3** **6**	
VL400/3VL4	200	–	1250 ... 2500		**3VL47 20-1DK36-....**	5.700		**3VL47 20-2DK36-....**	5.700		**3VL47 20-3DK36-....**	5.700
	250	–	2000 ... 4000		**3VL47 25-1DK36-....**	5.700		**3VL47 25-2DK36-....**	5.700		**3VL47 25-3DK36-....**	5.700
	315	–	2000 ... 4000		**3VL47 31-1DK36-....**	5.700		**3VL47 31-2DK36-....**	5.700		**3VL47 31-3DK36-....**	5.700
VL630/3VL5	315	–	2000 ... 4000		**3VL57 31-1DK36-....**	9.000		**3VL57 31-2DK36-....**	9.000		**3VL57 31-3DK36-....**	9.000
	500	–	3250 ... 6300		**3VL57 50-1DK36-....**	9.000		**3VL57 50-2DK36-....**	9.000		**3VL57 50-3DK36-....**	9.000
Non-automatic molded case circuit breakers [1]												
Without overload release, with permanently set short-circuit releases (for intrinsic protection only)												
NSE0_00708	100	–	1800		**3VL17 10-1DE33-....**	2.000		**3VL17 10-2DE33-....**	2.000		--	
	160	–	1800		**3VL17 16-1DE33-....**	2.000		**3VL17 16-2DE33-....**	2.000		--	
VL160X/3VL1												
VL160/3VL2	100	–	2500		**3VL27 10-1DE33-....**	2.200		**3VL27 10-2DE33-....**	2.200		**3VL27 10-3DE33-....**	2.200
	160	–	2500		**3VL27 16-1DE33-....**	2.200		**3VL27 16-2DE33-....**	2.200		**3VL27 16-3DE33-....**	2.200
VL250/3VL3	250	–	3500		**3VL37 25-1DE36-....**	2.300		**3VL37 25-2DE36-....**	2.300		**3VL37 25-3DE36-....**	2.300
Connection type can be selected by assignment of the 12th position of the Order No. • Connection with box terminal • Connection with screw terminal					**3** **6**			**3** **6**			**3** **6**	
VL400/3VL4	400	–	4000		**3VL47 40-1DE36-....**	5.700		**3VL47 40-2DE36-....**	5.700		**3VL47 40-3DE36-....**	5.700
VL630/3VL5	630	–	6300		**3VL57 63-1DE36-....**	9.000		**3VL57 63-2DE36-....**	9.000		**3VL57 63-3DE36-....**	9.000
VL800/3VL6	800	–	6500		**3VL67 80-1DE36-....**	15.700		**3VL67 80-2DE36-....**	15.700		**3VL67 80-3DE36-....**	15.700
VL1250/3VL7	1250	–	12000		**3VL77 12-1DE36-....**	23.500		**3VL77 12-2DE36-....**	23.500		**3VL77 12-3DE36-....**	23.500
VL1600/3VL8 [2]	1600	–	14400		**3VL87 16-1DE30-....**	29.800		**3VL87 16-2DE30-....**	29.800		**3VL87 16-3DE30-....**	29.800

For further versions, including for short-circuit and ground-fault protection, see page 16/14.

Package size for SENTRON molded case circuit breakers is 1 unit.*

[1] See also the Chapter "3K, 3KE, 3LD Switch Disconnectors". 3K. switch disconnectors are also available with rear-mounting operating mechanism and leading contacts.

[2] Front busbar connection pieces are included in the scope of supply and are to be fitted by the customer.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3VL Molded Case Circuit Breakers up to 1600 A

3-pole

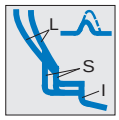
Type	Rated current I_n A	Set current of the inverse-time delayed overload trip unit "L" I_R A	DT	Standard switching capacity N 40/50 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	High switching capacity H 70 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	Very high switching capacity L 100 kA at 380/415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg
Fixed-mounted circuit breakers, VL160 to VL1600, up to 1600 A Solid-state overcurrent trip units											
Circuit breakers with solid-state overcurrent trip unit ETU											
VL160/3VL2	63	25- 63		**3VL27 06-1□□33-....**	2.400		**3VL27 06-2□□33-....**	2.400		**3VL27 06-3□□33-....**	2.400
Connection with box terminal	100	40- 100		**3VL27 10-1□□33-....**	2.400		**3VL27 10-2□□33-....**	2.400		**3VL27 10-3□□33-....**	2.400
	160	64- 160		**3VL27 16-1□□33-....**	2.400		**3VL27 16-2□□33-....**	2.400		**3VL27 16-3□□33-....**	2.400
VL160/3VL2	63	25- 63		**3VL27 06-1□□36-....**	2.400		**3VL27 06-2□□36-....**	2.400		**3VL27 06-3□□36-....**	2.400
Connection with screw terminal	100	40- 100		**3VL27 10-1□□36-....**	2.400		**3VL27 10-2□□36-....**	2.400		**3VL27 10-3□□36-....**	2.400
	160	64- 160		**3VL27 16-1□□36-....**	2.400		**3VL27 16-2□□36-....**	2.400		**3VL27 16-3□□36-....**	2.400
VL250/3VL3	200	80- 200		**3VL37 20-1□□33-....**	2.500		**3VL37 20-2□□33-....**	2.500		**3VL37 20-3□□33-....**	2.500
Connection with box terminal	250	100- 250		**3VL37 25-1□□33-....**	2.500		**3VL37 25-2□□33-....**	2.500		**3VL37 25-3□□33-....**	2.500
VL250/3VL3	200	80- 200		**3VL37 20-1□□36-....**	2.500		**3VL37 20-2□□36-....**	2.500		**3VL37 20-3□□36-....**	2.500
Connection with screw terminal	250	100- 250		**3VL37 25-1□□36-....**	2.500		**3VL37 25-2□□36-....**	2.500		**3VL37 25-3□□36-....**	2.500
VL400/3VL4	315	128- 315		**3VL47 31-1□□36-....**	5.900		**3VL47 31-2□□36-....**	5.900		**3VL47 31-3□□36-....**	5.900
	400[1]	160- 400		**3VL47 40-1□□36-....**	5.900		**3VL47 40-2□□36-....**	5.900		**3VL47 40-3□□36-....**	5.900
VL630/3VL5	500[2]	200- 500		**3VL57 50-1□□36-....**	9.300		**3VL57 50-2□□36-....**	9.300		**3VL57 50-3□□36-....**	9.300
	630[1]	252- 630		**3VL57 63-1□□36-....**	9.300		**3VL57 63-2□□36-....**	9.300		**3VL57 63-3□□36-....**	9.300
VL800/3VL6	800	320- 800		**3VL67 80-1□□36-....**	16.000		**3VL67 80-2□□36-....**	16.000		**3VL67 80-3□□36-....**	16.000
VL1250/3VL7	1000	400-1000		**3VL77 10-1□□36-....**	25.000		**3VL77 10-2□□36-....**	25.000		**3VL77 10-3□□36-....**	25.000
	1250	500-1250		**3VL77 12-1□□36-....**	25.000		**3VL77 12-2□□36-....**	25.000		**3VL77 12-3□□36-....**	25.000
VL1600/3VL8[3]	1600	640-1600		**3VL87 16-1□□30-....**	31.300		**3VL87 16-2□□30-....**	31.300		**3VL87 16-3□□30-....**	31.300

ETU trip units, 3-pole versions

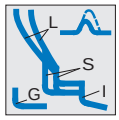
	Order No. supplements	Order No. supplements	Order No. supplements
Motor protection with LI function, ETU10M Up to 500 A (VL160 to VL630)	**A P**[4]	**A P**[4]	**A P**[4]
System protection with LI function, ETU10	**A B**	**A B**	**A B**
System protection with LIG function, ETU12 For 3-wire three-phase systems[5]	**A C**	**A C**	**A C**
System and generator protection with LSI function, ETU20	**A E**	**A E**	**A E**
System and generator protection with LSIG function, ETU22 For 3-wire three-phase systems[5]	**A G**	**A G**	**A G**
Motor protection with LI function, ETU30M Up to 500 A (VL160 to VL630)	**AS**[4]	**A S**[4]	**AS**[4]

NSE0_00943

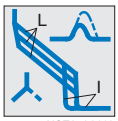
NSE0_00693



NSE0_00692



NSE0_00694



NSE0_01419

Package size for SENTRON molded case circuit breakers is 1 unit.

L = Overload
S = Short-circuit protection, short-time delayed
I = Short-circuit protection, instantaneous
G = Ground-fault protection

[1] Not for motor protection.
[2] Only for motor protection.
[3] Front busbar connection pieces are included in the scope of supply and are to be fitted by the customer.
[4] Not for VL400 with I_n = 400 A, VL800, VL1250, VL1600.
[5] Vectorial summation current formation for the currents.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

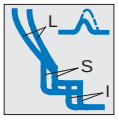
© Siemens AG 2008

Type	Rated current I_n A	Set current of the inverse-time delayed over-load release "L" I_R A	DT	Standard switching capacity N 40/50 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	High switching capacity H 70 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	Very high switching capacity L 100 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg
Fixed-mounted circuit breakers, VL160 to VL1600, up to 1600 A Solid-state overcurrent trip units											
Circuit breakers with solid-state overcurrent trip unit ETU											
VL160/3VL2	63	25- 63		**3VL27 06-1□□33-....**	2.400		**3VL27 06-2□□33-....**	2.400		**3VL27 06-3□□33-....**	2.400
Connection with box terminal	100	40- 100		**3VL27 10-1□□33-....**	2.400		**3VL27 10-2□□33-....**	2.400		**3VL27 10-3□□33-....**	2.400
	160	64- 160		**3VL27 16-1□□33-....**	2.400		**3VL27 16-2□□33-....**	2.400		**3VL27 16-3□□33-....**	2.400
VL160/3VL2	63	25- 63		**3VL27 06-1□□36-....**	2.400		**3VL27 06-2□□36-....**	2.400		**3VL27 06-3□□36-....**	2.400
Connection with box terminal	100	40- 100		**3VL27 10-1□□36-....**	2.400		**3VL27 10-2□□36-....**	2.400		**3VL27 10-3□□36-....**	2.400
	160	64- 160		**3VL27 16-1□□36-....**	2.400		**3VL27 16-2□□36-....**	2.400		**3VL27 16-3□□36-....**	2.400
VL250/3VL3	200	80- 200		**3VL37 20-1□□33-....**	2.500		**3VL37 20-2□□33-....**	2.500		**3VL37 20-3□□33-....**	2.500
Connection with screw terminal	250	100- 250		**3VL37 25-1□□33-....**	2.500		**3VL37 25-2□□33-....**	2.500		**3VL37 25-3□□33-....**	2.500
VL250/3VL3	200	80- 200		**3VL37 20-1□□36-....**	2.500		**3VL37 20-2□□36-....**	2.500		**3VL37 20-3□□36-....**	2.500
Connection with screw terminal	250	100- 250		**3VL37 25-1□□36-....**	2.500		**3VL37 25-2□□36-....**	2.500		**3VL37 25-3□□36-....**	2.500
VL400/3VL4	315	128- 315		**3VL47 31-1□□36-....**	5.900		**3VL47 31-2□□36-....**	5.900		**3VL47 31-3□□36-....**	5.900
	400[1]	160- 400		**3VL47 40-1□□36-....**	5.900		**3VL47 40-2□□36-....**	5.900		**3VL47 40-3□□36-....**	5.900
VL630/3VL5	500[2]	250- 500		**3VL57 50-1□□36-....**	9.300		**3VL57 50-2□□36-....**	9.300		**3VL57 50-3□□36-....**	9.300
	630[1]	252- 630		**3VL57 63-1□□36-....**	9.300		**3VL57 63-2□□36-....**	9.300		**3VL57 63-3□□36-....**	9.300
VL800/3VL6	800	320- 800		**3VL67 80-1□□36-....**	16.000		**3VL67 80-2□□36-....**	16.000		**3VL67 80-3□□36-....**	16.000
VL1250/3VL7	1000	400-1000		**3VL77 10-1□□36-....**	25.000		**3VL77 10-2□□36-....**	25.000		**3VL77 10-3□□36-....**	25.000
	1250	500-1250		**3VL77 12-1□□36-....**	25.000		**3VL77 12-2□□36-....**	25.000		**3VL77 12-3□□36-....**	25.000
VL1600[3]/3VL8	1600	640-1600		**3VL87 16-1□□30-....**	31.300		**3VL87 16-2□□30-....**	31.300		**3VL87 16-3□□30-....**	31.300
				Order No. supplements			Order No. supplements			Order No. supplements	

LCD ETU trip unit, 3-pole version

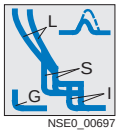
NSE0_01419

Motor protection with LI function, ETU40M, up to 500 A (VL160 to VL630) — **C P**[4] — **C P**[4] — **C P**[4]



NSE0_00696

System protection with LI/LS/LSI function, ETU40 — **C H** — **C H** — **C H**



NSE0_00697

System protection with LSIG function, ETU42

For 3-wire three-phase systems[5] — **C L** — **C L** — **C L**

For 4-wire three-phase systems[5][6] — **C M** — **C M** — **C M**

L = Overload
S = Short-circuit protection, short-time delayed
I = Short-circuit protection, instantaneous
G = Ground-fault protection

[1] Not for motor protection.
[2] Only for motor protection.
[3] Front busbar connection pieces are included in the scope of supply and are to be fitted by the customer.
[4] Not for VL 400 with I_n = 400 A, VL800, VL1250, VL1600.
[5] Vectorial summation current formation for the currents.
[6] External current transformer required in addition, see pages 16/27.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3VL Molded Case Circuit Breakers up to 1600 A

4-pole

Selection and ordering data

Type	Rated current I_n A	Set current of the inverse-time delayed overload release "L" I_R A	Operational current of instantaneous short-circuit release "I" I_i A	DT	Standard switching capacity N 40/50 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	High switching capacity H 70 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	Very high switching capacity L 100 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg
Fixed-mounted circuit breakers, VL160X to VL630, up to 630 A Thermal-magnetic overcurrent trip units												
NSE0_00695					***System protection, TM, LI function*** With permanently set thermal overload releases, permanently set short-circuit releases, without overload and short-circuit releases in 4th pole (N)							
VL160X/ 3VL1	16	16	300		**3VL17 96-1EH43-....**	2.300		**3VL17 96-2EH43-....**	2.300		--	
	20	20	300		**3VL17 02-1EH43-....**	2.300		**3VL17 02-2EH43-....**	2.300		--	
	25	25	300		**3VL17 25-1EH43-....**	2.500		**3VL17 25-2EH43-....**	2.500		--	
	32	32	300		**3VL17 03-1EH43-....**	2.500		**3VL17 03-2EH43-....**	2.500		--	
	40	40	600		**3VL17 04-1EH43-....**	2.500		**3VL17 04-2EH43-....**	2.500		--	
	50	50	600		**3VL17 05-1EH43-....**	2.500		**3VL17 05-2EH43-....**	2.500		--	
	63	63	600		**3VL17 06-1EH43-....**	2.500		**3VL17 06-2EH43-....**	2.500		--	
	80	80	1000		**3VL17 08-1EH43-....**	2.500		**3VL17 08-2EH43-....**	2.500		--	
	100	100	1000		**3VL17 10-1EH43-....**	2.500		**3VL17 10-2EH43-....**	2.500		--	
	125	125	1000		**3VL17 12-1EH43-....**	2.500		**3VL17 12-2EH43-....**	2.500		--	
	160	160	1500		**3VL17 16-1EH43-....**	2.500		**3VL17 16-2EH43-....**	2.500		--	
Connection type can be selected by assignment of the 12th position of the Order No. • Connection with box terminal • Connection with screw terminal[1]					**3** **6**			**3** **6**				
NSE0_00704					***System protection, TM, LI function*** With adjustable thermal overload releases, adjustable short-circuit releases, without overload and short-circuit releases in 4th pole (N)							
VL160/ 3VL2	50	40 ... 50	300 ... 600		**3VL27 05-1EJ43-....**	3.000		**3VL27 05-2EJ43-....**	3.000		**3VL27 05-3EJ43-....**	3.000
	63	50 ... 63	300 ... 600		**3VL27 06-1EJ43-....**	3.000		**3VL27 06-2EJ43-....**	3.000		**3VL27 06-3EJ43-....**	3.000
	80	63 ... 80	400 ... 800		**3VL27 08-1EJ43-....**	3.000		**3VL27 08-2EJ43-....**	3.000		**3VL27 08-3EJ43-....**	3.000
	100	80 ... 100	500 ... 1000		**3VL27 10-1EJ43-....**	3.000		**3VL27 10-2EJ43-....**	3.000		**3VL27 10-3EJ43-....**	3.000
	125	100 ... 125	625 ... 1250		**3VL27 12-1EJ43-....**	3.000		**3VL27 12-2EJ43-....**	3.000		**3VL27 12-3EJ43-....**	3.000
	160	125 ... 160	800 ... 1600		**3VL27 16-1EJ43-....**	3.000		**3VL27 16-2EJ43-....**	3.000		**3VL27 16-3EJ43-....**	3.000
VL250/ 3VL3	200	160 ... 200	1000 ... 2000		**3VL37 20-1EJ46-....**	3.200		**3VL37 20-2EJ46-....**	3.200		**3VL37 20-3EJ46-....**	3.200
	250	200 ... 250	1250 ... 2500		**3VL37 25-1EJ46-....**	3.200		**3VL37 25-2EJ46-....**	3.200		**3VL37 25-3EJ46-....**	3.200
Connection type can be selected by assignment of the 12th position of the Order No. • Connection with box terminal • Connection with screw terminal[1]					**3** **6**			**3** **6**				
VL400/ 3VL4	200	160 ... 200	1000 ... 2000		**3VL47 20-1EJ46-....**	7.400		**3VL47 20-2EJ46-....**	7.400		**3VL47 20-3EJ46-....**	7.400
	250	200 ... 250	1250 ... 2500		**3VL47 25-1EJ46-....**	7.400		**3VL47 25-2EJ46-....**	7.400		**3VL47 25-3EJ46-....**	7.400
	315	250 ... 315	1575 ... 3150		**3VL47 31-1EJ46-....**	7.400		**3VL47 31-2EJ46-....**	7.400		**3VL47 31-3EJ46-....**	7.400
	400	320 ... 400	2000 ... 4000		**3VL47 40-1EJ46-....**	7.400		**3VL47 40-2EJ46-....**	7.400		**3VL47 40-3EJ46-....**	7.400
VL630/ 3VL5	315	250 ... 315	1575 ... 3150		**3VL57 31-1EJ46-....**	11.200		**3VL57 31-2EJ46-....**	11.200		**3VL57 31-3EJ46-....**	11.200
	400	320 ... 400	2000 ... 4000		**3VL57 40-1EJ46-....**	11.200		**3VL57 40-2EJ46-....**	11.200		**3VL57 40-3EJ46-....**	11.200
	500	400 ... 500	2500 ... 5000		**3VL57 50-1EJ46-....**	11.200		**3VL57 50-2EJ46-....**	11.200		**3VL57 50-3EJ46-....**	11.200
	630	500 ... 630	3250 ... 6300		**3VL57 63-1EJ46-....**	11.200		**3VL57 63-2EJ46-....**	11.200		**3VL57 63-3EJ46-....**	11.200

Package size for SENTRON molded case circuit breakers is 1 unit.

[1] Cannot be used in conjunction with RCD module.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Type	Rated current I_n A	Set current of the inverse-time delayed overload release "L" I_R A	Operational current of instantaneous short-circuit release "I" I_i A	DT	Standard switching capacity N 40/50 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	High switching capacity H 70 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	Very high switching capacity L 100 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg
Fixed-mounted circuit breakers, VL160X to VL630, up to 630 A Thermal-magnetic overcurrent trip units												
System protection, TM, LIN function[1] With permanently set thermal overload releases, permanently set short-circuit releases, with "N" overload and short-circuit release N = 100% protection for overload and short-circuit releases												
VL160/ 3VL1	16	16	300		**3VL17 96-1EA43-....**	2.300		**3VL17 96-2EA43-....**	2.300		--	
	20	20	300		**3VL17 02-1EA43-....**	2.300		**3VL17 02-2EA43-....**	2.300		--	
	25	25	300		**3VL17 25-1EA43-....**	2.500		**3VL17 25-2EA43-....**	2.500		--	
	32	32	300		**3VL17 03-1EA43-....**	2.500		**3VL17 03-2EA43-....**	2.500		--	
	40	40	600		**3VL17 04-1EA43-....**	2.500		**3VL17 04-2EA43-....**	2.500		--	
	50	50	600		**3VL17 05-1EA43-....**	2.500		**3VL17 05-2EA43-....**	2.500		--	
	63	63	600		**3VL17 06-1EA43-....**	2.500		**3VL17 06-2EA43-....**	2.500		--	
	80	80	1000		**3VL17 08-1EA43-....**	2.500		**3VL17 08-2EA43-....**	2.500		--	
	100	100	1000		**3VL17 10-1EA43-....**	2.500		**3VL17 10-2EA43-....**	2.500		--	
	125	125	1000		**3VL17 12-1EL43-....**	2.500		**3VL17 12-2EL43-....**	2.500		--	
	160	160	1500		**3VL17 16-1EL43-....**	2.500		**3VL17 16-2EL43-....**	2.500		--	
Connection type can be selected by assignment of the 12th position of the Order No. • Connection with box terminal • Connection with screw terminal[1]					**3 6**			**3 6**				
System protection, TM, LIN function With adjustable thermal overload releases, adjustable short-circuit releases, with "N" overload and short-circuit release N = 100% protection for overload and short-circuit releases												
VL160/ 3VL2	50	40 ... 50	300 ... 600		**3VL27 05-1EM43-....**	3.000		**3VL27 05-2EM43-....**	3.000		**3VL27 05-3EM43-....**	3.000
	63	50 ... 63	300 ... 600		**3VL27 06-1EM43-....**	3.000		**3VL27 06-2EM43-....**	3.000		**3VL27 06-3EM43-....**	3.000
	80	63 ... 80	400 ... 800		**3VL27 08-1EM43-....**	3.000		**3VL27 08-2EM43-....**	3.000		**3VL27 08-3EM43-....**	3.000
	100	80 ... 100	500 ... 1000		**3VL27 10-1EM43-....**	3.000		**3VL27 10-2EM43-....**	3.000		**3VL27 10-3EM43-....**	3.000
	125	100 ... 125	625 ... 1250		**3VL27 12-1EM43-....**	3.000		**3VL27 12-2EM43-....**	3.000		**3VL27 12-3EM43-....**	3.000
	160	125 ... 160	800 ... 1600		**3VL27 16-1EM43-....**	3.000		**3VL27 16-2EM43-....**	3.000		**3VL27 16-3EM43-....**	3.000
VL250/ 3VL3	200	160 ... 200	1000 ... 2000		**3VL37 20-1EM43-....**	3.200		**3VL37 20-2EM43-....**	3.200		**3VL37 20-3EM43-....**	3.200
	250	200 ... 250	1200 ... 2500		**3VL37 25-1EM43-....**	3.200		**3VL37 25-2EM43-....**	3.200		**3VL37 25-3EM43-....**	3.200
Connection type can be selected by assignment of the 12th position of the Order No. • Connection with box terminal • Connection with screw terminal[1]					**3 6**			**3 6**			**3 6**	
VL400/ 3VL4	200	160 ... 200	1000 ... 2000		**3VL47 20-1EM46-....**	7.400		**3VL47 20-2EM46-....**	7.400		**3VL47 20-3EM46-....**	7.400
	250	200 ... 250	1200 ... 2500		**3VL47 25-1EM46-....**	7.400		**3VL47 25-2EM46-....**	7.400		**3VL47 25-3EM46-....**	7.400
	315	250 ... 315	1575 ... 3150		**3VL47 31-1EM46-....**	7.400		**3VL47 31-2EM46-....**	7.400		**3VL47 31-3EM46-....**	7.400
	400	320 ... 400	2000 ... 4000		**3VL47 40-1EM46-....**	7.400		**3VL47 40-2EM46-....**	7.400		**3VL47 40-3EM46-....**	7.400
VL630/ 3VL5	315	250 ... 315	1575 ... 3150		**3VL57 31-1EM46-....**	11.200		**3VL57 31-2EM46-....**	11.200		**3VL57 31-3EM46-....**	11.200
	400	320 ... 400	2000 ... 4000		**3VL57 40-1EM46-....**	11.200		**3VL57 40-2EM46-....**	11.200		**3VL57 40-3EM46-....**	11.200
	500	400 ... 500	2500 ... 5000		**3VL57 50-1EM46-....**	11.200		**3VL57 50-2EM46-....**	11.200		**3VL57 50-3EM46-....**	11.200
	630	500 ... 630	3250 ... 6300		**3VL57 63-1EM46-....**	11.200		**3VL57 63-2EM46-....**	11.200		**3VL57 63-3EM46-....**	11.200

NSE0_00695

NSE0_00704

Package size for SENTRON molded case circuit breakers is 1 unit.

[1] Cannot be used in conjunction with RCD module.

© Siemens AG 2008

3VL Molded Case Circuit Breakers up to 1600 A

4-pole

Type	Rated current I_n A	Set current of the inverse-time delayed overload release "L" I_R A	Operational current of instantaneous short-circuit release "I" I_i A	DT	Standard switching capacity N 40/50 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	High switching capacity H 70 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	Very high switching capacity L 100 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg
Fixed-mounted circuit breakers, VL160X to VL1600, up to 1600 A Magnetic and solid-state overcurrent trip units												
NSE0_00922	***System protection and generator protection, ETU20, LSIN function for time-based discrimination*** (S function: I_{sd} = 1.5 to 10 × I_R, t_{sd} = 0 to 0.5 s), with overload and short-circuit releases in 4th pole (N) Except S function - For VL 800/3VL6: I_{sd} = 1.5 to 8 × I_R - For VL 1600/ 3VL8: I_{sd} = 1.5 to 9 × I_R											
VL160/ 3VL2	63	0.4 ... 1.0 × I_n	11 × I_n		**3VL27 06-1BF43-....**	3.100		**3VL27 06-2BF43-....**	3.100		**3VL27 06-3BF43-....**	3.100
	100	0.4 ... 1.0 × I_n	11 × I_n		**3VL27 10-1BF43-....**	3.100		**3VL27 10-2BF43-....**	3.100		**3VL27 10-3BF43-....**	3.100
	160	0.4 ... 1.0 × I_n	11 × I_n		**3VL27 16-1BF43-....**	3.100		**3VL27 16-2BF43-....**	3.100		**3VL27 16-3BF43-....**	3.100
VL250/ 3VL3	200	0.4 ... 1.0 × I_n	11 × I_n		**3VL37 20-1BF46-....**	3.300		**3VL37 20-2BF46-....**	3.300		**3VL37 20-3BF46-....**	3.300
	250	0.4 ... 1.0 × I_n	11 × I_n		**3VL37 25-1BF46-....**	3.300		**3VL37 25-2BF46-....**	3.300		**3VL37 25-3BF46-....**	3.300
Connection type can be selected by assignment of the 12th position of the Order No. • Connection with box terminal • Connection with screw terminal					**3 6**			**3 6**			**3 6**	
VL400/ 3VL4	315	0.4 ... 1.0 × I_n	11 × I_n		**3VL47 31-1BF46-....**	7.600		**3VL47 31-2BF46-....**	7.600		**3VL47 31-3BF46-....**	7.600
	400	0.4 ... 1.0 × I_n	11 × I_n		**3VL47 40-1BF46-....**	7.600		**3VL47 40-2BF46-....**	7.600		**3VL47 40-3BF46-....**	7.600
VL630/ 3VL5	630	0.4 ... 1.0 × I_n	10 × I_n		**3VL57 63-1BF46-....**	11.700		**3VL57 63-2BF46-....**	11.700		**3VL57 63-3BF46-....**	11.700
VL800/ 3VL6	800	0.4 ... 1.0 × I_n	8 × I_n		**3VL67 80-1BF46-....**	20.500		**3VL67 80-2BF46-....**	20.500		**3VL67 80-3BF46-....**	20.500
VL1250/ 3VL7	1000	0.4 ... 1.0 × I_n	11 × I_n		**3VL77 10-1BF46-....**	33.500		**3VL77 10-2BF46-....**	33.500		**3VL77 10-3BF46-....**	33.500
	1250	0.4 ... 1.0 × I_n	10 × I_n		**3VL77 12-1BF46-....**	33.500		**3VL77 12-2BF46-....**	33.500		**3VL77 12-3BF46....**	33.500
VL1600/ 3VL8[2]	1600	0.4 ... 1.0 × I_n	9 × I_n		**3VL87 16-1BF40-....**	40.800		**3VL87 16-2BF40-....**	40.800		**3VL87 16-3BF40-....**	40.800
NSE0_00708	***Non-automatic molded case circuit breakers***[1] Without overload release, with permanently set short-circuit release (for intrinsic protection only), without overload and short-circuit releases in 4th pole (N)											
VL160X/ 3VL1	100	–	1800		**3VL17 10-1EE43-....**	2.500		**3VL17 10-2EE43-....**	2.500		**–**	
	160	–	1800		**3VL17 16-1EE43-....**	2.500		**3VL17 16-2EE43-....**	2.500		**–**	
VL160/ 3VL2	100	–	2500		**3VL27 10-1EE43-....**	3.000		**3VL27 10-2EE43-....**	3.000		**3VL27 10-3EE43-....**	3.000
	160	–	2500		**3VL27 16-1EE43-....**	3.000		**3VL27 16-2EE43-....**	3.000		**3VL27 16-3EE43-....**	3.000
VL250/ 3VL3	250	–	3500		**3VL37 25-1EE46-....**	3.200		**3VL37 25-2EE46-....**	3.200		**3VL37 25-3EE46-....**	3.200
Connection type can be selected by assignment of the 12th position of the Order No. • Connection with box terminal • Connection with screw terminal					**3 6**			**3 6**			**3 6**	
VL400/ 3VL4	400	–	5500		**3VL47 40-1EE46-....**	7.400		**3VL47 40-2EE46-....**	7.400		**3VL47 40-3EE46-....**	7.400
VL630/ 3VL5	630	–	6300		**3VL57 63-1EE46-....**	11.200		**3VL57 63-2EE46-....**	11.200		**3VL57 63-3EE46-....**	11.200
VL800/ 3VL6	800	–	6300		**3VL67 80-1EE46-....**	19.900		**3VL67 80-2EE46-....**	19.900		**3VL67 80-3EE46-....**	19.900
VL1250/ 3VL7	1250	–	12000		**3VL77 12-1EE46-....**	31.000		**3VL77 12-2EE46-....**	31.000		**3VL77 12-3EE46-....**	31.000
VL1600/ 3VL2[2]	1600	–	14400		**3VL87 16-1EE40-....**	38.300		**3VL87 16-2EE40-....**	38.300		**3VL87 16-3EE40-....**	38.300

L = Overload
S = Short-circuit protection, short-time delayed
I = Short-circuit protection, instantaneous
G = Ground-fault protection
N = Neutral conductor protection

Package size for SENTRON molded case circuit breakers is 1 unit.

[1] See also the Chapter "3K, 3KE, 3LD Switch Disconnectors". 3K. switch disconnectors are also available with rear-mounting operating mechanism and leading contacts.

[2] Front busbar connection pieces are included in the scope of supply and are to be fitted by the customer.

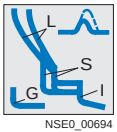
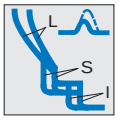
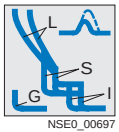
N = 100% protection for $I_n \leq 100$ A

N = 50% protection for $I_n \geq 110$ A; with Order No. supplements "CJ" and "CN": 50 ... 100 % or can be switched off, factory preset at 50 %.

*** You can order this quantity or a multiple thereof. For other units and versions see A&D Mall.**

© Siemens AG 2008

Type	Rated current I_n A	Set current of the inverse-time delayed over-load release "L" I_R A	DT	Standard switching capacity N 40/50 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	High switching capacity H 70 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT	Very high switching capacity L 100 kA at 415 V: Order No. / Order No. supplement required, see page 16/20	Weight per PU approx. kg	DT
Fixed-mounted circuit breakers, VL160 to VL1600, up to 1600 A Solid-state overcurrent trip units												
Circuit breakers with solid-state overcurrent trip unit ETU												
VL160/3VL2	63	25 ... 63		**3VL27 06-1□□43-....**	3.100		**3VL27 06-2□□43-....**	3.100		**3VL27 06-3□□43-....**	3.100	
	100	40 ... 100		**3VL27 10-1□□43-....**	3.100		**3VL27 10-2□□43-....**	3.100		**3VL27 10-3□□43-....**	3.100	
	160	64 ... 160		**3VL27 16-1□□43-....**	3.100		**3VL27 16-2□□43-....**	3.100		**3VL27 16-3□□43-....**	3.100	
VL160/3VL2	63	25 ... 63		**3VL27 06-1□□46-....**	3.100		**3VL27 06-2□□43-....**	3.100		**3VL27 06-3□□43-....**	3.100	
	100	40 ... 100		**3VL27 10-1□□46-....**	3.100		**3VL27 10-2□□43-....**	3.100		**3VL27 10-3□□43-....**	3.100	
	160	64 ... 160		**3VL27 16-1□□46-....**	3.100		**3VL27 16-2□□43-....**	3.100		**3VL27 16-3□□43-....**	3.100	
VL250/3VL3	200	80 ... 200		**3VL37 20-1□□43-....**	3.300		**3VL37 20-2□□43-....**	3.300		**3VL37 20-3□□43-....**	3.300	
	250	100 ... 250		**3VL37 25-1□□43-....**	3.300		**3VL37 25-2□□43-....**	3.300		**3VL37 25-3□□43-....**	3.300	
VL250/3VL3	200	80 ... 200		**3VL37 20-1□□46-....**	3.300		**3VL37 20-2□□46-....**	3.300		**3VL37 20-3□□46-....**	3.300	
	250	100 ... 250		**3VL37 25-1□□46-....**	3.300		**3VL37 25-2□□46-....**	3.300		**3VL37 25-3□□46-....**	3.300	
VL400/3VL4	315	128 ... 315		**3VL47 31-1□□46-....**	7.600		**3VL47 31-2□□46-....**	7.600		**3VL47 31-3□□46-....**	7.600	
	400	160 ... 400		**3VL47 40-1□□46-....**	7.600		**3VL47 40-2□□46-....**	7.600		**3VL47 40-3□□46-....**	7.600	
VL630/3VL5	630	252 ... 630		**3VL57 63-1□□46-....**	11.700		**3VL57 63-2□□46-....**	11.700		**3VL57 63-3□□46-....**	11.700	
VL800/3VL6	800	320 ... 800		**3VL67 80-1□□46-....**	20.500		**3VL67 80-2□□46-....**	20.500		**3VL67 80-3□□46-....**	20.500	
VL1250/3VL7	1000	400 ... 1000		**3VL77 10-1□□46-....**	33.500		**3VL77 10-2□□46-....**	33.500		**3VL77 10-3□□46-....**	33.500	
	1250	500 ... 1250		**3VL77 12-1□□46-....**	33.500		**3VL77 12-2□□46-....**	33.500		**3VL77 12-3□□46-....**	33.500	
VL1600/3VL8 [1]	1600	640 ... 1600		**3VL87 16-1□□40-....**	40.800		**3VL87 16-2□□40-....**	40.800		**3VL87 16-3□□40-....**	40.800	

ETU trip units, 4-pole versions	Order No. supplements	Order No. supplements	Order No. supplements
NSE0_00691 **System protection with LIN function, ETU10** With overload and short-circuit releases in 4th pole (N)	**B A**	**B A**	**B A**
NSE0_00693 **System protection with LING function, ETU12** Residual current for 4-wire three-phase systems, with overload and short-circuit releases in 4th pole (N)	**B D**	**B D**	**B D**
NSE0_00692 **System protection with LSIN function, ETU20** With overload and short-circuit releases in 4th pole (N)	**B F**	**B F**	**B F**
 NSE0_00694 **System protection with LSING function, ETU22** Residual current for 4-wire three-phase systems, with overload and short-circuit releases in 4th pole (N)	**B H**	**B H**	**B H**
LCD ETU trip unit, 4-pole version			
 NSE0_00696 **System protection with LI/LSI/LIN/LSIN function, ETU40** With overload and short-circuit releases in 4th pole (N):	**CJ**	**CJ**	**CJ**
 NSE0_00697 **System protection with LSIG/LSING function, ETU42** for 4-wire three-phase systems With overload and short-circuit releases in 4th pole (N):	**CN**	**CN**	**CN**

[1] Front busbar connection pieces are included in the scope of supply and are to be fitted by the customer.

For more footnotes see previous page.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3VL Molded Case Circuit Breakers up to 1600 A

Options

Selection and ordering data

1. Order No. supplement:
Undervoltage or shunt trip unit, wiring directly to accessories

Rated control supply voltage U_s/frequency AC 50/60 Hz DC		Order No. supplement 3VL . . . .-. . . . . - □□ ..		Circuit breakers Type VL160X to VL400[1]/ 3VL1 to 3VL4	VL630 to VL1600/ 3VL5 to 3VL8
Without auxiliary trip units		**0**	**A**		
With undervoltage trip units Only right pole					
V AC	V DC				
--	12	**2**	**N**	x[1]	x
--	24	**2**	**P**	x[1]	x
--	48	**2**	**U**	x[1]	x
--	60	**2**	**V**	x[1]	x
--	110 ... 127	**2**	**R**	x[1]	x
--	220 ... 250	**2**	**S**	x[1]	x
24	--	**2**	**D**	x[1]	x
110 ... 127	--	**2**	**G**	x[1]	x
220 ... 250	--	**2**	**H**	x[1]	x
208	--	**2**	**M**	x[1]	x
277	--	**2**	**Q**	x[1]	x
380 ... 415	--	**2**	**J**	x[1]	x
440 ... 480	--	**2**	**K**	x[1]	x
500 ... 525	--	**2**	**L**	x[1]	x
600	--	**2**	**T**	x[1]	x
With shunt trip units Only right pole					
V AC	V DC				
24	24	**8**	**C**	x[1]	x
--	48 ... 60	**8**	**J**	x[1]	x
--	110 ... 127	**8**	**K**	x[1]	x
--	220 ... 250	**8**	**Q**	x[1]	x
48 ... 60	--	**8**	**M**	x[1]	x
110 ... 127	--	**8**	**R**	x[1]	x
208 ... 277	--	**8**	**T**	x[1]	x
380 ... 600	--	**8**	**V**	x[1]	x

2. Order No. supplement:
Auxiliary switches (HS) and alarm switches (AS), left/right pole, directly wired to accessories

Equipment HS = 1 NO or 1 NC switching block AS = 1 NO switching block	Order No. supplement 3VL . . . .-. . . . . - .. □□		Circuit breakers Type VL160X to VL400[2]/ 3VL1 to 3VL4	VL630 to VL1600/ 3VL5 to 3VL8
Without auxiliary/alarm switches	**A**	**0**		
2 HS (1 NO/1 NC)[3]	**B**	**1**	x[2)5]	--
4 HS (2 NO/2 NC)	**C**	**1**	--	x[5]
2 HS (1 NO/1 NC) + 1 AS (1 NO)	**D**	**1**	x[2)5]	--
2 HS (1 NO/1 NC) + 1 AS (1 NO)[4]	**E**	**1**	--	x[5]

x Available

-- Not available

1) For VL160/VL250 circuit breakers with solid-state overcurrent trip units, the only option is one undervoltage trip unit or shunt trip unit, or one auxiliary/alarm switch combination.

2) Except for mounting in the left accessory sub-section of the SENTRON VL160X circuit breakers with RCD module and the SENTRON VL160, VL250 circuit breakers with solid-state overcurrent trip units, since this sub-section is occupied by the tripping solenoid.
On the right-hand side it is only possible to install an auxiliary trip unit or an auxiliary/alarm switch combination (see also LV 1 T "Design", "Auxiliary Trip Units and Auxiliary Switches"). For this application only, a 3SB adapter can be installed in the N pole (for 4-pole circuit breakers only).

3) With mounting adapter up to 3 HS.

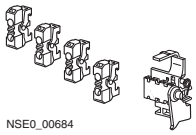
4) With mounting adapter up to 2 HS + 2 AS.

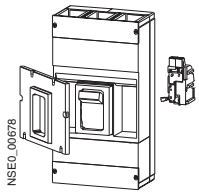
5) Not possible for use of COM10 (PROFIBUS module for SENTRON 3VL).

© Siemens AG 2008

Selection and ordering data

Wiring directly at accessories		DT	For VL160X to VL400 (3VL1 to 3VL4) Order No.	PS*	Weight per PU approx.	DT	For VL630 up to VL1600 (3VL5 to 3VL8) Order No.	PS*	Weight per PU approx.
3- or 4-pole					kg				kg
Auxiliary switches and auxiliary trip units									
For retrofitting (possible complements on request)									
Auxiliary switches (HS) and alarm switches (AS) For retrofitting									
Assembly kit	Mounting side								
2 HS (1 NO + 1 NC)	N, left[1], right		**3VL9 400-2AB00**	1 unit	0.027		**--**		
4 HS (2 NO + 2 NC)	N, left, right		**--**				**3VL9 800-2AC00**	1 unit	0.058
2 HS (1 NC + 1 NO)	Left, right[3]		**3VL9 400-2AD00**	1 unit	0.051		**--**		
+ 1 AS (1 NO) (assembly kit)	Left		**--**				**3VL9 800-2AE00**	1 unit	0.060
Additional auxiliary switch/alarm switch combinations			On request				On request		
Shunt trip units[2] For retrofitting									
V AC	V DC	Mounting side							
24	24	Right pole only	**3VL9 400-1SC00**	1 unit	0.075		**3VL9 800-1SC00**	1 unit	0.120
--	48 ... 60	Right pole only	**3VL9 400-1SJ00**	1 unit	0.075		**3VL9 800-1SJ00**	1 unit	0.120
--	110 ... 127	Right pole only	**3VL9 400-1SK00**	1 unit	0.075		**3VL9 800-1SK00**	1 unit	0.120
--	220 ... 250	Right pole only	**3VL9 400-1SQ00**	1 unit	0.075		**3VL9 800-1SQ00**	1 unit	0.120
48 ... 60	--	Right pole only	**3VL9 400-1SM00**	1 unit	0.075		**3VL9 800-1SM00**	1 unit	0.120
110 ... 127	--	Right pole only	**3VL9 400-1SR00**	1 unit	0.075		**3VL9 800-1SR00**	1 unit	0.120
208 ... 277	--	Right pole only	**3VL9 400-1ST00**	1 unit	0.075		**3VL9 800-1ST00**	1 unit	0.120
380 ... 600	--	Right pole only	**3VL9 400-1SV00**	1 unit	0.075		**3VL9 800-1SV00**	1 unit	0.120
Undervoltage trip units For retrofitting									
V AC	V DC	Mounting side							
--	12	Right pole only	**3VL9 400-1UN00**	1 unit	0.075		**3VL9 800-1UN00**	1 unit	0.088
--	24	Right pole only	**3VL9 400-1UP00**	1 unit	0.075		**3VL9 800-1UP00**	1 unit	0.088
--	48	Right pole only	**3VL9 400-1UU00**	1 unit	0.075		**3VL9 800-1UU00**	1 unit	0.088
--	60	Right pole only	**3VL9 400-1UV00**	1 unit	0.075		**3VL9 800-1UV00**	1 unit	0.088
24	--	Right pole only	**3VL9 400-1UD00**	1 unit	0.075		**3VL9 800-1UD00**	1 unit	0.088
110 ... 127	--	Right pole only	**3VL9 400-1UG00**	1 unit	0.075		**3VL9 800-1UG00**	1 unit	0.088
--	110 ... 127	Right pole only	**3VL9 400-1UR00**	1 unit	0.075		**3VL9 800-1UR00**	1 unit	0.088
208	--	Right pole only	**3VL9 400-1UM00**	1 unit	0.075		**3VL9 800-1UM00**	1 unit	0.088
220 ... 250	--	Right pole only	**3VL9 400-1UH00**	1 unit	0.075		**3VL9 800-1UH00**	1 unit	0.088
--	220 ... 250	Right pole only	**3VL9 400-1US00**	1 unit	0.075		**3VL9 800-1US00**	1 unit	0.088
277	--	Right pole only	**3VL9 400-1UQ00**	1 unit	0.075		**3VL9 800-1UQ00**	1 unit	0.088
380 ... 415	--	Right pole only	**3VL9 400-1UJ00**	1 unit	0.075		**3VL9 800-1UJ00**	1 unit	0.088
440 ... 480	--	Right pole only	**3VL9 400-1UK00**	1 unit	0.075		**3VL9 800-1UK00**	1 unit	0.088
500 ... 525	--	Right pole only	**3VL9 400-1UL00**	1 unit	0.075		**3VL9 800-1UL00**	1 unit	0.088
600	--	Right pole only	**3VL9 400-1UT00**	1 unit	0.075		**3VL9 800-1UT00**	1 unit	0.088
Time-delay devices for undervoltage trip units (220 ... 250 V DC) Rated control supply voltage U_s 220 ... 250 V AC/DC									
Delay time > 200 ms			**3TX4 701-0AN1**	1 unit	0.170		**3TX4 701-0AN1**	1 unit	0.170
Storage devices for shunt trip units (208 ... 277 V AC/220 ... 250 V DC) Rated control supply voltage U_s 220 ... 240 V AC/220 ... 250 V DC									
Storage time 5 min			**3WL9 111-0BA14-0AA0**	1 unit	0.520		**3WL9 111-0BA14-0AA0**	1 unit	0.520


NSE0_00684


NSE0_00678

[1] Except for mounting in the left accessory sub-section of the SENTRON VL160X circuit breakers (3VL1) with RCD module and the SENTRON VL160, VL250 circuit breakers (3VL2, 3VL3) with solid-state overcurrent trip units, since this sub-section is occupied by the tripping solenoid.
For this application only, a 3SB adapter can be installed in the N pole (for 4-pole circuit breakers only).

[2] Shunt trip unit with switching contact (3SB3 for ON/OFF position) not isolated.

[3] In the case of VL400 (3VL4):
Unsuitable for mounting in the right-hand accessory sub-section.
The 3VL9 400-2AB00 assembly kit with auxiliary switches only is recommended.

