SIVACON Power Distribution Boards, Busway and Cubicle Systems

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Introduction

Overview

SIVACON power distribution boards and motor control centers	SICUBE system cubicles and cubicle air-conditioning
Up to 7400 A	System cubicles for individual solutions including cubicle air-conditioning for optimum operating conditions
Reliable, economical, flexible and communication-capable	For a wide range of applications in tough environments and in laboratories, offices and medical practices
For all applications in infrastructure and process industry	Flexible expansion levels and types of delivery
In circuit-breaker design	Coordinated logistical and delivery concepts
In fixed-mounted design	Degree of protection up to IP55
In in-line design	For heavy integrated equipment up to 1000 kg
In plug-in design	System cubicles in EMC design
In withdrawable design	System cubicles in earthquake-proof design
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	

			SIKUS 3200 series of switchgear cubicles	ALPHA 630-DIN floor-mounted distribution boards
			For expansion as main and subdistribution boards up to 3200 A	Up to 630 A
			For all applications in infrastructure	For applications in non-residential and industrial buildings
			For stand-alone and series-connected installation	Flexible delivery forms (flat pack or preassembled)
			Flexible expansion with many different assembly kits and accessories	Modular system
			Circuit-breaker design	Many different assembly kits for individual expansion
			In fixed-mounted design	Safety class 1 and safety class 2
			In in-line design	Depth 210 mm, 250 mm and 320 mm
			Degree of protection up to IP55	Degree of protection up to IP55
Overvoltage category		V	1000/III	III
Rated impulse withstand voltage U_{imp}			8	6
Clearances in air and creepage distances			DIN VDE 0110	DIN VDE 0110
Rated insulation voltage U_i			1000	690
Rated operational voltage U_e			690	690
Rated voltage U_n (AC 40 Hz to 60 Hz)			--	690 for built-in devices
Rated current		A	3200, main busbars	Up to 630
Short-circuit strength				
Main busbars	I_{pk}	kA	Up to 220	Up to 61.3 (3-pole)[1]), conduction interval 30 ms
	$I_{cw\ (1\ s)}$	kA	Up to 100	20, conduction interval 1 s
Distribution buses	I_{pk}	kA	Up to 220	
	$I_{cw\ (0.5\ s)}$	kA	Up to 100	
Protective measures			Safety class 1 (protective conductor connection)	Safety class 1 (protective conductor connection) Safety class 2 (total insulation)
Number of conductors in busbar run			3, AC 4, AC 2 and 3, DC	4/5
Degree of protection according to EN 60529			IP55, with cover for shock protection and sealed door IP20, with cover for shock protection, without door	IP43 with door, IP55 with door (with matching flanges)
Mounting rail row spacing per mounting rail		mm	--	150
Modular width (MW)			--	18 mm, 12 MW + 1 mountable MW
Degree of pollution			3	3
Ambient temperature		°C	35 (24 h mean value)	35 (24-h average value)
Relative atmospheric humidity		%	50 at 40 °C	50 at 40 °C
Test specification			According to EN 60439-1 (VDE 0660 Part 500), IEC 60439-1	According to EN 60439-1/3 (VDE 0660 Part 500/504), DIN VDE 0603-1
Altitude		m	Max. 2000 (above mean sea level)	--
Enclosures			Frame and doors of 2 mm sheet steel	Sheet steel
Surface of metal parts			Electrogalvanized and powder-coated	Electrogalvanized and powder-coated
Color			RAL 7035 light gray (other RAL colors on request)	RAL 7035 (light gray)
Locking system			2/4-point interlocking with integrated espagnolette lock and double-bit key with 3 mm pin	3-point interlocking with integrated espagnolette lock (on request can be replaced by other locking systems)
Packing material			--	Shock-proof, environmentally-compatible

1) Busbar holder spacing 400 mm, Cu busbars 30 mm x 10 mm.