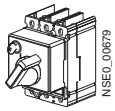
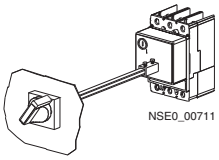
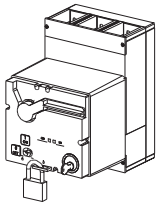
16

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3VL Molded Case Circuit Breakers up to 1600 A

Accessories/spare parts

	DT	For VL160X to VL250 (3VL1 to 3VL3) Order No.	PS*	Weight per PU approx. kg
3- or 4-pole				
Operating mechanisms				
 NSE0_00679				
Front-operated rotary operating mechanisms[1] For direct mounting on the circuit breaker, without leading auxiliary switch, degree of protection IP30[2], black, max. 3 padlocks		**3VL9 300-3HA00**	1 unit	0.362
EMERGENCY-STOP version Red knob, yellow indicator plate		**3VL9 300-3HC00**	1 unit	0.362
Safety locks for installation by the customer, see pages 16/32 to 16/35.				
 NSE0_00711				
Door-coupling rotary operating mechanisms, complete[1] **Installation in doors and covers** Degree of protection IP65, including black knob with masking plate, indicator plate, removable door coupling, 300 mm extension shaft and front-operated rotary operating mechanism for the respective circuit breaker, lockable with up to 3 padlocks, with door interlocking		**3VL9 300-3HF05**	1 unit	0.970
EMERGENCY-STOP version, Red knob, yellow indicator plate, without leading auxiliary switch		**3VL9 300-3HG05**	1 unit	0.980
Safety locks for installation by the customer, see pages 16/32 to 16/35.				
Side panel rotary operating mechanisms, complete Degree of protection IP65, including black knob with masking plate, indicator plate, Bowden wire, lockable with up to 3 padlocks				
- With 600 mm Bowden wire		**3VL9 300-3HR10**	1 unit	1.400
- With 1000 mm Bowden wire		**3VL9 300-3HR20**	1 unit	1.400
- With 1500 mm Bowden wire		**3VL9 300-3HR30**	1 unit	1.400
Side panel rotary operating mechanisms, complete EMERGENCY-STOP version Degree of protection IP65, including red knob with masking plate, yellow indicator plate, Bowden wire, lockable with up to 3 padlocks				
- With 600 mm Bowden wire		**3VL9 300-3HR11**	1 unit	1.400
- With 1000 mm Bowden wire		**3VL9 300-3HR21**	1 unit	1.400
- With 1500 mm Bowden wire		**3VL9 300-3HR31**	1 unit	1.400
Retaining brackets Retaining bracket is mounted on the operating mechanism, recommended for extension shafts >250 mm, with locking device for max. 3 padlocks		**3VL9 300-3HP00**	1 unit	0.253
Rotary operating mechanisms with shaft end, without selector switch[1] without leading auxiliary switch, auxiliary switches on request		**3VL9 300-3HE00**	1 unit	0.267
 NSE0_00716				
Motorized operating mechanisms with storage spring[1)3)4)] Degree of protection IP30, with locking device for 3 padlocks, suitable for synchronizing				
AC 50/60 Hz V / V DC				
-- / 24		**3VL9 300-3MJ00**	1 unit	2.140
42 ... 48 / 42 ... 48		**3VL9 300-3ML00**	1 unit	2.140
60 / 60		**3VL9 300-3MS00**	1 unit	2.140
110 ... 127 / 110 ... 127		**3VL9 300-3MN00**	1 unit	2.140
220 ... 250 / 220 ... 250		**3VL9 300-3MQ00**	1 unit	2.140
Motorized operating mechanisms[1] Degree of protection IP00, with locking device for 3 padlocks, not suitable for synchronizing				
AC 50/60 Hz V / V DC				
-- / 24		**3VL9 300-3MA00**	1 unit	1.800
42 / 48		**3VL9 300-3MB00**	1 unit	1.800
-- / 60		**3VL9 300-3MC00**	1 unit	1.800
110 ... 127 / 110 ... 127		**3VL9 300-3MD00**	1 unit	1.800
220 ... 240 / 220		**3VL9 300-3ME00**	1 unit	1.800
Toggle handle extensions		--		

1) Not possible on VL160X with RCD module.
2) IP40 with additional masking frame mounted on the door cut-out.
3) For safety lock as an assembly kit for retrofitting, see pages 16/32 to 16/35.
4) For VL1250 to VL1600 (3VL7 and 3VL8) not suitable for synchronizing.
5) Only for VL630.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

DT	For VL400 (3VL4) Order No.	PS*	Weight per PU approx. kg	DT	For VL630 to VL800 (3VL5 to 3VL6) Order No.	PS*	Weight per PU approx. kg	DT	For VL1250 to VL1600 (3VL7 to 3VL8) Order No.	PS*	Weight per PU approx. kg
	3VL9 400-3HA00	1 unit	0.725		**3VL9 600-3HA00**	1 unit	0.834		**3VL9 800-3HA00**	1 unit	2.831
	3VL9 400-3HC00	1 unit	0.725		**3VL9 600-3HC00**	1 unit	0.834		**3VL9 800-3HC00**	1 unit	2.831
	3VL9 400-3HF05	1 unit	0.970		**3VL9 600-3HF05**	1 unit	2.465		**3VL9 800-3HF05**	1 unit	4.102
	3VL9 400-3HG05	1 unit	0.630		**3VL9 600-3HG05**	1 unit	2.460		**3VL9 800-3HG05**	1 unit	4.100
	3VL9 400-3HR10	1 unit	2.000		**3VL9 500-3HR10**[5)]	1 unit	2.400		--		
	3VL9 400-3HR20	1 unit	2.000		**3VL9 500-3HR20**[5)]	1 unit	2.400		--		
	3VL9 400-3HR30	1 unit	2.000		**3VL9 500-3HR30**[5)]	1 unit	2.400		--		
	3VL9 400-3HR11	1 unit	2.000		**3VL9 500-3HR11**[5)]	1 unit	2.400				
	3VL9 400-3HR21	1 unit	2.000		**3VL9 500-3HR21**[5)]	1 unit	2.400				
	3VL9 400-3HR31	1 unit	2.000		**3VL9 500-3HR31**[5)]	1 unit	2.400				
	3VL9 400-3HP00	1 unit	0.379		**3VL9 600-3HP00**	1 unit	0.437		**3VL9 800-3HP00**	1 unit	0.529
	3VL9 400-3HE00	1 unit	0.267		**3VL9 600-3HE00**	1 unit	0.755		**3VL9 800-3HE00**	1 unit	2.175
	3VL9 400-3MJ00	1 unit	3.910		**3VL9 600-3MJ00**	1 unit	4.800		**3VL9 800-3MJ00**	1 unit	6.800
	3VL9 400-3ML00	1 unit	3.910		**3VL9 600-3ML00**	1 unit	4.800		**3VL9 800-3ML00**	1 unit	6.800
	3VL9 400-3MS00	1 unit	3.910		**3VL9 600-3MS00**	1 unit	4.800		**3VL9 800-3MS00**	1 unit	6.800
	3VL9 400-3MN00	1 unit	3.910		**3VL9 600-3MN00**	1 unit	4.800		**3VL9 800-3MN00**	1 unit	6.800
	3VL9 400-3MQ00	1 unit	3.910		**3VL9 600-3MQ00**	1 unit	4.800		**3VL9 800-3MQ00**	1 unit	6.800
	--				--				--		
	--				--				--		
	--				--				--		
	--				--				--		
	--				--				--		
	3VL9 400-3HN00	1 unit	0.100		**3VL9 600-3HN00**	1 unit	0.140		**3VL9 800-3HN00**	1 unit	0.234

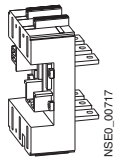
*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

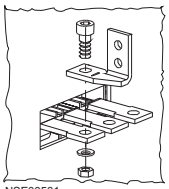
© Siemens AG 2008

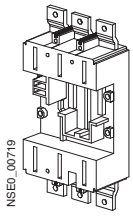
3VL Molded Case Circuit Breakers up to 1600 A

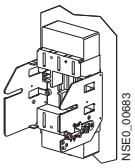
Accessories/spare parts

3- or 4-pole	DT	For VL160X (3VL1) Order No.	PS*	Weight per PU approx. kg	DT	For VL160 (3VL2) Order No.	PS*	Weight per PU approx. kg
Plug-in versions/withdrawable versions								
Plug-in base installation kits Complete with base plate, base, blade contacts for circuit breakers, terminal covers for degree of protection IP20, fixing screws, trip pin								
Rear-accessible terminals								
3-pole		**3VL9 100-4PA30**	1 unit	2.170		**3VL9 200-4PA30**	1 unit	2.170
3-pole with RCD module		**3VL9 100-4PB30**	1 unit	2.460		**3VL9 200-4PB30**	1 unit	2.460
4-pole		**3VL9 100-4PA40**	1 unit	2.850		**3VL9 200-4PA40**	1 unit	2.850
4-pole with RCD module		**3VL9 100-4PB40**	1 unit	3.200		**3VL9 200-4PB40**	1 unit	3.200
90° angle connecting adapters								
For rear connection, 3-pole		**3VL9 300-4PE30**	1 unit	0.375		**3VL9 300-4PE30**	1 unit	0.375
For rear connection, 4-pole		**3VL9 300-4PE40**	1 unit	0.500		**3VL9 300-4PE40**	1 unit	0.500
Front-accessible terminals								
3-pole		**3VL9 100-4PC30**	1 unit	1.980		**3VL9 200-4PC30**	1 unit	1.980
3-pole with RCD module		**3VL9 100-4PD30**	1 unit	2.260		**3VL9 200-4PD30**	1 unit	2.260
4-pole		**3VL9 100-4PC40**	1 unit	2.620		**3VL9 200-4PC40**	1 unit	2.620
4-pole with RCD module		**3VL9 100-4PD40**	1 unit	2.960		**3VL9 200-4PD40**	1 unit	2.960
Withdrawable version assembly kits Upgrade of the plug-in base installation kit to								
Withdrawable version including side panels and racking mechanism. 3-pole		--				**3VL9 300-4WF30**		1.260
3-pole with RCD		--				**3VL9 300-4WG30**		2.031
4-pole		--				**3VL9 300-4WF40**		1.280
4-pole with RCD		--				**3VL9 300-4WG40**		2.050
Withdrawable versions Same as plug-in base installation kit, with additional side panels and racking mechanism								
Rear-accessible terminals								
3-pole		--				**3VL9 200-4WA30**		3.430
3-pole with RCD module		--				**3VL9 200-4WB30**		4.000
4-pole		--				**3VL9 200-4WA40**		4.130
4-pole with RCD module		--				**3VL9 200-4WB40**		4.940
Front-accessible terminals								
3-pole		--				**3VL9 200-4WC30**		3.240
3-pole with RCD module		--				**3VL9 200-4WD30**		3.810
4-pole		--				**3VL9 200-4WC40**		3.940
4-pole with RCD module		--				**3VL9 200-4WD40**		4.710
Blade contacts As replacement for converting fixed-mounted circuit breakers into plug-in/withdrawable circuit breakers, including trip pin								
1 set = 6 units 3-pole		**3VL9 100-4PS30**	1 unit	0.226		**3VL9 200-4PS30**	1 unit	0.248
1 set = 8 units 4-pole		**3VL9 100-4PS40**	1 unit	0.295		**3VL9 200-4PS40**	1 unit	0.330
Trip pins and springs As replacement for plug-in/withdrawable circuit breaker		**3VL9 100-4PF00**	1 unit	0.012		**3VL9 300-4PF00**	1 unit	0.013
Auxiliary circuit plug connections for plug-in bases Accessory connections for plug-in circuit breakers (factory-wired connectors) and for plug-in bases or withdrawable version (coupling with screw terminal)		1)				1)		
8 terminals		**3VL9 300-4PJ00**	1 unit	0.134		**3VL9 300-4PJ00**	1 unit	0.134
Position indicator switches (connected/disconnected position) For plug-in/withdrawable base, 1 changeover contact, max. 2 signal switches possible		**3VL9 000-4WL00**	1 unit	0.019		**3VL9 000-4WL00**	1 unit	0.019


NSE0_00717


NSE00581


NSE0_00719


NSE0_00683

1) It is recommended to use a maximum of 2 auxiliary circuit plug-in systems per circuit breaker (16 terminals).

2) For 3-pole applications please use 4-pole withdrawable version with 4-pole RCD module and 4-pole circuit breaker.

3) It is recommended to use a maximum of 3 auxiliary circuit plug-in systems per circuit breaker (24 terminals).

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

DT	For VL250 (3VL3) Order No.	PS*	Weight per PU approx. kg	DT	For VL400 (3VL4) Order No.	PS*	Weight per PU approx. kg	DT	For VL630 (3VL5) Order No.	PS*	Weight per PU approx. kg
	3VL9 300-4PA30	1 unit	2.280		**3VL9 400-4PA30**	1 unit	5.869		**3VL9 500-4PA30**	1 unit	8.200
	3VL9 300-4PB30	1 unit	2.570		**--**[2]				**--**		
	3VL9 300-4PA40	1 unit	3.000		**3VL9 400-4PA40**	1 unit	8.008		**3VL9 500-4PA40**	1 unit	11.200
	3VL9 300-4PB40	1 unit	3.330		**3VL9 400-4PB40**	1 unit	10.100		**--**		
	3VL9 300-4PE30	1 unit	0.375		**--**				**--**		
	3VL9 300-4PE40	1 unit	0.500		**--**				**--**		
	3VL9 300-4PC30	1 unit	2.090		**3VL9 400-4PC30**	1 unit	5.424		**3VL9 500-4PC30**	1 unit	7.400
	3VL9 300-4PD30	1 unit	2.370		**--**[2]				**--**		
	3VL9 300-4PC40	1 unit	2.770		**3VL9 400-4PC40**	1 unit	7.408		**3VL9 500-4PC40**	1 unit	9.600
	3VL9 300-4PD40	1 unit	3.070		**3VL9 400-4PD40**	1 unit	9.500		**--**		
	3VL9 300-4WF30	1 unit	1.260		**3VL9 400-4WF30**	1 unit	3.400		**3VL9 500-4WF30**	1 unit	3.600
	3VL9 300-4WG30	1 unit	2.031		**--**[2]				**--**		
	3VL9 300-4WF40	1 unit	1.280		**3VL9 400-4WF40**	1 unit	3.600		**3VL9 500-4WF40**	1 unit	3.800
	3VL9 300-4WG40	1 unit	2.050		**3VL9 400-4WG40**	1 unit	3.800		**--**		
	3VL9 300-4WA30	1 unit	3.540		**3VL9 400-4WA30**	1 unit	8.769		**3VL9 500-4WA30**	1 unit	11.000
	3VL9 300-4WB30	1 unit	4.601		**--**[2]				**--**		
	3VL9 300-4WA40	1 unit	4.280		**3VL9 400-4WA40**	1 unit	11.549		**3VL9 500-4WA40**	1 unit	15.000
	3VL9 300-4WB40	1 unit	5.361		**3VL9 400-4WB40**	1 unit	13.200		**--**		
	3VL9 300-4WC30	1 unit	3.350		**3VL9 400-4WC30**	1 unit	8.324		**3VL9 500-4WC30**	1 unit	10.300
	3VL9 300-4WD30	1 unit	4.398		**--**[2]				**--**		
	3VL9 300-4WC40	1 unit	4.050		**3VL9 400-4WC40**	1 unit	10.949		**3VL9 500-4WC40**	1 unit	13.400
	3VL9 300-4WD40	1 unit	5.158		**3VL9 400-4WD40**	1 unit	12.600		**--**		
	3VL9 300-4PS30	1 unit	0.342		**3VL9 400-4PS30**	1 unit	0.720		**3VL9 500-4PS30**	1 unit	1.260
	3VL9 300-4PS40	1 unit	0.436		**3VL9 400-4PS40**	1 unit	0.960		**3VL9 500-4PS40**	1 unit	1.680
	3VL9 300-4PF00	1 unit	0.013		**3VL9 400-4PF00**	1 unit	0.015		**3VL9 500-4PF00**	1 unit	0.018
	[1]				[3]				[3]		
	3VL9 300-4PJ00	1 unit	0.134		**3VL9 400-4PJ00**	1 unit	0.144		**3VL9 600-4PJ00**	1 unit	0.144
	3VL9 000-4WL00	1 unit	0.019		**3VL9 000-4WL00**	1 unit	0.019		**3VL9 000-4WL00**	1 unit	0.019

16

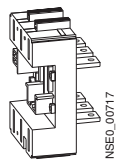
*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

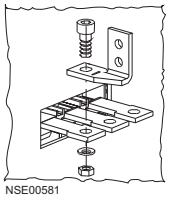
© Siemens AG 2008

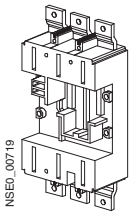
3VL Molded Case Circuit Breakers up to 1600 A

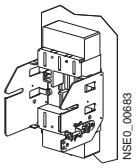
Accessories/spare parts

		For VL800 (3VL6)			For VL1250 (3VL7), up to VL1600 (3VL8)		
	DT	Order No.	PS*	Weight per PU approx.	Order No.	PS*	Weight per PU approx.
3- or 4-pole				kg			kg
Plug-in versions/withdrawable versions							
Plug-in base installation kits Complete with base plate, base, blade contacts for circuit breakers, terminal covers for degree of protection IP20, fixing screws, trip pin							
Rear-accessible terminals							
3-pole		--			--		
3-pole with RCD module		--			--		
4-pole		--			--		
4-pole with RCD module		--			--		
90° angle connecting adapters							
For rear connection, 3-pole		--			--		
For rear connection, 4-pole		--			--		
Front-accessible terminals							
3-pole		--			--		
3-pole with RCD module		--			--		
4-pole		--			--		
4-pole with RCD module		--			--		
Withdrawable version assembly kits Upgrade of the plug-in base installation kit to							
Withdrawable version including side panels and racking mechanism. 3-pole		--			--		
3-pole with RCD		--			--		
4-pole		--			--		
4-pole with RCD		--			--		
Withdrawable versions Same as plug-in base installation kit, with additional side panels and racking mechanism							
Rear-accessible terminals[1]							
3-pole		**3VL9 600-4WA30**	1 unit	40.104	**3VL9 800-4WA30**	1 unit	39.996
3-pole with RCD module		--			--		
4-pole		**3VL9 600-4WA40**	1 unit	48.060	**3VL9 800-4WA40**	1 unit	47.148
4-pole with RCD module		--			--		
Front-accessible terminals							
3-pole		**3VL9 600-4WC30**	1 unit	40.716	**3VL9 800-4WC30**	1 unit	40.608
3-pole with RCD module		--			--		
4-pole		**3VL9 600-4WC40**	1 unit	48.876	**3VL9 800-4WC40**	1 unit	47.964
4-pole with RCD module		--			--		
Blade contacts As replacement for converting fixed-mounted circuit breakers into plug-in/withdrawable circuit breakers, including trip pin							
1 set = 6 units 3-pole		**3VL9 600-4PS30**	1 unit	1.500	**3VL9 800-4PS30**	1 unit	2.000
1 set = 8 units 4-pole		**3VL9 600-4PS40**	1 unit	2.000	**3VL9 800-4PS40**	1 unit	2.660
Trip pins and springs As replacement for plug-in/withdrawable circuit breaker		**3VL9 600-4PF00**	1 unit	0.025	**3VL9 800-4PF00**	1 unit	0.030
Auxiliary circuit plug connections for plug-in bases Accessory connections for plug-in circuit breakers (factory-wired connectors) and for plug-in bases or withdrawable version (coupling with screw terminal)		2)			2)		
8 terminals		**3VL9 600-4PJ00**	1 unit	0.144	**3VL9 800-4PJ00**	1 unit	0.144
Position indicator switches (connected/disconnected position) For plug-in/withdrawable base, 1 changeover contact, max. 2 signal switches possible		**3VL9 000-4WL00**	1 unit	0.019	**3VL9 000-4WL00**	1 unit	0.019


NSE0_00717


NSE00581


NSE0_00719


NSE0_00683

1) With VL800 (3VL6) to VL1600 (3VL8) as vertical connection.

2) It is recommended to use a maximum of 3 auxiliary circuit plug-in systems per circuit breaker (24 terminals).

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

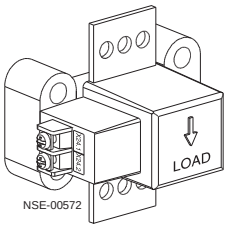
© Siemens AG 2008

RCD modules

Circuit breakers for system protection, only for TM, starters, disconnectors	Rated current I_n	Residual currents I adjustable	Delay time t_d adjustable	Rated operational voltage U_e	DT	3-pole circuit breakers	PS*	Weight per PU approx.
3-pole	A	A	s	V AC		Order No.		kg
VL160X (3VL1)		0.03	Instantaneous					
Bottom mounting[1)3)]	160	0.10	0.06	127-480		**3VL9 112-5GA30**	1 unit	1.340
Mounting kit for left side, without RCD[1)2)3)]		0.30	0.10			**3VL9 112-5GB30**	1 unit	1.525
		0.50	0.25					
VL160 (3VL2)	160	1.00	0.50	127-480		**3VL9 216-5GC30**	1 unit	1.320
		3.00	1.00	230-690		**3VL9 216-5GD30**	1 unit	1.320
VL250 (3VL3)	250			127-480		**3VL9 325-5GE30**	1 unit	1.400
				230-690		**3VL9 325-5GF30**	1 unit	1.400
VL400 (3VL4)	400			127-480		--		
				230-690		--		

Circuit breakers for system protection, only for TM, starters, disconnectors	Rated current I_n	Residual currents I adjustable	Delay time t_d adjustable	Rated operational voltage U_e	DT	4-pole circuit breakers	PS*	Weight per PU approx.
4-pole	A	A	s	V AC		Order No.		kg
VL160X (3VL1)		0.03	Instantaneous					
Bottom mounting[1)3)]	160	0.10	0.06	127-480		**3VL9 112-5GA40**	1 unit	1.590
Mounting kit for left side, without RCD[1)2)3)]		0.30	0.10			**3VL9 112-5GB40**	1 unit	1.824
		0.50	0.25					
VL160 (3VL2)	160	1.00	0.50	127-480		**3VL9 216-5GC40**	1 unit	1.570
		3.00	1.00	230-690		**3VL9 216-5GD40**	1 unit	1.570
VL250 (3VL3)	250			127-480		**3VL9 325-5GE40**	1 unit	1.650
				230-690		**3VL9 325-5GF40**	1 unit	1.650
VL400 (3VL4)	400			127-480		**3VL9 440-5GG40**	1 unit	2.980
				230-690		**3VL9 440-5GH40**	1 unit	2.980

Further accessories



	Type	Rated current I_n	DT	Order No.	PS*	Weight per PU approx.
		A				kg
	Current transformers for N conductor/grounded neutral point of the transformer for ground-fault protection in 4-wire three-phase systems[4)]					
	VL160/3VL2	63		**3VL9 280-8TC00**	1 unit	0.500
		100		**3VL9 210-8TC00**	1 unit	0.450
		160		**3VL9 216-8TC00**	1 unit	0.485
	VL250/3VL3	200		**3VL9 320-8TC00**	1 unit	0.445
		250		**3VL9 325-8TC00**	1 unit	0.493
	VL400/3VL4	315		**3VL9 440-8TC00**	1 unit	0.493
		400		**3VL9 440-8TC00**	1 unit	0.493
	VL630/3VL5	630		**3VL9 563-8TC00**	1 unit	0.760
	VL800/3VL6	800		**3VL9 680-8TC00**	1 unit	0.778
	VL1250/3VL7	1000		**3VL9 712-8TC00**	1 unit	2.080
		1250		**3VL9 712-8TC00**	1 unit	2.080
	VL1600/3VL8	1600		**3VL9 816-8TC00**	1 unit	2.110

1) Only the right-hand accessory subsection and the N conductor (4-pole) accessory sub-section can be used.

2) The assembly kit consists of the mounting plate, wiring and covers for circuit breakers and RCD module (for 75 mm standard mounting rail). The RCD module (3VL9 112-5GA30/-5GA40) must be ordered separately.

3) VL160X (3VL1) + RCD module cannot be combined with motorized operating mechanism, front operating mechanism, door-coupling rotary operating mechanism, locking device for toggle levers and screw terminal connections (3VL17 ..-....6-....).

4) Please note the rated current of the circuit breaker.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

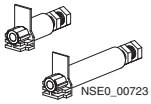
3VL Molded Case Circuit Breakers up to 1600 A

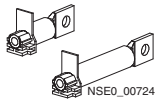
Accessories/spare parts

	DT	For VL160X (3VL1) Order No.	PS*	Weight per PU approx. kg	DT	For VL160 (3VL2) Order No.	PS*	Weight per PU approx. kg
3- or 4-pole								
Connection parts for fixed-mounted circuit breakers								
Front connecting bars[1] Phase barriers included.								
Standard								
1 unit = 1 assembly kit 3-pole		**3VL9 216-4EC30**	1 unit	0.198		**3VL9 200-4EC30**	1 unit	0.198
1 unit = 1 assembly kit 4-pole		**3VL9 216-4EC40**	1 unit	0.198		**3VL9 200-4EC40**	1 unit	0.264
For increased pole spacing								
1 unit = 1 assembly kit 3-pole		**3VL9 216-4ED30**	1 unit	0.189		**3VL9 200-4ED30**	1 unit	0.189
1 unit = 1 assembly kit 4-pole		**3VL9 216-4ED40**	1 unit	0.252		**3VL9 200-4ED40**	1 unit	0.252
Rear-mounting terminals								
Short terminal (1 unit)		**3VL9 100-4RA00**	1 unit	0.126		**3VL9 200-4RA00**	1 unit	0.126
Long terminal (1 unit)		**3VL9 100-4RB00**	1 unit	0.229		**3VL9 200-4RB00**	1 unit	0.229
Terminal kit (2 short + 1 long) 3-pole		**3VL9 100-4RC30**	1 unit	0.481		**3VL9 200-4RC30**	1 unit	0.481
Terminal kit (2 short + 2 long) 4-pole		**3VL9 100-4RF40**	1 unit	0.711		**3VL9 200-4RF40**	1 unit	0.711
Short flat connector (1 unit)		**3VL9 100-4RK00**	1 unit	0.104		**3VL9 200-4RK00**	1 unit	0.104
Long flat connector (1 unit)		**3VL9 100-4RL00**	1 unit	0.200		**3VL9 200-4RL00**	1 unit	0.200
Flat connector kit (2 short + 1 long) 3-pole		**3VL9 100-4RM30**	1 unit	0.408		**3VL9 200-4RM30**	1 unit	0.408
Flat connector kit (2 short + 2 long) 4-pole		**3VL9 100-4RN40**	1 unit	0.608		**3VL9 200-4RN40**	1 unit	0.608
Flat connecting bar (1 unit)		–				–		
Flat connecting bar 1 unit = 1 assembly kit 3-pole		–				–		
Flat connecting bar 1 unit = 1 assembly kit 4-pole		–				–		
Box terminals Connection for flexible flat copper busbar or cable.								
1 unit = 1 assembly kit 3-pole		**3VL9 100-4TC30**	1 unit	0.084		**3VL9 200-4TC30**	1 unit	0.084
1 unit = 1 assembly kit 4-pole		**3VL9 100-4TC40**	1 unit	0.112		**3VL9 200-4TC40**	1 unit	0.112
Circular conductor terminals Only for cables (Al or Cu) Aluminum terminal (tinned)								
1 unit = 1 assembly kit 3-pole		**3VL9 100-4TD30**	1 unit	0.041		**3VL9 200-4TD30**	1 unit	0.041
1 unit = 1 assembly kit 4-pole		**3VL9 100-4TD40**	1 unit	0.055		**3VL9 200-4TD40**	1 unit	0.055
Multiple feed-in terminals								
3 units 3-pole		--				--		
4 units 4-pole		--				--		
Terminals with screw connection - metric thread With insulator (for rear) for use with busbars and cable lugs.								
1 unit = 1 assembly kit 3-pole		**3VL9 100-4TA30**	1 unit	0.055		**3VL9 200-4TA30**	1 unit	0.055
1 unit = 1 assembly kit 4-pole		**3VL9 100-4TA40**	1 unit	0.070		**3VL9 200-4TA40**	10 units	0.070
Connection covers (terminal covers) for circuit breakers Degree of protection IP30 for main circuit connections 1 unit = 1 assembly kit (2 units)								
Extended 3-pole		**3VL9 300-8CA30**	1 unit	0.204		**3VL9 300-8CA30**	1 unit	0.204
Standard 3-pole		**3VL9 300-8CB30**	1 unit	0.053		**3VL9 300-8CB30**	1 unit	0.053
Extended 4-pole		**3VL9 300-8CA40**	1 unit	0.264		**3VL9 300-8CA40**	1 unit	0.264
Standard 4-pole		**3VL9 300-8CB40**	1 unit	0.071		**3VL9 300-8CB40**	1 unit	0.071
Phase barriers for circuit breakers, fixed-mounted, plug-in or withdrawable versions								
1 unit = 1 assembly kit (2 units)		**3VL9 300-8CE00**	1 unit	0.023		**3VL9 300-8CE00**	1 unit	0.023

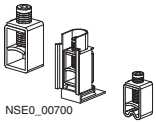
NSE0_00702

NSE0_00722

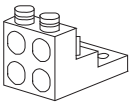

NSE0_00723

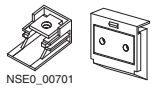

NSE0_00724

NSE0_00725


NSE0_00700

NSE0_01529


NSE0_01544


NSE0_00701

NSE0_00681

NSE0_00730

NSE0_00731

[1] Screw terminal connections are required for SENTRON VL160X (3VL1) and VL160 (3VL2) circuit breakers.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

DT	For VL250 (3VL3) Order No.	PS*	Weight per PU approx. kg	DT	For VL400 (3VL4) Order No.	PS*	Weight per PU approx. kg
	3VL9 300-4EC30	1 unit	0.256		**3VL9 400-4EC30**	1 unit	0.889
	3VL9 300-4EC40	1 unit	0.345		**3VL9 400-4EC40**	1 unit	1.193
	3VL9 300-4ED30	1 unit	0.256		**3VL9 400-4ED30**	1 unit	0.916
	3VL9 300-4ED40	1 unit	0.345		**3VL9 400-4ED40**	1 unit	1.229
	3VL9 300-4RA00	1 unit	0.126		**3VL9 400-4RA00**	1 unit	0.219
	3VL9 300-4RB00	1 unit	0.229		**3VL9 400-4RB00**	1 unit	0.377
	3VL9 300-4RC30	1 unit	0.481		**3VL9 400-4RC30**	1 unit	0.816
	3VL9 300-4RF40	1 unit	0.711		**3VL9 400-4RF40**	1 unit	1.192
	3VL9 300-4RK00	1 unit	0.104		**3VL9 400-4RK00**	1 unit	0.343
	3VL9 300-4RL00	1 unit	0.200		**3VL9 400-4RL00**	1 unit	0.052
	3VL9 300-4RM30	1 unit	0.408		**3VL9 400-4RM30**	1 unit	1.190
	3VL9 300-4RN40	1 unit	0.608		**3VL9 400-4RN40**	1 unit	1.690
	–				**–**		
	–				**–**		
	–				**–**		
	3VL9 300-4TC30	1 unit	0.192		**3VL9 400-4TC30**	1 unit	0.423
	3VL9 300-4TC40	1 unit	0.256		**3VL9 400-4TC40**	1 unit	0.573
	3VL9 300-4TD30	1 unit	0.159		**3VL9 400-4TD30**	1 unit	0.110
	3VL9 300-4TD40	1 unit	0.212		**3VL9 400-4TD40**	1 unit	0.144
	--				**3VL9 400-4TF30**	1 unit	0.420
	--				**3VL9 400-4TF40**	1 unit	0.560
	3VL9 300-4TA30	1 unit	0.090		**3VL9 400-4TA30**	1 unit	0.112
	3VL9 300-4TA40	1 unit	0.120		**3VL9 400-4TA40**	1 unit	0.149
	3VL9 300-8CA30	1 unit	0.204		**3VL9 400-8CA30**	1 unit	0.450
	3VL9 300-8CB30	1 unit	0.053		**3VL9 400-8CB30**	1 unit	0.120
	3VL9 300-8CA40	1 unit	0.264		**3VL9 400-8CA40**	1 unit	0.594
	3VL9 300-8CB40	1 unit	0.071		**3VL9 400-8CB40**	1 unit	0.164
	3VL9 300-8CE00	1 unit	0.023		**3VL9 600-8CE00**	1 unit	0.042

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

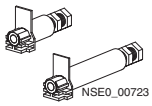
3VL Molded Case Circuit Breakers up to 1600 A

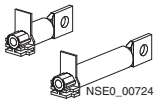
Accessories/spare parts

	DT	For VL630 (3VL5) Order No.	PS*	Weight per PU approx. kg	DT	For VL800 (3VL6) Order No.	PS*	Weight per PU approx. kg
3- or 4-pole								
Connection parts for fixed-mounted circuit breakers								
Front connecting bars								
Phase barriers included								
Standard								
1 unit = 1 assembly kit 3-pole		**3VL9 500-4EC30**	1 unit	1.028		**3VL9 600-4EC30**	1 unit	1.602
1 unit = 1 assembly kit 4-pole		**3VL9 500-4EC40**	1 unit	1.371		**3VL9 600-4EC40**	1 unit	2.136
For increased pole spacing								
1 unit = 1 assembly kit 3-pole		**3VL9 500-4ED30**	1 unit	1.059		**3VL9 600-4ED30**	1 unit	1.613
1 unit = 1 assembly kit 4-pole		**3VL9 500-4ED40**	1 unit	1.412		**3VL9 600-4ED40**	1 unit	2.154
Rear-mounting terminals								
Short terminal (1 unit)		–				–		
Long terminal (1 unit)		–				–		
Terminal kit (2 short + 1 long) 3-pole		–				–		
Terminal kit (2 short + 2 long) 4-pole		–				–		
Short flat connector (1 unit)		–				–		
Long flat connector (1 unit)		–				–		
Flat connector kit (2 short + 1 long) 3-pole		–				–		
Flat connector kit (2 short + 2 long) 4-pole		–				–		
Flat connecting bar (1 unit)		**3VL9 500-4RG00**	1 unit	0.358		**3VL9 600-4RG00**	1 unit	1.604
Flat connecting bar 1 unit = 1 assembly kit 3-pole		**3VL9 500-4RH30**	1 unit	1.075		**3VL9 600-4RH30**	1 unit	4.812
Flat connecting bar 1 unit = 1 assembly kit 4-pole		**3VL9 500-4RH40**	1 unit	1.433		**3VL9 600-4RH40**	1 unit	6.416
Box terminals								
Connection for flexible flat copper busbar or cable.								
1 unit = 1 assembly kit 3-pole		–				–		
1 unit = 1 assembly kit 4-pole		–				–		
Multiple feed-in terminals								
3 units 3-pole		**3VL9 500-4TG30**	1 unit	0.461		**3VL9 600-4TG30**	1 unit	0.918
4 units 4-pole		**3VL9 500-4TG40**	1 unit	0.614		**3VL9 600-4TG40**	1 unit	1.224
Terminals with screw connection - metric thread								
With insulator (for rear) for use with busbars and cable lugs.								
1 unit = 1 assembly kit 3-pole		**3VL9 500-4TA30**	1 unit	0.150		**3VL9 600-4TA30**	1 unit	0.289
1 unit = 1 assembly kit 4-pole		**3VL9 500-4TA40**	1 unit	0.200		**3VL9 600-4TA40**	1 unit	0.386
Connection covers (terminal covers) for circuit breakers								
Degree of protection IP30 for main circuit connections								
1 unit = 1 assembly kit (2 units)								
Extended 3-pole		**3VL9 600-8CA30**	1 unit	0.696		**3VL9 600-8CA30**	1 unit	0.696
Standard 3-pole		**3VL9 600-8CB30**	1 unit	0.210		**3VL9 600-8CB30**	1 unit	0.210
Extended 4-pole		**3VL9 600-8CA40**	1 unit	0.960		**3VL9 600-8CA40**	1 unit	0.960
Standard 4-pole		**3VL9 600-8CB40**	1 unit	0.270		**3VL9 600-8CB40**	1 unit	0.270
Phase barriers for circuit breakers, fixed-mounted, plug-in or withdrawable versions[1]								
1 unit = 1 assembly kit (2 units)		**3VL9 600-8CE00**	1 unit	0.042		**3VL9 600-8CE00**	1 unit	0.042

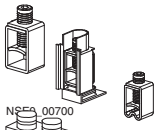
NSE0_00702

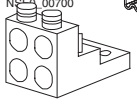
NSE0_00722

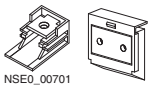

NSE0_00723


NSE0_00724

NSE0_00725


NSE0_00700


NSE0_01544


NSE0_00701

NSE0_00681

NSE0_00730

NSE0_00731

[1] Withdrawable version not for VL800, VL1250, VL1600; plug-in version not for VL1250, VL1600.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

DT	For VL1250 (3VL7) Order No.	PS*	Weight per PU approx. kg	DT	For VL1600 (3VL8) Order No.	PS*	Weight per PU approx. kg
	3VL9 800-4EC30	1 unit	3.313		**3VL9 800-4EC30**[1)]	1 unit	3.313
	3VL9 800-4EC40	1 unit	4.438		**3VL9 800-4EC40**[1)]	1 unit	4.438
	–				–		
	–				–		
	–				–		
	–				–		
	–				–		
	–				–		
	–				–		
	–				–		
	–				–		
	–				–		
	3VL9 700-4RG00	1 unit	1.604		**3VL9 800-4RG00**	1 unit	1.527
	3VL9 700-4RH30	1 unit	4.812		**3VL9 800-4RH30**	1 unit	4.581
	3VL9 700-4RH40	1 unit	6.416		**3VL9 800-4RH40**	1 unit	6.108
	–				–		
	–				–		
	3VL9 700-4TG30	1 unit	2.175		–		
	3VL9 700-4TG40	1 unit	2.900		–		
	3VL9 800-4TA30	1 unit	0.319		**3VL9 800-4TA30**	1 unit	0.319
	3VL9 800-4TA40	1 unit	0.426		**3VL9 800-4TA40**	1 unit	0.426
	3VL9 800-8CA30	1 unit	1.060		**3VL9 800-8CA30**	1 unit	1.060
	3VL9 800-8CB30	1 unit	0.360		**3VL9 800-8CB30**	1 unit	0.360
	3VL9 800-8CA40	1 unit	1.326		**3VL9 800-8CA40**	1 unit	1.326
	3VL9 800-8CB40	1 unit	0.470		**3VL9 800-8CB40**	1 unit	0.470
	3VL9 800-8CE00	1 unit	0.130		**3VL9 800-8CE00**	1 unit	0.130

[1)] In scope of supply of circuit breaker.

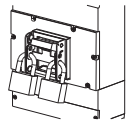
*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

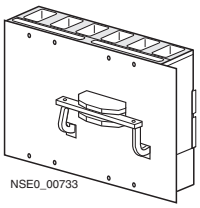
© Siemens AG 2008

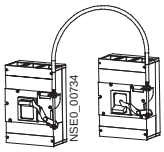
3VL Molded Case Circuit Breakers up to 1600 A

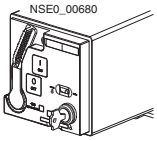
Accessories/spare parts

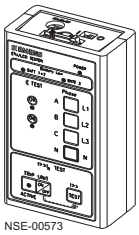
3- or 4-pole	DT	For VL160X (3VL1) Order No.	PS*	Weight per PU approx. kg	DT	For VL160 (3VL2) Order No.	PS*	Weight per PU approx. kg
Interlocks								
Locking devices for toggle levers For locking the circuit breaker in the "OFF" position. Up to 3 padlocks with Ø 5 – 8 mm can be used. Removable (padlocks not included)		**3VL9 300-3HL00**	1 unit	0.052		**3VL9 300-3HL00**	1 unit	0.052
Rear interlocking modules For the mechanical interlocking of two adjacent circuit breakers. The circuit breakers must be of the same installation type and size. (Mounting plate not included in scope of supply)								
Fixed-mounted circuit breakers		**3VL9 300-8LC00**	1 unit	0.215		**3VL9 300-8LC00**	1 unit	0.215
Plug-in/withdrawable circuit breakers		**3VL9 300-8LD00**	1 unit	0.223		**3VL9 300-8LD00**	1 unit	0.223
Interlocking modules for Bowden wire interlocking[1] For the mechanical interlocking of two circuit breakers. Interlocking module for one circuit breaker		Combinations of next size up/down possible (see Order No.) **3VL9 300-8LA00**	1 unit	0.174		**3VL9 300-8LA00**	1 unit	0.174
Bowden wires for Bowden wire interlocking[1]								
Wire length 0.5 m		**3VL9 000-8LH10**	1 unit	0.206		**3VL9 000-8LH10**	1 unit	0.206
Wire length 1.0 m		**3VL9 000-8LH20**	1 unit	0.298		**3VL9 000-8LH20**	1 unit	0.298
Wire length 1.5 m		**3VL9 000-8LH30**	1 unit	0.412		**3VL9 000-8LH30**	1 unit	0.412
Safety lock assembly kits Key can be removed with the circuit breaker in the "OFF" position For front-operated rotary operating mechanisms								
Lock types								
Ronis		**3VL9 715-8HA00**	1 unit	0.309		**3VL9 715-8HA00**	1 unit	0.309
For motorized operating mechanism with spring energy store								
Lock types								
Ronis		–				–		
Filli Giussani		**3VL9 321-8HA00**	1 unit	0.053		**3VL9 321-8HA00**	1 unit	0.053
Sets of fixing screws (metric thread) Including the screws, washers and nuts required to secure a 3 or 4-pole circuit breaker to a prepared surface								
1 unit = 1 assembly kit (4 screws)		**3VL9 300-8SA40**	1 unit	0.030		**3VL9 300-8SA40**	1 unit	0.030
Transparent covers for trip units, sealable								
to prevent access by unqualified personnel and unauthorized changes to settings (seal not included)								
Solid-state overcurrent trip unit		–				**3VL9 700-8BL00**	1 unit	0.002
Thermal-magnetic		**3VL9 300-8BM00**	1 unit	0.015		**3VL9 300-8BM00**	1 unit	0.015
Manual testers for electronic trip units (battery-operated) For ETU/LCD ETU trip unit, also interface with laptop or PC		–				**3VL9 000-8AK00**	1 unit	0.419
Universal power supplies for function testers (AC 50/60 Hz 120–240 V) Adapter unit required if the battery power for the manual tester is not used		–				**3VL9 000-8AL00**	1 unit	0.368
Battery power supplies For activating/parameterizing the LCD ETU trip unit (two 9 V blocks are required in addition)		–				**3VL9 000-8AP00**	1 unit	0.605

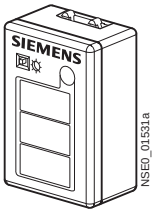

NSE0_00732


NSE0_00733


NSE0_00734


NSE0_00680


NSE-00573



NSE0_01531a

[1] Two interlocking modules and one Bowden wire are required.
Cannot be used in conjunction with motorized operating mechanism.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

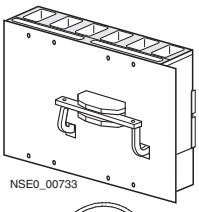
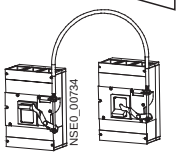
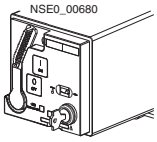
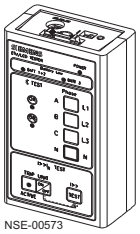
DT	For VL250 (3VL3) Order No.	PS*	Weight per PU approx. kg	DT	For VL400 (3VL4) Order No.	PS*	Weight per PU approx. kg
	3VL9 300-3HL00	1 unit	0.052		**3VL9 400-3HL00**	1 unit	0.122
	3VL9 300-8LC00	1 unit	0.215		**3VL9 400-8LC00**	1 unit	0.386
	3VL9 300-8LD00	1 unit	0.223		**3VL9 400-8LD00**	1 unit	0.436
	3VL9 300-8LA00	1 unit	0.174		**3VL9 400-8LA00**	1 unit	0.196
	3VL9 000-8LH10	1 unit	0.206		–		
	3VL9 000-8LH20	1 unit	0.298		**3VL9 000-8LH20**	1 unit	0.298
	3VL9 000-8LH30	1 unit	0.412		**3VL9 000-8LH30**	1 unit	0.412
	3VL9 715-8HA00	1 unit	0.309		**3VL9 715-8HA00**	1 unit	0.309
	–				**3VL9 715-8HA00**	1 unit	0.309
	3VL9 321-8HA00	1 unit	0.053		–		
	3VL9 300-8SA40	1 unit	0.030		**3VL9 500-8SA40**	1 unit	0.090
	3VL9 700-8BL00	1 unit	0.002		**3VL9 700-8BL00**	1 unit	0.002
	3VL9 300-8BM00	1 unit	0.015		**3VL9 400-8BM00**	1 unit	0.017
	3VL9 000-8AK00	1 unit	0.419		**3VL9 000-8AK00**	1 unit	0.419
	3VL9 000-8AL00	1 unit	0.368		**3VL9 000-8AL00**	1 unit	0.368
	3VL9 000-8AP00	1 unit	0.605		**3VL9 000-8AP00**	1 unit	0.605

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3VL Molded Case Circuit Breakers up to 1600 A

Accessories/spare parts

3- or 4-pole	DT	For VL630 (3VL5) Order No.	PS*	Weight per PU approx. kg	DT	For VL800 (3VL6) Order No.	PS*	Weight per PU approx. kg
Interlocks								
NSE0_00732 **Locking devices for toggle levers** For locking the circuit breaker in the "OFF" position. Up to 3 padlocks with Ø 5 – 8 mm can be used. Removable (padlocks not included)		**3VL9 600-3HL00**	1 unit	0.130		**3VL9 600-3HL00**	1 unit	0.130
 NSE0_00733 **Rear interlocking modules** For the mechanical interlocking of two adjacent circuit breakers. The circuit breakers must be of the same installation type and size.								
Fixed-mounted circuit breakers		**3VL9 600-8LC00**	1 unit	1.499		**3VL9 600-8LC00**	1 unit	1.499
Plug-in/withdrawable circuit breakers		**3VL9 600-8LD00**	1 unit	5.076		**3VL9 600-8LD00**	1 unit	5.076
 NSE0_00734 **Interlocking modules for Bowden wire interlocking**[1] For the mechanical interlocking of two circuit breakers. Interlocking module for one circuit breaker.		Combinations of next size up/down possible (see Order No.) **3VL9 600-8LA00**	1 unit	0.244		**3VL9 600-8LA00**	1 unit	0.244
Bowden wires for Bowden wire interlocking[1]								
Wire length 0.5 m		–				–		
Wire length 1.0 m		**3VL9 000-8LH20**	1 unit	0.298		**3VL9 000-8LH20**	1 unit	0.298
Wire length 1.5 m		**3VL9 000-8LH30**	1 unit	0.412		**3VL9 000-8LH30**	1 unit	0.412
Safety lock assembly kits Key can be removed with the circuit breaker in the "OFF" position								
For front-operated rotary operating mechanisms								
Lock types								
Ronis		**3VL9 715-8HA00**	1 unit	0.309		**3VL9 715-8HA00**	1 unit	0.309
 NSE0_00680 For motorized operating mechanism with spring energy store Lock types Ronis		**3VL9 715-8HA00**	1 unit	0.309		**3VL9 715-8HA00**	1 unit	0.309
Filli Giussani		–				–		
Sets of fixing screws (metric thread) Including the screws, washers and nuts required to secure a 3- or 4-pole circuit breaker to a prepared surface								
1 unit = 1 assembly kit (4 screws)		**3VL9 500-8SA40**	1 unit	0.090		**3VL9 600-8SA40**	1 unit	0.090
Transparent covers for trip units, sealable To prevent access by unqualified personnel and unauthorized changes to settings (seal not included) Solid-state overcurrent trip unit		**3VL9 700-8BL00**	1 unit	0.002		**3VL9 700-8BL00**	1 unit	0.002
Thermal-magnetic		**3VL9 600-8BM00**	1 unit	0.019		–		
 NSE-00573 **Manual testers for electronic trip units** (battery-operated) For ETU/LCD ETU trip unit, also interface with laptop or PC		**3VL9 000-8AK00**	1 unit	0.419		**3VL9 000-8AK00**	1 unit	0.419
Universal power supplies (AC 50/60 Hz 120–240 V) Adapter unit required if the battery power for the manual tester is not used		**3VL9 000-8AL00**	1 unit	0.368		**3VL9 000-8AL00**	1 unit	0.368
Battery power supplies For activating/parameterizing the LCD ETU trip unit (two 19 V blocks are required in addition)		**3VL9 000-8AP00**	1 unit	0.605		**3VL9 000-8AP00**	1 unit	0.605

[1] Two interlocking modules and one Bowden wire are required. Cannot be used in conjunction with motorized operating mechanism.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

DT	For VL1250 (3VL7) Order No.	PS*	Weight per PU approx. kg	DT	For VL1600 (3VL8) Order No.	PS*	Weight per PU approx. kg
	3VL9 800-3HL00	1 unit	0.238		**3VL9 800-3HL00**	1 unit	0.238
	3VL9 800-8LC00	1 unit	2.935		**3VL9 800-8LC00**	1 unit	2.935
	3VL9 800-8LD00	1 unit	3.825		**3VL9 800-8LD00**	1 unit	3.825
	3VL9 800-8LA00	1 unit	0.283		**3VL9 800-8LA00**	1 unit	0.283
	–				–		
	–				–		
	3VL9 000-8LH30	1 unit	0.412		**3VL9 000-8LH30**	1 unit	0.412
	3VL9 715-8HA00	1 unit	0.309		**3VL9 715-8HA00**	1 unit	0.309
	3VL9 715-8HA00	1 unit	0.309		**3VL9 715-8HA00**	1 unit	0.309
	–				–		
	3VL9 800-8SA40	1 unit	0.090		**3VL9 800-8SA40**	1 unit	0.090
	3VL9 700-8BL00	1 unit	0.002		**3VL9 700-8BL00**	1 unit	0.002
	–				–		
	3VL9 000-8AK00	1 unit	0.419		**3VL9 000-8AK00**	1 unit	0.419
	3VL9 000-8AL00	1 unit	0.368		**3VL9 000-8AL00**	1 unit	0.368
	3VL9 000-8AP00	1 unit	0.605		**3VL9 000-8AP00**	1 unit	0.605

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3VF2 Molded Case Circuit Breakers up to 100 A

3-pole, fixed-mounted versions
4-pole, fixed-mounted versions

Selection and ordering data

3-pole

Making/breaking capacity class A			
Rated ultimate short-circuit breaking capacity I_{cu}	Up to 240 V	kA	65
	Up to 415 V	kA	18
Rated service short-circuit breaking capacity I_{cs}	Up to 240 V	kA	33
	Up to 415 V	kA	9
Rated short-circuit making capacity I_{cm}	Up to 240 V	kA	143
	Up to 415 V	kA	36

	Rated current I_n	Set current of the inverse-time delayed overload release "L" I_r	Operating current of instantaneous short-circuit release "I" I_i	DT	VF100 circuit breakers Making/breaking capacity class A	PS*	Weight per PU approx.
					Order No.		
	A	A	A				kg
3VF2 circuit breakers, up to 18 kA							
System protection, TM							
With permanently set thermal overload releases							
NSE0_00695	16	16	350		**3VF22 13-0FC41-0AA0**	1 unit	0.948
	20	20	450		**3VF22 13-0FD41-0AA0**	1 unit	0.953
	25	25	500		**3VF22 13-0FE41-0AA0**	1 unit	0.961
	32	32	600		**3VF22 13-0FG41-0AA0**	1 unit	0.949
	40	40	750		**3VF22 13-0FJ41-0AA0**	1 unit	0.973
	45	45	750		**3VF22 13-0FK41-0AA0**	1 unit	0.960
	50	50	800		**3VF22 13-0FL41-0AA0**	1 unit	0.963
	63	63	800		**3VF22 13-0FN41-0AA0**	1 unit	0.967
	70	70	900		**3VF22 13-0FP41-0AA0**	1 unit	0.980
	80	80	900		**3VF22 13-0FQ41-0AA0**	1 unit	0.976
	90	90	1000		**3VF22 13-0FR41-0AA0**	1 unit	0.968
	100	100	1000		**3VF22 13-0FS41-0AA0**	1 unit	0.977

4-pole

Making/breaking capacity class A			
Rated ultimate short-circuit breaking capacity I_{cu}	Up to 240 V	kA	65
	Up to 415 V	kA	18
Rated service short-circuit breaking capacity I_{cs}	Up to 240 V	kA	33
	Up to 415 V	kA	9
Rated short-circuit making capacity I_{cm}	Up to 240 V	kA	143
	Up to 415 V	kA	36

	Rated current I_n	Set current of the inverse-time delayed overload release "L" I_r	Operating current of instantaneous short-circuit release "I" I_i	DT	VF100 circuit breakers Making/breaking capacity class A	PS*	Weight per PU approx.
					Order No.		
	A	A	A				kg
3VF2 circuit breakers, up to 18 kA							
System protection, TM							
With permanently set thermal overload releases, with overload and short-circuit releases in the 4th pole (N = 100 %).							
NSE0_00695	16	16	350		**3VF22 14-0JC41-0AA0**	1 unit	1.299
	20	20	450		**3VF22 14-0JD41-0AA0**	1 unit	1.271
	25	25	500		**3VF22 14-0JE41-0AA0**	1 unit	1.252
	32	32	600		**3VF22 14-0JG41-0AA0**	1 unit	1.257
	40	40	750		**3VF22 14-0JJ41-0AA0**	1 unit	1.300
	45	45	750		**3VF22 14-0JK41-0AA0**	1 unit	1.299
	50	50	800		**3VF22 14-0JL41-0AA0**	1 unit	1.272
	63	63	800		**3VF22 14-0JN41-0AA0**	1 unit	1.277
	70	70	900		**3VF22 14-0JP41-0AA0**	1 unit	1.299
	80	80	900		**3VF22 14-0JQ41-0AA0**	1 unit	1.288
	90	90	1000		**3VF22 14-0JR41-0AA0**	1 unit	1.295
	100	100	1000		**3VF22 14-0JS41-0AA0**	1 unit	1.299

© Siemens AG 2008

Selection and ordering data

Operating mechanisms	DT	Order No.	PS*	Weight per PU approx. kg
Operating mechanisms				
Front-operated rotary operating mechanisms				
For direct mounting on circuit breakers Degree of protection IP30, black knob Max. 3 padlocks		**3VF9 223–1AA00**	1 unit	0.232
EMERGENCY-STOP version Red knob, yellow indicator plate		**3VF9 223–1BA00**	1 unit	0.232
Version with shaft end, without knob (required 8UC61 operating mechanism, see below)		**3VF9 223–1JA00**	1 unit	0.204
Door-coupling rotary operating mechanisms				
Standard version, black		**8UC61 12–1BD22**	1 unit	0.417
EMERGENCY-STOP version, red/yellow		**8UC61 22–3BD22**	1 unit	0.402
To be ordered separately: Front-operated rotary operating mechanism with shaft end		**3VF9 223–1JA00**	1 unit	0.204
Connection parts, covers				
3VF22 rear terminals				
For 45 to 100 A (for cover, see below)	For 3-pole circuit breakers 1 set = 6 units	**3VF9 224–1LD10**	1 unit	0.252
	For 4-pole circuit breakers 1 set = 8 units	**3VF9 224–1LD20**	1 unit	0.333
Terminal covers				
For main circuit connection, cable connection	For 3-pole circuit breakers 1 set = 2 units	**3VF9 224–1NB10**	1 unit	0.063
	For 4-pole circuit breakers 1 set = 2 units	**3VF9 224–1NB20**	1 unit	0.079
Covers with cap dimension 45 mm				
For distributor structure	For 3-pole circuit breakers	**3VF9 220–1CA10**	1 unit	0.019
	For 4-pole circuit breakers	**3VF9 220–1CA20**	1 unit	0.021
Masking frames for door cut-out				
For circuit breakers	1 set = 1 unit	**3VF9 220–1AA00**	1 unit	0.048
Shunt trip units[1)]				
Version with terminal blocks				
Shunt trip units				
AC 50/60 Hz	DC			
--	24 V	**3VF9 221–1JD10**	1 unit	0.297
110-127 V	--	**3VF9 221–1JP10**	1 unit	0.292
220-240 V	--	**3VF9 221–1JM10**	1 unit	0.311
380-415 V	--	**3VF9 221–1JV10**	1 unit	0.282
Shunt trip units with auxiliary switch 1 CO				
AC 50/60 Hz	DC			
--	24 V	**3VF9 221–1KD10**	1 unit	0.302
110-127 V	--	**3VF9 221–1KP10**	1 unit	0.300
220-240 V	--	**3VF9 221–1KM10**	1 unit	0.288
380-415 V	--	**3VF9 221–1KV10**	1 unit	0.297
Auxiliary switches and alarm switches[1)]				
Version with terminal blocks				
Tripped signaling/alarm switches				
	1 CO	**3VF9 222–1AC10**	1 unit	0.240
Alarm switches (AS) and auxiliary switches (HS)				
	1 CO (AS) + 1 CO (HS)	**3VF9 222–1DC10**	1 unit	0.243
Auxiliary switches				
	1 CO	**3VF9 222–1BC10**	1 unit	0.275
	2 CO	**3VF9 222–1CC10**	1 unit	0.235

[1)] Only one accessory part possible per 3VF2 circuit breaker; mounting on left side of circuit breaker.

16

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Notes

© Siemens AG 2008

SENTRON Switching and Protection Devices – Switch Disconnectors

17

17/2 **Introduction**

3KA, 3LD Switch Disconnectors
3KA Switch Disconnectors up to 630 A
17/4 Floor mounting
17/5 Molded-plastic enclosures
17/6 Accessories
3LD Main Control and EMERGENCY-STOP Switches up to 125 A
17/7 Front mounting
17/8 Floor mounting
17/9 Distribution board mounting
Molded-plastic enclosures
17/10 Accessories

3KL Switch Disconnectors with Fuses
3KL Switch Disconnectors with Fuses up to 800 A
17/12 Surface mounting and installation
17/14 Accessories

3NP, 3NJ4, 3NJ5 Fuse Switch Disconnectors
3NP Fuse Switch Disconnectors up to 630 A
17/15 For power distribution
17/16 - With fuse monitoring
17/17 - Accessories
17/18 For extended technical requirements
17/19 - With fuse monitoring
17/20 - Accessories
17/21 - Assembly kits for distribution systems
3NJ4, 3NJ5 In-Line Fuse Switch Disconnectors up to 1250 A
17/22 1-pole and 3-pole switchable
17/23 Accessories

Fuses
17/24 LV HRC fuses
17/26 SITOR semiconductor fuses

© Siemens AG 2008

Introduction

Overview

Type		3LD20	3LD21	3LD22	3LD25	3LD27	3LD28
3LD main control and EMERGENCY-STOP switches from 16 A to 125 A							
Rated uninterrupted current I_u							
At 35 °C ambient temperature	A	16	25	32	63	100	125
Rated operational voltage							
U_e	V	690	690	690	690	690	690
AC-3 motor load switches							
Operational switching of individual motors							
• At 220 ... 240 V	kW	3.0	4.0	5.5	11.0	18.5	22.0
• At 380 ... 440 V	kW	5.5	7.5	9.5	18.5	30.0	37.0
• At 660/690 V	kW	5.5	7.5	9.5	15.0	22.0	30.0
AC-23A main control switches, maintenance switches							
Frequent, but not operational switching of single motors							
• At 220 ... 240 V	kW	4.0	5.0	6.0	11.0	18.5	22.0
• At 380 ... 440 V	kW	7.5	9.5	11.5	22.0	37.0	45.0
• At 660/690 V	kW	7.5	9.5	11.5	18.5	30.0	37.0
Switch versions							
Front mounting							
• Central		✓	✓	✓	✓	--	--
• Four-hole		✓	✓	✓	✓	✓	✓
Floor mounting							
• Central		✓	✓	✓	✓	--	--
• Four-hole		✓	✓	✓	✓	✓	✓
Distribution Board Mounting		✓	✓	✓	✓	✓	✓
Molded-plastic enclosure							
• Metric screwed glands		✓	✓	✓	✓	✓	✓
Switch accessories							
4th pole (N conductor) (leading switch-on, delayed switch-off)		✓	✓	✓	✓	✓	✓
N terminals		✓	✓	✓	✓	✓	✓
PE terminals		✓	✓	✓	✓	✓	✓
Auxiliary contacts							
• 1 NO + 1 NC		✓	✓	✓	✓	✓	✓

✓ Available

-- Not available

© Siemens AG 2008

Type		3NP	3K	3NJ4
SENTRON				
Rated uninterrupted current I_u				
At 35 °C ambient temperature	A	160 ... 630	63 ... 1000[1)]	160 ... 1250
Rated operational voltage				
U_e	V	690	690	690
AC-21				
At 400 V		✓	✓	✓
At 500 V		✓	✓	✓
At 690 V		✓	✓	✓
AC-22				
At 400 V		✓	✓	✓
At 500 V		✓	✓	✓
At 690 V		✓	✓	✓
AC-23				
At 400 V		✓	✓	--
At 500 V		--	✓	--
At 690 V		--	✓	--
Switch versions				
Front mounting		--	✓	--
Floor mounting		✓	✓	--
Busbars				
• 40 mm		✓	--	--
• 60 mm		✓	✓	--
• 185 mm		--	--	✓
Molded-plastic enclosures		✓	✓	--
Switch accessories				
Auxiliary contacts				
• 1 NO + 1 NC		--	✓	--
• 1 CO		✓	✓	✓
Fuse monitoring				
• With circuit breakers		✓	✓	✓
• With electronics		✓	✓	✓

1) For other versions > 800 A see A&D Mall.

© Siemens AG 2008

3KA Switch Disconnectors up to 630 A

Floor mounting

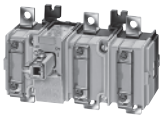
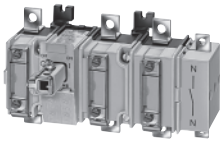
Application

3KA switch disconnectors are implemented as main control switches and EMERGENCY-STOP switches for normal switching duty and isolation of main circuits and auxiliary circuits. Another field of application is the switching of induction motors and other loads in the event of maintenance and repair.

Main control and EMERGENCY-STOP switches are manually operated switch disconnectors according to IEC 60947-3 and EN 60947-3 and comply with the conditions for switch disconnectors and the requirements of the machinery directive EN 60204-1.

Selection and ordering data

All switch disconnectors with degree of protection IP00
Conductor connecting screws are generally included in the scope of supply

	Rated uninterrupted current I_u	DT	Order No.	PS*	Weight per PU approx.
	A				kg
Complete versions with 8UC7 door-coupling rotary operating mechanism (black handle)					
	3-pole for motor loads and for power distribution				
	63		**3KA50 30-1GE01**	1 unit	1.444
	80		**3KA51 30-1GE01**	1 unit	1.403
	125		**3KA52 30-1GE01**	1 unit	2.383
	160		**3KA53 30-1GE01**	1 unit	2.426
	250		**3KA55 30-1GE01**	1 unit	5.475
	400		**3KA57 30-1GE01**	1 unit	5.556
	630		**3KA58 30-1GE01**	1 unit	6.128
	4-pole[1] for power distribution				
	63		**3KA50 40-1GE01**	1 unit	2.498
	80		**3KA51 40-1GE01**	1 unit	2.540
	125		**3KA52 40-1GE01**	1 unit	2.490
	160		**3KA53 40-1GE01**	1 unit	2.458
	250		**3KA55 40-1GE01**	1 unit	6.038
	400		**3KA57 40-1GE01**	1 unit	5.154
	630		**3KA58 40-1GE01**	1 unit	6.595
Basic switch versions without handle					
	3-pole for motor loads and for power distribution				
 3KA53 30-1AE01	63		**3KA50 30-1AE01**	1 unit	0.946
	80		**3KA51 30-1AE01**	1 unit	0.918
	125		**3KA52 30-1AE01**	1 unit	1.880
	160	►	**3KA53 30-1AE01**	1 unit	2.028
	250		**3KA55 30-1AE01**	1 unit	4.514
	400		**3KA57 30-1AE01**	1 unit	4.630
	630		**3KA58 30-1AE01**	1 unit	5.151
	4-pole[1] for power distribution				
 3KA53 40-1AE01	63		**3KA50 40-1AE01**	1 unit	2.100
	80		**3KA51 40-1AE01**	1 unit	2.112
	125		**3KA52 40-1AE01**	1 unit	2.090
	160		**3KA53 40-1AE01**	1 unit	2.240
	250		**3KA55 40-1AE01**	1 unit	5.042
	400		**3KA57 40-1AE01**	1 unit	5.195
	630		**3KA58 40-1AE01**	1 unit	5.740
8UC7 EMERGENCY-STOP door-coupling rotary operating mechanisms (red handle, yellow indicator plate) for basic switch versions without handle					
	3-pole for motor loads and for power distribution				
	63		**8UC71 21-3BB10**	1 unit	0.200
	80		**8UC71 21-3BB10**	1 unit	0.200
	125		**8UC72 22-3BB20**	1 unit	0.200
	160		**8UC72 22-3BB20**	1 unit	0.200
	250		**8UC73 23-3BB30**	1 unit	0.200
	400		**8UC73 23-3BB30**	1 unit	0.200
	630		**8UC73 23-3BB30**	1 unit	0.200
	4-pole[1] for power distribution				
	63		**8UC72 22-3BB20**	1 unit	0.200
	80		**8UC72 22-3BB20**	1 unit	0.200
	125		**8UC72 22-3BB20**	1 unit	0.200
	160		**8UC72 22-3BB20**	1 unit	0.200
	250		**8UC73 23-3BB30**	1 unit	0.200
	400		**8UC73 23-3BB30**	1 unit	0.200
	630		**8UC73 23-3BB30**	1 unit	0.200

[1] Rated values reduced in the event of strong harmonics caused by frequency converter operation.

For 8UC7 EMERGENCY-STOP door-coupling rotary operating mechanisms (red handle, yellow indicator plate), see Accessories.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

Molded-plastic enclosures, degree of protection IP65

	Main contact elements	Auxiliary contact elements	P/AC-23A at 380 ... 400 V	P/AC-23A at 660/ 690 V	I_u	Conductor cross-section of main conductor/PEN	DT	Order No.	PS*	Weight per PU approx.
			kW	kW	A	mm²				kg
Main control switches complete with rotary operating mechanism, black[1)]										
8HP2 7..	3	--	65	110	125	35/35[2)]		**8HP2 707**	1 unit	5.240
			80	150	160	120/70[2)]		**8HP2 711**	1 unit	8.039
			132	220	250	150/70[2)]		**8HP2 712**	1 unit	12.242
			200	375	400	2 × 150 or 1 × 240/120		**8HP2 717**	1 unit	12.378
			350	375	630	2 × 240/120		**8HP2 718**	1 unit	13.050
			315	315	800[3)]	2 × 240/240		**8HP2 738**	1 unit	14.290
EMERGENCY-STOP switches complete with rotary operating mechanism, red/yellow[1)]										
	3	--	65	110	125	35/35[2)]		**8HP2 747**	1 unit	5.217
			80	150	160	120/70[2)]		**8HP2 748**	1 unit	7.992
			132	220	250	150/70[2)]		**8HP2 761**	1 unit	12.340
			200	375	400	2 × 150 or 1 × 240/120		**8HP2 762**	1 unit	12.354
			350	375	630	2 × 240/120		**8HP2 763**	1 unit	12.875
			315	315	800[3)]	2 × 240/240		**8HP2 758**	1 unit	14.329

1) With PE/ground or N terminal.
2) For a fifth conductor, the same terminal can be fitted additionally.
3) At ambient temperature up to 35 °C.

© Siemens AG 2008

Accessories

Selection and ordering data

		DT	Order No.	PS*	Weight per PU approx. kg
3KA50 30/3KA51 30					
3KX3 552-3DA01	**Terminal covers** (1 set = 6 units) for 3-pole devices (1 set = 8 units) for 4-pole devices	►	**3KX3 552-3DA01** **3KX3 552-3DB01**	1 unit 1 unit	0.077 0.102
	Door-coupling rotary operating mechanisms IP65 Black handle, shaft 300 mm EMERGENCY-STOP (yellow/red), shaft 300 mm		**8UC71 11-1BB10** **8UC71 21-3BB10**	1 unit 1 unit	0.200 0.200
3KX3 516-1AA	**Operating mechanisms for fixed mounting** Black handle, shaft 250 mm	►	**3KX3 516-1AA**	1 unit	0.088
	Extension shafts, 300 mm long		**8UC60 31**	1 unit	0.068
	Extension shafts, 600 mm long		**8UC60 81**	1 unit	0.136
	Shaft connecting pieces		**8UC60 21**	1 unit	0.031
	Auxiliary switches 1 NO + 1 NC[1)]		**3SB14 00-0A**	1 unit	0.020
3KA50 40/3KA51 40/3KA52/3KA53					
3KX3 552-3DA01	**Terminal covers** (1 set = 6 units) for 3-pole devices	►	3KA52 **3KX3 552-3DA01**	1 unit	0.077
		►	3KA53 **3KX3 553-3DA01**	1 unit	0.147
	(1 set = 8 units) for 4-pole devices		3KA52 **3KX3 552-3DB01**	1 unit	0.102
			3KA53 **3KX3 553-3DB01**	1 unit	0.170
	Door-coupling rotary operating mechanisms IP65 Black handle, shaft 300 mm EMERGENCY-STOP (yellow/red), shaft 300 mm		**8UC72 12-1BB20** **8UC72 22-3BB20**	1 unit 1 unit	0.200 0.200
8UC62 12-1BB20	**Operating mechanisms for fixed mounting** Black handle, shaft 250 mm	►	**3KX3 536-1AA**	1 unit	0.155
	Extension shafts, 300 mm long		**8UC60 32**	1 unit	0.132
	Extension shafts, 600 mm long		**8UC60 82**	1 unit	0.265
	Shaft connecting pieces		**8UC60 22**	1 unit	0.023
	Auxiliary switches 1 NO + 1 NC[1)]		**3SB14 00-0A**	1 unit	0.019
	20 ms leading 1 NO + 1 NC[1)]		**3KX3 552-3EA01**	1 unit	0.020
3KA55/3KA57/3KA58					
	Terminal covers (1 set = 6 units) for 3-pole devices (1 set = 8 units) for 4-pole devices	►	**3KX3 557-3DA01** **3KX3 557-3DB01**	1 unit 1 unit	0.277 0.362
	Door-coupling rotary operating mechanisms IP65 Black handle, shaft 300 mm EMERGENCY-STOP (yellow/red), shaft 300 mm		**8UC73 13-1BB30** **8UC73 23-3BB30**	1 unit 1 unit	0.200 0.200
3KX3 176-1E	**Operating mechanisms for fixed mounting** Black handle, shaft 250 mm	►	**3KX3 176-1E**	1 unit	0.285
	Extension shafts, 300 mm long		**8UC60 33**	1 unit	0.217
	Extension shafts, 600 mm long		**8UC60 83**	1 unit	0.430
	Shaft connecting pieces		**8UC60 23**	1 unit	0.085
	Auxiliary switches 1 NO + 1 NC[1)]		**3SB14 00-0A**	1 unit	0.020
	20 ms leading 1 NO + 1 NC[1)]		**3KX3 552-3EA01**	1 unit	0.019

[1)] For more 3SB14 00-0. contact blocks with other contact types, see Pushbutton Units and Indicator Lights.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

3LD Main Control and EMERGENCY-STOP Switches up to 125 A

Application

The 3LD switches are used for switching main and auxiliary circuits, but also for switching induction motors and other loads during maintenance and repair work.

The 3LD switches can be used as
- ON-OFF switch
- EMERGENCY-STOP switches and
- main control and EMERGENCY-STOP switches according to EN 60204-1.

They are manually operated switch disconnectors according to IEC 60947-3 and comply with the conditions for switch disconnectors and the requirements of the machinery directive EN 60204-1.

Selection and ordering data

	Number and version of the contacts		Rated data at 50 ... 60 Hz 380 ... 440 V			DT	Order No.	PS*	Weight per PU approx.
	Main contact elements	Auxiliary contact elements	P/AC-3	P/AC-23A	I_u/ AC-21A				
			kW	kW	A				kg
	Main control and EMERGENCY-STOP switches with rotary operating mechanism								
	• Lockable in 0 position with up to 3 padlocks								
	• Degree of protection at front side IP65								
	• Front plate - 3LD2 0, 3LD2 1, 3LD2 2: 67 × 67 mm - 3LD2 5 to 3LD2 8: 90 × 90 mm.								
Four-hole mounting									
 3LD2 203-0TK53	3	--	5.5	7.5	16	►	**3LD2 003-0TK□□**	1 unit	0.207
			7.5	9.5	25	►	**3LD2 103-0TK□□**	1 unit	0.206
			9.5	11.5	32	►	**3LD2 203-0TK□□**	1 unit	0.206
			18.5	22	63	►	**3LD2 504-0TK□□**	1 unit	0.424
			30	37	100	►	**3LD2 704-0TK□□**	1 unit	0.501
			37	45	125		**3LD2 804-0TK□□**	1 unit	0.503
	3 + N	--	5.5	7.5	16	►	**3LD2 003-1TL□□**	1 unit	0.217
			7.5	9.5	25		**3LD2 103-1TL□□**	1 unit	0.243
			9.5	11.5	32		**3LD2 203-1TL□□**	1 unit	0.243
			18.5	22	63		**3LD2 504-1TL□□**	1 unit	0.424
			30	37	100	►	**3LD2 704-0TK□□ +**[1]	1 unit	0.501
						►	**3LD9 280-0B**	1 unit	0.101
			37	45	125		**3LD2 804-0TK□□ +**[1]	1 unit	0.503
						►	**3LD9 280-0B**	1 unit	0.101
Center-hole mounting Ø 22.5 mm									
	3	--	5.5	7.5	16		**3LD2 054-0TK□□**	1 unit	0.215
			7.5	9.5	25		**3LD2 154-0TK□□**	1 unit	0.215
			9.5	11.5	32		**3LD2 254-0TK□□**	1 unit	0.214
			18.5	22	63		**3LD2 555-0TK□□**	1 unit	0.443
	3 + N	--	5.5	7.5	16		**3LD2 054-1TL□□**	1 unit	0.230
			7.5	9.5	25		**3LD2 154-1TL□□**	1 unit	0.256
			9.5	11.5	32		**3LD2 254-1TL□□**	1 unit	0.260
			18.5	22	63		**3LD2 555-0TK□□ +**[1]	1 unit	0.443
						►	**3LD9 250-0BA**	1 unit	0.079

Actuators

Black	51
Red/yellow (EMERGENCY-STOP)	53

[1] 4th contact element as N conductor to be ordered separately, see "Accessories".

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3LD Main Control and EMERGENCY-STOP Switches up to 125 A

Floor mounting

Selection and ordering data

	Number and version of the contacts		Rated data at 50 ... 60 Hz, 380 ... 440 V		DT	Order No.	PS*	Weight per PU approx.
	Main contact elements	Auxiliary contact elements	P/AC-23A	I_u				
			kW	A				kg
	Main control and EMERGENCY-STOP switches with door-coupling rotary operating mechanism							
	• With 300 mm switch shaft							
	• Lockable in 0 position with up to 3 padlocks							
	• Degree of protection at front side IP65							
	• Door-coupling rotary operating mechanism with integrated tolerance compensation							
	• Mounting using screws or snap-on mounting on 35 mm standard mounting rail							
	• Including terminal cover for the infeed side							
	• Front plate - 3LD2 0, 3LD2 1, 3LD2 2: 67 × 67 mm - 3LD2 5 to 3LD2 8: 90 × 90 mm.							
Four-hole mounting								
 3LD2 213-0TK53	3	--	7.5	16	►	**3LD2 013-0TK□□**	1 unit	0.412
			9.5	25	►	**3LD2 113-0TK□□**	1 unit	0.407
			11.5	32	►	**3LD2 213-0TK□□**	1 unit	0.405
			22	63	►	**3LD2 514-0TK□□**	1 unit	0.655
			37	100	►	**3LD2 714-0TK□□**	1 unit	0.765
			45	125		**3LD2 814-0TK□□**	1 unit	0.766
	3 + N	--	7.5	16	►	**3LD2 013-1TL□□**	1 unit	0.412
			9.5	25		**3LD2 113-1TL□□**	1 unit	0.450
			11.5	32		**3LD2 213-1TL□□**	1 unit	0.446
			22	63		**3LD2 514-1TL□□**	1 unit	0.720
			37	100	►	**3LD2 714-0TK□□+**[1]	1 unit	0.765
					►	**3LD9 280-0C**	1 unit	0.102
			45	125		**3LD2 814-0TK□□+**[1]	1 unit	0.766
					►	**3LD9 280-0C**	1 unit	0.102
Center-hole mounting Ø 22.5 mm								
	3	--	7.5	16		**3LD2 044-0TK□□**	1 unit	0.430
			9.5	25		**3LD2 144-0TK□□**	1 unit	0.426
			11.5	32		**3LD2 244-0TK□□**	1 unit	0.427
			22	63		**3LD2 545-0TK□□**	1 unit	0.710
	3 + N	--	7.5	16		**3LD2 044-1TL□□**	1 unit	0.433
			9.5	25		**3LD2 144-1TL□□**	1 unit	0.461
			11.5	32		**3LD2 244-1TL53**	1 unit	0.465
			22	63		**3LD2 545-0TK□□+**[1]	1 unit	0.710
					►	**3LD9 250-0CA**	1 unit	0.080

Actuators

Black	51
Red/yellow (EMERGENCY-STOP)	53

[1] 4th contact element as N conductor to be ordered separately, see "Accessories".

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

Distribution board mounting

	Number and version of the contacts		Rated data at 50 ... 60 Hz, 380 ... 440 V		DT	Order No.	PS*	Weight per PU approx.
	Main contact elements	Auxiliary contact elements	P/AC-23A	I_u				
			kW	A				kg
	ON/OFF and EMERGENCY-STOP switches with masking plate and selector switch							
	• With screw and snap-on mounting on 35 mm standard mounting rail							
	• Lockable in 0 position with up to 2 padlocks							
	• Degree of protection at front side IP44							
	3	--	7.5	16		**3LD2 030-0TK□□**	1 unit	0.169
			9.5	25		**3LD2 130-0TK□□**	1 unit	0.171
			11.5	32		**3LD2 230-0TK□□**	1 unit	0.168
			22	63		**3LD2 530-0TK□□**	1 unit	0.311
			37	100		**3LD2 730-0TK□□**	1 unit	0.379
			45	125		**3LD2 830-0TK□□**	1 unit	0.379
	3 + N	--	7.5	16		**3LD2 030-1TL□□**	1 unit	0.183
3LD2 530-0TK13			9.5	25		**3LD2 130-0TK□□+**[1]	1 unit	0.171
					►	**3LD9 220-0C**	1 unit	0.039
			11.5	32		**3LD2 230-0TK□□+**[1]	1 unit	0.168
					►	**3LD9 220-0C**	1 unit	0.039
			22	63		**3LD2 530-0TK□□+**[1]	1 unit	0.311
					►	**3LD9 250-0CA**	1 unit	0.080
			37	100		**3LD2 730-0TK□□+**[1]	1 unit	0.379
					►	**3LD9 280-0C**	1 unit	0.102
			45	125		**3LD2 830-0TK□□+**[1]	1 unit	0.379
					►	**3LD9 280-0C**	1 unit	0.102

Actuators	
Black	**11**
Red/yellow (EMERGENCY-STOP)	**13**

Molded-plastic enclosures

	Number and version of the contacts		Base terminal	Rated data at 50 ... 60 Hz, 380 ... 440 V		DT	Order No.	PS*	Weight per PU approx.
	Main contact elements	Auxiliary contact elements		P/AC-23A	I_u				
				kW	A				kg
	Main control and EMERGENCY-STOP switches								
	• With N- and/or PE-/ground terminals								
	• Lockable in 0 position with up to 3 padlocks								
	• Degree of protection IP65								
	• Rotary operating mechanisms with center-hole mounting								
	• For floor-mounted auxiliary switches								
Metric screwed glands									
	3	--	PE + N	7.5	16		**3LD2 064-0TB□□**	1 unit	0.463
			PE + N	9.5	25		**3LD2 164-0TB□□**	1 unit	0.463
			PE + N	11.5	32		**3LD2 264-0TB□□**	1 unit	0.465
			PE + N	22	63		**3LD2 565-0TB□□**	1 unit	0.906
			PE + N	37	100		**3LD2 766-0TB□□**	1 unit	1.890
			PE + N	45	125		**3LD2 866-0TB□□**	1 unit	1.890
	3 + N	--	PE	7.5	16		**3LD2 064-1TC□□**	1 unit	0.453
			PE	9.5	25		**3LD2 164-1TC□□**	1 unit	0.487
			PE	11.5	32		**3LD2 264-1TC□□**	1 unit	0.500
			PE	22	63		**3LD2 565-1TC□□**	1 unit	0.960
			PE + N	37	100		**3LD2 766-0TB□□+**[1]	1 unit	1.890
						►	**3LD9 280-0C**	1 unit	0.102
			PE + N	45	125		**3LD2 866-0TB□□+**[1]	1 unit	1.890
						►	**3LD9 280-0C**	1 unit	0.102
3LD2 164-0TB53									

Actuators	
Black	**51**
Red/yellow (EMERGENCY-STOP)	**53**

[1] 4th contact element as N conductor to be ordered separately; see "Accessories for floor mounting".

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3LD Main Control and EMERGENCY-STOP Switches up to 125 A

Accessories

Selection and ordering data

		DT	3LD2 0	PS*	Weight per PU approx.	DT	3LD2 1, 3LD2 2	PS*	Weight per PU approx.
			Order No.		kg		Order No.		kg
For front mounting									
3LD9 200-2B	**N or PE terminals** Continuous	►	**3LD9 200-2B**	1 unit	0.030	►	**3LD9 220-2B**	1 unit	0.039
	Auxiliary switches For mounting on the left and/or right, delayed switch-on, leading switch-off								
3LD9 200-5B	1 NO + 1 NC	►	**3LD9 200-5B**	1 unit	0.046	►	**3LD9 200-5B**	1 unit	0.046
	For mounting on the left and/or right, delayed switch-on, with gold-plate contacts for SIMATIC request, leading switch-off								
	1 NO + 1 NC		**3LD9 200-5BF**	1 unit	0.028		**3LD9 200-5BF**	1 unit	0.028
For floor mounting, distribution board mounting or 3LD molded-plastic enclosures									
3LD9 200-2C	**4th contact (N conductor)** Leading switch-on, Delayed switch-off		--			►	**3LD9 220-0C**	1 unit	0.039
	N or PE terminals Continuous	►	**3LD9 200-2C**	1 unit	0.032	►	**3LD9 220-2C**	1 unit	0.037
	Auxiliary switches For mounting on the left and/or right, delayed switch-on, leading switch-off								
3LD9 200-5C	1 NO + 1 NC	►	**3LD9 200-5C**	1 unit	0.046	►	**3LD9 200-5C**	1 unit	0.046
	For mounting on the left and/or right, delayed switch-on, with gold-plate contacts for SIMATIC request, leading switch-off								
	1 NO + 1 NC		**3LD9 200-5CF**	1 unit	0.028		**3LD9 200-5CF**	1 unit	0.028
For front and floor mounting									
3LD9 224-1B	**Rotary operating mechanisms** Lockable in 0 position with up to 3 padlocks								
	For four-hole mounting								
	Black		**3LD9 224-1B**	1 unit	0.072		**3LD9 224-1B**	4 units	0.072
	Red/Yellow		**3LD9 224-3B**	1 unit	0.075		**3LD9 224-3B**	1 unit	0.075
	For center-hole mounting								
	Black		**3LD9 224-1D**	1 unit	0.080		**3LD9 224-1D**	1 unit	0.080
	Red/Yellow		**3LD9 224-3D**	1 unit	0.081		**3LD9 224-3D**	1 unit	0.081
	Inscription labels								
3LD9 286-1A	English/German "MAIN SWITCH/HAUPTSCHALTER"		**3LD9 286-1A**	10 units	0.005		**3LD9 286-1A**	10 units	0.005
3LD9 286-1A	Without inscription		**3LD9 286-4A**	10 units	0.005		**3LD9 286-4A**	10 units	0.054
	Terminal covers as additional touch protection Can be snapped on at top and bottom								
3LD9 201-2A	1-pole (1 pack = 4 units)		**3LD9 201-2A**	4 units	0.200		**3LD9 221-2A**	4 units	0.100
	3-pole (1 pack = 4 units)		--				**3LD9 221-0A**	4 units	0.007
3LD9 221-0A	4-pole (1 pack = 4 units)		**3LD9 201-1A**	4 units	0.007		--		

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

	DT	3LD2 5	PS*	Weight per PU approx.	DT	3LD2 7, 3LD2 8	PS*	Weight per PU approx.
		Order No.		kg		Order No.		kg
For front mounting								
4th contact (N conductor) Leading switch-on, delayed switch-off	►	**3LD9 250-0BA**	1 unit	0.079	►	**3LD9 280-0B**	1 unit	0.101
N or PE terminals Continuous	►	**3LD9 250-2BA**	1 unit	0.072	►	**3LD9 280-2B**	1 unit	0.092
Auxiliary switches For mounting on the left and/or right, delayed switch-on, leading switch-off								
1 NO + 1 NC	►	**3LD9 200-5B**	1 unit	0.046	►	**3LD9 200-5B**	1 unit	0.046
For mounting on the left and/or right, delayed switch-on, with gold-plate contacts for SIMATIC request, leading switch-off								
1 NO + 1 NC		**3LD9 200-5BF**	5 units	0.028		**3LD9 200-5BF**	5 units	0.028
For floor mounting, distribution board mounting, enclosures								
4th contact (N conductor) Leading switch-on, delayed switch-off	►	**3LD9 250-0CA**	1 unit	0.080	►	**3LD9 280-0C**	1 unit	0.102
N or PE terminals Continuous	►	**3LD9 250-2CA**	1 unit	0.073	►	**3LD9 280-2C**	1 unit	0.093
Auxiliary switches For mounting on the left and/or right, delayed switch-on, leading switch-off								
1 NO + 1 NC	►	**3LD9 200-5C**	1 unit	0.046	►	**3LD9 200-5C**	1 unit	0.046
For mounting on the left and/or right, delayed switch-on, with gold-plate contacts for SIMATIC request, leading switch-off								
1 NO + 1 NC		**3LD9 200-5CF**	5 units	0.028		**3LD9 200-5CF**	5 units	0.028
For front and floor mounting								
Rotary operating mechanisms Lockable in 0 position with up to 3 padlocks								
• For four-hole mounting								
Black		**3LD9 284-1B**	1 unit	0.154		**3LD9 284-1B**	1 unit	0.154
Red/Yellow		**3LD9 284-3B**	1 unit	0.152		**3LD9 284-3B**	1 unit	0.152
• For center-hole mounting								
Black		**3LD9 284-1D**	1 unit	0.155		--		
Red/Yellow		**3LD9 284-3D**	1 unit	0.155		--		
Inscription labels								
English/German "MAIN SWITCH/HAUPTSCHALTER"		**3LD9 286-1A**	10 units	0.005		**3LD9 286-1A**	10 units	0.005
Without inscription		**3LD9 286-4A**	10 units	0.054		**3LD9 286-4A**	10 units	0.054
Terminal covers as additional touch protection (also for distribution board mounting) Can be snapped on at top and bottom								
1-pole (1 pack = 4 units)		**3LD9 251-2A**	4 units	0.100		**3LD9 281-2A**	4 units	0.007
3-pole (1 pack = 4 units)		**3LD9 251-0A**	4 units	0.009		--		

3LD9 250-0BA

3LD9 250-2BA

3LD9 200-5B

3LD9 250-0CA

3LD9 250-2CA

3LD9 200-5C

3LD9 284-1B

3LD9 286-1A

3LD9 286-1A

3LD9 201-2A

3LD9 221-0A

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

3KL Switch Disconnectors with Fuses up to 800 A

Surface mounting and installation

Selection and ordering data

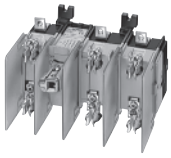
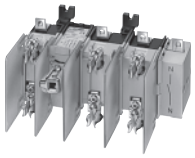
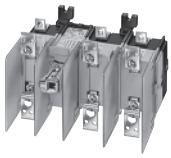
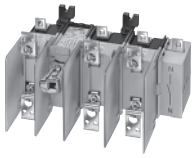
All switch disconnectors with degree of protection IP00
Conductor connecting screws and fuse partitions are generally included in the scope of supply

Rated uninterrupted current I_u	LV HRC fuse links[1] according to DIN 43620[2] Size	Operational class	DT	Order No.	PS*	Weight per PU approx.
A						kg
Complete versions with 8UC7 door-coupling rotary operating mechanism (black handle)						
3-pole for LV HRC fuses						
125	00 and 000	gG, aM		**3KL52 30-1GB01**	1 unit	2.414
160	00 and 000	gG, aM		**3KL53 30-1GB01**	1 unit	2.600
250	1 and 2	gG, aM		**3KL55 30-1GB01**	1 unit	6.112
400	2 and 1	gG, aM		**3KL57 30-1GB01**	1 unit	6.067
630	3 and 2	gG, aM		**3KL61 30-1GB00**	1 unit	18.070
630[3]	3 and 2[3]	gG, aM[3]		**3KL61 30-1GB02**	1 unit	15.200
800[3]	3 and 2[3]	gG, aM[3]		**3KL62 30-1GB02**	1 unit	15.200
4-pole for LV HRC fuses						
63	00 and 000	gG, aM		**3KL50 40-1GB01**	1 unit	2.542
125	00 and 000	gG, aM		**3KL52 40-1GB01**	1 unit	2.623
160	00 and 000	gG, aM		**3KL53 40-1GB01**	1 unit	2.776
250	1 and 2	gG, aM		**3KL55 40-1GB01**	1 unit	6.642
400	2 and 1	gG, aM		**3KL57 40-1GB01**	1 unit	6.886
630	3 and 2	gG, aM		**3KL61 40-1GB00**	1 unit	16.690
3-pole for fuses according to BS 88						
63	Form A2/A3			**3KL50 30-1GG01**	1 unit	1.455
125	Form A2/A3			**3KL52 30-1GG01**	1 unit	2.360
125	Form A4			**3KL52 30-1GJ01**	1 unit	2.406
160	Form A4			**3KL53 30-1GJ01**	1 unit	2.575
250	Form B1-B3			**3KL55 30-1GG01**	1 unit	6.115
400	Form B1-B3			**3KL57 30-1GG01**	1 unit	6.582
630	Form C1-C3			**3KL61 30-1GG00**	1 unit	16.278
800	Form C1-C3			**3KL62 30-1GG00**	1 unit	15.400
4-pole for fuses according to BS 88						
63	Form A2/A3			**3KL50 40-1GG01**	1 unit	2.563
125	Form A2/A3			**3KL52 40-1GG01**	1 unit	2.560
125	Form A4			**3KL52 40-1GJ01**	1 unit	2.614
160	Form A4			**3KL53 40-1GJ01**	1 unit	2.780
250	Form B1-B3			**3KL55 40-1GG01**	1 unit	6.639
400	Form B1-B3			**3KL57 40-1GG01**	1 unit	7.148
630	Form C1-C3			**3KL61 40-1GG00**	1 unit	16.996

1) Silver-plated fuse blades. Silver-plated isolating links can be used if desired.
2) For the assignment of semiconductor fuses see "Accessories".
3) With SITOR 3NE fuse links **C UL US**-approved.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

	Rated uninterrupted current I_u	LV HRC fuse links[1] according to DIN 43620[2] Size	Operational class	DT	Order No.	PS*	Weight per PU approx.
	A						kg
Basic switch versions without handle							
 3KL52 30-1AB01	**3-pole for LV HRC fuses**						
	63	00 and 000	gG, aM	►	**3KL50 30-1AB01**	1 unit	1.055
	125	00 and 000	gG, aM	►	**3KL52 30-1AB01**	1 unit	1.989
	160	00 and 000	gG, aM	►	**3KL53 30-1AB01**	1 unit	2.200
	250	1 and 2	gG, aM	►	**3KL55 30-1AB01**	1 unit	5.715
	400	2 and 1	gG, aM	►	**3KL57 30-1AB01**	1 unit	5.400
	630	3 and 2	gG, aM		**3KL61 30-1AB0**	1 unit	17.696
	630[3]	3 and 2[3]	gG, aM[3]		**3KL61 30-1AB02**	1 unit	14.000
	800[3]	3 and 2[3]	gG, aM[3]		**3KL62 30-1AB02**	1 unit	15.200
 3KL52 40-1AB01	**4-pole for LV HRC fuses**						
	63	00 and 000	gG, aM		**3KL50 40-1AB01**	1 unit	2.219
	125	00 and 000	gG, aM		**3KL52 40-1AB01**	1 unit	2.195
	160	00 and 000	gG, aM		**3KL53 40-1AB01**	1 unit	2.344
	250	1 and 2	gG, aM		**3KL55 40-1AB01**	1 unit	5.577
	400	2 and 1	gG, aM		**3KL57 40-1AB01**	1 unit	5.670
	630	3 and 2	gG, aM		**3KL61 40-1AB00**	1 unit	15.423
 3KL52 30-1AJ01	**3-pole for fuses according to BS 88**						
	63	Form A2/A3			**3KL50 30-1AG01**	1 unit	0.993
	125	Form A2/A3			**3KL52 30-1AG01**	1 unit	1.939
	125	Form A4			**3KL52 30-1AJ01**	1 unit	2.033
	160	Form A4			**3KL53 30-1AJ01**	1 unit	2.170
	250	Form B1-B3			**3KL55 30-1AG01**	1 unit	5.145
	400	Form B1-B3			**3KL57 30-1AG01**	1 unit	5.666
	630	Form C1-C3			**3KL61 30-1AG00**	1 unit	15.075
	800	Form C1-C3			**3KL62 30-1AG00**	1 unit	14.200
 3KL52 40-1AJ01 with fuses	**4-pole for fuses according to BS 88**						
	63	Form A2/A3			**3KL50 40-1AG01**	1 unit	2.145
	125	Form A2/A3			**3KL52 40-1AG01**	1 unit	2.161
	125	Form A4			**3KL52 40-1AJ01**	1 unit	2.120
	160	Form A4			**3KL53 40-1AJ01**	1 unit	2.230
	250	Form B1-B3			**3KL55 40-1AG01**	1 unit	5.666
	400	Form B1-B3			**3KL57 40-1AG01**	1 unit	6.441
	630	Form C1-C3			**3KL61 40-1AG00**	1 unit	15.708

1) Silver-plated fuse blades. Silver-plated isolating links can be used if desired.