Introduction




Enclosure size		1	2	2.5	3	4
8HP molded-plastic distribution systems						
Width	mm	307	307	307	307	614
Height	mm	153.5	307	460.5	614	614
Depth						
• 147.0 mm		✓	✓	✓	✓	✓
• 185.0 mm				✓		
• 212.0 mm			✓			
• 239.5 mm					✓	✓
Enclosure designs						
• Empty enclosures						
- Transparent cover		✓	✓	✓	✓	✓
- Opaque cover		✓	✓	✓	✓	✓
Enclosures for modular installation devices						
• 1 x 11 MW						
- Transparent cover		✓				
- Opaque cover		✓				
- Cover with operating flap		✓				
• 2 x 14 MW						
- Transparent cover			✓			
- Opaque cover			✓			
- Cover with operating flap			✓			
• 3 x 14 MW						
- Transparent cover				✓		
- Opaque cover				✓		
- Cover with operating flap				✓		
• 4 x 14 MW						
- Transparent cover					✓	
- Opaque cover					✓	
- Cover with operating flap					✓	
DIAZED fuse enclosures						
• 3 x 25A (E27)		✓	✓	✓	✓	
• 3 x 63A (E33)		✓	✓	✓	✓	
Enclosures with LV HRC fuse base						
• 3 x NH00		✓	✓			
• 6 x NH00			✓			
• 3 x NH1			✓	✓		
• 3 x NH2			✓	✓	✓	
• 3 x NH3			✓	✓	✓	
Meter enclosures			✓	✓	✓	✓
Enclosures with NP fuse switch disconnectors						
• NH000		✓	✓			
• NH00		✓	✓	✓		
• NH1			✓	✓	✓	
• NH2			✓		✓	
• NH3					✓	
Enclosures with main control and EMERGENCY-STOP switch						
• I_e = 63 A		✓	✓			
• I_e = 160 A			✓			
• I_e = 250 A			✓		✓	
• I_e = 400 A			✓		✓	
• I_e = 630 A					✓	
• I_e = 1000 A					✓	

Type	40 mm busbar system	60 mm busbar system
8US busbar systems		
Adapters for SIRIUS size S00/S0		
Circuit-breakers	✓	✓
Circuit-breakers + lateral auxiliary switch	✓	✓
Contactors + overload relay	✓	✓
Direct start load feeders	✓	✓
Reversing feeders	✓	✓
Adapters for SIRIUS size S2		
Circuit-breakers	✓	✓
Circuit-breakers + lateral auxiliary switch	✓	✓
Contactors + overload relay	✓	✓
Direct start load feeders	✓	✓
Reversing feeders	✓	✓
Adapters for SIRIUS size S3		
Circuit-breakers	✓	✓
Adapters for 3VF circuit-breakers		
3VF3	✓	✓
3VF4		✓
3VF5		✓
Adapters for 3VL circuit-breakers		
3VL1	✓	✓
3VL2	✓	✓
3VL3		✓
3VL4		✓
Adapters for 3KA switch disconnectors		
3KA52		✓
3KA53		✓
3KA55		✓
3KA57		✓
3KA58		✓
Adapters for 3NP fuse switch disconnectors		
3NP50 60		✓
3NP52		✓
3NP53		✓
3NP54		✓

Introduction




Rating P_n	VA	1	1.5	2.5	5	10	15
Current transformers from 50 A to 1500 A							
Rated primary current I_{pn} (A) / rated secondary current (A)							
	50/1	✓					
	50/5	✓					
	60/1	✓					
	60/5	✓					
	75/1		✓	✓			
	75/5		✓	✓			
	80/1		✓	✓			
	80/5		✓	✓			
	100/1			✓	✓		
	100/5			✓	✓		
	125/1			✓	✓		
	125/5			✓	✓		
	150/1			✓	✓		
	150/5			✓	✓		
	200/1			✓	✓		
	200/5			✓	✓		
	250/1			✓	✓	✓	
	250/5			✓	✓	✓	
	300/1			✓	✓	✓	
	300/5			✓	✓	✓	
	400/1			✓	✓	✓	
	400/5			✓	✓	✓	
	500/1				✓	✓	
	500/5				✓	✓	
	600/1				✓	✓	✓
	600/5				✓	✓	✓
	750/1				✓	✓	
	750/5				✓	✓	
	800/1					✓	✓
	800/5					✓	✓
	1000/1					✓	✓
	1000/5					✓	✓
	1200/1					✓	✓
	1200/5					✓	✓
	1500/1					✓	✓
	1500/5					✓	✓

Overview

Low-voltage switchboards form the link between equipment (generators), transmission (cables, overhead lines) and transformation (transformers) of electrical energy on the one hand, and the loads, such as motors, solenoid valves, actuators and devices for heating, illumination and air conditioning on the other.