2) For the assignment of semiconductor fuses see "Accessories".

3) With SITOR 3NE fuse links C UL US-approved.

Fuse monitoring through 5TT3 170 safety monitor with a floating 1 NO signaling contact, see Catalog ET B1.

© Siemens AG 2008

3KL Switch Disconnectors with Fuses up to 800 A

Accessories

Selection and ordering data

	DT	3KL50 30	PS*	Weight per PU approx.	DT	3KL50 40, 3KL52, 3KL53	PS*	Weight per PU approx.
		Order No.		kg		Order No.		kg
Terminal covers (1 set = 6 units) for 3-pole devices	▶	**3KX3 552-3DA01**	1 unit	0.077	▶	3KL52 **3KX3 552-3DA01**	1 unit	0.077
					▶	3KL53 **3KX3 553-3DA01**	1 unit	0.147
(1 set = 8 units) for 4-pole devices		--				3KL50 40, 3KL52 **3KX3 552-3DB01**	1 unit	0.102
						3KL53 **3KX3 553-3DB01**	1 unit	0.170
Fuse covers[1] (interlock only detachable in the OFF position)	▶	**3KX3 517-3AA**	1 unit	0.041	▶	**3KX3 527-3AA**	1 unit	0.071
Fuse partitions (1 set = 5 units)	▶	**3KX3 507-0AA01**	1 unit	0.044	▶	**3KX3 507-0AA01**	1 unit	0.044
Lyre-shaped fuse covers (1 set = 6 units)		**3KX3 507-0BA01**	1 unit	0.033		**3KX3 507-0BA01**	1 unit	0.033
Door-coupling rotary operating mechanisms IP65								
Black handle, shaft 300 mm		**8UC71 11-1BB10**	1 unit	0.347	▶	**8UC72 12-1BB20**	1 unit	0.200
EMERGENCY-STOP (yellow/red), shaft 300 mm		**8UC71 21-3BB10**	1 unit	0.353	▶	**8UC72 22-3BB20**	1 unit	0.200
Operating mechanisms for fixed mounting Black handle, shaft 250 mm	▶	**3KX3 516-1AA**	1 unit	0.088	▶	**3KX3 536-1AA**	1 unit	0.155
Extension shafts, 300 mm long		**8UC60 31**	1 unit	0.068		**8UC60 32**	1 unit	0.132
Extension shafts, 600 mm long		**8UC60 81**	1 unit	0.136		**8UC60 82**	1 unit	0.265
Shaft connecting pieces		**8UC60 21**	1 unit	0.031		**8UC60 22**	1 unit	0.023
Auxiliary switches 1 NO + 1 NC[1]		**3SB14 00-0A**	1 unit	0.019		**3SB14 00-0A**	1 unit	0.020
20 ms leading 1 NO + 1 NC		--				**3KX3 552-3EA01**	1 unit	0.019
Fuse monitor connections (1 set = 6 units)		**3KX3 505-0AA**	1 unit	0.014		**3KX3 505-0AA**	1 unit	0.014

3KX3 5.7-3AA

3KX3 507-0BA01

3SB14 00-0A

[1] For 3KX3 527-3AA: Not suitable for use with type A BS fuses.

[2] For more 3SB14 00-0. contact blocks with other contact types, see "Pushbutton Units and Indicator Lights".

	DT	3KL55, 3KL57	PS*	Weight per PU approx.	DT	3KL61, 3KL62	PS*	Weight per PU approx.
		Order No.		kg		Order No.		kg
Terminal covers (1 set = 6 units) for 3-pole devices	▶	**3KX3 557-3DA01**	1 unit	0.277	▶	**3KX3 561-3DA01**	1 unit	0.263
(1 set = 8 units) for 4-pole devices		**3KX3 557-3DB01**	1 unit	0.362		**3KX3 561-3DB01**	1 unit	0.365
Fuse covers (interlock only detachable in the OFF position)						**3KX3 561-0AA00**	1 unit	0.408
	▶	**3KX3 557-3AA**	1 unit	0.212		**3KX3 561-1AA00**	1 unit	0.408
Fuse partitions (1 set=5 units)	▶	**3KX3 557-0AA01**	1 unit	0.162		--		
Door-coupling rotary operating mechanisms IP65								
Black handle, shaft 300 mm	▶	**8UC73 13-1BB30**	1 unit	0.200	▶	**8UC74 14-1BB44** +	1 unit	0.200
					▶	**8UC92 53**	1 unit	0.115
EMERGENCY-STOP (yellow/red), shaft 300 mm	▶	**8UC73 23-3BB30**	1 unit	0.200	▶	**8UC74 24-3BB44** +	1 unit	0.200
					▶	**8UC92 53**	1 unit	0.115
Operating mechanisms for fixed mounting Black handle, shaft 250 mm	▶	**3KX3 176-1E**	1 unit	0.285	▶	**3KX3 616-1A**	1 unit	0.490
Extension shafts, 300 mm long		**8UC60 33**	1 unit	0.217		**8UC60 34**	1 unit	0.315
Extension shafts, 600 mm long		**8UC60 83**	1 unit	0.430		**8UC60 84**	1 unit	0.640
Shaft connecting pieces		**8UC60 23**	1 unit	0.085		**8UC60 24**	1 unit	0.077
Auxiliary switches 1 NO + 1 NC[1]		**3SB14 00-0A**	1 unit	0.020		**3KX3 612-1A**	1 unit	0.201
20 ms leading 1 NO + 1 NC		**3KX3 552-3EA01**	1 unit	0.019		--		
Fuse monitor connections (1 set = 6 units)		**3KX3 505-0AA**	1 unit	0.014		--		

3KX3 5.7-3AA

3KX3 176-1E

3SB14 00-0A

[1] For more 3SB14 00-0. contact blocks with other contact types, see "Pushbutton Units and Indicator Lights".

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Application

SENTRON 3NP4 fuse switch disconnectors are controls for the occasional manual switching/isolating of loads and distribution boards. They are able to switch on, lead and switch off the specified rated current (including a specific overload).

Selection and ordering data

	Rated uninterrupted current I_u	Connection types (double-ended)		For LV HRC fuse links according to DIN 43620[1]	For isolating links[2]	DT	**Degree of protection IP00, without fuse links, without isolating links, with terminal screws**	PS*	Weight per PU approx.
		Connection	For conductor cross-section				Order No.		
	A		mm²	Size	Size				kg
	Up to 160 A for snapping onto standard mounting rails								
3NP40 10	160[3]	Box terminals	1.5 ... 50	000[4]	00	►	**3NP40 10-0CH01**	1 unit	0.512
3NP40 70	160	Flat terminals	Up to 2 × 70 (M8)	00 and 000	00	►	**3NP40 70-0CA01**	1 unit	0.749
		Box terminal	2.5 ... 70 or 2 × 2.5 ... 16			►	**3NP40 70-0CH01**	1 unit	0.800
	250	Flat terminals	Up to 150 (M10)	1 and 0	1 and 0	►	**3NP42 70-0CA01**	1 unit	2.436
	400	Flat terminals	Up to 240 (M10)	2 and 1	2 and 1	►	**3NP43 70-0CA01**	1 unit	3.614
	630	Flat terminals	Up to 2 × 240 (M12)	3 and 2	3 and 2	►	**3NP44 70-0CA01**	1 unit	4.984
Busbars of width 12 mm to 30 mm and thickness 5 mm or 10 mm[5] flat, T and I profiles, as well as on Rittal PLS systems									
3NP40 16	160[3]	Box terminals[6]	1.5 ... 50 Connection, top Connection, bottom	000[3]	00	►	**3NP40 16-1CK01** **3NP40 16-1CJ01**	1 unit 1 unit	0.916 0.950
	160	Flat terminals	Up to 2 × 70 (M8) Connection, top Connection, bottom	00 and 000	00	►	**3NP40 76-1CE01** **3NP40 76-1CF01**	1 unit 1 unit	1.203 1.201
		Box terminals[6]	2.5 ... 70 or 2 × 2.5 ... 16 Connection, top Connection, bottom	00 and 000	00	►	**3NP40 76-1CK01** **3NP40 76-1CJ01**	1 unit 1 unit	1.295 1.249
3NP42 76	250	Flat terminals	Up to 150 (M10) Connection, top or bottom	1 and 0	1 and 0	►	**3NP42 76-1CG01**	1 unit	3.713
	400	Flat terminals	Up to 240 (M10) Connection, top or bottom	2 and 1	2 and 1	►	**3NP43 76-1CG01**	1 unit	5.440
	630	Flat terminals	Up to 2 × 240 (M12) Connection, top or bottom	3 and 2	3 and 2	►	**3NP44 76-1CG01**	1 unit	7.688

For all fuse switch disconnectors with flat connection, the appropriate cable lug covers (3NY7 101 to 3NY7 141) must be used for finger-safe cover according to BGV A2, see "Accessories".

1) LV HRC fuse links, see Catalog ET B1.

2) Insert silver-plated isolating links.

3) 125/160 A only possible with 21-mm wide 3NY1 822 (125 A) and 3NY1 824 (160 A) LV HRC fuse links, see "Accessories".

4) Corresponds LV HRC fuse links size 00 with a maximum width of 21 mm (according to IEC 60269-2-1 and DIN 43620).

5) For mounting on only 5 mm thick busbars, a bar thickness compensator is required for 3NP42 and 3NP43; see "Accessories".
3NP44 can only be mounted on busbars with a thickness of 10 mm!

6) No further cover required for 3NP40 with box terminal.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3NP Fuse Switch Disconnectors up to 630 A

For power distribution with fuse monitoring

Selection and ordering data

With fuse monitoring by SIRIUS 3RV1 motor starter protectors/circuit breakers[1)2)]

	Rated uninterrupted current I_u	Connection type (double-ended)		For LV HRC fuse links according to DIN 43620[3)]	For isolating links[4)]	DT	**Degree of protection IP00, without fuse links, without isolating links, with terminal screws**	PS*	Weight per PU approx.
		Connections	For conductor cross-section				Order No.		
	A		mm²	Size	Size				kg
For surface mounting and installation									
	Up to 160 A for snapping onto standard mounting rails								
	160	Flat terminals	Up to 2 × 70 (M8)	00 and 000	00		**3NP40 70-0FA01**	1 unit	1.276
		Box terminal	2.5 ... 70 or 2 × (2.5 ... 16)				**3NP40 70-0FH01**	1 unit	1.350
	250	Flat terminals	Up to 150 (M10)	1 and 0	1 and 0		**3NP42 70-0FA01**	1 unit	2.940
	400	Flat terminals	Up to 240 (M10)	2 and 1	2 and 1		**3NP43 70-0FA01**	1 unit	4.174
	630	Flat terminals	Up to 2 × 240 (M12)	3 and 2	3 and 2		**3NP44 70-0FA01**	1 unit	5.495
For 60 mm busbar systems[5)6)]									
	160	Flat terminals	Up to 2 × 70 (M8) Connection, top Connection, bottom	00 and 000	00		**3NP40 76-1FE01** **3NP40 76-1FF01**	1 unit 1 unit	1.670 1.890
		Box terminal	2.5 ... 70 or 2 × (2.5 ... 16) Connection, top Connection, bottom	00 and 000	00		**3NP40 76-1FK01** **3NP40 76-1FJ01**	1 unit 1 unit	1.755 1.915
	250	Flat terminals	Up to 150 (M10) Connection, top or bottom	1 and 0	1 and 0		**3NP42 76-1FG01**	1 unit	4.171
	400	Flat terminals	Up to 240 (M10) Connection, top or bottom	2 and 1	2 and 1		**3NP43 76-1FG01**	1 unit	5.845
	630	Flat terminals	Up to 2 × 240 (M12) Connection, top or bottom	3 and 2	3 and 2		**3NP44 76-1FG01**	1 unit	8.235

1) SIRIUS motor starter protector/circuit breakers, as standard with auxiliary switch 1 NO + 1 NC. On request, 3NP40 7 also with auxiliary switch 2 NO or 2 NC.

2) For 3NP40 7 with output socket for auxiliary switches, the signal cable must be ordered separately; see Accessories. For 3NP41 to 3NP44, the auxiliary switch must be connected with a 2.8 × 0.5 mm flat connector to DIN 46244-A.

3) For LV HRC fuse links see pages 17/24 and 17/25.

4) Insert silver-plated isolating links.

5) For mounting on only 5 mm thick busbars, a bar thickness compensator is required for 3NP42 and 3NP43; see Accessories. 3NP44 can only be mounted on busbars with a thickness of 10 mm.

6) Up to 250 A also available for 40 mm busbar system. In the 6th position of the Order No. the **"6"** must be replaced with **"5"**, e.g. 3NP40 7**5**-...

*** You can order this quantity or a multiple thereof. For other units and versions see A&D Mall.**

© Siemens AG 2008

Selection and ordering data

	For fuse switch disconnectors	Version	DT	Order No.	PS*	Weight per PU approx.
						kg
With fuse monitoring						
Cable lug covers						
and finger-safe cover according to BGV A2 (1 set = 2 units) for 1 mounting device or 2 adapter devices	3NP40 7 with flat connector[1]		▶	**3NY7 101**	1 unit	0.065
	3NP42 7		▶	**3NY7 121**	1 unit	0.220
	3NP43		▶	**3NY7 131**	1 unit	0.221
	3NP44		▶	**3NY7 141**	1 unit	0.319
Terminals (1 set = 3 units)	3NP42 7	Conductor cross-section: 70 ... 150 mm²		**3NY7 120**	1 unit	0.333
	3NP43	120 ... 240 mm²		**3NY7 130**	1 unit	0.583
	3NP44	150 ... 300 mm²		**3NY7 140**	1 unit	0.725
Triple terminals (1 set = 3 units)		Conductor cross-section:				
For fitting to box terminals	3NP40 1, 3NP40 7	Solid/stranded: 2.5 ... 16 mm²		**3NY7 102**	1 unit	0.131
For fitting to flat connector	3NP40 7	Finely stranded with end sleeve: 2.5 ... 10 mm²		**3NY7 105**	1 unit	0.113
3-phase busbars	3NP40 1	For I_u max = 225 A				
Modular width 90 mm = 5 MW		For 2 switch disconnectors		**3NY1 237**	1 unit	0.265
Permissible connection 25 mm² or feeder terminal		For 3 switch disconnectors		**3NY1 238**	1 unit	0.434
		For 4 switch disconnectors		**3NY1 438**	1 unit	0.650
		Link rail		**3NY1 263**	1 unit	0.267
Covers For 1 blank space in 3NY1 238	3NP40 1			**3NY1 265**	1 unit	0.012
Feeder terminals (1 set = 3 units) for I_u max = 225 A	3NP40 1	Conductor cross-section: Solid/stranded: 25 - 95 mm² Finely stranded with end sleeve: 16 ... 70 mm²		**3NY1 236**	1 unit	0.262
Sealing pins (1 pack = 10 units)	3NP42 7, 3NP43, 3NP44			**3NY7 482**	10 units	0.056
Auxiliary switches 1 CO For sizes 000 and 00 with self-tapping screws for sizes 1 to 3 to clip on	3NP40 1 to 3NP44		▶	**3NY3 035**	1 unit	0.004
Solid-state compatible				**3NY3 030**	1 unit	0.004
Fuse links size 000 With non-insulated grip lugs, gL/gG operational class for cable and line protection, overall width 21 mm according to IEC 60269-2-1 and DIN 43620	3NP40 1	400 V/125 A		**3NY1 822**	1 unit	0.130
		400 V/160 A		**3NY1 824**	1 unit	0.129
Signal cables For connection to size 00 fuse monitor output socket						
1 m cable with plug	3NP40 7			**3NY1 910**	1 unit	0.097
3 m cable with plug	3NP40 7			**3NY1 911**	1 unit	0.261
For installation in 40 mm and 60 mm busbar systems						
Covers[2]	3NP40 75, 3NP40 76			**3NY7 601**	1 unit	0.125
For installation in any distribution board[3]						
Molded-plastic masking frames		Height × Width:				
	3NP40 1	215 × 130		**3NY1 251**	1 unit	0.052
	3NP40 7 with box terminals	215 × 130	▶	**3NY7 200**	1 unit	0.037
	3NP40 7 with flat connector	215 × 130	▶	**3NY7 201**	1 unit	0.046
	3NP42 7	375 × 220	▶	**3NY7 220**	1 unit	0.112
	3NP43	375 × 245		**3NY7 230**	1 unit	0.117
	3NP44	375 × 290		**3NY7 240**	1 unit	0.125

3NY7 102

3NY1 237

3NY1 238

3NY1 263

3NY1 236

3NY3 035

3NY1 251

[1] The fuse switch disconnector can be used in the meter cabinet with the cable lug cover mounted in combination with molded-plastic masking frames for the distribution board or switchpanel or the incoming-feeder panel without any problems.

[2] When using LV HRC fuse links, size 00 (160 A), the permissible load current is 0.9 x I_n.

[3] To some extent, special masking frames are required for installation in ALPHA wall-mounted and floor-mounted distribution boards (STAB, SIKUS), and ALPHA 400-ZS meter cabinets; see "Accessories".

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

3NP Fuse Switch Disconnectors up to 630 A

For extended technical requirements

Application

SENTRON 3NP5 fuse switch disconnectors are controls for the occasional manual switching/isolating of loads and distribution boards. They are able to switch on, lead and switch off the specified rated current (including a specific overload).

Selection and ordering data

	Rated uninterrupted current I_u	Connection type (double-ended)		For LV HRC fuse links according to DIN 43620[1]	For isolating links	Auxiliary switch on switch disconnectors	DT	**Degree of protection IP00, without fuse links, without isolating links, with terminal screws**	PS*	Weight per PU approx.
		Connection	For conductor cross-section							
	A		mm²	Size	Size	Version		Order No.		kg
For surface mounting and installation, completely compartmentalized, with high speed closing										
3NP50 60-0CA00	160	Flat connctors[2]	2.5 - 150[3]	00 and 000	00	None[4] 1 NO + 1 NC	►	**3NP50 60-0CA00** **3NP50 60-0CA10**	1 unit 1 unit	1.608 1.650
		Terminal clamps	1 conductor 2.5 - 50 or 2 conductors 1× 2.5 - 50, 1× 2.5 - 35	00 and 000	00	None[4] 1 NO + 1 NC		**3NP50 60-0CB00** **3NP50 60-0CB10**	1 unit 1 unit	1.739 1.748
3NP52 60-0CA00	250	Flat connctors	6 - 150[5]	1 and 0	1	None 1 NO + 1 NC	►	**3NP52 60-0CA00** **3NP52 60-0CA10**	1 unit 1 unit	5.475 5.491
		Terminal clamps	35 - 120	1 and 0	1	None 1 NO + 1 NC		**3NP52 60-0CB00** **3NP52 60-0CB10**	1 unit 1 unit	5.605 5.814
3NP53 60-0CA00	400	Flat connctors	6 - 240[5]	2 and 1	2	None 1 NO + 1 NC	►	**3NP53 60-0CA00** **3NP53 60-0CA10**	1 unit 1 unit	6.532 6.551
3NP54 60-0CA00	630	Flat connctors	6 - 2 × 240[5]	3 and 2	3	None 1 NO + 1 NC	►	**3NP54 60-0CA00** **3NP54 60-0CA10**	1 unit 1 unit	7.945 7.958
For 60 mm busbar systems, completely compartmentalized, with high speed closing feature										
	Note: Use switch version for installation in any distribution board with busbar adapter, see "Assembly kits for distribution systems".									

[1] LV HRC fuse links, see Catalog ET B1.

[2] For 3NP50 60 with flat connectors, appropriate 3NY1 106 cable lug covers must be used to provide finger-safe cover, according to IEC 61140 (see "Accessories").

[3] According to DIN 46234 or 16 to 95 mm² according to DIN 46235 (use M10 cable lug if necessary).

[4] If auxiliary switch is retrofitted, additional drill holes are required on the switch.

[5] According to DIN 46234 or DIN 46235; with cable lug to DIN 46235: min. conductor cross-section 16 mm² (use M12 cable lug if necessary).

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

	Rated uninterrupted current I_u	Connection type (double-ended)		For LV HRC fuse links according to DIN 43620[1]	Auxiliary switches		DT	**Degree of protection IP00, without fuse links, without isolating links, with terminal screws**	PS*	Weight per PU approx.
		Connection	For conductor cross-section		On switch disconnector	On motor starter protec-tor/circuit breaker				
	A		mm²	Size	Version	Version		Order No.		kg
For surface mounting and installation, completely compartmentalized, with high speed closing features; with fuse monitoring by SIRIUS motor starter protectors/circuit breaker										
	With plug-in connection of the auxiliary switch connecting cable (length approx. 1 m) to the motor starter protector/circuit breaker									
3NP52 60-0EA86	160	Flat connctors[2]	2.5 - 150[3]	00 and 000	1 NO + 1 NC 1 NO + 1 NC	1 NO + 1 NC 2 NO	►	**3NP50 60-0EA86** **3NP50 60-0EA26**	1 unit 1 unit	2.484 2.550
		Terminal clamps	1 conductor 2.5 ... 50 2 conductors 1× 2.5 ... 50 1× 2.5 ... 35	00 and 000	1 NO + 1 NC 1 NO + 1 NC	1 NO + 1 NC 2 NO		**3NP50 60-0EB86** **3NP50 60-0EB26**	1 unit 1 unit	2.616 2.650
	250	Flat connctors	6 ... 150[4]	1 and 0	1 NO + 1 NC 1 NO + 1 NC	1 NO + 1 NC 2 NO	►	**3NP52 60-0EA86** **3NP52 60-0EA26**	1 unit 1 unit	6.014 6.867
		Terminal clamps	35 ... 120	1 and 0	1 NO + 1 NC 1 NO + 1 NC	1 NO + 1 NC 2 NO		**3NP52 60-0EB86** **3NP52 60-0EB26**	1 unit 1 unit	7.095 6.659
	400	Flat connctors	6 ... 240[4]	2 and 1	1 NO + 1 NC 1 NO + 1 NC	1 NO + 1 NC 2 NO	►	**3NP53 60-0EA86** **3NP53 60-0EA26**	1 unit 1 unit	7.083 5.410
3NP54 60-0EA86	630	Flat connctors	6 ... 2 × 240[4]	3 and 2	1 NO + 1 NC 1 NO + 1 NC	1 NO + 1 NC 2 NO	►	**3NP54 60-0EA86** **3NP54 60-0EA26**	1 unit 1 unit	8.462 9.233
For 60 mm busbar systems, completely compartmentalized, with high speed closing feature										
	Note: *Use switch version for installation in any distribution board with busbar adapter, see "Assembly kits for distribution systems".*									

1) For LV HRC fuse links, see Catalog ET B1.

2) For 3NP50 60 with flat connectors, appropriate 3NY1 106 cable lug covers must be used to provide finger-safe cover, according to IEC 61140 (see "Accessories").

3) According to DIN 46234 or 16 ... 95 mm² according to DIN 46235 (use M10 cable lug if necessary).

4) According to DIN 46234 or DIN 46235, with cable lug according to DIN 46235: min. conductor cross-section 16 mm² (use M12 cable lugs if necessary).

© Siemens AG 2008

3NP Fuse Switch Disconnectors up to 630 A

For extended technical requirements
Accessories

Selection and ordering data

		For fuse switch disconnectors	DT	Order No.	PS*	Weight per PU approx.
						kg
	Fuse carriers					
3NY1 074		3NP50 6.-.C..0		**3NY1 074**	1 unit	0.620
		3NP52 60-.C..0		**3NY1 371**	1 unit	0.263
		3NP53 60-.C..0		**3NY1 372**	1 unit	1.510
		3NP54 60-.C..0		**3NY1 373**	1 unit	1.690
	With fuse monitoring by 3RV1 motor starter protectors/circuit breakers (with auxiliary switch 1 NO + 1 NC), with plug-in connection, without connector and connecting cable	3NP50 6.-.E..6		**3NY1 420**	1 unit	1.405
		3NP52 60-.E..6		**3NY1 421**	1 unit	1.900
		3NP53 60-.E..6		**3NY1 422**	1 unit	1.980
		3NP54 60-.E..6		**3NY1 423**	1 unit	2.600
	Connectors and connecting cables					
	1 m long	3NP5 with 3RV1		**3NY1 910**	1 unit	0.097
	3 m long			**3NY1 911**	1 unit	0.261
	Auxiliary switches 1 NO + 1 NC					
3NY3 033	With actuating cams, screws and washers (mounting kit)	3NP50[1]		**3NY3 033**	1 unit	0.015
3NY3 034	With fixing bracket and screws (mounting kit)	3NP52 - 3NP54		**3NY3 034**	1 unit	0.015
	Arc chutes					
3NY4 031	(3 units each are required for 3NP52, 3NP53 and 3NP54)	3NP50		**3NY4 031**	1 unit	0.218
		3NP52		**3NY4 011**	1 unit	0.215
3NY4 011		3NP53, 3NP54		**3NY4 012**	1 unit	0.240
	Molded-plastic masking frames					
	As replacement for masking frames from assembly kits for installation (without fixing brackets and small parts) 300 × 220 mm	3NY1 210		**3NY1 102**	1 unit	0.071
	300 × 245 mm	3NY1 211		**3NY1 103**	1 unit	0.075
	300 × 290 mm	3NY1 212		**3NY1 104**	1 unit	0.084

[1] If retrofitted, drill holes required.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

Selection and ordering data

	For fuse switch disconnectors	Dimensions	DT	Order No.	PS*	Weight per PU approx.
		mm				kg
For installation in any distribution board						
Molded-plastic masking frames		Height × width				
For installation in the cabinet	3NP50 with and without auxiliary switch	215 × 135		**3NY1 105**	1 unit	0.045
	With auxiliary switch	215 × 135		**3NY1 115**	1 unit	0.044
For installation in metal front plates	With and without auxiliary switch	220 × 160		**3NY1 125**	1 unit	0.062
For covering the connection terminals	3NP50 with and without auxiliary switch	265 × 135		**3NY1 107**	1 unit	0.073
For covering the cable lug connections	3NP50 with and without auxiliary switch	290 × 135		**3NY1 106**	1 unit	0.071
For separate covering of the upper and lower cable lug connections	With auxiliary switch	290 × 135		**3NY1 116**	1 unit	0.071
	3NP50 with and without auxiliary switch	290 × 135		**3NY1 108**	1 unit	0.048
Assembly kits for flush mounting						
With molded-plastic masking frame, fixing brackets and small parts. For disconnectors with and without auxiliary switches	3NP50 60	250 × 149		**3NY1 208**	1 unit	0.531
	3NP52 60	300 × 220		**3NY1 210**	1 unit	0.287
	3NP53 60	300 × 245		**3NY1 211**	1 unit	0.298
	3NP54 60	300 × 290		**3NY1 212**	1 unit	0.313
Covers for cable lug connections		Cover length				
(1 set = 6 units) can be screwed onto free screw end to protect against accidental touch	3NP52	99		**3NY1 241**	1 unit	0.205
	3NP53/3NP54 60	95		**3TX6 546-3B**	1 unit	0.260
		120		**3NY1 245**	1 unit	0.336
Terminal clamps (1 set = 3 units)		Conductor cross-section				
	3NP50	2.5 - 50 mm^2 [1]		**3NY1 903**	1 unit	0.108
	3NP52	35 - 120 mm^2		**3NY1 907**	1 unit	0.225
Busbar adapters		Busbar width				
For 60 mm busbar system	3NP50	108		**8US12 91-4SB00**	1 unit	0.551
	3NP52, 3NP53, 3NP54[2]	250 (length 320 mm, M10 terminal screws, connecting cables must be manufactured)		**8US12 10-4AG00**	1 unit	3.060
Sealing lugs Retrofittable (1 pack = 10 units)	3NP50			**3NY1 940**	1 unit	0.010

3NY1 107

3NY1 106

3NY1 212

3TX6 546-3B

3NY1 907

8US12 10-4AG00

[1] Also available in 2-wire version: 1 × 2.5 ... 50 mm^2 and 1 × 2.5 - 35 mm^2.

[2] Switch is wider than adapter; however, this can be expanded to 276 mm using two 8US19 98-2BM00 side modules.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

3NJ4, 3NJ5 In-Line Fuse Switch Disconnectors up to 1250 A

1-pole and 3-pole switchable

Application

In an open position, the in-line fuse switch disconnectors are safe from touch by the back of the hand (exception 3NJ56: IP00). When the fuse carriers are closed, the degree of protection for all in-line fuse switch disconnectors is IP30.

They comply with the following standards: IEC 60408 and IEC 60947-3. Fuse links according to DIN 43620 Part 1 can be used. Nickel-plated fuse blades are not permissible due to the high transfer resistance.

For maintenance purposes, for example, the carriers of the 1-pole switchable in-line fuse switch disconnectors of sizes 1 to 3 and the 3-pole switchable in-line fuse switch disconnectors of size 00 can be mounted after being turned by 180° (fuse facing outwards).

Selection and ordering data

	Rated uninterrupted current I_{us} For fuse links according to DIN 43620		Center-to-center clearance	Connection type (terminal screws/clamp-type terminals included in the scope of supply)[1], optionally top or bottom (rotatable!)	For conductor cross-section	DT	Order No.	PS*	Weight per PU approx.
	A	Size	mm		mm²				kg
In-line fuse switch disconnectors, 1-pole switchable									
	160	00 and 000	185	M8 flat connector	--		**3NJ50 13-0BD00**	1 unit	2.561
	250	1	185	M10 flat connector	--		**3NJ41 21-3BF01**	1 unit	5.284
	400	2 and 1	185	M12 flat connector	--		**3NJ41 31-3BF01**	1 unit	5.363
	630	3 and 2	185	M12 flat connector	--		**3NJ41 41-3BF01**	1 unit	6.098
	1250	4a	185	M16 × 60 stud terminal	--		**3NJ56 43-0BB00**	1 unit	23.608
In-line fuse switch disconnectors, 3-pole switchable									
	160	00 and 000	100	M8 flat connector	--	▶	**3NJ41 03-3BF02**	1 unit	1.400
				F70 box terminal	up to 70		**3NJ41 03-3BR02**	1 unit	1.479
	250	1	185	M10 flat connector	--	▶	**3NJ41 23-3BF01**	1 unit	5.481
				M12 stud terminal	--		**3NJ41 23-3BJ01**	1 unit	5.512
				V terminal	25 ... 150 and 185 ... 300		**3NJ41 23-3BT01**	1 unit	5.908
	400	2 and 1	185	M12 flat connector	--	▶	**3NJ41 33-3BF01**	1 unit	5.540
				M12 stud terminal	--		**3NJ41 33-3BJ01**	1 unit	5.580
				V terminal	25 ... 150 and 185 ... 300		**3NJ41 33-3BT01**	1 unit	5.899
	630	3 and 2	185	M12 flat connector	--	▶	**3NJ41 43-3BF01**	1 unit	6.426
				M12 stud terminal	--		**3NJ41 43-3BJ01**	1 unit	6.321
				V terminal	25 ... 150 and 185 ... 300		**3NJ41 43-3BT01**	1 unit	6.675
Incoming blocks, 3-pole switchable, flat connectors 2 × M12									
	1000	3	185	For infeed from cable directly to busbars, with built-in isolating links[2], corresponds to block size 3	--		**3NJ41 53-5BD01**	1 unit	11.030
	910	3	185	For infeed from 630 kVA transformer to busbar system; for special fuses for transformer protection (see Accessories)	--		**3NJ41 83-3BF01**	1 unit	12.943

[1] Fixing screws should be ordered separately.

[2] Retrospective exchange with fuse links of size 3 is possible. Thereby reduction of the rated current to 630 A.

Further special versions on request.

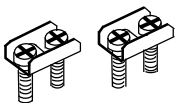
*** You can order this quantity or a multiple thereof. For other units and versions see A&D Mall.**

© Siemens AG 2008

Selection and ordering data

	For in-line fuse switch disconnectors or dimensions	DT	Order No.	PS*	Weight per PU approx. kg
3NJ49 12-1AA01					
Covers[1] Size 1 to 3 Additional touch protection with use of cable lugs or connection from above	3NJ41 2 to 3NJ41 4, 3NJ41 5, 3NJ41 8	►	**3NJ49 12-1AA01**	1 unit	0.103
Covers size 00 (can also be used as **masking frame**) on top and bottom (1 set = 2 units: Short and long[2]) For covering of extended cable lugs and for combining 3NJ41 03 with 3NJ41 2 to 3NJ41 4 in-line disconnectors	3NJ41 03		**3NJ49 12-1DA02**	1 unit	0.005
Blanking covers for panel cut-out According to the size of the in-line disconnectors: sizes 1 to 3 (for fitting in the cut-out of the control panels)	50 mm wide 100 mm wide		**3NJ49 12-2AA00** **3NJ49 12-2BA00**	1 unit 1 unit	0.189 0.215
For 3NJ41 03	50 mm wide		**3NJ49 12-2CA00**	1 unit	0.090
Fixing clips (1 set = 4 units, including fixing accessories) 2 units per side, for fixing the cover of the control panel front	3NJ41		**3NJ49 18-0AA00**	1 unit	0.130
Unequipped section covers for busbars Busbar center-to-center clearance 185 mm	50 mm wide 100 mm wide		**3NJ49 12-3AA00** **3NJ49 12-3BA01**	1 unit 1 unit	0.148 0.372
Busbar center-to-center clearance 100 mm [3] (To be fitted directly in the drilled holes of the busbars)	50 mm wide		**3NJ49 12-3CA00**	1 unit	0.105
3NJ59 74-0AB					
Adapters for fitting of two 3NJ41 03 in-line disconnectors (= 1 holder) onto a busbar system with 185 mm center-to-center clearance (including adaptation of the installation depth to that of the 3NJ41 2 to 3NJ41 4 in-line disconnectors)	3NJ41 03		**3NJ49 18-0DA02**	1 unit	0.751
Two 3NJ50 13 in-line disconnectors (= 1 holder) (to adapt the overall depth to that of the strips, sizes 1 to 3)	3NJ50 13		**3NJ59 30-3BB**	1 unit	0.675
One 3NJ41 03 in-line disconnector (= 3 separate brackets) onto a busbar system with 60 mm center-to-center clearance	3NJ41 03		**3NJ49 18-0EA00**	1 unit	0.232
Busbar supports For 100 mm and 185 mm center-to-center clearance, for screwing on of busbars	3NJ41 and 3NJ5	►	**3NJ59 74-0AB**	1 unit	0.463
3NJ49 11-3AA00					
Busbar terminals	3NJ41 03	►	**3NJ49 11-3AA00**	1 unit	0.176
(1 set = 3 units) For rapid mounting of the in-line disconnectors onto the busbars	3NJ41 2 to 3NJ41 4	►	**3NJ49 11-3BA01**	1 unit	0.607
Saddle terminal assembly kits (1 set = 3 units) Copper terminal 1.5 to 70 mm²	3NJ41 03		**3NJ49 11-4AA00**	1 unit	0.041
Flat connector assembly kits 2 x 240 mm²	3NJ41 2 to 3NJ41 4		**3NJ49 11-5AA00**	1 unit	0.500
Auxiliary switch mounting kits (for sizes 1 to 3 with connecting cables) for 3-pole switchable in-line disconnectors only	3NJ41 03 3NJ41 2 to 3NJ41 4		**3NJ49 13-0AA02** **3NJ49 13-1AA01**	1 unit 1 unit	0.005 0.029
910 A fuses size LV HRC 3 Specially for the protection of transformers with 630 kVA (minimum order quantity 3 units)	3NJ41 8		**3NJ49 14-8AA00**	1 unit	1.341
Mounting hooks (one per in-line disconnector required)			**3NJ49 18-1AA00**	1 unit	0.120

3NJ49 11-3BA01


3NJ49 11-4AA00

[1] With cable lugs and connection from above, the terminal cover can be extended by connecting two units together.

[2] Can be shortened (in exchange for short cover, included in the scope of supply of the in-line disconnector).

[3] Also for covering a blank space on 3NJ49 18-0DA02 or 3NJ59 30–3BB.

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

LV HRC fuses

Selection and ordering data

LV HRC fuse links with combination alarm (center indicator and front indicator)

- gL/gG operational class for full-range cable and line protection
- Finely graduated selectivity
- Rated switching capacity AC 120 kA

	Size	Width	Rated current I_n	Rated voltage U_N	DT	Non-insulated grip lugs	PS*	Weight per PU approx.	DT	Insulated grip lugs	PS*	Weight per PU approx.
		mm	A	V		Order No.		kg		Order No.		kg
	000	21	10	500 V AC, 250 V DC		**3NA7 803**	3 units	0.135		**3NA6 803**	3 units	0.136
			16		▶	**3NA7 805**	3 units	0.135	▶	**3NA6 805**	3 units	0.136
			20		▶	**3NA7 807**	3 units	0.135	▶	**3NA6 807**	3 units	0.136
			25		▶	**3NA7 810**	3 units	0.135	▶	**3NA6 810**	3 units	0.600
			32			**3NA7 812**	3 units	0.135		**3NA6 812**	3 units	0.136
			35		▶	**3NA7 814**	3 units	0.135	▶	**3NA6 814**	3 units	0.440
			40			**3NA7 817**	3 units	0.135		**3NA6 817**	3 units	0.136
			50		▶	**3NA7 820**	3 units	0.135	▶	**3NA6 820**	3 units	0.128
			63		▶	**3NA7 822**	3 units	0.135	▶	**3NA6 822**	3 units	0.128
			80		▶	**3NA7 824**	3 units	0.135	▶	**3NA6 824**	3 units	0.128
			100		▶	**3NA7 830**	3 units	0.135	▶	**3NA6 830**	3 units	0.120
	00	30	80	500 V AC, 250 V DC		**3NA7 824-7**	3 units	0.200		**3NA6 824-7**	3 units	0.211
			100			**3NA7 830-7**	3 units	0.200		**3NA6 830-7**	3 units	0.211
			125		▶	**3NA7 832**	3 units	0.200	▶	**3NA6 832**	3 units	0.200
			160		▶	**3NA7 836**	3 units	0.200		**3NA6 836**	3 units	0.200
	1	30	16	500 V AC, 440 V DC		**3NA7 105**	3 units	0.290		**3NA6 105**	3 units	0.290
			20			**3NA7 107**	3 units	0.290		**3NA6 107**	3 units	0.290
			25			**3NA7 110**	3 units	0.290		**3NA6 110**	3 units	0.290
			35			**3NA7 114**	3 units	0.290		**3NA6 114**	3 units	0.290
			40			**3NA7 117**	3 units	0.290		**3NA6 117**	3 units	0.290
			50			**3NA7 120**	3 units	0.290		**3NA6 120**	3 units	0.290
			63			**3NA7 122**	3 units	0.290		**3NA6 122**	3 units	0.290
			80			**3NA7 124**	3 units	0.290	▶	**3NA6 124**	3 units	0.290
			100			**3NA7 130**	3 units	0.290	▶	**3NA6 130**	3 units	0.290
			125		▶	**3NA7 132**	3 units	0.290	▶	**3NA6 132**	3 units	0.290
			160		▶	**3NA7 136**	3 units	0.290	▶	**3NA6 136**	3 units	0.290
		47.2	200		▶	**3NA7 140**	3 units	0.440	▶	**3NA6 140**	3 units	0.440
			224			**3NA7 142**	3 units	0.440		**3NA6 142**	3 units	0.440
			250		▶	**3NA7 144**	3 units	0.400	▶	**3NA6 144**	3 units	0.400
	2	47.2	35	500 V AC, 440 V DC		**3NA7 214**	3 units	0.450		**3NA6 214**	3 units	0.450
			50			**3NA7 220**	3 units	0.450		**3NA6 220**	3 units	0.450
			63			**3NA7 222**	3 units	0.450		**3NA6 222**	3 units	0.450
			80			**3NA7 224**	3 units	0.450		**3NA6 224**	3 units	0.450
			100			**3NA7 230**	3 units	0.450		**3NA6 230**	3 units	0.450
			125			**3NA7 232**	3 units	0.450		**3NA6 232**	3 units	0.450
			160		▶	**3NA7 236**	3 units	0.450	▶	**3NA6 236**	3 units	0.450
			200		▶	**3NA7 240**	3 units	0.450	▶	**3NA6 240**	3 units	0.450
			224			**3NA7 242**	3 units	0.450		**3NA6 242**	3 units	0.450
			250		▶	**3NA7 244**	3 units	0.450	▶	**3NA6 244**	3 units	0.450
		57.8	300			--				**3NA6 250**	3 units	0.641
			315		▶	**3NA7 252**	3 units	0.660	▶	**3NA6 252**	3 units	0.660
			355			--				**3NA6 254**	3 units	0.641
			400		▶	**3NA7 260**	3 units	0.660	▶	**3NA6 260**	3 units	0.660

* You can order this quantity or a multiple thereof.
For other units and versions see A&D Mall.

© Siemens AG 2008

LV HRC fuse links with combination alarm (center indicator and front indicator)

- gG operational class for full-range cable and line protection
- Finely graduated selectivity
- Rated switching capacity AC 120 kA

Size	Width	Rated current I_n	Rated voltage U_N	DT	Non-insulated grip lugs	PS*	Weight per PU approx.
		A	V		Order No.		kg
000	21	10	500 V AC, 250 V DC		**3NA3 803**	3 units	0.133
		16			**3NA3 805**	3 units	0.133
		20			**3NA3 807**	3 units	0.133
		25			**3NA3 810**	3 units	0.133
		32			**3NA3 812**	3 units	0.133
		35			**3NA3 814**	3 units	0.133
		40			**3NA3 817**	3 units	0.133
		50			**3NA3 820**	3 units	0.133
		63			**3NA3 822**	3 units	0.133
		80			**3NA3 824**	3 units	0.133
		100			**3NA3 830**	3 units	0.133
00	30	80	500 V AC, 250 V DC		**3NA3 824-7**	3 units	0.200
		100			**3NA3 830-7**	3 units	0.200
		125			**3NA3 832**	3 units	0.217
		160			**3NA3 836**	3 units	0.217
1	30	16	500 V AC, 440 V DC		**3NA3 105**	3 units	0.290
		20			**3NA3 107**	3 units	0.290
		25			**3NA3 110**	3 units	0.290
		35			**3NA3 114**	3 units	0.300
		40			**3NA3 117**	3 units	0.300
		50			**3NA3 120**	3 units	0.300
		63			**3NA3 122**	3 units	0.300
		80			**3NA3 124**	3 units	0.300
		100			**3NA3 130**	3 units	0.300
		125			**3NA3 132**	3 units	0.300
		160			**3NA3 136**	3 units	0.300
	47.2	200			**3NA3 140**	3 units	0.440
		224			**3NA3 142**	3 units	0.440
		250			**3NA3 144**	3 units	0.440
2	47.2	35	500 V AC, 440 V DC		**3NA3 214**	3 units	0.453
		50			**3NA3 220**	3 units	0.453
		63			**3NA3 222**	3 units	0.453
		80			**3NA3 224**	3 units	0.453
		100			**3NA3 230**	3 units	0.453
		125			**3NA3 232**	3 units	0.453
		160			**3NA3 236**	3 units	0.453
		200			**3NA3 240**	3 units	0.453
		224			**3NA3 242**	3 units	0.453
		250			**3NA3 244**	3 units	0.453
		315			**3NA3 252**	3 units	0.647
		400			**3NA3 260**	3 units	0.647

Note: LV HRC fuse links of size 000 can also be used in LV HRC fuse bases, LV HRC fuse switch disconnectors, LV HRC fuse strips as well as LV HRC in-line fuse switch disconnectors of size 000 and 00.

For fuse links with a width of 21 mm for 125 and 160 A (3NY1 822 and 3NY1 824) see page 17/17.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

SITOR semiconductor fuses

Application

According to IEC 60269, dimensions according to DIN 43620

When using SITOR semiconductor fuses in 3NP, 3KL and 3KM switch disconnectors, the rated current of the fuse must sometimes be reduced due to the higher power loss compared to LV HRC fuses for line protection.

The use of SITOR fuses in switch disconnectors may at times result in current values above the rated currents of the switches. These increased currents cannot be utilized when the switch is used with standard LV HRC fuses.

More detailed information about the use of SITOR fuses is available on request.

Selection and ordering data

SITOR fuses for 3NP4 fuse switch disconnectors: Assignment table

For switch disconnectors			SITOR fuses							
Type	Permissible load current[1]	Required conductor cross-section Cu	Size	Operational class	Rated current	Rated voltage[2]	DT	Order No.	PS*	Weight per PU approx.
	A	mm²			A	V				kg
SITOR 3NE1 fuses for 3NP4										
3NP40 1	16	1.5	000	gR/gS	16	690	▶	**3NE1 813-0**	3 units	0.127
3NP40 7	20	2.5	000	gR/gS	20	690	▶	**3NE1 814-0**	3 units	0.128
	25	4	000	gR/gS	25	690	▶	**3NE1 815-0**	3 units	0.127
	35	6	000	gR/gS	35	690	▶	**3NE1 803-0**	3 units	0.128
	40	10	000	gR/gS	40	690	▶	**3NE1 802-0**	3 units	0.127
	50	10	000	gR/gS	50	690	▶	**3NE1 817-0**	3 units	0.128
	63	16	000	gR/gS	63	690	▶	**3NE1 818-0**	3 units	0.128
	80	25	000	gR/gS	80	690	▶	**3NE1 820-0**	3 units	0.129
3NP40 7	100	35	00	gR/gS	100	690	▶	**3NE1 021-0**	3 units	0.202
	125	50	00	gR/gS	125	690	▶	**3NE1 022-0**	3 units	0.202
	105	50	00	gR	125	690		**3NE1 022-2**	3 units	0.203
3NP42 7	160	70	1	gR/gS	160	690	▶	**3NE1 224-0**	3 units	0.580
	160	70	1	gR	160	690		**3NE1 224-2**	3 units	0.613
	200	95	1	gR/gS	200	690	▶	**3NE1 225-0**	3 units	0.582
	200	95	1	gR	200	690		**3NE1 225-2**	3 units	0.612
	250	120	1	gR/gS	250	690	▶	**3NE1 227-0**	3 units	0.580
	250	120	1	gR	250	690		**3NE1 227-2**	3 units	0.626
3NP43 7	315	2 × 70	2	gR/gS	315	690		**3NE1 230-0**	3 units	0.581
	315	2 × 70	2	gR	315	690		**3NE1 230-2**	3 units	0.615
	350	2 × 95	2	gR/gS	350	690	▶	**3NE1 331-0**	3 units	0.766
	350	2 × 95	2	gR	350	690		**3NE1 331-2**	3 units	0.754
	400	2 × 95	2	gR/gS	400	690	▶	**3NE1 332-0**	3 units	0.743
3NP44 7	450	2 × 120	2	gR/gS	450	690		**3NE1 333-0**	3 units	0.760
(3NP44 76)	425	2 × 120	2	gR	450	690		**3NE1 333-2**	3 units	0.768
	480	2 × 120	2	gR/gS	500	690		**3NE1 334-0**	3 units	0.766
	465 (450)[3]	2 × 120	2	gR	500	690		**3NE1 334-2**	3 units	0.768
3NP44 70	560 (510)[3]	2 × 150	3	gR/gS	560	690		**3NE1 435-0**	3 units	1.111
(3NP44 76)	540 (500)[3]	2 × 150	3	gR	560	690		**3NE1 435-2**	3 units	1.149
	620 (535)[3]	2 × 185	3	gR/gS	630	690		**3NE1 436-0**	3 units	1.114
	600 (520)[3]	2 × 185	3	gR	630	690		**3NE1 436-2**	3 units	1.179
	690 (600)[3]	2 × (40 x 5)	3	gR/gS	710	690		**3NE1 437-0**	3 units	1.117
	670 (570)[3]	2 × (40 x 5)	3	gR	690	600		**3NE1 437-1**	3 units	1.120
	540 (540)[3]	2 × (40 x 5)	3	gR	710	600		**3NE1 437-2**	3 units	1.153
	750 (640)[3]	2 × (50 x 5)	3	gR/gS	800	690		**3NE1 438-0**	3 units	1.124
	710 (600)[3]	2 × (50 x 5)	3	gR	750	600		**3NE1 438-1**	3 units	1.113
	580 (580)[3]	2 × (50 x 5)	3	gR/	800	600		**3NE1 438-2**	3 units	1.184
	530 (530)[3]	2 × (40 x 5)	3	gR	670	690		**3NE1 447-2**	3 units	1.170
	630 (630)[3]	2 × (40 x 8)	3	gR	850	690		**3NE1 448-2**	3 units	1.207

[1] Permissible load current of the SITOR fuse in the switch disconnector. In the case of cyclic loads, the currents may have to be reduced again (precise values on request).

[2] When maintaining overvoltage category 2 (instead of 3) and degree of pollution 2 (instead of 3) to EN 60947-1, the rated insulation voltage of the 3NP fuse switch disconnector is also U_i = 1000 V.

[3] Values in brackets apply to 3NP44 76 switch disconnectors.

*** You can order this quantity or a multiple thereof. For other units and versions see A&D Mall.**

© Siemens AG 2008

For switch disconnectors			SITOR fuses							
Type	Permissible load current[1]	Required conductor cross-section Cu	Size	Operational class	Rated current	Rated voltage[2]	DT	Order No.	PS*	Weight per PU approx.
	A	mm²			A	V				kg
SITOR fuses 3NE3 to 3NE8 and 3NC2 to 3NC8										
3NP40 7	25	4	00	gR	25	690	▶	**3NE8 015-1**	3 units	0.205
(3NP40 75/	33	6	00	gR	35	690	▶	**3NE8 003-1**	3 units	0.204
3NP40 76)	45	10	00	gR	50	690	▶	**3NE8 017-1**	3 units	0.203
	54 (53)	16	00	gR	63	690	▶	**3NE8 018-1**	3 units	0.205
	68	25	00	aR	80	690	▶	**3NE8 020-1**	3 units	0.203
	89 (85)	35	00	aR	100	690	▶	**3NE8 021-1**	3 units	0.205
	106 (100)	50	00	aR	125	690	▶	**3NE8 022-1**	3 units	0.213
	130 (125)	70	00	aR	160	690	▶	**3NE8 024-1**	3 units	0.207
3NP42[3]	32	6	0	gR	32	1000	▶	**3NE4 101**	3 units	0.278
	38	10	0	gR	40	1000	▶	**3NE4 102**	3 units	0.277
	45	10	0	gR	50	1000	▶	**3NE4 117**	3 units	0.276
	59	16	0	gR	63	1000	▶	**3NE4 118**	3 units	0.279
	76	25	0	aR	80	1000	▶	**3NE4 120**	3 units	0.276
	90	35	0	aR	100	1000	▶	**3NE4 121**	3 units	0.278
	115	50	0	aR	125	1000	▶	**3NE4 122**	3 units	0.279
	144	70	0	aR	160	1000	▶	**3NE4 124**	3 units	0.279
3NP43	100 (100)	35	1	aR	100	1000		**3NE3 221**	3 units	0.580
(3NP43 76)	120 (125)	50	1	aR	125	1000		**3NE3 222**	3 units	0.568
	150 (160)	70	1	aR	160	1000	▶	**3NE3 224**	3 units	0.573
	190 (200)	95	1	aR	200	1000	▶	**3NE3 225**	3 units	0.570
	230 (250)	120	1	aR	250	1000	▶	**3NE3 227**	3 units	0.580
	270 (285)	185	1	aR	315	1000	▶	**3NE3 230-0B**	3 units	0.585
	290 (310)	240	1	aR	350	1000		**3NE3 231**	3 units	0.590
	310 (330)	240	1	aR	400	1000		**3NE3 232-0B**	3 units	0.576
	330 (360)	2 × 150	1	aR	450	1000	▶	**3NE3 233**	3 units	0.720
3NP44 70	345 (340)	240	2	aR	400	1000		**3NE3 332-0B**	3 units	0.759
(3NP44 76)	385 (370)	2 × 150	2	aR	450	1000		**3NE3 333**	3 units	0.748
	430 (410)	2 × 150	2	aR	500	1000	▶	**3NE3 334-0B**	3 units	0.753
	490 (450)	2 × 185	2	aR	560	1000	▶	**3NE3 335**	3 units	0.756
	560 (500)	2 × 185	2	aR	630	1000	▶	**3NE3 336**	3 units	0.760
	590 (510)	2 × 200	2	aR	710	900	▶	**3NE3 337-8**	3 units	0.762
	605 (520)	2 × 200	2	aR	800	800	▶	**3NE3 338-8**	3 units	0.764
	630 (530)	2 × 200	2	aR	900	690	▶	**3NE3 340-8**	3 units	0.753
	205 (235)	120	2	aR	250	800	▶	**3NE4 327-0B**	3 units	0.753
	260 (280)	240	2	aR	315	800	▶	**3NE4 330-0B**	3 units	0.760
	375 (390)	2 × (30 × 5)	2	aR	450	800	▶	**3NE4 333-0B**	3 units	0.760
	410 (415)	2 × (30 × 5)	2	aR	500	800	▶	**3NE4 334-0B**	3 units	0.754
	540 (480)	2 × (40 × 5)	2	aR	710	800	▶	**3NE4 337**	3 units	0.771
	140 (140)	70	3	gR	150	500		**3NC2 423-3C**	3 units	0.940
	175 (175)	95	3	gR	200	500		**3NC2 425-3**	3 units	1.057
	220 (215)	120	3	gR	250	500		**3NC2 427-3**	3 units	1.066
	250 (245)	185	3	gR	300	500		**3NC2 428-3**	3 units	1.078
	320 (315)	240	3	gR	350	500		**3NC2 431-3C**	3 units	0.940
	370 (360)	240	3	gR	400	500		**3NC2 432-3C**	3 units	0.940
	120 (120)	70	3	gR	150	660		**3NC8 423-3**	3 units	1.062
	160 (155)	95	3	gR	200	660		**3NC8 425-3**	3 units	1.063
	200 (195)	120	3	gR	250	660		**3NC8 427-3**	3 units	1.069
	270 (260)	240	3	gR	350	660		**3NC8 431-3**	3 units	1.072
	385 (375)	2 × 150	3	gR	500	660		**3NC8 434-3**	3 units	1.069
	400 (400)	3 x (60 x 6)	3	aR	1000	600		**3NC8 444-3**	3 units	1.085

[1] Permissible load current of the SITOR fuse in the switch disconnector. In the case of cyclic loads, the currents may have to be reduced again (precise values on request).

[2] When maintaining overvoltage category 2 (instead of 3) and degree of pollution 2 (instead of 3) to EN 60947-1, the rated insulation voltage of the 3NP fuse switch disconnector is also U_i = 1000 V.

[3] Due to the mechanical stress on the relatively long fuse blades, SITOR 3NE41 fuses should be switchable only occasionally and only at zero current.

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

SITOR semiconductor fuses

SITOR fuses for 3NP5 fuse switch disconnectors: Assignment table

For switch disconnectors			SITOR fuses							
Type	Permissible load current[1)]	Required conductor cross-section Cu	Size	Operational class	Rated current	Rated voltage[2)]	DT	Order No.	PS*	Weight per PU approx.
	A	mm²			A	V				kg
SITOR 3NE1 fuses for 3NP5										
3NP50	16	1.5	000	gR/gS	16	690	▶	**3NE1 813-0**	3 units	0.127
	20	2.5	000	gR/gS	20	690	▶	**3NE1 814-0**	3 units	0.128
	25	4	000	gR/gS	25	690	▶	**3NE1 815-0**	3 units	0.127
	35	6	000	gR/gS	35	690	▶	**3NE1 803-0**	3 units	0.128
	40	10	000	gR/gS	40	690	▶	**3NE1 802-0**	3 units	0.127
	50	10	000	gR/gS	50	690	▶	**3NE1 817-0**	3 units	0.128
	63	16	000	gR/gS	63	690	▶	**3NE1 818-0**	3 units	0.128
	80	25	000	gR/gS	80	690	▶	**3NE1 820-0**	3 units	0.129
	100	35	00	gR/gS	100	690	▶	**3NE1 021-0**	3 units	0.202
	125	50	00	gRgS	125	690	▶	**3NE1 022-0**	3 units	0.202
	125	50	00	gR	125	690		**3NE1 022-2**	3 units	0.203
3NP52	160	70	1	gR/gS	160	690	▶	**3NE1 224-0**	3 units	0.580
	160	70	1	gR	160	690		**3NE1 224-2**	3 units	0.613
	200	95	1	gR/gS	200	690	▶	**3NE1 225-0**	3 units	0.582
	200	95	1	gR	200	690		**3NE1 225-2**	3 units	0.612
	250	120	1	gR/gS	250	690	▶	**3NE1 227-0**	3 units	0.580
	250	120	1	gR	250	690		**3NE1 227-2**	3 units	0.626
3NP53	315	2 × 70	2	gR/gS	315	690		**3NE1 230-0**	3 units	0.581
	315	2 × 70	2	gR	315	690		**3NE1 230-2**	3 units	0.615
	350	2 × 95	2	gR/gS	350	690	▶	**3NE1 331-0**	3 units	0.766
	350	2 × 95	2	gR	350	690		**3NE1 331-2**	3 units	0.754
	400	2 × 95	2	gR/gS	400	690	▶	**3NE1 332-0**	3 units	0.743
3NP54	450	2 × 120	2	gR/gS	450	690		**3NE1 333-0**	3 units	0.760
	450	2 × 120	2	gR	450	690		**3NE1 333-2**	3 units	0.768
	500	2 × 120	2	gR/gS	500	690		**3NE1 334-0**	3 units	0.766
	560	2 × 150	3	gR/gS	560	690		**3NE1 435-0**	3 units	1.111
	560	2 × 150	3	gR	560	690		**3NE1 435-2**	3 units	1.149
	630	2 × 185	3	gR/gS	630	690		**3NE1 436-0**	3 units	1.114
	625	2 × 185	3	gR	630	690		**3NE1 436-2**	3 units	1.179
	710	2 × (40 x 5)	3	gR/gS	710	690		**3NE1 437-0**	3 units	1.117
	690	2 × (40 x 5)	3	gR	690	600		**3NE1 437-1**	3 units	1.120
	685	2 × (40 x 5)	3	gR	710	600		**3NE1 437-2**	3 units	1.153
	800	2 × (50 x 5)	3	gR/gS	800	690		**3NE1 438-0**	3 units	1.124
	750	2 × (50 x 5)	3	gR	750	600		**3NE1 438-1**	3 units	1.113
	720	2 × (50 x 5)	3	gR	800	600		**3NE1 438-2**	3 units	1.184
	655	2 × (40 x 5)	3	gR	670	690		**3NE1 447-2**	3 units	1.170
	820	2 × (40 x 8)	3	gR	850	690		**3NE1 438-2**	3 units	1.184

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

For switch disconnectors			SITOR fuses							
Type	Permissible load current[1]	Required conductor cross-section Cu	Size	Operational class	Rated current	Rated voltage[2]	DT	Order No.	PS*	Weight per PU approx.
	A	mm²			A	V				kg
SITOR fuses 3NE3 ... 3NE8, 3NC2 to 3NC8 for 3NP5										
3NP50	25	4	00	gR	25	690	▶	**3NE8 015-1**	3 units	0.205
	33	6	00	gR	35	690	▶	**3NE8 003-1**	3 units	0.204
	45	10	00	gR	50	690	▶	**3NE8 017-1**	3 units	0.203
	54	16	00	gR	63	690	▶	**3NE8 018-1**	3 units	0.205
	68	25	00	aR	80	690	▶	**3NE8 020-1**	3 units	0.203
	89	35	00	aR	100	690	▶	**3NE8 021-1**	3 units	0.205
	106	50	00	aR	125	690	▶	**3NE8 022-1**	3 units	0.213
	130	70	00	aR	160	690	▶	**3NE8 024-1**	3 units	0.207
3NP52[3]	32	6	0	gR	32	1000	▶	**3NE4 101**	3 units	0.278
	40	10	0	gR	40	1000	▶	**3NE4 102**	3 units	0.277
	50	10	0	gR	50	1000	▶	**3NE4 117**	3 units	0.276
	63	16	0	gR	63	1000	▶	**3NE4 118**	3 units	0.279
	80	25	0	aR	80	1000	▶	**3NE4 120**	3 units	0.276
	95	35	0	aR	100	1000	▶	**3NE4 121**	3 units	0.278
	120	50	0	aR	125	1000	▶	**3NE4 122**	3 units	0.279
	150	70	0	aR	160	1000	▶	**3NE4 124**	3 units	0.279
3NP53	100	35	1	aR	100	1000		**3NE3 221**	3 units	0.580
	120	50	1	aR	125	1000		**3NE3 222**	3 units	0.568
	150	70	1	aR	160	1000	▶	**3NE3 224**	3 units	0.573
	190	95	1	aR	200	1000	▶	**3NE3 225**	3 units	0.570
	230	120	1	aR	250	1000	▶	**3NE3 227**	3 units	0.580
	285	185	1	aR	315	1000	▶	**3NE3 230-0B**	3 units	0.585
	310	240	1	aR	350	1000		**3NE3 231**	3 units	0.590
	330	240	1	aR	400	1000		**3NE3 232-0B**	3 units	0.576
	360	2 × 150	1	aR	450	1000	▶	**3NE3 233**	3 units	0.720
	210	120	2	aR	250	800	▶	**3NE4 327-0B**	3 units	0.753
	270	240	2	aR	315	800	▶	**3NE4 330-0B**	3 units	0.760
	400	2 x (30 x 5)	2	aR	450	800	▶	**3NE4 333-0B**	3 units	0.760
3NP54	360	240	2	aR	400	1000		**3NE3 332-0B**	3 units	0.759
	400	2 x 150	2	aR	450	1000		**3NE3 333**	3 units	0.748
	450	2 x 150	2	aR	500	1000	▶	**3NE3 334-0B**	3 units	0.753
	510	2 x 185	2	aR	560	1000	▶	**3NE3 335**	3 units	0.756
	580	2 x 185	2	aR	630	1000	▶	**3NE3 336**	3 units	0.760
	630	2 × 200	2	aR	710	900	▶	**3NE3 337-8**	3 units	0.762
	630	2 × 200	2	aR	800	800	▶	**3NE3 338-8**	3 units	0.764
	630	2 × 200	2	aR	900	690	▶	**3NE3 340-8**	3 units	0.753
	450	2 x (30 x 5)	2	aR	500	800	▶	**3NE4 334-0B**	3 units	0.754
	600	2 x (40 x 5)	2	aR	710	800	▶	**3NE4 337**	3 units	0.771
	145	70	3	gR	150	500		**3NC2 423-3C**	3 units	0.940
	180	95	3	gR	200	500		**3NC2 425-3**	3 units	1.057
	225	120	3	gR	250	500		**3NC2 427-3**	3 units	1.066
	255	185	3	gR	300	500		**3NC2 428-3**	3 units	1.078
	330	240	3	gR	350	500		**3NC2 431-3C**	3 units	0.940
	400	240	3	gR	400	500		**3NC2 432-3C**	3 units	0.940
	135	70	3	gR	150	660		**3NC8 423-3**	3 units	1.062
	180	95	3	gR	200	660		**3NC8 425-3**	3 units	1.063
	225	120	3	gR	250	660		**3NC8 427-3**	3 units	1.069
	300	240	3	gR	350	660		**3NC8 431-3**	3 units	1.072
	425	2 x 150	3	gR	500	660		**3NC8 434-3**	3 units	1.069
	800	3 x (60 x 6)	3	aR	1000	600		**3NC8 444-3**	3 units	1.085

[1] In the case of cyclic loads, the currents may have to be reduced again (precise values on request).

[2] When maintaining overvoltage category 2 (instead of 3) and degree of pollution 2 (instead of 3) to EN 60 947-1, the rated insulation voltage of the 3NP fuse switch disconnector is also U_i = 1000 V.

[3] Due to the mechanical stress on the relatively long fuse blades, SITOR 3NE41 fuses should be switchable only occasionally and only at zero current.

© Siemens AG 2008

Notes

© Siemens AG 2008

Software for Power Distribution

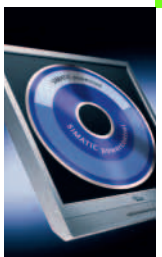
18

18/2 **Introduction**

Dimensioning with SIMARIS Design
SIMARIS design
18/3 - Overview
18/3 - Benefits
18/3 - Application

Configuring, Visualizing and Controlling with SIMATIC
SIMATIC powercontrol
18/4 - Overview
18/4 - Benefits
18/4 - Application
18/4 - Selection and ordering data
SIMATIC powercost
18/5 - Overview
18/5 - Benefits
18/5 - Selection and ordering data

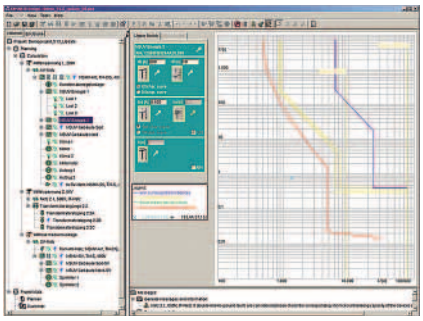
Configuring, Visualizing and Controlling with SENTRON
Switch ES Power
18/6 - Overview
18/6 - Benefits
18/6 - Selection and ordering data



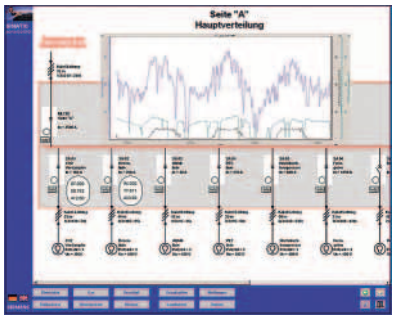
© Siemens AG 2008

Introduction

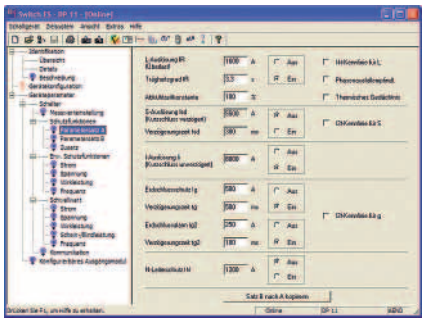
Overview



SIMARIS design



SIMATIC powercontrol



Switch ES Power

SIMARIS design

Software tool for the quick and effective dimensioning of power distribution for non-residential and industrial buildings:

- Dimensioning on the basis of real products according to acknowledged technical rules and standards (VDE, IEC)
- Automatic access to an integrated product database
- Easy implementation and modification in the planning and realization concept
- Reduction of routine work

SIMATIC powercontrol

Throws light on power flows - from infeed through distribution to loads - in order to permanently reduce the operating costs of power distribution systems:

- Central overview of all the power flows in a power distribution system
- Detailed overview of all switch states
- Knowledge of the demand profile from the continuous acquisition of power data
- Detailed consumption information and load-related assignment of amounts of power and costs
- Display and archiving of the consumption values, e.g. as 15-minute mean values
- Combination of different power types in one tool

SIMATIC powercost

SIMATIC powercost is the cost center module of SIMATIC powercontrol for automatic and load-related assignment of power and costs to individual company units:

- Low-cost, secure, and load-related energy assignment
- Flexible and transparent cost determination
- Easy and open display of results

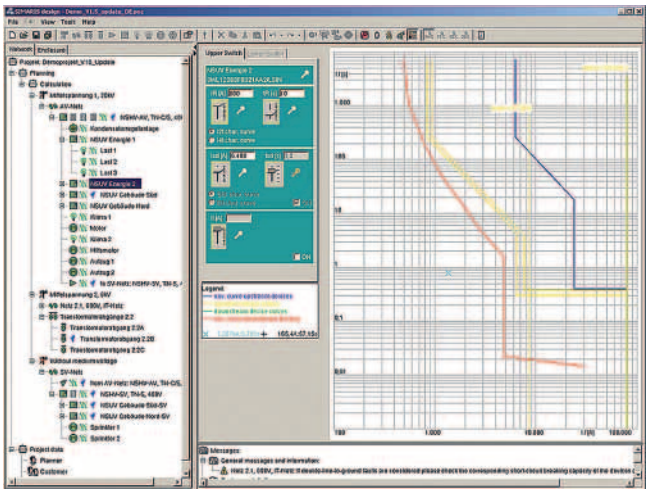
Switch ES Power

Shared software platform for communication-capable SENTRON 3WL and SENTRON 3VL circuit breakers:

- Parameterization, documentation, operation and monitoring in one software
- Clear representation of all available parameters
- All the available status information and measured values are displayed in dialog boxes
- One software for SENTRON 3WL and SENTRON 3VL

© Siemens AG 2008

Overview



SIMARIS design

SIMARIS design is a software tool for the quick and effective dimensioning of power distribution for non-residential and industrial buildings.

In the planning phase already, the complete circuit can be dimensioned on the basis of real products. This avoids additional costs due to uncoordinated systems in the implementation phase. The right components and distribution systems for the case in question are selected automatically in the light of the product data stored in SIMARIS design.

Every configuration of the electric power distribution is subject to frequent change and adaptation in the implementation phase as well as in the planning phase. SIMARIS design incorporates each change into the supply concept and automatically checks its reliability in terms of the regulations and standards currently in force.

Even an analysis of selectivity, for example for safety power supply elements, can be simply performed with SIMARIS design.
All these steps are precisely documented in SIMARIS design.

More information and order options
can be found on the Internet at:
http://www.siemens.com/simarisdesign

Benefits

- Reduction of routine work
- Dimensioning on the basis of real products according to acknowledged technical rules and standards
- Integrated product database
- Detailed knowledge of products and systems not required
- Easy implementation and modification in the planning and realization concept
- Clear-cut presentation of changes with specification of the revision date
- Detailed parts lists with exact product descriptions
- Easy adaptation to changes in use or expansions
- Comprehensive documentation with simple data transfer (Office, CAD etc.)

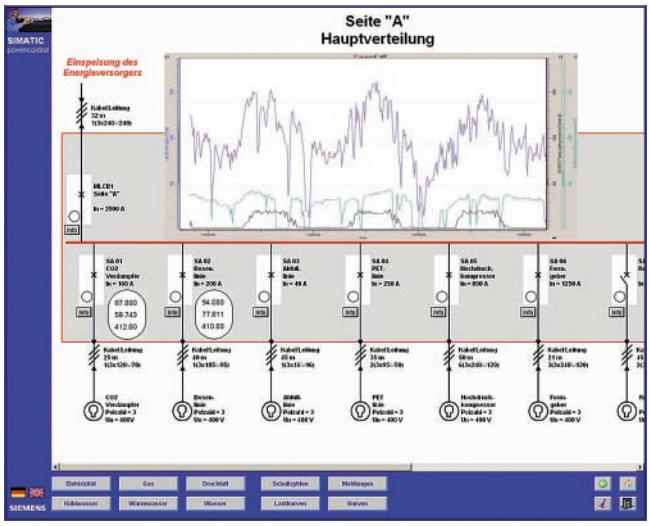
Application

SIMARIS design is suitable for dimensioning electric power distribution systems in all industrial and non-residential buildings. From shopping centers to hospitals and production buildings – with SIMARIS design it is possible to reduce the amount of work required for the overall planning of power distribution systems and hence the time spent on selecting and dimensioning the necessary equipment.

© Siemens AG 2008

SIMATIC powercontrol

Overview



SIMATIC powercontrol

By visualizing the energy flows in the entire power distribution system, i.e. from the infeed to the loads, SIMATIC powercontrol allows cost-effective power consumption within the system. The continuous, complete measurement of all data relevant to energy ensures a high level of transparency and also makes it possible to draw conclusions on the energy behavior and possible savings potentials using standard assessments.

Current information on complete power distribution increases the availability of energy and the safety in the system, i.e. faults are detected quickly, reported based on their causes and can therefore be remedied promptly and systematically.
With the automatic assignment of power consumption and energy costs to individual cost centers (consumption units), this provides a tool to assign power consumption and the associated costs based on causes and to indicate savings potentials.

More information can be found on the Internet at:
http://www.siemens.com/powermanagementsystem

Benefits

- Identification of power-intensive consumer devices and processes for introducing power-efficient measures
- Optimizing the company according to energy parameters based on an assessment of consumption and costs
- Optimization of capital expenditure for plant extension projects through the localization of hidden reserves in the power distribution
- Increase of system availability through the immediate and automatic detection of critical conditions (e.g. within the framework of alarm and incident protocols)
- Avoidance of overload situations through the early detection of capacity limits in the power distribution

Application

SIMATIC powercontrol can be used in all sectors of industry with a medium and high consumption – in particular of electrical energy.

Operators or customers in the infrastructure area with higher energy demands such as airports or tunnels also benefit from the advantages of SIMATIC powercontrol.

SIMATIC powercontrol offers an expansion of the business segment for system integrators and switchgear manufacturers. By using the standardized SIMATIC powercontrol software, the majority of customer needs in the area of power management can be met with low risk and low costs. By using the pre-defined interfaces, it is also possible to implement customer-specific requirements easily. Because the SIMATIC powercontrol uses the standard SIMATIC modular system, both components as well as existing configuration and parameter knowledge can be applied.

Minimum hardware requirements
- PC: Pentium 4, 2 GHz, 1 GByte RAM, 80 GByte free HD space
- PLC: CPU 315-2 DP with Ethernet CP or CPU 317-2 PN/DP
- Bus system: PROFIBUS DP and Industrial Ethernet

Software requirements
- WinCC version 6.0 or similar control and monitoring system (more information on request)
- SIMATIC NET PC software version 6.3 or higher
- STEP 7 version 5.3 or higher

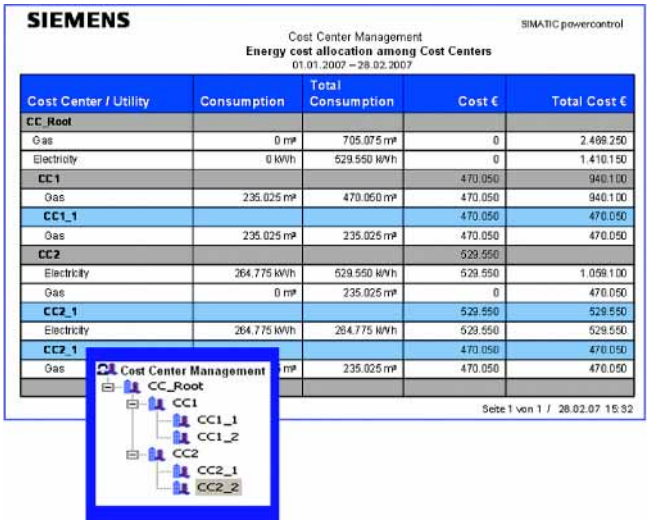
Selection and ordering data

Version	DT	Order No.	PS*	Weight per PU approx.
				kg
SIMATIC powercontrol V 2.0				
Server license and one SIMATIC powercontrol Client Licence included.				
The product CD-ROM comprises: • SIMATIC powercontrol software and SIMATIC powercost module • Library with graphical objects and SIMATIC S7 modules as well as manual • Siemens Licence Management with Automation Licence Manager				
Delivery on CD-ROM				
• Trial version, 30 days limited use, with all basic functions		**3ZS2 730-0CC20-0YA7**	1 unit	0.200
• Lean Version, 1 ... 20 devices		**3ZS2 731-0CC20-0YA0**	1 unit	0.200
• Standard Version, 21 ... 50 devices		**3ZS2 732-0CC20-0YA0**	1 unit	0.250
• Advanced Version, 51 ... 100 devices		**3ZS2 733-0CC20-0YA0**	1 unit	0.250
• Unlimited Version, > 100 devices		**3ZS2 734-0CC20-0YA0**	1 unit	0.250
SIMATIC powercontrol Client Licences				
Client Licence Packages are available to extend the client included in the Standard License to the number of workstations required.				
Delivery on CD-ROM				
• SIMATIC powercontrol Client Licence ≤ 3 clients		**3ZS2 736-0CC20-0YB0**	1 unit	0.250
• SIMATIC powercontrol Client Licence ≤ 10 clients		**3ZS2 737-0CC20-0YB0**	1 unit	0.250
• SIMATIC powercontrol Client Licence > 10 clients		**3ZS2 738-0CC20-0YB0**	1 unit	0.250
Procurement from download server				
• SIMATIC powercontrol Client Licence ≤ 3 clients		**3ZS2 736-0CE20-0YB0**	1 unit	0.230
• SIMATIC powercontrol Client Licence ≤ 10 clients		**3ZS2 737-0CE20-0YB0**	1 unit	0.230
• SIMATIC powercontrol Client Licence > 10 clients		**3ZS2 738-0CE20-0YB0**	1 unit	0.230

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Overview



SIMATIC powercost

SIMATIC powercost is the cost center module of SIMATIC powercontrol for automatic and load-related assignment of power and costs to individual company units. The module provides transparency in assigning energy costs and it also serves as the basis for benchmark activities in the area of power saving measures.

The basis for all power assignment is the ability to display the company cost center structure. Here SIMATIC powercost offers a planning interface with which all cost centers can be planned quickly and easily with drag and drop so that the measuring points can be assigned to the respective cost centers. Measuring points can be assigned to the different cost centers on a percent basis using a formula.

Sound statements about power consumption are only possible if all power types and all consumption values, i.e. non-communicative counters can be recorded. Here SIMATIC powercost offers all possibilities - from the assignment of all power types which exist in a project to a cost center, to the use of manual measurement points for which the values can be input into the system using a manual readout.

The resulting costs are also very important in addition to power consumption alone. With SIMATIC powercost it is possible to make flexible rate specifications (costs per power consumption) in the form of cyclical rate models and to input special rates for limited periods of time. Fixed costs such as counter rentals can be assigned to each cost center as well as percentage-based supplements (e.g. VAT tax).

SIMATIC powercost determines the accumulated consumption from the cost and rate structure specifications and the resulting costs of each cost center. The data can be printed out in the form of reports cyclically or exported to additional systems for further processing.

Benefits

- Low-cost, secure, and load-related energy assignment
- Flexible and transparent cost determination
- Easy and open display of results

Selection and ordering data

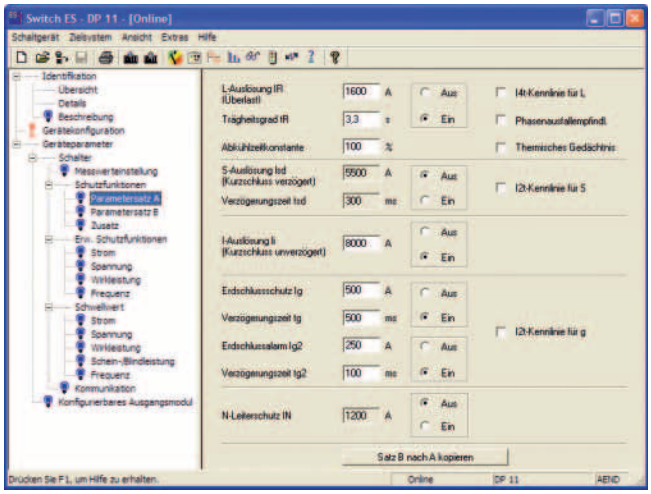
Version	DT	Order No.	PS*	Weight per PU approx. kg
SIMATIC powercost				
SIMATIC powercost is the module for load-related assignment of power and costs to individual cost centers.				
The SIMATIC powercost module is an expansion for the basic package SIMATIC powercontrol V 2.0 Lean, Standard, Advanced or Unlimited.				
SIMATIC powercost is independent of the number of devices.				
Delivery on CD-ROM		**3ZS2 740-1CC20-0YH0**	1 unit	0.200

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

Switch ES Power

Overview



Adjustment of parameter set A with Switch ES Power

Switch ES Power is the shared software platform for communication-capable SENTRON circuit breakers. This has the advantage that all device-specific setting options are identical in terms of appearance and handling.

Switch ES Power can be used to configure, document, operate and monitor the SENTRON 3WL and SENTRON 3VL circuit breakers through PROFIBUS DP.

More information can be found on the Internet at:
http://www.siemens.com/sentron

Benefits

- Parameterization, documentation, operation and monitoring in one software
- Documentation of measured values and settings
- Clear representation of all available parameters
- All the available status information and measured values are clearly displayed in dialog boxes
- One software for SENTRON 3WL and SENTRON 3VL
- Easy connection build-up through acyclic PROFIBUS DP-V1 data traffic
- Identical storage format for parameters with the Breaker Data Adapter (BDA)
- Easy-to-operate Windows interface
- No programming knowhow is required for operation

Object manager of Switch ES Power

- Uniform data management for circuit breaker parameters
- Automatic parameterization if components are replaced

Selection and ordering data

Version	DT	Order No.	PS*	Weight per PU approx.
				kg
Switch ES Power Calibration, documentation, operation and monitoring of SENTRON 3WL/3VL circuit breakers through PROFIBUS DP; runs under Windows 95/98/NT/2000/XP Professional, including online help, the language can be switched between German and English; including Object Manager (OM) for Switch ES Power for integration in STEP7 System requirements: PROFIBUS card: CP5512, CP5611, CP5613 or CP5614 and MPI interface on PG7xx and its driver software, see interactive Catalog CA01, CD-ROM drive System requirements for OM Switch ES Power: SIMATIC: S7, M7, C7, PCS7 STEP 7: Version 5.2 or higher CD-ROM drive		**3ZS2 311-0CC10-0YA0**	1 unit	0.200

*** You can order this quantity or a multiple thereof.**
For other units and versions see A&D Mall.

© Siemens AG 2008

BETA Low-Voltage Circuit Protection

19

The selection and ordering data for BETA Low-Voltage Circuit Protection Devices can be found in the Catalog ET B1

© Siemens AG 2008

Notes

© Siemens AG 2008

Appendix

20

20/2	Ordering notes
20/5	Further documentation
20/6	Standards and approvals
20/7	Quality management
20/8	Siemens contacts
20/9	Online services
20/10	Customer support
20/11	Software licenses
20/12	Subject index
20/17	Order number index
20/32	Conditions of sale and delivery Export regulations

© Siemens AG 2008

Ordering notes

Logistics

General

With regard to delivery service, communications and environmental protection, our logistics service ensures "quality from the moment of ordering right through to delivery". By designing our infrastructure according to customer requirements and implementing electronic order processing, we have successfully optimized our logistics processes.

We are proud of our personal consulting service, on-time deliveries and 1-day transport within Germany.

To achieve this, we supply the preferred types marked with ► ex warehouse.

We regard the ISO-9001 certification and consistent quality checks as an integral part of our services.

Electronic order processing is fast, cost-efficient and error-free. Please contact us if you want to benefit from these advantages.

Packing, packing units

The packaging in which our equipment is dispatched provides protection against dust and mechanical damage during transport, thus ensuring that you receive our products in a perfect state.

We select our packaging for maximum environmental compatibility and reusability (e.g. crumpled paper instead of polystyrene chips for protection during transport in packages up to 32 kg) and, in particular, with a view to reducing waste.

With our multi-unit packaging, we offer you specific types of packaging that are both kind to the environment and tailored to your requirements:

Your advantages at a glance:

- Lower order costs.
- Cost savings through uniform-type packaging: low/no disposal costs.
- Reduced time and cost thanks to short unpacking times.
- "Just-in-time" delivery directly to the production line helps reduce stock: cost savings through reduction of storage area.
- Fast assembly thanks to supply in sets.
- Standard Euro boxes - corresponding to the Euro pallet modular system - suitable for most conveyor systems.
- Active contribution to environmental protection.

Unless stated otherwise in the "Selection and ordering data" of this catalog, our products are supplied individually packed.

For small parts/accessories, we offer you economical packaging units as standard packs containing more than one item, e.g. 5, 10, 50 or 100 units. It is essential that whole number multiples of these quantities be ordered to ensure satisfactory quality of the products and problem-free order processing.

The products are delivered in a neutral, white carton. The label includes warning notices, the CE mark, the open arrow recycling symbol, and product description information in English and German. In addition to the Order No. (MLFB) and the number of items in the packing, the Instr. Order No. is also specified for the operating instructions. It can be obtained from your local Siemens representative (you will find a list of your local Siemens representatives at www.siemens.com/automation/partner).

The device order nos. of most devices can also be acquired through the EAN barcode to simplify ordering and storage logistics. The order numbers are assigned electronically to the EAN code in the master data of low-voltage controls.

© Siemens AG 2008

Ordering notes

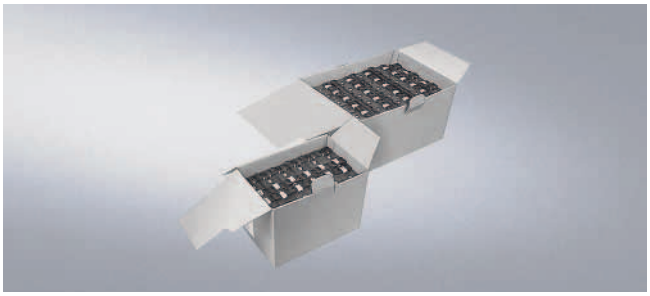
Multi-unit and reusable packs

The devices listed in the table on page 20/4 can be ordered in multi-unit or reusable packs (further models on request).

If ordering multi-unit or reusable packs for the first time, please first consult your local Siemens representative with regard to pack type, quantity, delivery time and the precise order designation.

For both pack types, the quantity of devices ordered (per Order No.) must be divisible by the pack quantity. If this is not the case, the electronic order processing system rounds up to the next integer multiple of packs.

Multi-unit packaging



Products in a quantity sufficient to fill a multi-unit pack: 1/2 (W96) and 1/4 (W97) ENK

As standard, multi-unit packs contain uniform-type, unpacked individual products (1 device type) in an appropriately sized carton made of recyclable cardboard. The products of the SIRIUS range can be ordered in units of 1/1, 1/2, 1/4 and 1/8 standard Euro boxes (ENK).

When ordering products in multi-unit packs, the Order No. of the product concerned must be supplemented with **"–Z"** and, in addition, the order code **X90**, or for products from the SIRIUS range, the order code **W9.**

Example:
3RT10 24–1AB00–Z W96
+ quantity: 48

Reusable packaging (uniform type)

Standard reusable packs contain uniform-type, non-packed individual products (1 device type) in a reusable standard Euro box (ENK) made of durable molded plastic with foam inserts for protection during transport.

The standard Euro box (ENK) also serves as transport packaging.

For products packed in reusable packaging, the Order No. must be supplemented with **"–Z"** and the order code **X95**.

Example:
3RT10 24–1AB00–Z X95
+ quantity: 96

© Siemens AG 2008

Ordering notes

Set deliveries (reusable, different devices)

On request, we also deliver order-related packs of larger quantities of different unpacked devices in standard Euro boxes.

Please contact your Siemens representative (you will find Siemens representatives at http://www.siemens.com/automation/partner) to clarify the delivery details or conditions for set supply and other delivery types such as container delivery/return, either in standard Euro boxes or reusable transport containers.

Packaging dimensions

Packaging	Length mm	Height mm	Width mm
ENK	598	220	396
W95	576	192	380
W96	380	187	290
W97	290	187	190
W98	290	98	190

Multi-unit and reusable packaging, quantity in units, supplied in indivisible pack quantities

Devices	Reusable	Multi-unit			
	X95 (1/1 ENK)	**W95** (1/1 ENK)	**W96** (1/2 ENK)	**W97** (1/4 ENK)	**W98** (1/8 ENK)
Contactors, sizes S00–S2					
3RT10 1.–.A/B..1/2	144	144	90	42	20
3RT10 2.–.A..0	96	96	48	24	12
3RT10 2.–.A..4	52	52	24	12	6
3RT10 2.–.B..0	66	66	35	17	10
3RT10 3.–.A..0/4	30	30	15	–	–
3RT10 3.–.B..0	27	27	15	–	–
3RT10 3.–.B..4	24	24	15	–	–
Snap-on auxiliary contact blocks, size S00:					
3RH19 11–1F./GA/HA..	600	600	280	140	70
Auxiliary contactors, size S00					
3RH11 ..–.A/B..0	144	144	90	42	20
Motor starter protectors, sizes S00–S2:					
3RV10 11–....0	96	96	48	24	12
3RV10 21–....0	61	61	29	14	–
3RV10 31–....0	24	24	12	–	–
Thermally delayed overload relays, sizes S00–S2:					
3RU11 16–..B0	128	128	64	32	16
3RU11 26–..B0	88	88	45	22	14
3RU11 36–..B0	36	36	18	–	–
Fuseless load feeders up to 12 A Size S00:					
3RA11 10–..A..–1AP0	52	52	26	12	6
3RA11 10–..A..–1BB4	52	52	26	12	6
Solid-state timing relays:					
3RP15 05–...30, 3RP15 60–.S.30	137	137	67	27	16
3RP15 1/2/4/5.–.A.30	192	192	96	48	24
3RP15 2/4.–.B.30	137	137	67	27	16
3RP15 3.–.A.30	137	137	67	27	16
3RP15 74 –.N.30	192	192	96	48	24

Devices	Reusable	Multi-unit
	X95	**X90**
3SB pushbutton units and indicator lights		
Complete units and actuators (except EMERGENCY-STOP and key-operated switches)	–	50
Complete units and actuators (EMERGENCY-STOP and key-operated switches)	–	20
Contact blocks	–	150
Holders	–	100
Supports, blanking plugss	–	50
Safety combinations		
3TK28, 3TK29	23	–

Orders for special designs

For ordering products that differ from the versions listed in the catalog, the order number specified in the catalog must be supplemented with **"–Z"**; the required features must be specified by means of the alphanumeric order codes or in plain text.

Small orders

When small orders are placed, the costs associated with order processing are greater than the order value. We recommend therefore that you combine several small orders. Where this is not possible, we unfortunately find it necessary to charge a processing supplement of € 20.-- to cover our costs for order processing and invoicing for all orders with a net goods value of less than € 250.--.

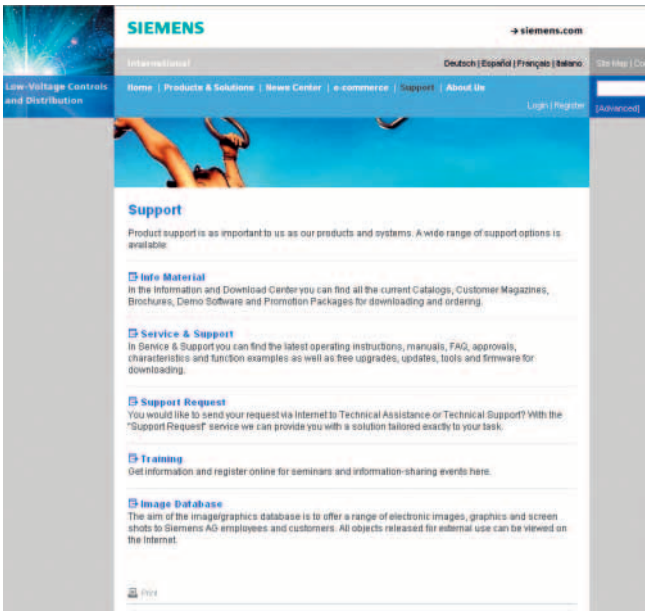
© Siemens AG 2008

Overview

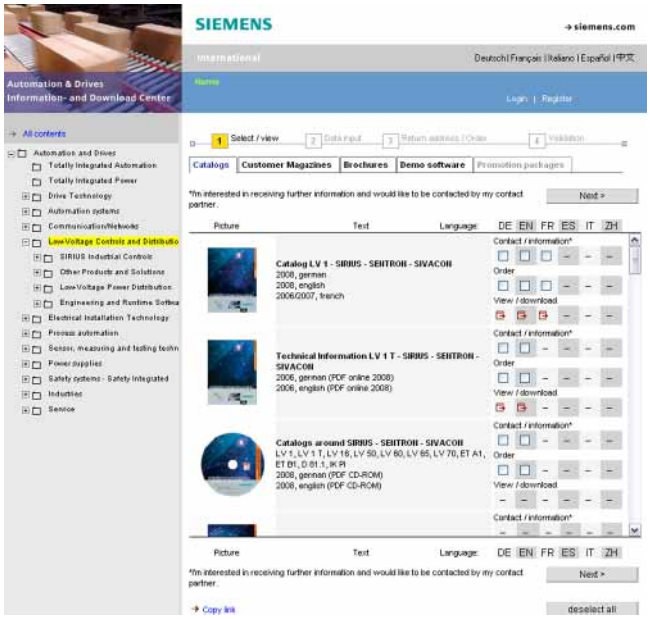
You will find all the latest information material, such as brochures, catalogs, manuals and operating instructions on low-voltage controls and distribution on the Internet at:

http://www.siemens.com/lowvoltage/info

Here you can order your copy of the available documentation or download it in common file formats (PDF, ZIP).



We also provide further support for SIRIUS - SENTRON - SIVACON



Brochures, catalogs and CDs offer fast and more in-depth information

We regard product support as just as important as the products and systems themselves. Visit our Support site on the Internet for a comprehensive range of material on SIRIUS, SENTRON and SIVACON, such as

- Catalogs available to order free of charge
- Operating instructions and manuals for direct download
- Online registration for seminars and events
- Up-to-date answers to your queries and problems
- Software upgrades and updates for fast download
- Telephone assistance in more than 190 countries
- Photos and graphics for external use

and much, much more - all conveniently and easily accessible.

For your inventory control and planning systems we can provide commercial, technical and graphic data in electronic form for the range of low-voltage control products:

Master Data of Low-Voltage Controls V2.0

Edition 2008

The CD-ROM contains commercial master data for low-voltage control products for further processing in inventory control and planning systems in the formats DATANORM, ELDANORM, CSV, ASCII, DBASE, XML and MS ACCESS97.

Order No.: E86060-D1003-A301-A6

Token fee 5.-- €

Technical Product Data for CAx Applications

Edition 04/2007

The DVD provides technical and graphic data for the range of low-voltage control products for further processing in CAE/CAD systems. The technical data are available in ASCII, in the format of ECAD Component Standard V1.2, and in other system-specific formats. Graphic data are provided in DXF and DWG format.

Order No.: E86060-D1000-A207-A5-6300

Token fee 48.-- €

Technical Product-Data Collection

Edition 04/2007

For the low-voltage control products the two DVDs contain 2D dimensional drawings in DXF format, 3D models in STEP format and product data sheets as PDF files in 4 languages (German, English, French, Spanish). Texts for tenders are available in GAEB and Text format.