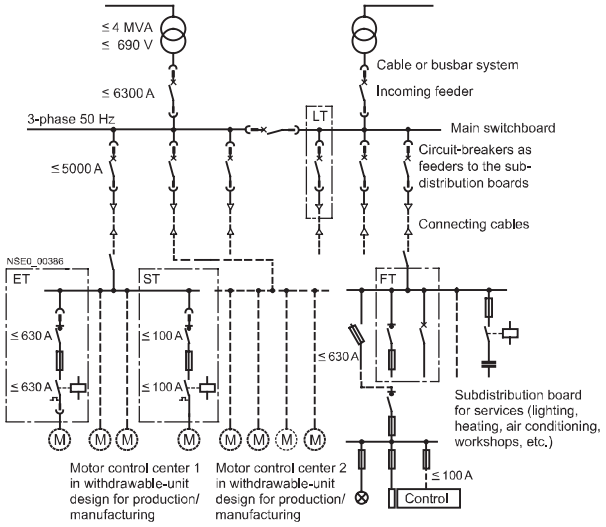
As the majority of applications are supplied with low voltage, the low-voltage switchboard is of special significance in both public supply systems and industrial plants.

Reliable power supplies depend on good availability, flexibility to allow for changes and process-related modifications, and high operating safety.

Power distribution in a low-voltage system usually takes place through a main switchboard (power center or main distribution board) and a number of sub-distribution boards or motor distribution boards, also known as motor control centers (MCC). See example opposite.

The SIVACON low-voltage switchboards offer optimum solutions in low-voltage systems for all applications up to 7400 A. The SIVACON 8PV switchboards are manufactured by Siemens in Leipzig, and the SIVACON 8PT switchboards by our SIVACON Technology Partners near you.

The most important selection criteria are shown in the table below.



Selection criteria	SIVACON 8PV		SIVACON 8PT	
Busbar position	Top	Rear	Top	Rear
Rated currents Busbars up to Infeed up to	 2500 A 2500 A	 6300 A 6300 A	 7400 A 6300 A	 3200 A 3200 A
Short-circuit strength I_{pk} up to	110 kA	220 kA (250 kA)	375 kA	187 kA
Equipment layout	Fixed-mounted design In-line design Plug-in design Withdrawable-unit design	Fixed-mounted design In-line design Plug-in design Withdrawable-unit design	Fixed-mounted design In-line design Plug-in design Withdrawable-unit design	Fixed-mounted design 1) In-line design -- --
Type of installation	Free-standing/against wall Back to back --	Free-standing/against wall Back to back Double-fronted	Free-standing/against wall Back to back --	Free-standing/against wall Back to back --
Use	Motor control center Power distribution board	Motor control center Power distribution board	Motor control center Power distribution board	-- Power distribution board
Manufactured by SIVACON Technology Partner	--	--	x	x

1) Circuit-breakers optionally in withdrawable design.

8PV power distribution boards and motor control centers

Overview

The SIVACON 8PV low-voltage switchboard is a type-tested switchgear and controlgear combination that is used for example in the power industry, in the chemical and oil industries and in the capital goods sector.

It is notable for its excellent service availability and high degree of personnel and system safety. It can be used for all applications up to 6300 A:

- As main switchboard (power control center or main distribution board)
- As motor control center (MCC)
- As sub-distribution board

With the many combinations that the SIVACON modular design allows, a wide range of demands can be met both in fixed-mounted, plug-in and in withdrawable-unit design.

All modules used are type-tested (TTA), i.e. they comply with the following standards:

- IEC 60439-1
- EN 60439-1, VDE 0660 Part 500

and in addition

- EN 50274, VDE 0660 Part 514 (protection against electric shock)
- IEC 61641, VDE 0660 Part 500, supplement sheet 2 (arcing faults)
- IEC 60068 Part 2, IEC 60980 (induced shocks)
- Certification according to EN 9001 and EN 14001 (quality/environmental management system)

1st field on left

Circuit-breaker design with:

- SENTRON WL and VL circuit-breakers for:
  - Incoming feeders
  - Outgoing feeders to sub-distribution boards and loads
  - Bus couplings

2nd field on left

Withdrawable-unit design with:

- Outgoing feeders and contactor assemblies (fuseless, fused) for:
  - Motors
  - Actuators
  - Solenoid valves
  - Cable feeders