Order No.: E86060-D1004-A101-A3-7400

Token fee 10.-- €

© Siemens AG 2008

Standards and approvals

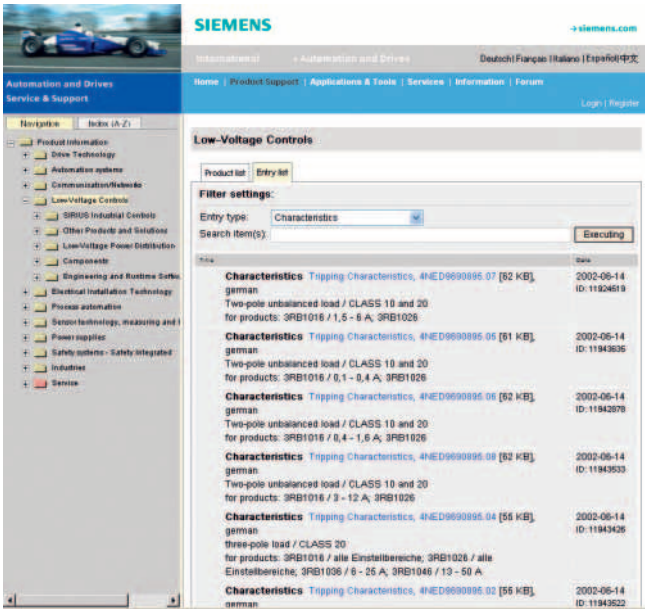
Overview

Approvals, test certificates, characteristic curves

An overview of the certificates available for low-voltage control products along with more technical documentation can be consulted daily on the Internet at:

http://www.siemens.com/lowvoltage/support

Product support: Approvals / Certificates



Product support: Characteristic curves

© Siemens AG 2008

Quality management

The quality management system of our A&D division complies with the international standard EN ISO 9001.

The products and systems described in this catalog are sold under application of a quality management system certified by DQS and TÜV Management Service GmbH in according to the ISO 9001. The certificates are recognized in all IQ Net countries

DQS Registered Certificate Nos.:

Siemens AG
Automation and Drives

- Industrial Automation Systems
  Reg. No.: 001323 QM
- Sensors and Communication
  Industrial Communication
  Reg. No.: 000656 QM.

TÜV (German Technical Inspectorate) Registered Certificate No.:

Siemens AG
Automation and Drives

- Low-Voltage Controls
  Reg. No.: 12 100 16950 TMS.

BVQI Registered Certificate No.:

Siemens AG
Automation and Drives

- Electrical Installation Technology
  Reg. No.: 117779

Certificates

An overview of the certificates available for SIMATIC NET products (CE, UL, CSA, FM, shipping authorizations) can be found on the Internet at:

http://www.siemens.com/simatic-net

Other certificates for SIMATIC products can be found on the Internet at:

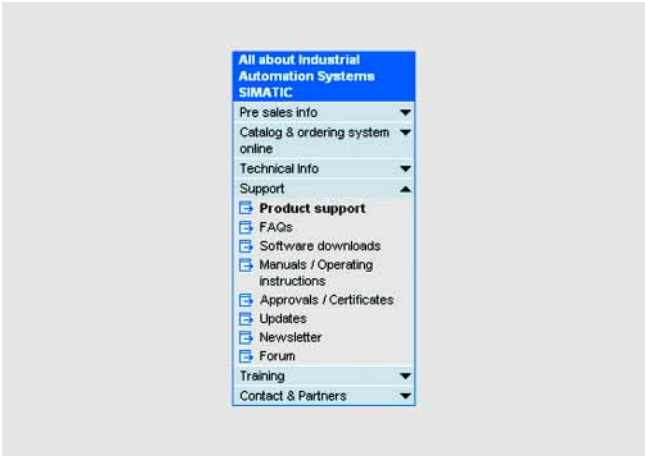
http://www.siemens.com/simatic

These lists are continuously revised and updated.
Data for products not yet included in the overview are continuously collected and prepared for subsequent editions.

You can find certificates, approvals, verification test certificates and characteristic curves at:

Support\Certificates

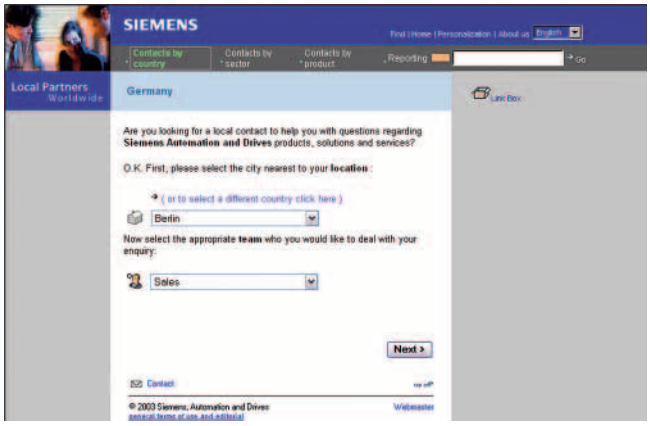
or by going directly to the Link Box:

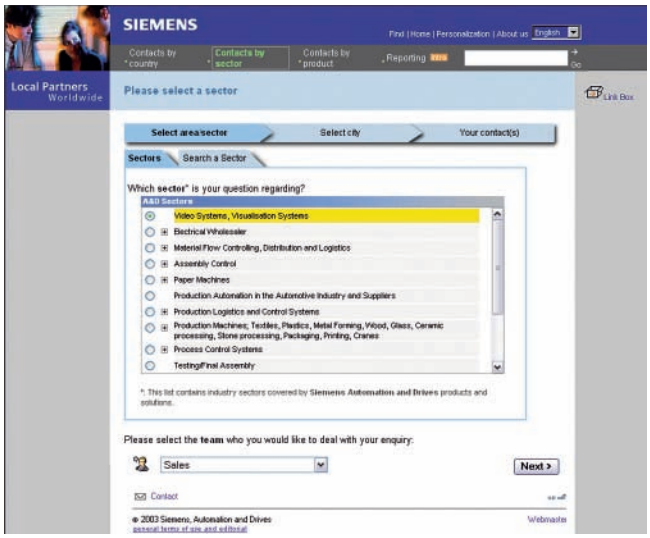


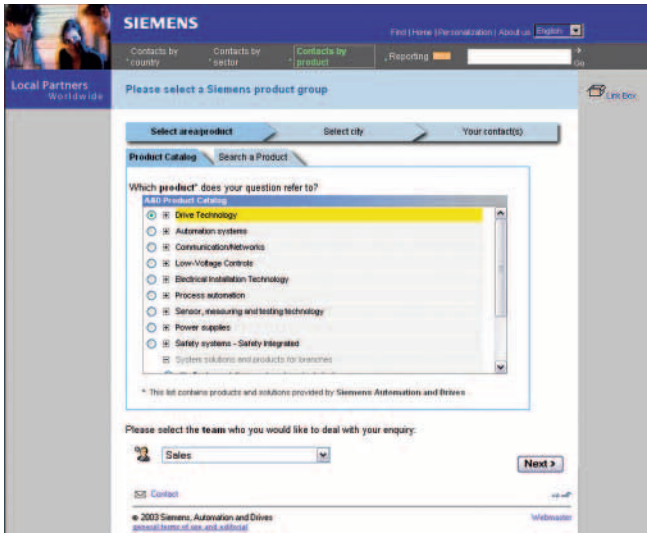
© Siemens AG 2008

Siemens contacts

Siemens contacts worldwide







At

http://www.siemens.com/automation/partner

you can find details of Siemens contact partners worldwide responsible for particular technologies.

You can obtain in most cases a contact partner for

- Technical Support,
- Spare parts/repairs,
- Service,
- Training,
- Sales or
- Consultation/engineering.

You start by selecting a

- Country,
- Product or
- Sector.

By further specifying the remaining criteria you will find exactly the right contact partner with his/her respective expertise.

© Siemens AG 2008

Siemens Industry Automation and Drive Technologies in the WWW

A detailed knowledge of the range of products and services available is essential when planning and configuring automation systems. It goes without saying that this information must always be fully up-to-date.

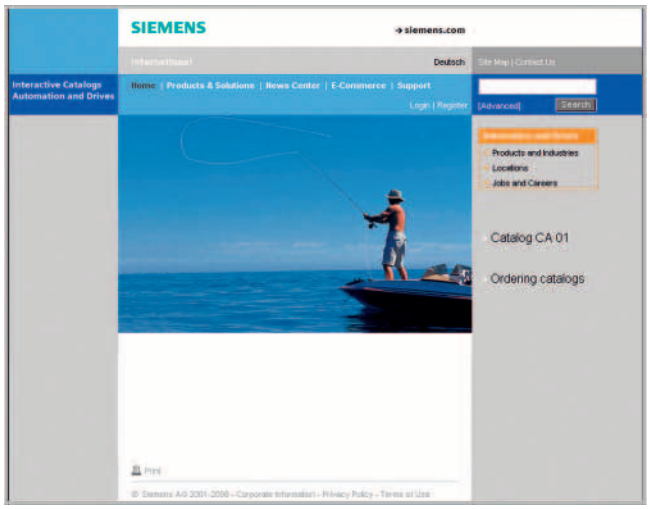
Siemens Industry Automation and Drive Technologies has therefore built up a comprehensive range of information in the World Wide Web, which offers quick and easy access to all data required.

Under the address

http://www.siemens.com/automation

you will find everything you need to know about products, systems and services.

Product Selection Using the Offline Mall



Detailed information together with convenient interactive functions:
The Offline Mall CA 01 covers more than 80 000 products and thus provides a full summary of the Siemens Automation and Drives product base.

Here you will find everything that you need to solve tasks in the fields of automation, switchgear, installation and drives.
All information is linked into a user interface which is easy to work with and intuitive.

After selecting the product of your choice you can order at the press of a button, by fax or by online link.

Information on the Offline Mall CA 01 can be found in the Internet under

http://www.siemens.com/automation/ca01

or on CD-ROM or DVD.

Easy Shopping with the A&D Mall

The A&D Mall is the virtual department store of Siemens AG in the Internet. Here you have access to a huge range of products presented in electronic catalogs in an informative and attractive way.

Data transfer via EDIFACT allows the whole procedure from selection through ordering to tracking of the order to be carried out online via the Internet.

Numerous functions are available to support you.

For example, powerful search functions make it easy to find the required products, which can be immediately checked for availability. Customer-specific discounts and preparation of quotes can be carried out online as well as order tracking and tracing.

Please visit the A&D Mall on the Internet under:

http://www.siemens.com/automation/mall

© Siemens AG 2008

Customer Support

In the face of harsh competition you need optimum conditions to keep ahead all the time:
A strong starting position. A sophisticated strategy and team for the necessary support - in every phase.
Service & Support from Siemens provides this support with a complete range of different services for automation and drives.

In every phase: from planning and startup to maintenance and upgrading.

Our specialists know when and where to act to keep the productivity and cost-effectiveness of your system running in top form.

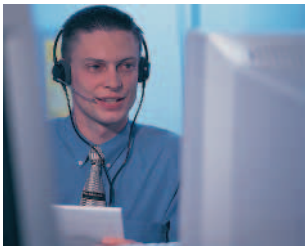
Online Support

The comprehensive information system available round the clock via Internet ranging from Product Support and Service & Support services to Support Tools in the Shop.
http://www.siemens.com/automation/service&support

Technical Consulting

Support in the planning and designing of your project from detailed actual-state analysis, target definition and consulting on product and system questions right to the creation of the automation solution.[2)]

Technical Assistance



Expert technical assistance[1)] for Low-voltage controls and electrical installation.

Tel.: +49 (9 11) 8 95-59 00
Fax: +49 (9 11) 8 95-59 07

E-Mail: technical-assistance@siemens.com

Configuration and software engineering

Support in configuring and developing with customer-oriented services from actual configuration to implementation of the automation project.[2)]

Technical Support

Competent consulting in technical questions covering a wide range of customer-oriented services for all our products and systems.

Tel.: +49 (0)180 50 50 222
Fax: +49 (0)180 50 50 223
(0.14 €/min from the German fixed network)

http://www.siemens.com/automation/support-request

Service on Site

With Service On Site we offer services for startup and maintenance, essential for ensuring system availability.

In Germany
0180 50 50 444[2)]
(0.14 €/min from the German fixed network)

Repairs and Spare Parts

In the operating phase of a machine or automation system we provide a comprehensive repair and spare parts service ensuring the highest degree of operating safety and reliability.

In Germany
0180 50 50 446[1)]
(0.14 €/min from the German fixed network)

Optimization and Upgrading

To enhance productivity and save costs in your project we offer high-quality services in optimization and upgrading.[2)]

[1)] Contact:
Technical assistance for product selection · Old/new coding · Competitor coding · Special versions · Special requirements · Sales promotion (Infoline).
Your regional contacts for sales support (prices, discounts, delivery times).
Technical Support for commissioning support and after-sales services.

[2)] For country-specific telephone numbers go to our Internet site at:
http://www.siemens.com/automation/service&support

© Siemens AG 2008

Overview

Software types

Software requiring a license is categorized into types.
The following software types have been defined:

- Engineering software
- Runtime software

Engineering software

This includes all software products for creating (engineering) user software, e.g. for configuring, programming, parameterizing, testing, commissioning or servicing.

Data generated with engineering software and executable programs can be duplicated for your own use or for use by third-parties free-of-charge.

Runtime software

This includes all software products required for plant/machine operation, e.g. operating system, basic system, system expansions, drivers, etc.

The duplication of the runtime software and executable programs created with the runtime software for your own use or for use by third-parties is subject to a charge.

You can find information about license fees according to use in the ordering data (e.g. in the catalog). Examples of categories of use include per CPU, per installation, per channel, per instance, per axis, per control loop, per variable, etc.

Information about extended rights of use for parameterization/configuration tools supplied as integral components of the scope of delivery can be found in the readme file supplied with the relevant product(s).

License types

Siemens Automation & Drives offers various types of software license:

- Floating license
- Single license
- Rental license
- Trial license

Floating license

The software may be installed for internal use on any number of devices by the licensee. Only the concurrent user is licensed. The concurrent user is the person using the program. Use begins when the software is started.
A license is required for each concurrent user.

Single license

Unlike the floating license, a single license permits only one installation of the software.

The type of use licensed is specified in the ordering data and in the Certificate of License (CoL). Types of use include for example per device, per axis, per channel, etc.

One single license is required for each type of use defined.

Rental license

A rental license supports the "sporadic use" of engineering software. Once the license key has been installed, the software can be used for a specific number of hours (the operating hours do not have to be consecutive).
One license is required for each installation of the software.

Trial license

A trial license supports "short-term use" of the software in a non-productive context, e.g. for testing and evaluation purposes.
It can be transferred to another license.

Factory license

With the Factory License the user has the right to install and use the software at one permanent establishment only. The permanent establishment is defined by one address only.The number of hardware devices on which the software may be installed results from the order data or the Certificate of License (CoL).

Certificate of license

The Certificate of License (CoL) is the licensee's proof that the use of the software has been licensed by Siemens. A CoL is required for every type of use and must be kept in a safe place.

Downgrading

The licensee is permitted to use the software or an earlier version/release of the software, provided that the licensee owns such a version/release and its use is technically feasible.

Delivery versions

Software is constantly being updated.
The following delivery versions

- PowerPack
- Upgrade

can be used to access updates.

Existing bug fixes are supplied with the ServicePack version.

PowerPack

PowerPacks can be used to upgrade to more powerful software. The licensee receives a new license agreement and CoL (Certificate of License) with the PowerPack. This CoL, together with the CoL for the original product, proves that the new software is licensed.
A separate PowerPack must be purchased for each original license of the software to be replaced.

Upgrade

An upgrade permits the use of a new version of the software on the condition that a license for a previous version of the product is already held.
The licensee receives a new license agreement and CoL with the upgrade. This CoL, together with the CoL for the previous product, proves that the new version is licensed.
A separate upgrade must be purchased for each original license of the software to be upgraded.

ServicePack

ServicePacks are used to debug existing products.
ServicePacks may be duplicated for use as prescribed according to the number of existing original licenses.

License key

Siemens Automation & Drives supplies software products with and without license keys.

The license key serves as an electronic license stamp and is also the "switch" for activating the software (floating license, rental license, etc.).

The complete installation of software products requiring license keys includes the program to be licensed (the software) and the license key (which represents the license).

Detailed explanations concerning license conditions can be found in the “Terms and Conditions of Siemens AG” or under http://www.siemens.com/automation/mall
(A&D Mall Online-Help System)

A&D/Software licenses/En 03.08.06

© Siemens AG 2008

Subject index

Page

Numerics

1-phase transformers 10/4 … 10/7
- Autotransformers 10/2, 10/6, 10/7
- Control transformers 10/2, 10/4, 10/5
- Converter transformers 10/7
- Enclosed 10/2
- Isolating transformers 10/2, 10/5
  - for supply of medical premises 10/2
  - Resin-enclosed 10/2
- Mains transformers 10/2, 10/4, 10/5
- Matching transformers 10/7
- Pillar-type variable-ratio transformers 10/2
- Power transformers 10/2, 10/7
- Safety transformers 10/2, 10/4
  - Resin-enclosed 10/2
- Toroidal-core variable-ratio transformers 10/2
- Variable-ratio transformers 10/2
- Voltage regulators
  - Magnetic-type 10/2
  - Transformer-type 10/2
- with selectable voltages 10/2

3LD main control and EMERGENCY-STOP switches up to 125 A 17/7 … 17/11
- Distribution board mounting 17/7
- with molded-plastic enclosure 17/7

3-phase power supplies
- Filtered 11/2, 11/4
- Unfiltered 11/2

3-phase transformers 10/8 … 10/10
- Autotransformers 10/3, 10/9
  - for matching purposes 10/3
- Control transformers 10/3, 10/8, 10/9
- Isolating transformers 10/3, 10/8, 10/9
- Mains transformers 10/3, 10/8, 10/9
- Matching transformers 10/3
  - with cULus approval 10/3
  - with selectable voltages 10/3, 10/9, 10/10
- Pillar-type variable-ratio transformers 10/3
- Power transformers 10/3
- Safety transformers 10/3, 10/8, 10/9
- Toroidal-core variable-ratio transformers 10/3
- Variable-ratio transformers 10/3
- Voltage regulators
  - Transformer-type 10/3
- with selectable voltages 10/3, 10/9, 10/10

3RN1 thermistor motor protection 7/17

3RP timing relays 7/8 … 7/11

3RP15 timing relays in industrial enclosure 7/8 … 7/11

3RP20 timing relays, 45 mm 7/10 … 7/11

3RS temperature monitoring relays
- Analogically adjustable 7/16
- Digitally adjustable 7/16

3RS17 interface converters 7/20

Page

3RV1 motor starter protectors 5/2
- Auxiliary switches 5/2
- Busbar adapters 5/2
- Busbar systems 5/2
- Distance protection 5/2
- Door-coupling rotary operating mechanisms 5/2
- Enclosures 5/2
- Enclosures for flush mounting 5/2
- Enclosures for surface mounting 5/2
- Front plates 5/2
- Fuse monitoring 5/2
- Infeed systems 5/2
- Insulated three-phase busbar systems 5/2
- Isolator modules 5/2
- Link modules 5/2
- Motor protection 5/2
- Remote motorized operating mechanisms 5/2
- Rotary operating mechanisms 5/2
- Shunt trip units 5/2
- Signal switches 5/2
- Starter combinations 5/2
- System protection 5/2
- Transformer protection 5/2
- Undervoltage trip units 5/2
- Voltage transformer motor starter protectors 5/2

3RV1 motor starter protectors
- Motor protection
  - with overload relay function 5/2

3TK28 safety relays
- with contactor relay enabling circuits 7/18, 7/19
- with electronic enabling circuits 7/18

8US busbar systems 14/35 … 14/45
- 40 mm
  - Base assemblies 14/35
  - Busbar adapters 14/36, 14/37
  - Device holders 14/36, 14/37
- 60 mm
  - Base assemblies 14/38 … 14/40
  - Busbar adapters 14/41 … 14/42
  - Bus-mounting fuse bases 14/43
  - Connection methods 14/44
  - Device holders 14/41 … 14/42
  - Infeeds 14/44

A

Accessories and spare parts for contactors and contactor relays 3/50 … 3/60
- Box terminal blocks 3/57
- LED module for indicating contactor operation 3/56
- Links for paralleling 3/58
- Solder pin adapters 3/58
- Solid-state time-delay auxiliary switch blocks 3/53
- Solid-state time-delay blocks 3/54
- Surge suppressors with LED 3/56
- Surge suppressors without LED 3/55, 3/56
- Terminal covers 3/57

Page

Adapters
- Busbars 6/17, 6/18
- for position switches 8/15
- Standard mounting rails 6/17

Air circuit breakers/non-automatic air circuit breakers 15/2 … 15/26

ALPHA FIX terminal blocks
- Screw connection 14/24 … 14/26

AS-Interface 2/2 … 2/13
- ASIsafe 2/3, 8/25 … 8/31, 9/37
- EMERGENCY-STOP mushroom pushbuttons 9/21, 9/32
- Enclosures for pushbutton units and indicator lights 9/31 … 9/33
- F adapters 9/21
- Masters 2/4
- Power supply units 2/10
- Shaped cables 2/10
- Slaves 2/6 … 2/9, 9/33
- System components and accessories
  - Accessories 2/12 … 2/13
  - Addressing units 2/11
  - Extension plugs 2/11
- Transmission technology 2/2

ASIsafe
- Cable-operated switches 9/37
- Compact safety modules 2/3
- Position switches 8/25 … 8/31
- Safety monitors 2/3
- SlimLine safety modules 2/3

Autotransformers 10/2, 10/3, 10/6, 10/7, 10/9, 10/10
- for matching purposes 10/3

Auxiliary switch blocks 3/50 … 3/53
- Solid-state time-delay 3/53

Auxiliary switches 5/10, 6/15, 17/6, 17/10, 17/11, 17/14, 17/17
- for 3RV1 motor starter protectors 5/2
- for circuit breakers 15/17

Auxiliary terminals 5/13

Auxiliary trip units 5/10
- for circuit breakers 15/17

B

Box terminal blocks 3/57

Busbar adapters 6/17, 6/18
- for 3RV1 motor starter protectors 5/2

Busbar systems
- for 3RV1 motor starter protectors 5/2

Busbars 5/11, 17/17

Busbar trunking systems
- 8PS 14/4 … 14/8

© Siemens AG 2008

Page

C

Cable clips 14/15

Cable releases for RESET 5/24

Cable-operated switches 9/35, 9/36
- AS-Interface 9/37

Capacitor contactors 3/33

Circuit breakers
- 3WN air circuit breakers 15/5 … 15/26
- 3-pole, fixed-mounted version 15/9, 15/10
- 3-pole, withdrawable version 15/11, 15/12
- 4-pole, fixed-mounted version 15/13, 15/14
- 4-pole, withdrawable version 15/15, 15/16
- Accessories 15/23 … 15/25
- Current transformers 15/23
- Guide frames 15/22
- Interlocks 15/23
- Locking devices 15/23
- Options 15/17 … 15/20
- Air 15/2 … 15/26
- Auxiliary switches 15/17
- Auxiliary trip units 15/17
- Communication-capable 15/20
- Electronic trip units 16/7 … 16/10
- Generator protection 16/8 … 16/9
- Molded case, 3VL 16/2 … 16/38
- 3-pole 16/11 … 16/15, 16/36
- 4-pole 16/16 … 16/19, 16/36
- Accessories 16/37
- Accessories, spare parts 16/21 … 16/35
- Auxiliary switches 16/21, 16/37
- Auxiliary trip units 16/21, 16/37
- Current transformers 16/27
- Interlocks 16/32, 16/34
- Locking devices 16/32, 16/34
- Motorized operating mechanisms 16/22
- Options 16/20
- Plug-in versions 16/24, 16/26
- RCD modules 16/27
- Rotary operating mechanisms 16/22, 16/37
- Terminals 16/28, 16/30, 16/37
- Withdrawable versions 16/24, 16/26
- Motor protection 16/9 … 16/10
- Operating mechanisms 15/6, 15/20
- Shunt trip units 15/17
- Starter protection 16/7
- System protection 16/7 … 16/10
- Undervoltage trip units 15/17

Coding
- BD01 system 14/23
- CD-K system 14/14

Commanding and signaling devices 9/4 … 9/41

Communication-capable circuit breakers 15/20

Configuring, visualizing and controlling with SIMATIC and SENTRON 18/4 … 18/6

Connecting cables 5/20

Page

Connection points
- BD01 system 14/22
- CD-K system 14/14

Contact blocks 9/18 … 9/20, 9/30
- for magnetically operated switches 8/33
- for position switches 8/16

Contactor assemblies
- Contactor assemblies for wye-delta starting
  - Complete units 3/24 … 3/28
  - Components for customer assembly 3/29
- Reversing contactor assemblies
  - Complete units 3/19 … 3/29
  - Components for customer assembly 3/23

Contactor assemblies for wye-delta starting 3/24 … 3/28, 3/29

Contactor relays 3/34 … 3/37
- Coupling relays
  - for switching auxiliary circuits 3/37
  - with auxiliary switch block 3/35

Contactors
- for special applications
  - 4-pole 3/32
  - Capacitor contactors 3/33
  - for switching resistive loads 3/30 … 3/31
- for switching motors 3/4 … 3/18
  - Vacuum contactors 3/17, 3/18
  - with auxiliary switch block 3/10 … 3/13

Control devices 7/2 … 7/11, 7/18 … 7/20

Control transformers 10/2, 10/3, 10/4, 10/5, 10/8, 10/9

Converter transformers 10/7, 10/10

Coupling relays
- for switching auxiliary circuits 3/37
- for switching motors 3/38
- Narrow design 3/39 … 3/40
  - in plug-in design 3/40
- with industrial housing
  - Relay couplers 3/41

Covers 15/18, 15/19, 15/25
- for position switches 8/16

Current monitoring 7/13

Current transformers 14/46, 15/23, 16/27

D

Degree of protection IP55 14/14, 14/22

Dimensioning with SIMARIS design 18/3

Direct-on-line starters 6/9 … 6/12, 6/27
- Enclosed 6/27
- for busbar systems 6/11 … 6/12
- for snapping onto standard mounting rails or for screw fixing 6/9 … 6/10

Distance protection 5/2

Door-coupling rotary operating mechanisms
- for 3RV1 motor starter protectors 5/2

Page

E

ECOFAST ES 12/4

Electronic trip units
- for circuit breakers 16/7 … 16/10

EMERGENCY-STOP mushroom pushbuttons 9/6, 9/11, 9/14, 9/17, 9/32

Encapsulated starters
- Direct-on-line starters 6/27
- Reversing starters 6/27

Encapsulated transformers 10/2

Enclosures 5/14, 5/15
- for 3RV1 motor starter protectors 5/2
- for pushbutton units and indicator lights 9/28 … 9/32

Enclosures for flush mounting
- for 3RV1 motor starter protectors 5/2

Enclosures for surface mounting
- for 3RV1 motor starter protectors 5/2

End feeder units
- CD-K system 14/12

End flanges
- BD01 system 14/23
- CD-K system 14/14

Engineering software 18/2

Entry feeder units
- CD-K system 14/12

Evaluation modules 5/19

F

Feeder units
- BD01 system 14/17
- CD-K system 14/12

Fire protection 14/23

Fire protection kits
- BD01 system 14/23

Fixing brackets
- BD01 system 14/23
- CD-K system 14/15

Foot switches 9/38

Front plates 5/14, 5/15
- for 3RV1 motor starter protectors 5/2

Function expansion modules 5/19

Fuse monitoring 5/2, 5/9

Fuse switch disconnectors
- 3NJ4, 3NJ5 in-line, up to 1250 A 17/22, 17/23
- 3NP up to 630 A 17/15 … 17/21
- for extended technical requirements 17/18 … 17/21
- for power distribution 17/15 … 17/17
- with fuse monitoring 17/16, 17/19

© Siemens AG 2008

Subject index

Page

Fuseless load feeders 6/9 … 6/21
- Direct-on-line starters
  - for busbar systems 6/11 … 6/12
  - for snapping onto standard mounting rails or for screw fixing 6/9 … 6/10
- Infeed systems 6/19 … 6/21
- Reversing starters
  - for snapping onto standard mounting rails or for screw fixing 6/13 … 6/14

Fuses
- LV HRC 17/24, 17/25
- Semiconductor protection 17/26 … 17/28
- SITOR 17/26 … 17/28

G

Generator protection 16/8 … 16/9

H

Hinge switches 8/2, 8/3, 8/23

I

I/O modules
- for operation in the control cabinet
  - F90 module 2/9
  - Flat modules 2/9
  - Modules with special functions 2/9
  - SlimLine 2/8
- for operation in the field
  - Analog 2/7
  - Digital 2/6

Incandescent lamps 9/20

Indicator lights 5/15, 9/2
- 22 mm 9/5
- 30 mm 9/7, 9/12, 9/14, 9/17

Infeed systems 5/2, 6/19 … 6/21

Insulated three-phase busbar systems
- for 3RV1 motor starter protectors 5/2

Insulation monitoring 7/14

Integrated signal lamps 9/41

Interlocks 15/18, 15/19

Isolating transformers 10/2, 10/3, 10/5, 10/8, 10/9
- for supply of medical premises 10/2
- Resin-enclosed 10/2

Isolator modules 5/2, 5/10

J

Joint blocks
- BD01 system 14/23

Junction units
- BD01 system 14/17
- Flexible 14/17

Page

K

K45F LS (light sensor) 2/3

L

Lampholders 9/18 … 9/20, 9/30

LED module
- for indicating contactor operation 3/56

LEDs 9/20

Level monitoring 7/15

Line monitoring 7/12

Link modules 5/13, 6/16, 6/17
- for 3RV1 motor starter protectors 5/2

Links for paralleling 3/58

Load feeders
- Fuseless 6/9 … 6/21
- with safety integrated 6/22 … 6/23

Locking devices 15/19

LOGO! Logic Modules 7/6 … 7/7

LOGO!Power 11/2, 11/5

LV HRC fuse links 17/24

M

Magnetically operated switches 8/3, 8/32, 8/33

Main and EMERGENCY-STOP switches
- Distribution board mounting 17/9
- Floor mounting 17/7 … 17/11
- Front mounting 17/7 … 17/9

Mains transformers 10/2, 10/3, 10/4, 10/5, 10/8, 10/9

Masters
- CP 243-2 2/4
- CP 343-2 P 2/4

Matching transformers 10/3, 10/7
- with cURus approval 10/3
- with selectable voltages 10/3, 10/10

Mechanical interlocks 6/16

Mechanical RESET 5/21, 5/24

Molded case circuit breakers 16/2 … 16/37

Molded case motor starter protectors up to 100 A 5/5 … 5/15

Molded-plastic enclosures
- for main and EMERGENCY-STOP switches 17/7
- for motor starter protectors 5/14, 5/15
- for switch disconnectors 17/5

Monitoring devices 7/12 … 7/17

Monitoring relays for electrical and additional measurements
- Current monitoring 7/13
- Insulation monitoring 7/14
- Level monitoring 7/15
- Line monitoring 7/12
- Power factor monitoring 7/14
- Speed monitoring 7/15
- Voltage monitoring 7/13

Page

Monitoring units
- for magnetically operated switches 8/33

Motor management and control devices
- SIMOCODE pro 3UF7 7/2 … 7/5

Motor protection 5/2, 5/3, 5/5 … 5/7, 16/9 … 16/10
- with overload relay function 5/2

Motor protection with overload relay function 5/7

Motor Starter ES 12/2, 12/3

Motor starter protectors
- up to 100 A, 3RV1 5/5 … 5/15
  - Accessories 5/4 … 5/15
  - Fuse monitoring 5/9
  - Motor protection 5/5 … 5/7
  - Motor protection with overload relay function 5/7
  - Starter combinations 5/8
  - Transformer protection 5/9

Motor starters
- ET 200pro 6/26
  - High feature 6/26
  - Standard 6/26
- ET 200S 6/24

Mounting
- BD01 system 14/23
- CD-K system 14/15

N

Neutral isolating terminals 14/27

Non-automatic air circuit breakers
- Air 15/2 … 15/26

Non-stabilized power supplies
- 3-phase 11/4
- Filtered 11/3, 11/4
- Single-phase 11/3
- Unfiltered 11/2

O

Operating mechanisms
- for circuit breakers 15/6, 15/20

Overload relays 5/3, 5/16 … 5/24
- Accessories 5/21, 5/24
- Cable releases for RESET 5/24
- Mechanical RESET 5/21, 5/24
- Remote RESET 5/24
- Solid-state relays 5/16 … 5/21
- Terminal brackets 5/21, 5/24
- Terminal covers 5/21, 5/24
- Thermal relays 5/22 … 5/23

© Siemens AG 2008

Page

P

PE terminals 14/27
Pillar-type variable-ratio transformers 10/2, 10/3
Plug-in connections
for position switches 8/15
Plug-in relays
Relay couplers 3/42 … 3/48
Position switches 8/2 … 8/31
Accessories 8/15, 8/16
Actuators 8/18
AS-Interface 8/25 … 8/31
Contact blocks 8/16
Explosion protection (ATEX) 8/24
Hinge switches 8/2, 8/23
Metal enclosures 8/10 … 8/13, 8/26
Open-type 8/14
Plastic enclosures 8/6 … 8/9, 8/26
with separate actuator 8/3, 8/17, 8/27, 8/28
with tumbler 8/3, 8/19 … 8/22, 8/29
Power factor monitoring 7/14
Power Management System 13/2 … 13/4
Power relays/Miniature contactors 3/49
Power supplies 11/1 … 11/6
3-phase 11/4
Filtered 11/3, 11/4
LOGO!Power 11/2, 11/5
Non-stabilized 11/3, 11/4
Single-phase 11/3
SITOP 11/6
SITOP modular 11/2, 11/6
SITOP smart 11/2
Stabilized 11/5, 11/6
Unfiltered 11/2
Uninterruptible 11/6
Power supply units
AS-Interface 2/10
Power transformers 10/2, 10/3
with selectable voltages 10/2, 10/3, 10/7, 10/9, 10/10
Pushbutton units and indicator lights 9/2, 9/6 … 9/33
22 mm
- Accessories 9/5
- Complete units 9/4
30 mm
- Accessories 9/27
- Actuators 9/9 … 9/12, 9/15 … 9/17
- Complete units 9/6, 9/7, 9/13, 9/14
- Contact blocks 9/30
- Coordinate switches 9/8
- Enclosures 9/28
- Indicator lights 9/7, 9/11, 9/14, 9/17
- Insert labels 9/23
- Lampholders 9/18 … 9/20, 9/30
- Laser inscriptions 9/22
- Name plates 9/24, 9/25
- Switching blocks 9/18 … 9/20
Nominal diameter 22 mm 9/6 … 9/33
- AS-Interface enclosures 9/31 … 9/33
Pushbuttons and switches 9/2
Push-in lugs
for screw fixing 5/20

Page

R

Rated current modules 15/18
Rating plugs 15/18
Relay couplers 3/39 … 3/48
Remote motorized operating mechanisms
for 3RV1 motor starter protectors 5/2
Remote RESET 5/24
Reversing contactor assemblies 3/19 … 3/29
Reversing starters 6/13 … 6/14, 6/27
for snapping onto standard mounting rails or for screw fixing 6/13 … 6/14
Rotary operating mechanisms 5/13, 17/6, 17/10, 17/11, 17/14
for 3RV1 motor starter protectors 5/2

S

Safety transformers 10/2, 10/3, 10/4, 10/8, 10/9
Resin-enclosed 10/2
Sealable covers 5/21
Semiconductor couplers 3/40
Shaped cables 2/10
Shunt trip units
for 3RV1 motor starter protectors 5/2
for circuit breakers 15/17
Signal switches 5/10
for 3RV1 motor starter protectors 5/2
Signaling columns 9/39, 9/40
SIMARIS
design 18/2
manager 18/2
SIMARIS design 18/3
SIMATIC powercontrol 18/4
SIMATIC powercost 18/5
SIMOCODE
pro 3UF7 7/2 … 7/5
SIMOCODE ES 12/5, 12/6
Single-phase power supplies
Filtered 11/2, 11/3
LOGO!Power 11/2
SITOP modular 11/2
SITOP smart 11/2
Stabilized
- SITOP 11/2
Unfiltered 11/2
SITOP 11/2
LOGO!Power 11/2, 11/5
modular 11/2
SITOP power 11/6
SITOP smart 11/5
smart 11/2
Uninterruptible 11/6
SITOP modular 11/2
SITOP modular power supplies 11/2

Page

SITOP power 11/6
Soft starters 6/2 … 6/8
for High-Feature applications 6/6 … 6/8
- Box terminal blocks 6/8
- External display and operator modules 6/8
- Inline circuit 6/6
- Inside-delta circuit 6/7
- PC cables 6/8
- PROFIBUS communication modules 6/8
- Software 6/8
for standard applications 6/3 … 6/5
Soft starters ES 12/7, 12/8
Soft starters for standard applications
Fans 6/3
Software
for planning, design and management 18/2
SIMARIS design 18/2
SIMARIS manager 18/2
Switch ES power 18/2
Software for power distribution 18/4 … 18/6
Solder pin adapters 3/58
Solid-state contactors
3-phase, 3RF24 4/4
Solid-state overload relays 5/16 … 5/21
for high-feature applications 5/19 … 5/20
for standard applications 5/16 … 5/18
Solid-state switching devices 4/2 … 4/10
Function modules 4/8, 4/9
- Converters 4/8
- Heating current monitoring 4/8
- Load monitoring 4/8
- Power regulators 4/9
Solid-state contactors 4/5 … 4/7
Solid-state relays 4/2 … 4/4
Speed monitoring 7/15
Stabilized power supplies
LOGO!Power 11/2, 11/5
SITOP 11/5, 11/6
Standard mounting rail adapters 6/17
Starter combinations 5/2, 5/8
Starter protection 16/7
Starters, encapsulated 6/27
Surge suppressors 6/15
with LED 3/56
without LED 3/55, 3/56
Suspension 14/23
Suspension brackets
BD01 system 14/23
CD-K system 14/15
Suspension hooks 14/15
Switch disconnectors
3KA up to 630 A 17/4, 17/6
3NP fuse switch disconnectors, up to 630 A 17/15 … 17/21
Molded-plastic enclosures 17/5
Switch ES Power 18/2, 18/6
Switching device holders 6/18

© Siemens AG 2008

Subject index

Page

Switching magnets 8/33

System components and accessories
- Accessories 2/12 … 2/13
- Addressing units 2/11
- Extension plugs 2/11

System protection 5/2, 5/3, 16/7 … 16/10

T

Tap-off plugs
- CD-K system 14/13

Tap-off points
- BD01 system 14/22

Tap-off units
- BD01 system 14/18 … 14/21

Terminal blocks
- Screw connection 14/24 … 14/26

Terminal brackets 5/21, 5/24

Terminal covers 3/57, 4/2, 4/6, 4/9, 5/21, 5/24, 16/28, 16/30, 17/6, 17/14

Terminals 5/11, 5/13, 6/16, 16/28, 16/30, 17/10, 17/11, 17/17
- Accessories 14/33
- Neutral isolating terminals 14/27
- PE terminals 14/27
- Through-type terminals 14/27, 14/32
- Two-tier terminals 14/32

Thermal overload relays 5/22 … 5/24
- for standard applications 5/22 … 5/23

Three-phase busbar systems 5/11 … 5/12
- for 3RV1 motor starter protectors 5/2

Through-type terminals 14/27, 14/32

Timing relay blocks
- Solid-state 3/54

Toroidal-core variable-ratio transformers 10/2, 10/3

Transformer protection 5/2, 5/9

Transformers 10/1 … 10/10
- 1-phase transformers 10/4 … 10/7
- 3-phase transformers 10/8 … 10/10
- Autotransformers 10/2, 10/3, 10/6, 10/7, 10/9, 10/10
- - for matching purposes 10/3
- Control transformers 10/2, 10/3, 10/4, 10/5, 10/8, 10/9
- Converter transformers 10/7, 10/10
- Enclosed 10/2
- Isolating transformers 10/2, 10/3, 10/5, 10/8, 10/9
- - for supply of medical premises 10/2
- - Resin-enclosed 10/2
- Mains transformers 10/2, 10/3, 10/4, 10/5, 10/8, 10/9
- Matching transformers 10/3, 10/7
- - with cULus approval 10/3
- - with selectable voltages 10/3, 10/10
- Pillar-type variable-ratio transformers 10/2, 10/3
- Power transformers 10/2, 10/3
- Safety transformers 10/2, 10/3, 10/4, 10/8, 10/9
- - Resin-enclosed 10/2
- Toroidal-core variable-ratio transformers 10/2, 10/3
- Variable-ratio transformers 10/2, 10/3
- Voltage regulators
- - Magnetic-type 10/2
- - Transformer-type 10/2, 10/3
- with selectable voltages 10/2, 10/3, 10/7, 10/9, 10/10

Trunking units
- BD01 system 14/17
- CD-K system 14/10, 14/11

Two-hand operation consoles 9/34

Two-tier terminals 14/32

U

Underfloor mounting 14/15

Undervoltage trip units
- for 3RV1 motor starter protectors 5/2
- for circuit breakers 15/17

Uninterruptible power supplies 11/6

Universal fixing brackets 14/23

V

Vacuum contactors 3/17, 3/18

Variable-ratio transformers
- Pillar-type variable-ratio transformers 10/2, 10/3
- Toroidal-core variable-ratio transformers 10/2, 10/3

Voltage monitoring 7/13

Voltage regulators
- Magnetic-type 10/2
- Transformer-type 10/2, 10/3

Voltage transformer motor starter protectors 5/2

W

Wiring kits 6/16

© Siemens AG 2008

Overview

Order No.	Export markings ECCN	AL	Page
3K			
3KA50 30-1A	N	N	17/4
3KA50 30-1G	N	N	17/4
3KA50 40-1A	N	N	17/4
3KA50 40-1G	N	N	17/4
3KA51 30-1A	N	N	17/4
3KA51 30-1G	N	N	17/4
3KA51 40-1A	N	N	17/4
3KA51 40-1G	N	N	17/4
3KA52 30-1A	N	N	17/4
3KA52 30-1G	N	N	17/4
3KA52 40-1A	N	N	17/4
3KA52 40-1G	N	N	17/4
3KA53 30-1A	N	N	17/4
3KA53 30-1G	N	N	17/4
3KA53 40-1A	N	N	17/4
3KA53 40-1G	N	N	17/4
3KA55 30-1A	N	N	17/4
3KA55 30-1G	N	N	17/4
3KA55 40-1A	N	N	17/4
3KA55 40-1G	N	N	17/4
3KA57 30-1A	N	N	17/4
3KA57 30-1G	N	N	17/4
3KA57 40-1A	N	N	17/4
3KA57 40-1G	N	N	17/4
3KA58 30-1A	N	N	17/4
3KA58 30-1G	N	N	17/4
3KA58 40-1A	N	N	17/4
3KA58 40-1G	N	N	17/4
3KL50 30-1A	N	N	17/13
3KL50 30-1G	N	N	17/12
3KL50 40-1A	N	N	17/13
3KL50 40-1G	N	N	17/12
3KL52 30-1A	N	N	17/13
3KL52 30-1G	N	N	17/12
3KL52 40-1A	N	N	17/13
3KL52 40-1G	N	N	17/12
3KL53 30-1A	N	N	17/13
3KL53 30-1G	N	N	17/12
3KL53 40-1A	N	N	17/13
3KL53 40-1G	N	N	17/12
3KL55 30-1A	N	N	17/13
3KL55 30-1G	N	N	17/12
3KL55 40-1A	N	N	17/13
3KL55 40-1G	N	N	17/12
3KL57 30-1A	N	N	17/13
3KL57 30-1G	N	N	17/12
3KL57 40-1A	N	N	17/13
3KL57 40-1G	N	N	17/12
3KL61 30-1A	N	N	17/13
3KL61 30-1G	N	N	17/12
3KL61 40-1A	N	N	17/13
3KL61 40-1G	N	N	17/12
3KL62 30-1A	N	N	17/13
3KL62 30-1G	N	N	17/12
3KX	on req.	on req.	17/6, 17/14
3L			
3LD2	N	N	17/7 ... 9
3LD92 0	on req.	on req.	17/10 ... 11
3LD92 20-0C	N	N	17/9
3LD92 20-0C	on req.	on req.	17/10
3LD92 20-2	on req.	on req.	17/10
3LD92 21	on req.	on req.	17/10
3LD92 24	on req.	on req.	17/10
3LD92 50-0BA	N	N	17/7
3LD92 50-0BA	on req.	on req.	17/11
3LD92 50-0CA	N	N	17/8 ... 9
3LD92 50-0CA	on req.	on req.	17/11
3LD92 50-2	on req.	on req.	17/11
3LD92 51	on req.	on req.	17/11
3LD92 80-0B	N	N	17/7
3LD92 80-0B	on req.	on req.	17/11
3LD92 80-0C	N	N	17/8 ... 9
3LD92 80-0C	on req.	on req.	17/11
3LD92 80-2	on req.	on req.	17/11
3LD92 81	on req.	on req.	17/11
3LD92 84	on req.	on req.	17/11
3LD92 86-1	on req.	on req.	17/10 ... 11
3LD92 86-4	N	N	17/10 ... 11
3N			
3NA	N	N	17/24 ... 25
3NC24 2	N	N	17/27, 17/29
3NC24 31	N	N	17/27, 17/29
3NC24 32-3	on req.	on req.	17/27
3NC24 32-3C	N	N	17/29
3NC8	N	N	17/27, 17/29
3NE1	N	N	17/26, 17/28
3NE3	N	N	17/27, 17/29
3NE4	N	N	17/27, 17/29
3NE8	N	N	17/27, 17/29
3NJ4	on req.	on req.	17/22 ... 23
3NJ5	on req.	on req.	17/22 ... 23
3NJ6	N	N	13/4
3NP40 1	N	N	17/15
3NP40 70-0C	N	N	17/15
3NP40 70-0F	on req.	on req.	17/16
3NP40 76-1C	N	N	17/15
3NP40 76-1F	on req.	on req.	17/16
3NP42 70-0C	N	N	17/15
3NP42 70-0F	on req.	on req.	17/16
3NP42 76-1C	N	N	17/15
3NP42 76-1F	on req.	on req.	17/16
3NP43 70-0C	N	N	17/15
3NP43 70-0F	on req.	on req.	17/16
3NP43 76-1C	N	N	17/15
3NP43 76-1F	on req.	on req.	17/16
3NP44 70-0C	N	N	17/15
3NP44 70-0F	on req.	on req.	17/16
3NP44 76-1C	N	N	17/15
3NP44 76-1F	on req.	on req.	17/16
3NP5	on req.	on req.	17/18 ... 19
3NY10	N	N	17/20
3NY11	N	N	17/20 ... 21
3NY12	N	N	17/17, 17/21
3NY13	N	N	17/20
3NY14 2	N	N	17/20
3NY14 3	N	N	17/17
3NY18	N	N	17/17
3NY19 03	N	N	17/21
3NY19 07	N	N	17/21
3NY19 1	N	N	17/17, 17/20
3NY19 4	N	N	17/21

© Siemens AG 2008

Order number index including export markings

Order No.	Export markings ECCN	AL	Page
3NY30 30	N	N	17/17
3NY30 33	N	N	17/20
3NY30 34	N	N	17/20
3NY30 35	N	N	17/17
3NY4	N	N	17/20
3NY7	N	N	17/17
3R			
3RA11 10-0B.	on req.	on req.	6/11 ... 12
3RA11 10-0BA	N	N	6/9 ... 10
3RA11 10-0C.	on req.	on req.	6/11 ... 12
3RA11 10-0CA	N	N	6/9 ... 10
3RA11 10-0D.	on req.	on req.	6/11 ... 12
3RA11 10-0DA	N	N	6/9 ... 10
3RA11 10-0E.	on req.	on req.	6/11 ... 12
3RA11 10-0EA	N	N	6/9 ... 10
3RA11 10-0F.	on req.	on req.	6/11 ... 12
3RA11 10-0FA	N	N	6/9 ... 10
3RA11 10-0G.	on req.	on req.	6/11 ... 12
3RA11 10-0GA	N	N	6/9 ... 10
3RA11 10-0H.	on req.	on req.	6/11 ... 12
3RA11 10-0HA	N	N	6/9 ... 10
3RA11 10-0J.	on req.	on req.	6/11 ... 12
3RA11 10-0JA	N	N	6/9 ... 10
3RA11 10-0K.	on req.	on req.	6/11 ... 12
3RA11 10-0KA	N	N	6/9 ... 10
3RA11 10-1A.	on req.	on req.	6/11 ... 12
3RA11 10-1AA	N	N	6/9 ... 10
3RA11 10-1B.	on req.	on req.	6/11 ... 12
3RA11 10-1BA	N	N	6/9 ... 10
3RA11 10-1C.	on req.	on req.	6/11 ... 12
3RA11 10-1CA	N	N	6/9 ... 10
3RA11 10-1D.	on req.	on req.	6/11 ... 12
3RA11 10-1DA	N	N	6/9 ... 10
3RA11 10-1E.	on req.	on req.	6/11 ... 12
3RA11 10-1EA	N	N	6/9 ... 10
3RA11 10-1F.	on req.	on req.	6/11 ... 12
3RA11 10-1FA	N	N	6/9 ... 10
3RA11 10-1G.	on req.	on req.	6/11 ... 12
3RA11 10-1GA	N	N	6/9 ... 10
3RA11 10-1H.	on req.	on req.	6/11 ... 12
3RA11 10-1HA	N	N	6/9 ... 10
3RA11 10-1J.	on req.	on req.	6/11 ... 12
3RA11 10-1JA	N	N	6/9 ... 10
3RA11 10-1K.	on req.	on req.	6/11 ... 12
3RA11 10-1KA	N	N	6/9 ... 10
3RA11 20-1C.	on req.	on req.	6/11 ... 12
3RA11 20-1CA	N	N	6/9 ... 10
3RA11 20-1D.	on req.	on req.	6/11 ... 12
3RA11 20-1DA	N	N	6/9 ... 10
3RA11 20-1E.	on req.	on req.	6/11 ... 12
3RA11 20-1EA	N	N	6/9 ... 10
3RA11 20-1F.	on req.	on req.	6/11 ... 12
3RA11 20-1FA	N	N	6/9 ... 10
3RA11 20-1G.	on req.	on req.	6/11 ... 12
3RA11 20-1GA	N	N	6/9 ... 10
3RA11 20-1H.	on req.	on req.	6/11 ... 12
3RA11 20-1HA	N	N	6/9 ... 10
3RA11 20-1J.	on req.	on req.	6/11 ... 12
3RA11 20-1JA	N	N	6/9 ... 10
3RA11 20-1K.	on req.	on req.	6/11 ... 12
3RA11 20-1KA	N	N	6/9 ... 10
3RA11 20-4A.	on req.	on req.	6/11 ... 12
3RA11 20-4AA	N	N	6/9 ... 10
3RA11 20-4B.	on req.	on req.	6/11 ... 12
3RA11 20-4BA	N	N	6/9 ... 10
3RA11 20-4C.	on req.	on req.	6/11 ... 12
3RA11 20-4CA	N	N	6/10
3RA11 20-4D.	on req.	on req.	6/11 ... 12
3RA11 20-4DA	N	N	6/9 ... 10
3RA11 3	N	N	6/9 ... 10
3RA12	N	N	6/13 ... 14
3RA13	N	N	3/19 ... 22
3RA14 1	N	N	3/24
3RA14 23-8XC21-1AC	EAR99	N	3/25
3RA14 23-8XC21-1AG	N	N	3/25
3RA14 23-8XC21-1AL	EAR99	N	3/25
3RA14 23-8XC21-1B	EAR99	N	3/25
3RA14 25-8XC21-1AC	EAR99	N	3/25
3RA14 25-8XC21-1AG	N	N	3/25
3RA14 25-8XC21-1AL	EAR99	N	3/25
3RA14 25-8XC21-1B	N	N	3/25
3RA14 34	N	N	3/26 ... 27
3RA14 35	N	N	3/28
3RA14 36	N	N	3/28
3RA19 0	N	N	6/17
3RA19 11-1	N	N	5/14, 6/16
3RA19 11-2	N	N	5/14, 6/16 ... 17
3RA19 13-1	N	N	6/18
3RA19 13-2	EAR99	N	3/23, 3/29, 6/16
3RA19 13-3	N	N	3/29
3RA19 21	N	N	5/14, 6/16
3RA19 22	N	N	6/17
3RA19 23	N	N	3/23, 3/29, 6/16 ... 18
3RA19 24	N	N	3/23, 6/16
3RA19 31	N	N	5/14, 6/16
3RA19 32	N	N	3/29, 6/17
3RA19 33	N	N	3/23, 3/29, 6/16 ... 18
3RA19 41	N	N	5/14, 6/16
3RA19 42	N	N	3/29, 6/17
3RA19 43-1	on req.	on req.	6/17
3RA19 43-2	N	N	3/23, 3/29, 6/16
3RA19 43-3	N	N	3/29
3RA19 52	N	N	3/29
3RA19 53	N	N	3/23, 3/29
3RA19 54	N	N	3/23
3RA19 62	N	N	3/29
3RA19 63	N	N	3/23, 3/29
3RA19 72	N	N	3/29
3RA19 73	N	N	3/23, 3/29
3RA71 00	N	N	6/22 ... 23
3RA71 01-0A	N	N	6/22 ... 23
3RA71 01-0B	N	N	6/22 ... 23
3RA71 01-0C	N	N	6/22 ... 23
3RA71 01-0DA17-0AB	EAR99	N	6/23
3RA71 01-0DA17-0AL	N	N	6/22
3RA71 01-0EA17-0AB	EAR99	N	6/23
3RA71 01-0EA17-0AL	N	N	6/22
3RA71 01-0FA17-0AB	EAR99	N	6/23
3RA71 01-0FA17-0AL	N	N	6/22
3RA71 01-0G	N	N	6/22 ... 23
3RA71 01-0H	N	N	6/22 ... 23
3RA71 01-0J	N	N	6/22 ... 23
3RA71 01-0K	N	N	6/22 ... 23
3RA71 01-1	N	N	6/22 ... 23
3RA71 02-1C	N	N	6/22 ... 23
3RA71 02-1D	N	N	6/22 ... 23

© Siemens AG 2008

Order number index including export markings

Order No.	Export markings		Page
	ECCN	AL	
3RA71 02-1E	N	N	6/22 ... 23
3RA71 02-1FA26-0AB	EAR99	N	6/23
3RA71 02-1FA26-0AL	N	N	6/22
3RA71 02-1G	N	N	6/22 ... 23
3RA71 02-1HA26-0AB	EAR99	N	6/23
3RA71 02-1HA26-0AL	N	N	6/22
3RA71 02-1J	N	N	6/22 ... 23
3RA71 02-1KA26-0AB	EAR99	N	6/23
3RA71 02-1KA26-0AL	N	N	6/22
3RA71 02-4	N	N	6/22 ... 23
3RA71 1	N	N	6/23
3RA71 2	N	N	6/23
3RA71 3	N	N	6/23
3RB1	N	N	5/21, 6/18, 7/5
3RB20	N	N	5/17 ... 19
3RB21	N	N	5/19
3RB22	N	N	5/20
3RB23	N	N	5/20
3RB29 0	N	N	5/21
3RB29 1	N	N	5/22
3RB29 2	N	N	5/22
3RB29 5	N	N	5/21
3RB29 6	N	N	5/21
3RB29 8	N	N	5/20 ... 22
3RE10	N	N	6/27
3RE13	N	N	6/27
3RE19 13-1	EAR99	N	6/27
3RE19 13-2	N	N	6/27
3RE19 2	N	N	6/27
3RE19 3	N	N	6/27
3RF20	EAR99	N	4/3
3RF21	EAR99	N	4/2
3RF22	N	N	4/4
3RF23 1	EAR99	N	4/5 ... 6
3RF23 20-1A	EAR99	N	4/5
3RF23 20-1B	EAR99	N	4/6
3RF23 20-1CA22	EAR99	N	4/6
3RF23 20-1CA24	N	N	4/6
3RF23 20-1D	EAR99	N	4/6
3RF23 20-2A	EAR99	N	4/5
3RF23 20-2C	N	N	4/6
3RF23 20-2D	EAR99	N	4/6
3RF23 20-3	EAR99	N	4/5 ... 6
3RF23 3	EAR99	N	4/5 ... 6
3RF23 4	EAR99	N	4/5 ... 6
3RF23 5	EAR99	N	4/5 ... 6
3RF23 7	EAR99	N	4/5 ... 6
3RF23 90-1	EAR99	N	4/6
3RF23 90-3AA22	N	N	4/5
3RF23 90-3AA24	EAR99	N	4/5
3RF23 90-3AA26	EAR99	N	4/5
3RF23 90-3B	EAR99	N	4/6
3RF24	N	N	4/7, 4/10
3RF29	N	N	4/2, 4/6, 4/8 ... 9
3RG90 02-0DA	EAR99	N	2/9
3RG90 02-0DB	EAR99	N	2/9
3RG90 02-0DC	EAR99	N	2/9
3RG90 02-0DE	N	N	2/9
3RG90 04-0DA	EAR99	N	2/9
3RG90 04-0DB	EAR99	N	2/9
3RG90 04-0DC	EAR99	N	2/9
3RG90 04-0DE	N	N	2/9
3RH11 22-1A	N	N	3/35

Order No.	Export markings		Page
	ECCN	AL	
3RH11 22-1B	N	N	3/35
3RH11 22-1H	N	N	3/37
3RH11 22-1J	N	N	3/37
3RH11 22-1K	N	N	3/37
3RH11 22-1M	N	N	3/37
3RH11 22-1V	N	N	3/37
3RH11 22-1W	N	N	3/37
3RH11 22-2A	N	N	3/35
3RH11 22-2B	N	N	3/35
3RH11 22-2H	N	N	3/37
3RH11 22-2J	N	N	3/37
3RH11 22-2K	N	N	3/37
3RH11 22-2M	N	N	3/37
3RH11 22-2V	N	N	3/37
3RH11 22-2W	N	N	3/37
3RH11 31-1A	N	N	3/35
3RH11 31-1B	N	N	3/35
3RH11 31-1H	N	N	3/37
3RH11 31-1J	N	N	3/37
3RH11 31-1K	N	N	3/37
3RH11 31-1M	N	N	3/37
3RH11 31-1V	N	N	3/37
3RH11 31-1W	N	N	3/37
3RH11 31-2A	N	N	3/35
3RH11 31-2B	N	N	3/35
3RH11 31-2H	N	N	3/37
3RH11 31-2J	N	N	3/37
3RH11 31-2K	N	N	3/37
3RH11 31-2M	N	N	3/37
3RH11 31-2V	N	N	3/37
3RH11 31-2W	N	N	3/37
3RH11 40-1A	N	N	3/35
3RH11 40-1B	N	N	3/35
3RH11 40-1H	N	N	3/37
3RH11 40-1J	N	N	3/37
3RH11 40-1K	N	N	3/37
3RH11 40-1M	N	N	3/37
3RH11 40-1V	N	N	3/37
3RH11 40-1W	N	N	3/37
3RH11 40-2A	N	N	3/35
3RH11 40-2B	N	N	3/35
3RH11 40-2H	N	N	3/37
3RH11 40-2J	N	N	3/37
3RH11 40-2K	N	N	3/37
3RH11 40-2M	N	N	3/37
3RH11 40-2V	N	N	3/37
3RH11 40-2W	N	N	3/37
3RH12 44-1A	N	N	3/35
3RH12 44-1B	N	N	3/35
3RH12 44-2A	N	N	3/35
3RH12 44-2B	N	N	3/35
3RH12 62-1A	N	N	3/35
3RH12 62-1B	N	N	3/35
3RH12 62-2A	N	N	3/35
3RH12 62-2B	N	N	3/35
3RH14 22-1A	N	N	3/36
3RH14 22-1B	N	N	3/36
3RH14 31-1A	N	N	3/36
3RH14 31-1B	N	N	3/36
3RH14 40-1A	N	N	3/36
3RH14 40-1B	N	N	3/36
3RH19 11-1A	N	N	3/50
3RH19 11-1B	N	N	3/50, 6/15

© Siemens AG 2008

Order number index including export markings

Order No.	Export markings ECCN	AL	Page
3RH19 11-1F	N	N	3/50, 6/15
3RH19 11-1G	N	N	3/51
3RH19 11-1H	N	N	3/50
3RH19 11-1L	N	N	3/50
3RH19 11-1M	N	N	3/50, 6/15
3RH19 11-1N	N	N	3/52
3RH19 11-2	N	N	3/50 ... 52
3RH19 21-1C	N	N	3/51, 6/15
3RH19 21-1D	N	N	3/52
3RH19 21-1E	N	N	3/52
3RH19 21-1F	N	N	3/51 ... 52, 6/15
3RH19 21-1H	N	N	3/50
3RH19 21-1J	N	N	3/52
3RH19 21-1K	N	N	3/52
3RH19 21-1L	N	N	3/51
3RH19 21-1M	N	N	3/51, 6/15
3RH19 21-1X	N	N	3/50
3RH19 21-2	N	N	3/50 ... 52
3RH19 24	N	N	3/56
3RK11 00-1CE	EAR99	N	2/8
3RK11 00-1CG	EAR99	N	2/8
3RK11 00-1CQ	N	N	2/6
3RK11 05	N	N	2/3
3RK11 07	N	N	2/7
3RK12 00	N	N	2/6, 2/8
3RK12 05-0BE	N	N	2/3
3RK12 05-0BG	N	N	2/3
3RK12 05-0BQ0	N	N	2/3
3RK12 05-0BQ2	on req.	on req.	2/3
3RK12 05-0BQ3	N	N	2/3
3RK12 05-0C	on req.	on req.	2/3
3RK12 07	N	N	2/7
3RK14 00-0B	EAR99	N	2/8
3RK14 00-0CE0	EAR99	N	2/9
3RK14 00-0CE1	N	N	7/7
3RK14 00-0G	N	N	2/6
3RK14 00-1B	N	N	2/6
3RK14 00-1CE	N	N	2/8
3RK14 00-1CG	N	N	2/8
3RK14 00-1CQ	N	N	2/6
3RK14 00-1CR	EAR99	N	2/6
3RK14 00-1D	N	N	2/6
3RK14 00-1M	N	N	2/6
3RK14 02	N	N	2/8
3RK14 05	N	N	2/3
3RK14 08	N	N	2/5
3RK18	5D992B1	N	2/3
3RK19 01-0	N	N	2/3, 2/12
3RK19 01-1A	N	N	2/3, 2/12
3RK19 01-1G	N	N	2/9
3RK19 01-1KA00	on req.	on req.	2/12
3RK19 01-1KA01	N	N	2/3, 2/12
3RK19 01-1M	N	N	2/11, 2/13
3RK19 01-1NN	N	N	2/12 ... 13
3RK19 01-1NP	on req.	on req.	2/3
3RK19 01-1NR	N	N	2/12 ... 13
3RK19 01-1P	N	N	2/12
3RK19 01-1T	N	N	2/12
3RK19 01-2DA00	N	N	2/3
3RK19 01-2DA00	on req.	on req.	2/12
3RK19 01-2EA00	N	N	2/3
3RK19 01-2EA00	on req.	on req.	2/12
3RK19 01-3	N	N	2/12 ... 13

Order No.	Export markings ECCN	AL	Page
3RK19 01-5	N	N	2/3
3RK19 02	N	N	2/12
3RK19 03	EAR99	N	12/3
3RK19 04	N	N	2/11
3RK19 1	N	N	12/3
3RK19 2	N	N	12/3
3RK21	N	N	2/6
3RK22	N	N	2/6 ... 8
3RK24 00-1B	N	N	2/6
3RK24 00-1C	N	N	2/8
3RK24 00-1F	N	N	2/6, 2/8
3RK24 00-1H	EAR99	N	2/6
3RK3	N	N	2/5
3RN10 0	N	N	7/17
3RN10 10	N	N	7/17
3RN10 11	N	N	7/17
3RN10 12	N	N	7/17
3RN10 13-1BB	N	N	7/17
3RN10 13-1BW0	EAR99	N	7/17
3RN10 13-1BW1	N	N	7/17
3RN10 13-1G	N	N	7/17
3RN10 13-2BB	N	N	7/17
3RN10 13-2BW00	N	N	7/17
3RN10 13-2BW01	EAR99	N	7/17
3RN10 13-2G	N	N	7/17
3RN10 2	EAR99	N	7/17
3RN10 6	EAR99	N	7/17
3RP15 05-1AA	N	N	7/8
3RP15 05-1AP	EAR99	N	7/8
3RP15 05-1AQ	N	N	7/8
3RP15 05-1AW	N	N	7/8
3RP15 05-1BP	EAR99	N	7/8
3RP15 05-1BQ	N	N	7/8
3RP15 05-1BT	EAR99	N	7/8
3RP15 05-1BW	N	N	7/8
3RP15 05-1R	EAR99	N	7/8
3RP15 05-2AP	EAR99	N	7/8
3RP15 05-2AQ	N	N	7/8
3RP15 05-2AW	N	N	7/8
3RP15 05-2BP	EAR99	N	7/8
3RP15 05-2BQ	N	N	7/8
3RP15 05-2BW	N	N	7/8
3RP15 05-2R	EAR99	N	7/8
3RP15 1	N	N	7/8
3RP15 25-1AP	EAR99	N	7/8
3RP15 25-1AQ	N	N	7/8
3RP15 25-1B	N	N	7/8
3RP15 25-2AP	EAR99	N	7/8
3RP15 25-2AQ	N	N	7/8
3RP15 25-2B	N	N	7/8
3RP15 27	N	N	7/8
3RP15 3	N	N	7/9
3RP15 40-1A	N	N	7/9
3RP15 40-1BB	N	N	7/9
3RP15 40-1BJ	N	N	7/9
3RP15 40-1BN	EAR99	N	7/9
3RP15 40-2A	N	N	7/9
3RP15 40-2BB	N	N	7/9
3RP15 40-2BJ	N	N	7/9
3RP15 40-2BN	EAR99	N	7/9
3RP15 55-1AP	EAR99	N	7/9
3RP15 55-1AQ	N	N	7/9
3RP15 55-1AR	N	N	7/9

© Siemens AG 2008

Order number index including export markings

Order No.	Export markings		Page
	ECCN	AL	
3RP15 55-2AP	EAR99	N	7/9
3RP15 55-2AQ	N	N	7/9
3RP15 55-2AR	N	N	7/9
3RP15 60-1SP	EAR99	N	7/9
3RP15 60-1SQ	N	N	7/9
3RP15 60-2	EAR99	N	7/9
3RP15 74-1NM	N	N	7/9
3RP15 74-1NP	EAR99	N	7/9
3RP15 74-1NQ	N	N	7/9
3RP15 74-2NM	N	N	7/9
3RP15 74-2NP	EAR99	N	7/9
3RP15 76	N	N	7/9
3RP19 01	N	N	7/11
3RP19 02	N	N	2/3, 2/8, 7/11
3RP19 03	N	N	2/8, 5/21, 7/5, 7/11, 7/17
3RP2	N	N	7/10
3RS10	N	N	7/16
3RS11 00-1CD	N	N	7/16
3RS11 00-1CK	EAR99	N	7/16
3RS11 01	N	N	7/16
3RS11 4	N	N	7/16
3RS17	N	N	7/20
3RS18	N	N	3/41
3RS2	N	N	7/16
3RT10 15-1A	N	N	3/10
3RT10 15-1B	N	N	3/12
3RT10 15-1H	N	N	3/38
3RT10 15-1J	N	N	3/38
3RT10 15-1K	N	N	3/38
3RT10 15-2A	N	N	3/10
3RT10 15-2B	N	N	3/12
3RT10 15-2H	N	N	3/38
3RT10 15-2J	N	N	3/38
3RT10 15-2K	N	N	3/38
3RT10 16-1A	N	N	3/10
3RT10 16-1B	N	N	3/12
3RT10 16-1H	N	N	3/38
3RT10 16-1J	N	N	3/38
3RT10 16-1K	N	N	3/38
3RT10 16-2A	N	N	3/10
3RT10 16-2B	N	N	3/12
3RT10 16-2H	N	N	3/38
3RT10 16-2J	N	N	3/38
3RT10 16-2K	N	N	3/38
3RT10 17-1A	N	N	3/10
3RT10 17-1B	N	N	3/12
3RT10 17-1H	N	N	3/38
3RT10 17-1J	N	N	3/38
3RT10 17-1K	N	N	3/38
3RT10 17-2A	N	N	3/10
3RT10 17-2B	N	N	3/12
3RT10 17-2H	N	N	3/38
3RT10 17-2J	N	N	3/38
3RT10 17-2K	N	N	3/38
3RT10 23-1A	N	N	3/10
3RT10 23-1B	N	N	3/12
3RT10 23-3A	N	N	3/10
3RT10 23-3B	N	N	3/12
3RT10 24-1A	N	N	3/10
3RT10 24-1B	N	N	3/12
3RT10 24-1K	N	N	3/38
3RT10 24-3A	N	N	3/10
3RT10 24-3B	N	N	3/12

Order No.	Export markings		Page
	ECCN	AL	
3RT10 24-3K	N	N	3/38
3RT10 25-1A	N	N	3/10
3RT10 25-1B	N	N	3/12
3RT10 25-1K	N	N	3/38
3RT10 25-3A	N	N	3/10
3RT10 25-3B	N	N	3/12
3RT10 25-3K	N	N	3/38
3RT10 26-1A	N	N	3/10
3RT10 26-1B	N	N	3/12
3RT10 26-1K	N	N	3/38
3RT10 26-3A	N	N	3/10
3RT10 26-3B	N	N	3/12
3RT10 26-3K	N	N	3/38
3RT10 34-1A	N	N	3/11
3RT10 34-1B	N	N	3/13
3RT10 34-3A	N	N	3/11
3RT10 34-3B	N	N	3/13
3RT10 35-1A	N	N	3/11
3RT10 35-1B	N	N	3/13
3RT10 35-3A	N	N	3/11
3RT10 35-3B	N	N	3/13
3RT10 36-1A	N	N	3/11
3RT10 36-1B	N	N	3/13
3RT10 36-3A	N	N	3/11
3RT10 36-3B	N	N	3/13
3RT10 44-1A	N	N	3/11
3RT10 44-1B	N	N	3/13
3RT10 44-3A	N	N	3/11
3RT10 44-3B	N	N	3/13
3RT10 45-1A	N	N	3/11
3RT10 45-1B	N	N	3/13
3RT10 45-3A	N	N	3/11
3RT10 45-3B	N	N	3/13
3RT10 46-1A	N	N	3/11
3RT10 46-1B	N	N	3/13
3RT10 46-3A	N	N	3/11
3RT10 46-3B	N	N	3/13
3RT10 54-1A	N	N	3/14
3RT10 54-1N	N	N	3/14
3RT10 54-1P	N	N	3/15
3RT10 54-1QF	EAR99	N	3/15
3RT10 54-1QP	N	N	3/15
3RT10 54-3	N	N	3/14
3RT10 55-2	N	N	3/14
3RT10 55-6A	N	N	3/14
3RT10 55-6N	N	N	3/14
3RT10 55-6P	N	N	3/15
3RT10 55-6QF	EAR99	N	3/15
3RT10 55-6QP	N	N	3/15
3RT10 56-2	N	N	3/14
3RT10 56-6A	N	N	3/14
3RT10 56-6N	N	N	3/14
3RT10 56-6P	N	N	3/15
3RT10 56-6QF	EAR99	N	3/15
3RT10 56-6QP	N	N	3/15
3RT10 6	N	N	3/14 ... 15
3RT10 7	N	N	3/14 ... 15
3RT12	N	N	3/17
3RT13 16-1A	N	N	3/31
3RT13 16-1B	N	N	3/31
3RT13 16-2A	N	N	3/31
3RT13 16-2B	N	N	3/31
3RT13 17-1A	N	N	3/31

© Siemens AG 2008

Order number index including export markings

Order No.	Export markings ECCN	AL	Page
3RT13 17-1B	N	N	3/31
3RT13 17-2A	N	N	3/31
3RT13 17-2B	N	N	3/31
3RT13 25-1A	N	N	3/31
3RT13 25-1B	N	N	3/31
3RT13 26-1A	N	N	3/31
3RT13 26-1B	N	N	3/31
3RT13 36-1A	N	N	3/31
3RT13 36-1B	N	N	3/31
3RT13 44-1A	N	N	3/31
3RT13 44-1B	N	N	3/31
3RT13 46-1A	N	N	3/31
3RT13 46-1B	N	N	3/31
3RT14 46-1A	N	N	3/30
3RT14 46-1B	N	N	3/30
3RT14 56-6A	N	N	3/30
3RT14 56-6N	N	N	3/30
3RT14 56-6P	N	N	3/30
3RT14 56-6Q	EAR99	N	3/30
3RT14 6	N	N	3/30
3RT14 7	N	N	3/30
3RT15 16-1A	N	N	3/32
3RT15 16-1B	N	N	3/32
3RT15 16-2A	N	N	3/32
3RT15 16-2B	N	N	3/32
3RT15 17-1A	N	N	3/32
3RT15 17-1B	N	N	3/32
3RT15 17-2A	N	N	3/32
3RT15 17-2B	N	N	3/32
3RT15 26-1A	N	N	3/32
3RT15 26-1B	N	N	3/32
3RT15 35-1A	N	N	3/32
3RT15 35-1B	N	N	3/32
3RT16	N	N	3/33
3RT19 0	N	N	3/59, 7/13, 7/21
3RT19 16-1B	N	N	3/55, 6/15
3RT19 16-1C	N	N	3/55, 6/15
3RT19 16-1D	N	N	3/55, 6/15
3RT19 16-1E	N	N	3/55, 6/15
3RT19 16-1G	N	N	3/56
3RT19 16-1J	N	N	3/56
3RT19 16-1L	N	N	3/56
3RT19 16-2	N	N	3/53 ... 54
3RT19 16-4B	N	N	3/29, 3/58
3RT19 16-4J	N	N	3/59
3RT19 16-4K	N	N	3/58
3RT19 16-4M	N	N	3/57
3RT19 26-1B	N	N	3/55, 6/15
3RT19 26-1C	N	N	3/55, 6/15
3RT19 26-1E	N	N	3/55
3RT19 26-1Q	N	N	3/56
3RT19 26-1T	N	N	3/55, 6/15
3RT19 26-2C	N	N	3/54
3RT19 26-2D	N	N	3/54
3RT19 26-2E	N	N	3/53
3RT19 26-2F	N	N	3/53
3RT19 26-2G	N	N	3/53
3RT19 26-2P	N	N	3/54
3RT19 26-3	N	N	3/54
3RT19 26-4B	N	N	3/29, 3/58
3RT19 26-4C	N	N	3/29
3RT19 26-4M	N	N	3/57
3RT19 26-4P	N	N	3/58

Order No.	Export markings ECCN	AL	Page
3RT19 36-1	N	N	3/55, 6/15
3RT19 36-4B	N	N	3/29, 3/58
3RT19 36-4E	N	N	3/57, 5/22, 5/25
3RT19 46-4B	N	N	3/29, 3/58
3RT19 46-4E	N	N	3/57, 5/22, 5/25
3RT19 46-4F	N	N	3/57, 5/14
3RT19 46-4G	N	N	5/14
3RT19 55	N	N	3/57, 6/8
3RT19 56-1	N	N	3/56
3RT19 56-4B	N	N	3/29, 3/58
3RT19 56-4E	N	N	3/57, 5/22
3RT19 56-4G	N	N	3/57, 6/8
3RT19 66-4B	N	N	3/29, 3/58
3RT19 66-4E	N	N	3/57, 5/22
3RT19 66-4G	N	N	3/57, 6/8
3RU11	N	N	5/23 ... 24
3RU19 00-1	N	N	5/22, 5/25
3RU19 00-2	N	N	5/25
3RU19 1	N	N	5/25
3RU19 2	N	N	5/25
3RU19 3	N	N	5/25
3RU19 4	EAR99	N	5/25
3RV10 11-0AA1	on req.	on req.	5/6
3RV10 11-0AA2	N	N	5/6
3RV10 11-0BA1	on req.	on req.	5/6
3RV10 11-0BA2	N	N	5/6
3RV10 11-0CA1	on req.	on req.	5/6
3RV10 11-0CA2	N	N	5/6
3RV10 11-0DA1	on req.	on req.	5/6
3RV10 11-0DA2	N	N	5/6
3RV10 11-0EA1	on req.	on req.	5/6
3RV10 11-0EA2	N	N	5/6
3RV10 11-0FA1	on req.	on req.	5/6
3RV10 11-0FA2	N	N	5/6
3RV10 11-0GA1	on req.	on req.	5/6
3RV10 11-0GA2	N	N	5/6
3RV10 11-0HA1	on req.	on req.	5/6
3RV10 11-0HA2	N	N	5/6
3RV10 11-0JA1	on req.	on req.	5/6
3RV10 11-0JA2	N	N	5/6
3RV10 11-0KA1	on req.	on req.	5/6
3RV10 11-0KA2	N	N	5/6
3RV10 11-1AA1	on req.	on req.	5/6
3RV10 11-1AA2	N	N	5/6
3RV10 11-1BA1	on req.	on req.	5/6
3RV10 11-1BA2	N	N	5/6
3RV10 11-1CA1	on req.	on req.	5/6
3RV10 11-1CA2	N	N	5/6
3RV10 11-1DA1	on req.	on req.	5/6
3RV10 11-1DA2	N	N	5/6
3RV10 11-1EA1	on req.	on req.	5/6
3RV10 11-1EA2	N	N	5/6
3RV10 11-1FA1	on req.	on req.	5/6
3RV10 11-1FA2	N	N	5/6
3RV10 11-1GA1	on req.	on req.	5/6
3RV10 11-1GA2	N	N	5/6
3RV10 11-1HA1	on req.	on req.	5/6
3RV10 11-1HA2	N	N	5/6
3RV10 11-1JA1	on req.	on req.	5/6
3RV10 11-1JA2	N	N	5/6
3RV10 11-1KA1	on req.	on req.	5/6
3RV10 11-1KA2	N	N	5/6
3RV10 2	on req.	on req.	5/6

© Siemens AG 2008

Order number index including export markings

Order No.	Export markings ECCN	AL	Page
3RV10 3	N	N	5/7
3RV10 4	N	N	5/7
3RV11	N	N	5/8
3RV13	N	N	5/9
3RV14	N	N	5/10
3RV16	N	N	5/10
3RV19 01-0	N	N	5/11
3RV19 01-1	N	N	5/11, 6/15
3RV19 01-2	N	N	5/11
3RV19 02-1AB	N	N	5/11
3RV19 02-1AF	N	N	5/11
3RV19 02-1AP	N	N	5/11, 6/15
3RV19 02-1AV	N	N	5/11
3RV19 02-1D	N	N	5/11, 6/15
3RV19 03	N	N	5/16
3RV19 12	N	N	5/11
3RV19 13	N	N	5/15 ... 16
3RV19 15-1	N	N	5/12
3RV19 15-2	N	N	5/12
3RV19 15-3	N	N	5/12
3RV19 15-5	N	N	3/29, 5/12
3RV19 15-6	N	N	5/12
3RV19 17-1	N	N	6/20
3RV19 17-4	N	N	6/20
3RV19 17-5	N	N	6/20 ... 21
3RV19 17-6	N	N	6/21
3RV19 17-7	N	N	6/20 ... 21
3RV19 21	N	N	5/11
3RV19 22	N	N	5/11
3RV19 23	N	N	5/15 ... 16
3RV19 25	N	N	5/12
3RV19 26	N	N	5/14
3RV19 27	N	N	6/20
3RV19 28	N	N	5/11, 5/14
3RV19 33	N	N	5/15
3RV19 35-1	N	N	3/29, 5/12
3RV19 35-3	N	N	5/12
3RV19 35-5	N	N	3/29, 5/12
3RV19 35-6	N	N	5/12
3RV19 38	EAR99	N	5/11
3RW30 0	EAR99	N	6/3
3RW30 1	EAR99	N	6/3
3RW30 2	N	N	6/3
3RW30 34	N	N	6/3
3RW30 35-1AB14	N	N	6/3
3RW30 35-1AB15	EAR99	N	6/3
3RW30 36-1AB14	N	N	6/3
3RW30 36-1AB15	EAR99	N	6/3
3RW30 4	N	N	6/3
3RW39	N	N	6/3
3RW40	N	N	6/4 ... 5
3RW44	N	N	6/6 ... 7
3RW49 0	N	N	6/8, 12/8
3RW49 2	EAR99	N	6/4
3RW49 3	N	N	6/8
3RW49 47-8VB	EAR99	N	6/4
3RW49 47-8VX	N	N	6/8
3RW49 5	N	N	6/8
3RX8	N	N	2/11, 8/15
3RX90 10	N	N	2/10
3RX90 12	N	N	2/10
3RX90 13	N	N	2/10
3RX90 14	N	N	2/10
3RX90 15	N	N	2/10
3RX90 16	N	N	2/10
3RX90 17	N	N	2/10
3RX90 2	N	N	2/10
3RX95 01-0	on req.	on req.	2/10
3RX95 01-1	on req.	on req.	2/10
3RX95 01-2	N	N	2/5
3RX95 02	on req.	on req.	2/10
3RX95 03	on req.	on req.	2/10
3RX98 0	N	N	2/11, 2/13
3RX98 1	N	N	2/9
3S			
3SB10	N	N	9/7
3SB12	on req.	on req.	9/8
3SB14 00-0A	on req.	on req.	17/6, 17/14
3SB14 00-0J	N	N	9/8
3SB19 01-2A	N	N	9/24
3SB19 01-2B	N	N	9/24
3SB19 01-2E	N	N	9/24
3SB19 01-2M	N	N	9/24
3SB19 01-2N	N	N	9/24
3SB19 01-2X	on req.	on req.	9/24
3SB19 01-4AB	N	N	9/23
3SB19 01-4AC	N	N	9/23
3SB19 01-4AD	N	N	9/23
3SB19 01-4AE	N	N	9/23
3SB19 01-4AF	N	N	9/23
3SB19 01-4AG	N	N	9/23
3SB19 01-4AH	N	N	9/23
3SB19 01-4AJ	N	N	9/23
3SB19 01-4AK	N	N	9/23
3SB19 01-4AL	N	N	9/23
3SB19 01-4AM	N	N	9/23
3SB19 01-4AN	N	N	9/23
3SB19 01-4AP	N	N	9/23
3SB19 01-4AQ	N	N	9/23
3SB19 01-4AR	N	N	9/23
3SB19 01-4AS	N	N	9/23
3SB19 01-4AZ	on req.	on req.	9/23
3SB19 01-4E	N	N	9/23
3SB19 01-4M	N	N	9/23
3SB19 01-4N	N	N	9/23
3SB19 01-4P	N	N	9/23
3SB19 02-0	N	N	9/27
3SB19 02-1	N	N	9/30
3SB19 02-2	N	N	9/12, 9/20, 9/27, 9/30
3SB19 04-2A	N	N	9/25
3SB19 04-2B	N	N	9/25
3SB19 04-2E	N	N	9/25
3SB19 04-2M	N	N	9/25
3SB19 04-2N	N	N	9/25
3SB19 04-2X	on req.	on req.	9/25
3SB19 06-0	N	N	9/8
3SB19 06-2A	N	N	9/8, 9/25
3SB19 06-2X	on req.	on req.	9/25
3SB22	N	N	9/4 ... 5
3SB29	N	N	9/5
3SB30 00-0AA	N	N	9/9
3SB30 00-0AB	N	N	9/9
3SB30 00-0AC	on req.	on req.	9/9
3SB30 00-0B	N	N	9/9
3SB30 00-0D	N	N	9/9
3SB30 00-0E	N	N	5/22, 5/25, 9/7

© Siemens AG 2008

Order number index including export markings

Order No.	Export markings ECCN	Export markings AL	Page
3SB30 00-1	N	N	9/9, 9/11
3SB30 00-2	N	N	9/10
3SB30 00-4	N	N	9/10
3SB30 00-7	N	N	9/11
3SB30 01	N	N	9/9 ... 11
3SB31	N	N	9/12
3SB32	N	N	9/6 ... 7
3SB34 00-0	N	N	9/18
3SB34 00-1	N	N	9/18 ... 19
3SB34 00-2	N	N	9/19
3SB34 00-3	N	N	9/19
3SB34 03-0	N	N	9/18
3SB34 03-1	N	N	9/18 ... 19
3SB34 11-0	N	N	9/20
3SB34 11-1	N	N	9/20
3SB34 20-0	N	N	9/30
3SB34 20-1	N	N	9/30
3SB34 23-0	N	N	9/30
3SB34 23-1	N	N	9/30
3SB34 23-2	N	N	9/30
3SB35	N	N	9/15 ... 17
3SB36	N	N	9/13 ... 14
3SB38 01-0AA	N	N	9/28
3SB38 01-0AB	N	N	9/28
3SB38 01-0AD	N	N	9/28
3SB38 01-0AZ	on req.	on req.	9/29
3SB38 01-0D	N	N	9/28
3SB38 01-0E	N	N	9/28
3SB38 01-2AA	N	N	9/28
3SB38 01-2AB	N	N	9/28
3SB38 01-2AD	N	N	9/28
3SB38 01-2AZ	on req.	on req.	9/29
3SB38 01-2D	N	N	9/28
3SB38 01-2E	N	N	9/28
3SB38 02-0AA	N	N	9/28
3SB38 02-0AZ	on req.	on req.	9/29
3SB38 02-0D	N	N	9/28
3SB38 02-2AA	N	N	9/28
3SB38 02-2AZ	on req.	on req.	9/29
3SB38 02-2D	N	N	9/28
3SB38 03-0AA	N	N	9/28
3SB38 03-0AZ	on req.	on req.	9/29
3SB38 03-2AA	N	N	9/28
3SB38 03-2AZ	on req.	on req.	9/29
3SB38 04-0AA	N	N	9/28
3SB38 04-0AZ	on req.	on req.	9/29
3SB38 04-2AA	N	N	9/28
3SB38 04-2AZ	on req.	on req.	9/29
3SB38 06-0AA	N	N	9/28
3SB38 06-0AZ	on req.	on req.	9/29
3SB38 06-2AA	N	N	9/28
3SB38 06-2AZ	on req.	on req.	9/29
3SB38 6	N	N	9/34
3SB38 8	on req.	on req.	9/29
3SB39 01-0	N	N	9/20, 9/30, 9/34
3SB39 01-1	N	N	9/5, 9/20
3SB39 02-1A	N	N	9/24
3SB39 02-1B	N	N	9/24
3SB39 02-1E	N	N	9/24
3SB39 02-1M	N	N	9/24
3SB39 02-1X	on req.	on req.	9/24
3SB39 02-2	on req.	on req.	9/24
3SB39 03-1A	N	N	9/25
3SB39 03-1B	N	N	9/25
3SB39 03-1E	N	N	9/25
3SB39 03-1M	N	N	9/25
3SB39 03-1N	N	N	9/25
3SB39 03-1X	on req.	on req.	9/25
3SB39 05-1A	N	N	9/25
3SB39 05-1B	N	N	9/25
3SB39 05-1E	N	N	9/25
3SB39 05-1M	N	N	9/25
3SB39 05-1N	N	N	9/25
3SB39 05-1X	on req.	on req.	9/25
3SB39 21-0A	N	N	9/12, 9/27
3SB39 21-0B	N	N	9/27, 9/30
3SB39 21-0C	N	N	9/27
3SB39 21-0D	N	N	9/27
3SB39 22	N	N	9/12, 9/24
3SB39 23	N	N	9/25
3SB39 4	N	N	9/27
3SE2	N	N	9/38
3SE3	N	N	9/38
3SE50 00-0AA	N	N	8/5, 8/9, 8/13
3SE50 00-0AC	EAR99	N	8/13
3SE50 00-0AD02	EAR99	N	8/13
3SE50 00-0AD03	N	N	8/9
3SE50 00-0AD04	N	N	8/9
3SE50 00-0AD1	N	N	8/9
3SE50 00-0AE	N	N	8/9, 8/13
3SE50 00-0AF	N	N	8/5, 8/9, 8/13
3SE50 00-0AH	N	N	8/13
3SE50 00-0AK	N	N	8/5, 8/9
3SE50 00-0AR	N	N	8/9, 8/13
3SE50 00-0AT	N	N	8/13
3SE50 00-0AU	N	N	8/31
3SE50 00-0AV	N	N	8/18
3SE50 00-0B	N	N	8/16
3SE50 00-0C	N	N	8/16
3SE50 00-0G	N	N	8/16
3SE50 00-0K	N	N	8/16
3SE50 00-0L	N	N	8/16
3SE50 00-0N	N	N	8/16
3SE51 10	N	N	8/16
3SE51 12-0BA	N	N	8/12, 8/24
3SE51 12-0BC	N	N	8/10
3SE51 12-0BD	EAR99	N	8/10
3SE51 12-0BE	N	N	8/10
3SE51 12-0BF	N	N	8/10
3SE51 12-0BH	N	N	8/11
3SE51 12-0CA	N	N	8/12, 8/24
3SE51 12-0CC	N	N	8/10, 8/24
3SE51 12-0CD02	EAR99	N	8/10
3SE51 12-0CD02-1	N	N	8/24
3SE51 12-0CE	N	N	8/10, 8/24
3SE51 12-0CF	N	N	8/10, 8/24
3SE51 12-0CH	N	N	8/11, 8/24
3SE51 12-0CR	N	N	8/10, 8/24
3SE51 12-0CT	N	N	8/11, 8/24
3SE51 12-0KA	N	N	8/12, 8/24
3SE51 12-0KC	N	N	8/10
3SE51 12-0KD	EAR99	N	8/10
3SE51 12-0KE	N	N	8/10
3SE51 12-0KH	N	N	8/11
3SE51 12-0LA	N	N	8/12, 8/24
3SE51 12-0LC	N	N	8/10

© Siemens AG 2008

Order number index including export markings

Order No.	Export markings ECCN	AL	Page
3SE51 12-0LD	EAR99	N	8/10
3SE51 12-0LE	N	N	8/10
3SE51 12-0LF	N	N	8/10
3SE51 12-0LH	N	N	8/11
3SE51 12-0LU	N	N	8/23
3SE51 12-0Q	N	N	8/18
3SE51 12-1	N	N	8/12, 8/18
3SE51 12-3	N	N	8/12, 8/18
3SE51 14-0	N	N	8/11 ... 12, 8/18
3SE51 14-1	N	N	8/10 ... 12, 8/18
3SE51 15	N	N	8/12, 8/18
3SE51 20	N	N	8/16
3SE51 22	N	N	8/18, 8/24
3SE52 30	N	N	8/16
3SE52 32	N	N	8/5 ... 8, 8/17, 8/23
3SE52 34	N	N	8/6 ... 8, 8/17
3SE52 40	N	N	8/16
3SE52 42	N	N	8/17
3SE52 50-0A	N	N	8/14
3SE52 50-0K	N	N	8/14
3SE52 50-0L	N	N	8/14
3SE53	N	N	8/21 ... 22
3SE6	N	N	8/33
3SE7	N	N	9/35 ... 36
3SF11	N	N	8/26, 8/28, 8/31
3SF12	N	N	8/26, 8/28, 8/31
3SF13 14-1SB	N	N	8/30
3SF13 14-1SD	N	N	8/30
3SF13 14-1SE	EAR99	N	8/30
3SF13 14-1SF	N	N	8/30
3SF13 14-1SG	N	N	8/30
3SF13 14-1SJ	N	N	8/30
3SF13 2	N	N	8/30
3SF2	N	N	9/37
3SF5	N	N	9/21, 9/32 ... 33
3SX1	N	N	9/20
3SX13 3	N	N	5/22, 5/25
3SX13 4	N	N	9/20
3SX3	N	N	8/33, 9/36
3SX9	N	N	8/15
3SY	N	N	8/15
3T			
3TF68 33-1D	N	N	3/18
3TF68 33-1Q	N	N	3/18
3TF68 33-8D	N	N	3/18
3TF68 33-8QG	on req.	on req.	3/18
3TF68 33-8QL	N	N	3/18
3TF68 4	N	N	3/18
3TF69 33-1D	N	N	3/18
3TF69 33-1Q	N	N	3/18
3TF69 33-8D	N	N	3/18
3TF69 33-8Q	N	N	3/18
3TF69 4	N	N	3/18
3TG10 01-0A	N	N	3/49
3TG10 01-0B	N	N	3/49
3TG10 01-1A	N	N	3/49
3TG10 01-1B	N	N	3/49
3TG10 10-0A	N	N	3/49
3TG10 10-0B	N	N	3/49
3TG10 10-1A	N	N	3/49
3TG10 10-1B	N	N	3/49
3TK28 2	N	N	7/19
3TK28 3	N	N	7/19
3TK28 40	N	N	7/18
3TK28 41	N	N	7/18
3TK28 42	N	N	7/18
3TK28 45	N	N	7/18
3TX4	N	N	16/21
3TX6	on req.	on req.	17/21
3TX70 02	N	N	3/39 ... 40
3TX70 03	N	N	3/39
3TX70 04	N	N	3/39 ... 40, 3/45, 3/47
3TX70 05	N	N	3/39 ... 40
3TX70 1	N	N	3/40
3TX70 9	N	N	3/60
3TX75	N	N	3/57, 3/60
3TX76	N	N	3/60
3TY24 40	N	N	3/60
3TY24 42	N	N	3/60
3TY24 80	N	N	3/60
3TY24 82	N	N	3/60
3TY25 20	N	N	3/60
3TY25 22	N	N	3/60
3TY25 60	N	N	3/60
3TY25 62	N	N	3/60
3TY27 40	N	N	3/60
3TY27 41	N	N	3/60
3TY27 8	N	N	3/60
3TY6	N	N	3/60
3TY7	N	N	3/60
3U			
3UF70	N	N	7/3
3UF71 00	N	N	7/3
3UF71 01	N	N	7/3
3UF71 02	N	N	7/3
3UF71 03-1A	N	N	7/3
3UF71 03-1B	N	N	7/3
3UF71 04	N	N	7/3
3UF71 10	N	N	7/3
3UF71 11	N	N	7/3
3UF71 12	N	N	7/3
3UF71 13-1A	EAR99	N	7/3
3UF71 13-1B	EAR99	N	7/3
3UF71 14	EAR99	N	7/3
3UF72	N	N	7/3 ... 4
3UF73	N	N	7/4
3UF74	N	N	7/4
3UF75	N	N	7/4
3UF77	N	N	7/4
3UF79	N	N	6/8, 7/5, 12/6, 12/8
3UG30	N	N	7/14
3UG32	N	N	7/14 ... 15
3UG45	N	N	7/12, 7/15
3UG46	N	N	7/12 ... 15
3US	on req.	on req.	14/35
3V			
3VF2	EAR99	N	16/36
3VF9	on req.	on req.	16/37
3VL17 0	on req.	on req.	16/11, 16/16 ... 17
3VL17 1	on req.	on req.	16/11, 16/13, 16/16 ... 18
3VL17 2	on req.	on req.	16/11, 16/16 ... 17
3VL17 9	on req.	on req.	16/11, 16/16 ... 17
3VL27	on req.	on req.	16/16
3VL27 05	on req.	on req.	16/11, 16/16 ... 17
3VL27 06-1	on req.	on req.	16/14 ... 15, 16/19

© Siemens AG 2008

Order number index including export markings

Order No.	Export markings		Page
	ECCN	AL	
3VL27 06-1A	EAR99	N	16/12
3VL27 06-1B	EAR99	N	16/18
3VL27 06-1D	on req.	on req.	16/11, 16/13
3VL27 06-1E	on req.	on req.	16/16 ... 17
3VL27 06-2	on req.	on req.	16/14 ... 15, 16/19
3VL27 06-2A	EAR99	N	16/12
3VL27 06-2B	EAR99	N	16/18
3VL27 06-2D	on req.	on req.	16/11, 16/13
3VL27 06-2E	on req.	on req.	16/16 ... 17
3VL27 06-3	on req.	on req.	16/14 ... 15, 16/19
3VL27 06-3A	EAR99	N	16/12
3VL27 06-3B	EAR99	N	16/18
3VL27 06-3D	on req.	on req.	16/11, 16/13
3VL27 06-3E	on req.	on req.	16/16 ... 17
3VL27 08	on req.	on req.	16/11, 16/16 ... 17
3VL27 10-1	on req.	on req.	16/14 ... 15, 16/19
3VL27 10-1A	EAR99	N	16/12
3VL27 10-1B	EAR99	N	16/18
3VL27 10-1D	on req.	on req.	16/11, 16/13
3VL27 10-1E	on req.	on req.	16/16 ... 18
3VL27 10-2	on req.	on req.	16/14 ... 15, 16/19
3VL27 10-2A	EAR99	N	16/12
3VL27 10-2B	EAR99	N	16/18
3VL27 10-2D	on req.	on req.	16/11, 16/13
3VL27 10-2E	on req.	on req.	16/16 ... 18
3VL27 10-3	on req.	on req.	16/14 ... 15, 16/19
3VL27 10-3A	EAR99	N	16/12
3VL27 10-3B	EAR99	N	16/18
3VL27 10-3D	on req.	on req.	16/11, 16/13
3VL27 10-3E	on req.	on req.	16/16 ... 18
3VL27 12	on req.	on req.	16/11, 16/16 ... 17
3VL27 16-1	on req.	on req.	16/14 ... 15, 16/19
3VL27 16-1A	EAR99	N	16/12
3VL27 16-1B	EAR99	N	16/18
3VL27 16-1D	on req.	on req.	16/11, 16/13
3VL27 16-1E	on req.	on req.	16/16 ... 18
3VL27 16-2	on req.	on req.	16/14 ... 15, 16/19
3VL27 16-2A	EAR99	N	16/12
3VL27 16-2B	EAR99	N	16/18
3VL27 16-2D	on req.	on req.	16/11, 16/13
3VL27 16-2E	on req.	on req.	16/16 ... 18
3VL27 16-3	on req.	on req.	16/14 ... 15, 16/19
3VL27 16-3A	EAR99	N	16/12
3VL27 16-3B	EAR99	N	16/18
3VL27 16-3D	on req.	on req.	16/11, 16/13
3VL27 16-3E	on req.	on req.	16/16 ... 18
3VL37 20-1	on req.	on req.	16/14 ... 15, 16/19
3VL37 20-1A	EAR99	N	16/12
3VL37 20-1B	EAR99	N	16/18
3VL37 20-1D	on req.	on req.	16/11
3VL37 20-1E	on req.	on req.	16/16 ... 17
3VL37 20-2	on req.	on req.	16/14 ... 15, 16/19
3VL37 20-2A	EAR99	N	16/12
3VL37 20-2B	EAR99	N	16/18
3VL37 20-2D	on req.	on req.	16/11
3VL37 20-2E	on req.	on req.	16/16 ... 17
3VL37 20-3	on req.	on req.	16/14 ... 15, 16/19
3VL37 20-3A	EAR99	N	16/12
3VL37 20-3B	EAR99	N	16/18
3VL37 20-3D	on req.	on req.	16/11
3VL37 20-3E	on req.	on req.	16/16 ... 17
3VL37 25-1	on req.	on req.	16/14 ... 15, 16/19
3VL37 25-1A	EAR99	N	16/12

Order No.	Export markings		Page
	ECCN	AL	
3VL37 25-1B	EAR99	N	16/18
3VL37 25-1D	on req.	on req.	16/11, 16/13
3VL37 25-1E	on req.	on req.	16/16 ... 18
3VL37 25-2	on req.	on req.	16/14 ... 15, 16/19
3VL37 25-2A	EAR99	N	16/12
3VL37 25-2B	EAR99	N	16/18
3VL37 25-2D	on req.	on req.	16/11, 16/13
3VL37 25-2E	on req.	on req.	16/16 ... 18
3VL37 25-3	on req.	on req.	16/14 ... 15, 16/19
3VL37 25-3A	EAR99	N	16/12
3VL37 25-3B	EAR99	N	16/18
3VL37 25-3D	on req.	on req.	16/11, 16/13
3VL37 25-3E	on req.	on req.	16/16 ... 18
3VL47 20-1D	on req.	on req.	16/11, 16/13
3VL47 20-1E	on req.	on req.	16/16 ... 17
3VL47 20-2D	on req.	on req.	16/11, 16/13
3VL47 20-2E	on req.	on req.	16/16 ... 17
3VL47 20-3D	on req.	on req.	16/11, 16/13
3VL47 20-3E	on req.	on req.	16/16 ... 17
3VL47 25-1D	on req.	on req.	16/11, 16/13
3VL47 25-1E	on req.	on req.	16/16 ... 17
3VL47 25-2D	on req.	on req.	16/11, 16/13
3VL47 25-2E	on req.	on req.	16/16 ... 17
3VL47 25-3D	on req.	on req.	16/11, 16/13
3VL47 25-3E	on req.	on req.	16/16 ... 17
3VL47 31-1	on req.	on req.	16/14 ... 15, 16/19
3VL47 31-1A	EAR99	N	16/12
3VL47 31-1B	EAR99	N	16/18
3VL47 31-1D	on req.	on req.	16/11, 16/13
3VL47 31-1E	on req.	on req.	16/16 ... 17
3VL47 31-2	on req.	on req.	16/14 ... 15, 16/19
3VL47 31-2A	EAR99	N	16/12
3VL47 31-2B	EAR99	N	16/18
3VL47 31-2D	on req.	on req.	16/11, 16/13
3VL47 31-2E	on req.	on req.	16/16 ... 17
3VL47 31-3	on req.	on req.	16/14 ... 15, 16/19
3VL47 31-3A	EAR99	N	16/12
3VL47 31-3B	EAR99	N	16/18
3VL47 31-3D	on req.	on req.	16/11, 16/13
3VL47 31-3E	on req.	on req.	16/16 ... 17
3VL47 40-1	on req.	on req.	16/14 ... 15, 16/19
3VL47 40-1A	EAR99	N	16/12
3VL47 40-1B	EAR99	N	16/18
3VL47 40-1D	on req.	on req.	16/11, 16/13
3VL47 40-1E	on req.	on req.	16/16 ... 18
3VL47 40-2	on req.	on req.	16/14 ... 15, 16/19
3VL47 40-2A	EAR99	N	16/12
3VL47 40-2B	EAR99	N	16/18
3VL47 40-2D	on req.	on req.	16/11, 16/13
3VL47 40-2E	on req.	on req.	16/16 ... 18
3VL47 40-3	on req.	on req.	16/14 ... 15, 16/19
3VL47 40-3A	EAR99	N	16/12
3VL47 40-3B	EAR99	N	16/18
3VL47 40-3D	on req.	on req.	16/11, 16/13
3VL47 40-3E	on req.	on req.	16/16 ... 18
3VL57 31-1D	on req.	on req.	16/11, 16/13
3VL57 31-1E	on req.	on req.	16/16 ... 17
3VL57 31-2D	on req.	on req.	16/11, 16/13
3VL57 31-2E	on req.	on req.	16/16 ... 17
3VL57 31-3D	on req.	on req.	16/11, 16/13
3VL57 31-3E	on req.	on req.	16/16 ... 17
3VL57 4	on req.	on req.	16/11, 16/16 ... 17
3VL57 50-1	on req.	on req.	16/14 ... 15

© Siemens AG 2008

Order number index including export markings

Order No.	Export markings ECCN	AL	Page
3VL57 50-1A	EAR99	N	16/12
3VL57 50-1D	on req.	on req.	16/11, 16/13
3VL57 50-1E	on req.	on req.	16/16 ... 17
3VL57 50-2	on req.	on req.	16/14 ... 15
3VL57 50-2A	EAR99	N	16/12
3VL57 50-2D	on req.	on req.	16/11, 16/13
3VL57 50-2E	on req.	on req.	16/16 ... 17
3VL57 50-3	on req.	on req.	16/14 ... 15
3VL57 50-3A	EAR99	N	16/12
3VL57 50-3D	on req.	on req.	16/11, 16/13
3VL57 50-3E	on req.	on req.	16/16 ... 17
3VL57 63-1	on req.	on req.	16/14 ... 15, 16/19
3VL57 63-1A	EAR99	N	16/12
3VL57 63-1B	EAR99	N	16/18
3VL57 63-1D	on req.	on req.	16/11, 16/13
3VL57 63-1E	on req.	on req.	16/16 ... 18
3VL57 63-2	on req.	on req.	16/14 ... 15, 16/19
3VL57 63-2A	EAR99	N	16/12
3VL57 63-2B	EAR99	N	16/18
3VL57 63-2D	on req.	on req.	16/11, 16/13
3VL57 63-2E	on req.	on req.	16/16 ... 18
3VL57 63-3	on req.	on req.	16/14 ... 15, 16/19
3VL57 63-3A	EAR99	N	16/12
3VL57 63-3B	EAR99	N	16/18
3VL57 63-3D	on req.	on req.	16/11, 16/13
3VL57 63-3E	on req.	on req.	16/16 ... 18
3VL67 80-1	on req.	on req.	16/14 ... 15, 16/19
3VL67 80-1A	EAR99	N	16/12
3VL67 80-1B	EAR99	N	16/18
3VL67 80-1D	on req.	on req.	16/13
3VL67 80-1E	on req.	on req.	16/18
3VL67 80-2	on req.	on req.	16/15, 16/19
3VL67 80-2A	EAR99	N	16/12
3VL67 80-2B	EAR99	N	16/18
3VL67 80-2D	on req.	on req.	16/13
3VL67 80-2E	on req.	on req.	16/18
3VL67 80-3	on req.	on req.	16/14 ... 15, 16/19
3VL67 80-3A	EAR99	N	16/12
3VL67 80-3B	EAR99	N	16/18
3VL67 80-3D	on req.	on req.	16/13
3VL67 80-3E	on req.	on req.	16/18
3VL77 10-1	on req.	on req.	16/14 ... 15, 16/19
3VL77 10-1A	EAR99	N	16/12
3VL77 10-1B	EAR99	N	16/18
3VL77 10-2	on req.	on req.	16/14 ... 15, 16/19
3VL77 10-2A	EAR99	N	16/12
3VL77 10-2B	EAR99	N	16/18
3VL77 10-3	on req.	on req.	16/14 ... 15, 16/19
3VL77 10-3A	EAR99	N	16/12
3VL77 10-3B	EAR99	N	16/18
3VL77 12-1	on req.	on req.	16/14 ... 15, 16/19
3VL77 12-1A	EAR99	N	16/12
3VL77 12-1B	EAR99	N	16/18
3VL77 12-1D	on req.	on req.	16/13
3VL77 12-1E	on req.	on req.	16/18
3VL77 12-2	on req.	on req.	16/15, 16/19
3VL77 12-2A	EAR99	N	16/12
3VL77 12-2B	EAR99	N	16/18
3VL77 12-2D	on req.	on req.	16/13
3VL77 12-2E	on req.	on req.	16/18
3VL77 12-3	on req.	on req.	16/14, 16/19
3VL77 12-3.	on req.	on req.	16/15
3VL77 12-3A	EAR99	N	16/12
3VL77 12-3B	EAR99	N	16/18
3VL77 12-3D	on req.	on req.	16/13
3VL77 12-3E	on req.	on req.	16/18
3VL87 16-1	on req.	on req.	16/14 ... 15, 16/19
3VL87 16-1A	EAR99	N	16/12
3VL87 16-1B	EAR99	N	16/18
3VL87 16-1D	on req.	on req.	16/13
3VL87 16-1E	on req.	on req.	16/18
3VL87 16-2	on req.	on req.	16/14 ... 15, 16/19
3VL87 16-2A	EAR99	N	16/12
3VL87 16-2B	EAR99	N	16/18
3VL87 16-2D	on req.	on req.	16/13
3VL87 16-2E	on req.	on req.	16/18
3VL87 16-3	on req.	on req.	16/14 ... 15, 16/19
3VL87 16-3A	EAR99	N	16/12
3VL87 16-3B	EAR99	N	16/18
3VL87 16-3D	on req.	on req.	16/13
3VL87 16-3E	on req.	on req.	16/18
3VL90 00-4	EAR99	N	16/24 ... 26
3VL90 00-8	EAR99	N	16/32 ... 35
3VL91 0	EAR99	N	16/24, 16/28
3VL91 12-5GA	N	N	16/27
3VL91 12-5GB	EAR99	N	16/27
3VL92 0	EAR99	N	16/24, 16/28
3VL92 10	EAR99	N	16/27
3VL92 16-4	EAR99	N	16/28
3VL92 16-5	N	N	16/27
3VL92 16-8	EAR99	N	16/27
3VL92 8	EAR99	N	16/27
3VL93 00-3HA	EAR99	N	16/22
3VL93 00-3HC	EAR99	N	16/22
3VL93 00-3HE	EAR99	N	16/22
3VL93 00-3HF	EAR99	N	16/22
3VL93 00-3HG	EAR99	N	16/22
3VL93 00-3HL	EAR99	N	16/32
3VL93 00-3HP	EAR99	N	16/22
3VL93 00-3HR	N	N	16/22
3VL93 00-3M	EAR99	N	16/22
3VL93 00-4E	EAR99	N	16/29
3VL93 00-4PA	EAR99	N	16/25
3VL93 00-4PB	EAR99	N	16/25
3VL93 00-4PC	EAR99	N	16/25
3VL93 00-4PD	EAR99	N	16/25
3VL93 00-4PE	EAR99	N	16/24 ... 25
3VL93 00-4PJ	EAR99	N	16/24 ... 25
3VL93 00-4PS0	on req.	on req.	16/25
3VL93 00-4PS3	EAR99	N	16/25
3VL93 00-4PS4	EAR99	N	16/25
3VL93 00-4R	EAR99	N	16/29
3VL93 00-4W	EAR99	N	16/24 ... 25
3VL93 00-8	EAR99	N	16/28, 16/32
3VL93 20	EAR99	N	16/27
3VL93 21	EAR99	N	16/32
3VL93 25-5	N	N	16/27
3VL93 25-8	EAR99	N	16/27
3VL94 00-1SC	N	N	16/21
3VL94 00-1SJ	EAR99	N	16/21
3VL94 00-1SK	N	N	16/21
3VL94 00-1SM	EAR99	N	16/21
3VL94 00-1SQ	N	N	16/21
3VL94 00-1SR	N	N	16/21
3VL94 00-1ST	N	N	16/21
3VL94 00-1SV	EAR99	N	16/21

© Siemens AG 2008

Order number index including export markings

Order No.	Export markings ECCN	AL	Page
3VL94 00-1UD	EAR99	N	16/21
3VL94 00-1UG	EAR99	N	16/21
3VL94 00-1UH	EAR99	N	16/21
3VL94 00-1UJ	EAR99	N	16/21
3VL94 00-1UK	EAR99	N	16/21
3VL94 00-1UL	EAR99	N	16/21
3VL94 00-1UM	EAR99	N	16/21
3VL94 00-1UN	N	N	16/21
3VL94 00-1UP	N	N	16/21
3VL94 00-1UQ	EAR99	N	16/21
3VL94 00-1UR	EAR99	N	16/21
3VL94 00-1US	EAR99	N	16/21
3VL94 00-1UT	EAR99	N	16/21
3VL94 00-1UU	N	N	16/21
3VL94 00-1UV	EAR99	N	16/21
3VL94 00-2	EAR99	N	16/21
3VL94 00-3HA	EAR99	N	16/23
3VL94 00-3HC	EAR99	N	16/23
3VL94 00-3HE	EAR99	N	16/23
3VL94 00-3HF	EAR99	N	16/23
3VL94 00-3HP	EAR99	N	16/23
3VL94 00-3HR	on req.	on req.	16/23
3VL94 00-3MJ	N	N	16/23
3VL94 00-3ML	EAR99	N	16/23
3VL94 00-3MN	EAR99	N	16/23
3VL94 00-3MQ	EAR99	N	16/23
3VL94 00-3MS	EAR99	N	16/23
3VL94 00-3N	on req.	on req.	16/23
3VL94 00-4PA	EAR99	N	16/25
3VL94 00-4PB	EAR99	N	16/25
3VL94 00-4PC	EAR99	N	16/25
3VL94 00-4PD	EAR99	N	16/25
3VL94 00-4PJ	EAR99	N	16/25
3VL94 00-4PS0	on req.	on req.	16/25
3VL94 00-4PS3	EAR99	N	16/25
3VL94 00-4PS4	EAR99	N	16/25
3VL94 00-4W	EAR99	N	16/25
3VL94 4	EAR99	N	16/27
3VL95 00-3	on req.	on req.	16/23
3VL95 00-4	EAR99	N	16/25, 16/30
3VL95 00-8	EAR99	N	16/34
3VL95 6	EAR99	N	16/27
3VL96 00-3H	EAR99	N	16/23, 16/34
3VL96 00-3M	EAR99	N	16/23
3VL96 00-3N	on req.	on req.	16/23
3VL96 00-4	EAR99	N	16/25 ... 26, 16/30
3VL96 00-8B	EAR99	N	16/34
3VL96 00-8CA	EAR99	N	16/30
3VL96 00-8CB3	N	N	16/30
3VL96 00-8CB4	EAR99	N	16/30
3VL96 00-8CE	EAR99	N	16/30
3VL96 00-8L	EAR99	N	16/34
3VL96 00-8S	EAR99	N	16/34
3VL96 8	EAR99	N	16/27
3VL97 0	EAR99	N	16/32, 16/34 ... 35
3VL97 1	EAR99	N	16/27, 16/32, 16/34 ... 35
3VL98 00-1SC	N	N	16/21
3VL98 00-1SJ	EAR99	N	16/21
3VL98 00-1SK	N	N	16/21
3VL98 00-1SM	EAR99	N	16/21
3VL98 00-1SQ	N	N	16/21
3VL98 00-1SR	N	N	16/21
3VL98 00-1ST	N	N	16/21

Order No.	Export markings ECCN	AL	Page
3VL98 00-1SV	N	N	16/21
3VL98 00-1UD	N	N	16/21
3VL98 00-1UG	N	N	16/21
3VL98 00-1UH	N	N	16/21
3VL98 00-1UJ	N	N	16/21
3VL98 00-1UK	EAR99	N	16/21
3VL98 00-1UM	EAR99	N	16/21
3VL98 00-1UN	N	N	16/21
3VL98 00-1UP	N	N	16/21
3VL98 00-1UQ	EAR99	N	16/21
3VL98 00-1UR	N	N	16/21
3VL98 00-1US	N	N	16/21
3VL98 00-1UU	N	N	16/21
3VL98 00-1UV	N	N	16/21
3VL98 00-2	EAR99	N	16/21
3VL98 00-3	EAR99	N	16/35
3VL98 00-4	EAR99	N	16/26
3VL98 00-8	EAR99	N	16/35
3VL98 1	EAR99	N	16/27
3W			
3WA	on req.	on req.	3/59
3WL11 06-2..3	on req.	on req.	15/9, 15/11
3WL11 06-2..4	on req.	on req.	15/13, 15/15
3WL11 06-3..3	on req.	on req.	15/9, 15/11
3WL11 06-3..4	on req.	on req.	15/13, 15/15
3WL11 08-2..3	on req.	on req.	15/9, 15/11
3WL11 08-2..4	on req.	on req.	15/13, 15/15
3WL11 08-3..3	on req.	on req.	15/9, 15/11
3WL11 08-3..4	on req.	on req.	15/13, 15/15
3WL11 10-2..3	on req.	on req.	15/9, 15/11
3WL11 10-2..4	on req.	on req.	15/13, 15/15
3WL11 10-3..3	on req.	on req.	15/9, 15/11
3WL11 10-3..4	on req.	on req.	15/13, 15/15
3WL11 12-2..3	on req.	on req.	15/9, 15/11
3WL11 12-2..4	on req.	on req.	15/13, 15/15
3WL11 12-3..3	on req.	on req.	15/9, 15/11
3WL11 12-3..4	on req.	on req.	15/13, 15/15
3WL11 16-2..3	on req.	on req.	15/9, 15/11
3WL11 16-2..4	on req.	on req.	15/13, 15/15
3WL11 16-3..3	on req.	on req.	15/9, 15/11
3WL11 16-3..4	on req.	on req.	15/13, 15/15
3WL12 08-2..3	on req.	on req.	15/9, 15/11
3WL12 08-2..4	on req.	on req.	15/13, 15/15
3WL12 08-3..3	on req.	on req.	15/9, 15/11
3WL12 08-3..4	on req.	on req.	15/13, 15/15
3WL12 08-4..3	on req.	on req.	15/10, 15/12
3WL12 08-4..4	on req.	on req.	15/14, 15/16
3WL12 10-2..3	on req.	on req.	15/9, 15/11
3WL12 10-2..4	on req.	on req.	15/13, 15/15
3WL12 10-3..3	on req.	on req.	15/9, 15/11
3WL12 10-3..4	on req.	on req.	15/13, 15/15
3WL12 10-4..3	on req.	on req.	15/10, 15/12
3WL12 10-4..4	on req.	on req.	15/14, 15/16
3WL12 12-2..3	on req.	on req.	15/9, 15/11
3WL12 12-2..4	on req.	on req.	15/13, 15/15
3WL12 12-3..3	on req.	on req.	15/9, 15/11
3WL12 12-3..4	on req.	on req.	15/13, 15/15
3WL12 12-4..3	on req.	on req.	15/10, 15/12
3WL12 12-4..4	on req.	on req.	15/14, 15/16
3WL12 16-2..3	on req.	on req.	15/9, 15/11
3WL12 16-2..4	on req.	on req.	15/13, 15/15
3WL12 16-3..3	on req.	on req.	15/9, 15/11
3WL12 16-3..4	on req.	on req.	15/13, 15/15

© Siemens AG 2008

Order number index including export markings

Order No.	Export markings ECCN	AL	Page
3WL12 16-4..3	on req.	on req.	15/10, 15/12
3WL12 16-4..4	on req.	on req.	15/14, 15/16
3WL12 20-2..3	on req.	on req.	15/9, 15/11
3WL12 20-2..4	on req.	on req.	15/13, 15/15
3WL12 20-3..3	on req.	on req.	15/9, 15/11
3WL12 20-3..4	on req.	on req.	15/13, 15/15
3WL12 20-4..3	on req.	on req.	15/10, 15/12
3WL12 20-4..4	on req.	on req.	15/14, 15/16
3WL12 25-2..3	on req.	on req.	15/9, 15/11
3WL12 25-2..4	on req.	on req.	15/13, 15/15
3WL12 25-3..3	on req.	on req.	15/9, 15/11
3WL12 25-3..4	on req.	on req.	15/13, 15/15
3WL12 25-4..3	on req.	on req.	15/10, 15/12
3WL12 25-4..4	on req.	on req.	15/14, 15/16
3WL12 32-2..3	on req.	on req.	15/9, 15/11
3WL12 32-2..4	on req.	on req.	15/13, 15/15
3WL12 32-3..3	on req.	on req.	15/9, 15/11
3WL12 32-3..4	on req.	on req.	15/13, 15/15
3WL12 32-4..3	on req.	on req.	15/10, 15/12
3WL12 32-4..4	on req.	on req.	15/14, 15/16
3WL12 40-2..3	on req.	on req.	15/9, 15/11
3WL12 40-2..4	on req.	on req.	15/13, 15/15
3WL12 40-3..3	on req.	on req.	15/9, 15/11
3WL12 40-3..4	on req.	on req.	15/13, 15/15
3WL12 40-4	on req.	on req.	15/10, 15/14, 15/16
3WL13 40-4..3	on req.	on req.	15/10, 15/12
3WL13 40-4..4	on req.	on req.	15/14, 15/16
3WL13 50-4..3	on req.	on req.	15/10, 15/12
3WL13 50-4..4	on req.	on req.	15/14, 15/16
3WL13 63-4..3	on req.	on req.	15/10, 15/12
3WL13 63-4..4	on req.	on req.	15/14, 15/16
3WL91 11-0AA11	N	N	15/23
3WL91 11-0AA12	N	N	15/23
3WL91 11-0AA13	N	N	15/23
3WL91 11-0AA14	on req.	on req.	15/23
3WL91 11-0AA15	on req.	on req.	15/23
3WL91 11-0AA16	on req.	on req.	15/23
3WL91 11-0AA2	N	N	15/23
3WL91 11-0AA3	N	N	15/23
3WL91 11-0AA5	N	N	15/23
3WL91 11-0AA6	N	N	15/23
3WL91 11-0AP	N	N	15/25
3WL91 11-0AR	N	N	15/25
3WL91 11-0AS	N	N	15/25
3WL91 11-0AT	N	N	15/23 ... 24
3WL91 11-0B	N	N	15/23 ... 24, 16/21
3WL92	on req.	on req.	15/22
3Z			
3ZS12	5D992B1	N	12/4
3ZS13	5D992B1	N	6/8, 7/5, 12/3, 12/6, 12/8
3ZS23	N	N	18/6
3ZS27	EAR99	N	18/4 ... 5
4A			
4AM	on req.	on req.	10/4 ... 5
4AP	N	N	10/8
4AU	N	N	10/8
4AV20	N	N	11/3
4AV21	on req.	on req.	11/3
4AV22	N	N	11/3
4AV23	on req.	on req.	11/3
4AV24	N	N	11/3
4AV26	N	N	11/3
4AV3	on req.	on req.	11/4
4AV4	N	N	11/3
4AV5	on req.	on req.	11/4
4N			
4NC	N	N	14/46
5S			
5SF	N	N	14/43
5SG	N	N	14/43
5SH2	N	N	14/43
5SH35 0	N	N	14/38
5SH35 2	N	N	14/39
5SH35 30	N	N	14/39
5SH35 31	N	N	14/39
5SH35 32	N	N	14/39
5SH35 33	N	N	14/38
5SH35 34	N	N	14/38
5SH35 36	N	N	14/39
5SH35 37	N	N	14/39
5SH5	N	N	14/43
6B			
6BK	EAR99H	N	7/7
6E			
6ED10 50	N	N	7/7
6ED10 52	N	N	7/6
6ED10 55	N	N	7/6
6ED10 56	N	N	7/7
6ED10 57-1	N	N	7/7, 12/3
6ED10 57-3	EAR99T	N	7/7
6ED10 57-4	N	N	7/7
6ED10 58	N	N	7/7
6EP	N	N	11/5 ... 6
6ES	N	N	2/4, 2/13
6G			
6GK1	EAR99H	N	2/5
6GK72	EAR99H	N	2/4
6GK73	N	N	2/4
7K			
7KM	EAR99	N	13/4
8G			
8GF	N	N	14/26
8H			
8HP27 0	N	N	17/5
8HP27 1	N	N	17/5
8HP27 3	N	N	17/5
8HP27 4	N	N	17/5
8HP27 5	N	N	17/5
8HP27 6	N	N	17/5
8U			
8UC60	N	N	17/6, 17/14
8UC61	on req.	on req.	16/37, 17/6, 17/14
8UC62	on req.	on req.	17/6, 17/14
8UC63	on req.	on req.	17/6, 17/14
8UC64	on req.	on req.	17/14
8UC7	N	N	17/4
8UC9	N	N	17/14
8US10 1	N	N	5/13, 14/37
8US10 5	N	N	5/13, 6/17 ... 18, 14/36 ... 37
8US10 60-5AK	N	N	14/37
8US10 60-5AM	N	N	6/18, 14/37
8US10 60-5AP	on req.	on req.	6/18
8US10 61-5D	N	N	5/13, 14/36

© Siemens AG 2008

Order number index including export markings

Order No.	Export markings ECCN	AL	Page
8US10 61-5F	N	N	5/13, 6/18, 14/36
8US11	N	N	5/13, 14/37, 14/42
8US12 0	N	N	14/44
8US12 10-4AF	N	N	14/42
8US12 10-4AG00	N	N	14/42
8US12 10-4AG00	on req.	on req.	17/21
8US12 11	N	N	5/13, 14/42
8US12 50	N	N	6/18, 14/41 ... 42
8US12 51	N	N	5/13, 6/17 ... 18, 14/41
8US12 60-5AM	N	N	6/18, 14/42
8US12 60-5AP	N	N	14/41 ... 42
8US12 61-5FM	N	N	5/13, 14/41
8US12 61-5FP	N	N	6/18, 14/41
8US12 91-4SB00	N	N	14/42
8US12 91-4SB00	on req.	on req.	17/21
8US19 0	N	N	14/35
8US19 21-1	N	N	14/44
8US19 21-2AA	N	N	14/44
8US19 21-2AB	N	N	14/44
8US19 21-2AC	N	N	14/44
8US19 21-2AD00	N	N	14/44
8US19 21-2AD01	N	N	14/44
8US19 21-2BA	N	N	14/44
8US19 21-2BB	N	N	14/44
8US19 21-2BC	N	N	14/44
8US19 21-2BD00	N	N	14/44
8US19 21-2BD01	N	N	14/44
8US19 21-2BE	N	N	14/45
8US19 21-2BF	N	N	14/45
8US19 22-1	N	N	14/38 ... 39, 14/44
8US19 22-2	N	N	14/35, 14/39 ... 40
8US19 23	N	N	14/38
8US19 27	N	N	14/42
8US19 41-2AA01	N	N	14/44
8US19 41-2AA02	N	N	14/44
8US19 41-2AC	N	N	14/44
8US19 41-2B	N	N	14/44
8US19 43	N	N	14/40
8US19 48	N	N	14/40
8US19 98-1	N	N	14/36 ... 37, 14/41 ... 42, 14/45
8US19 98-2	N	N	6/18, 14/37, 14/42
8US19 98-4	N	N	14/45
8US19 98-7	N	N	6/17, 14/45
8US19 98-8	N	N	14/45
8W			
8WA1	N	N	14/24 ... 26
8WA28 03	N	N	3/59
8WA28 07	on req.	on req.	2/8
8WA28 6	N	N	14/26
8WA28 7	N	N	14/26
8WA28 8	N	N	4/2, 4/6, 4/9
8WC50 23	on req.	on req.	14/35, 14/39
8WC50 24	on req.	on req.	14/35, 14/39
8WC50 26	N	N	14/39
8WC50 28	N	N	14/39
8WC50 3	on req.	on req.	14/39
8WC50 5	N	N	14/39
8WC50 6	N	N	14/39
8WD4	N	N	9/39 ... 40
8WD5	N	N	9/41
8WH20 00-0AF	N	N	14/27
8WH20 00-0AG	N	N	14/28
8WH20 00-0AH	N	N	14/29
8WH20 00-0AJ	N	N	14/29
8WH20 00-0AK	N	N	14/30
8WH20 00-0AM	N	N	14/30
8WH20 00-0CF	N	N	14/27
8WH20 00-0CG	N	N	14/28
8WH20 00-0CH	N	N	14/29
8WH20 00-0CJ	N	N	14/29
8WH20 00-0CK	N	N	14/30
8WH20 00-0CM	N	N	14/30
8WH20 00-1	N	N	14/30
8WH20 00-6	N	N	14/31
8WH20 03-0	N	N	14/27 ... 29
8WH20 03-6	N	N	14/31
8WH20 04-0	N	N	14/27 ... 28
8WH20 04-6	N	N	14/31
8WH20 2	N	N	14/31
8WH3	N	N	14/32
8WH8	N	N	14/33 ... 34
8WH9	N	N	14/27 ... 32, 14/34
BV			
BVP:0 2	N	N	14/15
BVP:0 34253	N	N	14/17
BVP:0 34254	N	N	14/17
BVP:0 34255	N	N	14/17
BVP:0 34256	N	N	14/17
BVP:0 34257	N	N	14/17
BVP:0 34258	N	N	14/17
BVP:0 34259	N	N	14/17
BVP:0 3426	N	N	14/17, 14/19, 14/23
BVP:0 3427	N	N	14/19 ... 21
BVP:0 3428	N	N	14/20 ... 21
BVP:0 5	N	N	14/14
BVP:0 8	N	N	14/15, 14/18, 14/23
BVP:0 90161	N	N	14/17
BVP:0 90162	N	N	14/17
BVP:0 90163	N	N	14/17
BVP:0 90164	N	N	14/17
BVP:0 90165	N	N	14/17
BVP:0 90166	N	N	14/17
BVP:0 90167	N	N	14/17
BVP:0 90168	N	N	14/18
BVP:0 9017	N	N	14/18
BVP:2 0	N	N	14/15, 14/23
BVP:2 1115	N	N	14/10
BVP:2 11160	N	N	14/10
BVP:2 11161	N	N	14/11
BVP:2 11162	N	N	14/11
BVP:2 11163	N	N	14/11
BVP:2 11164	N	N	14/12
BVP:2 11165	N	N	14/12
BVP:2 11166	N	N	14/12
BVP:2 11167	N	N	14/12
BVP:2 11168	N	N	14/12
BVP:2 11169	N	N	14/12
BVP:2 1119	N	N	14/13
BVP:2 112	N	N	14/13 ... 14
BVP:2 3355	N	N	14/17
BVP:2 33560	N	N	14/17
BVP:2 33563	N	N	14/17
BVP:2 33567	N	N	14/17
BVP:2 33568	N	N	14/20
BVP:2 3357	N	N	14/20 ... 21

© Siemens AG 2008

Order number index including export markings

Order No.	Export markings		Page
	ECCN	AL	
BVP:2 7	N	N	14/15
BVP:6 10001	N	N	14/11
BVP:6 10002	N	N	14/11
BVP:6 10003	N	N	14/11
BVP:6 10004	N	N	14/12
BVP:6 10005	N	N	14/12
BVP:6 1035	N	N	14/11
BVP:6 1036	N	N	14/14, 14/22
BVP:6 1037	N	N	14/13
BVP:6 1038	N	N	14/13
BVP:6 110	N	N	14/14, 14/22 ... 23
BVP:6 113	N	N	14/15, 14/23
LZ			
LZS:M	N	N	3/45
LZS:P T1	N	N	3/45
LZS:P T3	EAR99	N	3/43
LZS:P T5	EAR99	N	3/43
LZS:P T7	N	N	3/44
LZS:P TM	N	N	3/45, 3/47
LZS:R T1	N	N	3/47
LZS:R T3A4L	N	N	3/46
LZS:R T3A4R	EAR99	N	3/46
LZS:R T3A4S	EAR99	N	3/46
LZS:R T3A4T	EAR99	N	3/46
LZS:R T3B4L	N	N	3/46
LZS:R T3B4R	EAR99	N	3/46
LZS:R T3B4S	EAR99	N	3/46
LZS:R T3B4T	EAR99	N	3/46
LZS:R T3D4L	N	N	3/46
LZS:R T3D4R	EAR99	N	3/46
LZS:R T3D4S	EAR99	N	3/46
LZS:R T3D4T	EAR99	N	3/46
LZS:R T4A4L	N	N	3/46
LZS:R T4A4R	EAR99	N	3/46
LZS:R T4A4S	EAR99	N	3/46
LZS:R T4A4T	N	N	3/46
LZS:R T4B4L	N	N	3/46
LZS:R T4B4R	EAR99	N	3/46
LZS:R T4B4S	EAR99	N	3/46
LZS:R T4B4T	N	N	3/46
LZS:R T4D4L	N	N	3/46
LZS:R T4D4R	EAR99	N	3/46
LZS:R T4D4S	EAR99	N	3/46
LZS:R T4D4T	N	N	3/46
LZS:R T7	N	N	3/47
LZX:M T321	EAR99	N	3/45
LZX:M T323	EAR99	N	3/45
LZX:M T326	EAR99	N	3/45
LZX:M T3280	EAR99	N	3/45
LZX:M T3281	N	N	3/45
LZX:M T3282	EAR99	N	3/45
LZX:P T2	N	N	3/44
LZX:P T3	EAR99	N	3/44
LZX:P T52	N	N	3/44
LZX:P T57	EAR99	N	3/44
LZX:P T58	EAR99	N	3/44
LZX:R T3140	N	N	3/47
LZX:R T3145	EAR99	N	3/47
LZX:R T3146	EAR99	N	3/47
LZX:R T3147	EAR99	N	3/47
LZX:R T3150	EAR99	N	3/47
LZX:R T3157	N	N	3/47
LZX:R T4240	N	N	3/47

Order No.	Export markings		Page
	ECCN	AL	
LZX:R T4245	EAR99	N	3/47
LZX:R T4246	EAR99	N	3/47
LZX:R T4247	N	N	3/47
Z2			
Z23	on req.	on req.	2/11

© Siemens AG 2008

Conditions of sale and delivery
Export regulations

Terms and Conditions of Sale and Delivery

By using this catalog you can acquire hardware and software products described therein from Siemens AG subject to the following terms. Please note! The scope, the quality and the conditions for supplies and services, including software products, by any Siemens entity having a registered office outside of Germany, shall be subject exclusively to the General Terms and Conditions of the respective Siemens entity. The following terms apply exclusively for orders placed with Siemens AG.

For customers with a seat or registered office in Germany

The "General Terms of Payment" as well as the "General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry" shall apply.

For software products, the "General License Conditions for Software Products for Automation and Drives for Customers with a Seat or registered Office in Germany" shall apply.

For customers with a seat or registered office outside of Germany

The "General Terms of Payment" as well as the "General Conditions for Supplies of Siemens, Automation and Drives for Customers with a Seat or registered Office outside of Germany" shall apply.

For software products, the "General License Conditions for Software Products for Automation and Drives for Customers with a Seat or registered Office outside of Germany" shall apply.

General

The dimensions are in mm. In Germany, according to the German law on units in measuring technology, data in inches only apply to devices for export.

Illustrations are not binding.

Insofar as there are no remarks on the corresponding pages, - especially with regard to data, dimensions and weights given - these are subject to change without prior notice.

The prices are in € (Euro) ex works, exclusive packaging.

The sales tax (value added tax) is not included in the prices. It shall be debited separately at the respective rate according to the applicable legal regulations.

Prices are subject to change without prior notice. We will debit the prices valid at the time of delivery.

Surcharges will be added to the prices of products that contain silver, copper, aluminum, lead and/or gold if the respective basic official prices for these metals are exceeded. These surcharges will be determined based on the official price and the metal factor of the respective product.

The surcharge will be calculated on the basis of the official price on the day prior to receipt of the order or prior to the release order.
The metal factor determines the official price as of which the metal surcharges are charged and the calculation method used. The metal factor, provided it is relevant, is included with the price information of the respective products.

An exact explanation of the metal factor and the text of the Comprehensive Terms and Conditions of Sale and Delivery are available free of charge from your local Siemens business office under the following Order Nos.:

- 6ZB5310-0KR30-0BA1
  (for customers based in Germany)
- 6ZB5310-0KS53-0BA1
  (for customers based outside Germany)

or download them from the Internet
http://www.siemens.com/automation/mall
(Germany: A&D Mall Online-Help System)

Export regulations

The products listed in this catalog / price list may be subject to European / German and/or US export regulations.

Therefore, any export requiring a license is subject to approval by the competent authorities.

According to current provisions, the following export regulations must be observed with respect to the products featured in this catalog / price list:

AL	Number of the German Export List Products marked other than "N" require an export license. In the case of software products, the export designations of the relevant data medium must also be generally adhered to. Goods labeled with an "AL" not equal to "N" are subject to a European or German export authorization when being exported out of the EU.
ECCN	Export Control Classification Number Products marked other than "N" are subject to a reexport license to specific countries. In the case of software products, the export designations of the relevant data medium must also be generally adhered to. Goods labeled with an "ECCN" not equal to "N" are subject to a US re-export authorization.

Even without a label or with an "AL: N" or "ECCN: N", authorization may be required due to the final destination and purpose for which the goods are to be used.

The deciding factors are the AL or ECCN export authorization indicated on order confirmations, delivery notes and invoices.

Errors excepted and subject to change without prior notice.

A&D/VuL_ohne MZ/En 05.09.06

© Siemens AG 2008

Notes

© Siemens AG 2008

Notes

© Siemens AG 2008

Notes

© Siemens AG 2008

Notes

© Siemens AG 2008

Notes

© Siemens AG 2008

Notes

© Siemens AG 2008

Catalogs

Industry Automation, Drive Technologies and Electrical Installation Technology

Further information can be obtained from our branch offices listed in the appendix or at www.siemens.com/automation/partner

	Catalog
Automation and Drives	
Interactive catalog on CD-ROM and on DVD	
• The Offline Mall of Automation and Drives	CA 01
Automation Systems for Machine Tools	
SINUMERIK & SIMODRIVE	NC 60
SINUMERIK & SINAMICS	NC 61
Drive Systems	
Variable-Speed Drives	
SINAMICS G110/SINAMICS G120 Inverter Chassis Units SINAMICS G120D Distributed Frequency Inverters	D 11.1
SINAMICS G130 Drive Converter Chassis Units, SINAMICS G150 Drive Converter Cabinet Units	D 11
SINAMICS GM150/SINAMICS SM150 Medium-Voltage Converters	D 12
SINAMICS S150 Drive Converter Cabinet Units	D 21.3
Asynchronous Motors Standardline	D 86.1
Synchronous Motors with Permanent-Magnet Technology, HT-direct	D 86.2
DC Motors	DA 12
SIMOREG DC MASTER 6RA70 Digital Chassis Converters	DA 21.1
SIMOREG K 6RA22 Analog Chassis Converters	DA 21.2
PDF: SIMOREG DC MASTER 6RM70 Digital Converter Cabinet Units	*DA 22*
SIMOVERT PM Modular Converter Systems	DA 45
SIEMOSYN Motors	DA 48
MICROMASTER 420/430/440 Inverters	DA 51.2
MICROMASTER 411/COMBIMASTER 411	DA 51.3
SIMOVERT MASTERDRIVES Vector Control	DA 65.10
SIMOVERT MASTERDRIVES Motion Control	DA 65.11
Synchronous and asynchronous servomotors for SIMOVERT MASTERDRIVES	DA 65.3
SIMODRIVE 611 universal and POSMO	DA 65.4
Low-Voltage Three-Phase-Motors	
IEC Squirrel-Cage Motors	D 81.1
IEC Squirrel-Cage Motors · New Generation 1LE1	D 81.1 N
MOTOX Geared Motors	D 87.1
Automation Systems for Machine Tools SIMODRIVE	NC 60
• Main Spindle/Feed Motors	
• Converter Systems SIMODRIVE 611/POSMO	
Automation Systems for Machine Tools SINAMICS	NC 61
• Main Spindle/Feed Motors	
• Drive System SINAMICS S120	
Drive and Control Components for Hoisting Equipment	HE 1
Mechanical Driving Machines	
Flender Standard Couplings	MD 10.1
Electrical Installation Technology	
PDF: ALPHA Small Distribution Boards and Distribution Boards, Terminal Blocks	*ET A1*
PDF: ALPHA 8HP Molded-Plastic Distribution System	*ET A3*
PDF: BETA Low-Voltage Circuit Protection	*ET B1*
PDF: DELTA Switches and Socket Outlets	*ET D1*
GAMMA Building Controls	ET G1
Human Machine Interface Systems SIMATIC HMI	ST 80

PDF: These catalogs are only available as pdf files.

	Catalog
Industrial Communication for Automation and Drives	IK PI
Low-Voltage	
Controls and Distribution – SIRIUS, SENTRON, SIVACON	LV 1
Controls and Distribution – Technical Information SIRIUS, SENTRON, SIVACON	LV 1 T
SIDAC Reactors and Filters	LV 60
SIVENT Fans	LV 65
SIVACON 8PS Busbar Trunking Systems	LV 70
Motion Control System	
SIMOTION, SINAMICS S120 and Motors for Production Machines	PM 21
Process Instrumentation and Analytics	
Field Instruments for Process Automation Measuring Instruments for Pressure, Differential Pressure, Flow, Level and Temperature, Positioners and Liquid Meters	FI 01
PDF: Indicators for panel mounting	*MP 12*
SIREC Recorders and Accessories	MP 20
SIPART, Controllers and Software	MP 31
SIWAREX Weighing Systems	WT 01
Continuous Weighing and Process Protection	WT 02
Process Analytical Instruments	PA 01
PDF: Process Analytics, Components for the System Integration	*PA 11*
SIMATIC Industrial Automation Systems	
SIMATIC PCS Process Control System	ST 45
Products for Totally Integrated Automation and Micro Automation	ST 70
SIMATIC PCS 7 Process Control System	ST PCS 7
Add-ons for the SIMATIC PCS 7 Process Control System	ST PCS 7.1
Migration solutions with the SIMATIC PCS 7 Process Control System	ST PCS 7.2
pc-based Automation	ST PC
SIMATIC Control Systems	ST DA
SIMATIC Sensors	
Sensors for Factory Automation	FS 10
Systems Engineering	
Power supplies SITOP power	KT 10.1
System cabling SIMATIC TOP connect	KT 10.2
System Solutions	
Applications and Products for Industry are part of the interactive catalog CA 01	
TELEPERM M Process Control System	
PDF: AS 488/TM automation systems	*PLT 112*

© Siemens AG 2008

Siemens AG
Industry Sector
Postfach 48 48
90026 NÜRNBERG
GERMANY

Subject to change without prior notice
Order No.: E86060-K1890-A101-A4-7600
Dispo 68201
KG 0408 10. E 456 En / 803021
Printed in Germany
© Siemens AG 2008

www.siemens.com/automation

The information provided in this catalog contains descriptions or characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract. Availability and technical specifications are subject to change without notice.
All product designations may be trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purposes could violate the rights of the owners.

Token fee: 5,00 €