3rd field on left

Plug-in design with:

- Outgoing feeders and contactor assemblies (fuseless, fused) for:
  - Motors
  - Cable feeders (can also be combined with 3NJ6 in-line switch disconnectors with fuses)

4th field on left

Fixed-mounted with:

- SENTRON VL circuit-breakers
- Fuse switch disconnectors
- 3NJ4 fuse switch disconnectors for:
  - Cable feeders to loads

Benefits

- Safety and quality verification for every switchboard through type test
- Meets every requirement profile with the high quality of series production
- Easy re-ordering and short delivery times
- Type-tested standard assemblies (TTA)
- Space-saving base areas from 400 mm x 400 mm
- Solid wall design for safe section-to-section separation
- High packing density with up to 40 feeders per cabinet
- Standard operator interface for all withdrawable units
- Test and disconnected position with door closed
- Visible isolating gaps and points of contact
- Variable busbar position, top or rear of cubicle
- 3- and 4-pole busbar system up to 6300 A
- Cable/bar connection from above or below

The SIVACON 8PV control panels are exclusively manufactured by Siemens.

Overview

The SIVACON 8PT low-voltage switchboard is a type-tested switchgear and controlgear combination that is used for infrastructural supply in industry and in buildings (administrative and functional buildings as well as industrial and commercial buildings), but also in the process industry.

SIVACON 8PT is tailored to the needs of the global market, i.e. it considers the demand for standard solutions from a single source but at the same time for local production. It can be used for all applications up to 7400 A:

- As main switchboard (power control center or main distribution board)
- As motor control center (MCC)
- As sub-distribution board

With the many combinations that the SIVACON modular design allows, a wide range of demands can be met both in fixed-mounted, plug-in and in withdrawable-unit design.

All modules used are type-tested (TTA), i.e. they comply with the following standards:

- IEC 60439-1
- EN 60439-1, VDE 0660 Part 500

and in addition

- IEC 61641, VDE 0660 Part 500, supplement sheet 2 (arcing faults)
- Certification according to EN 9001 and EN 14001 (quality/environmental management system)

SIVACON 8PT with busbar at rear, up to 3200 A

SIVACON 8PT with busbar at top, up to 7400 A

1st + 2nd field on left

Circuit-breaker design with:

- SENTRON WL and VL circuit-breakers for:
  - Incoming feeders
  - Outgoing feeders to sub-distribution boards
  - Bus couplings

3rd field on left

Fixed-mounted design with:

- 3VL circuit-breakers
- 3RV motor starter protectors
- 3NP fuse switch disconnectors
- 3NJ4 fuse switch disconnectors for:
  - Cable feeders to loads

4th field on left

3NJ6 circuit-breaker design with:

- 3NJ6 in-line switch disconnectors with fuses for:
  - Cable feeders to loads

Left field

Plug-in design with:

- Outgoing feeders and contactor assemblies (fuseless, fused) for:
  - Motor feeders
  - Cable feeders

Right field

Withdrawable-unit design with:

- Outgoing feeders and contactor assemblies (fuseless, fused) for:
  - Motor feeders
  - Actuators
  - Solenoid valves
  - Cable feeders

8PT power distribution boards and motor control centers

Benefits

- Safety and quality verification for every switchboard through type test
- Siemens controls for reliable operation
- Worldwide presence due to local manufacture
- High flexibility for economical solutions
- Type-tested standard assemblies (TTA)
- Busbar system optionally at the top or at the rear in the cubicle
- 3- and 4-pole busbar system up to 7400 A
- Short-circuit strength I_{pk} up to 375 kA
- Large equipment mounting depth for universal installation
- Modular design of the device compartments
- Wide variety of combination options
- Cable/bar connection from above or below

For plug-in design and withdrawable-unit design

- Easy and reliable handling
- Speedy modification without interrupting operation
- High availability.

Your advantage: "SIVACON Technology Partner"

The SIVACON 8PT switchboard is manufactured around the world by our SIVACON Technology Partners, with all the advantages that only a local supplier can offer.

The partners selected by Siemens are highly competent, constantly audited switchboard manufacturers located close to you.

Overview

Busway systems in the low-voltage range guarantee the reliable transmission and distribution of power from the transformer through the main distribution board to the load. Siemens offers a complete range of high-performance systems:

- CD-K for 25 A ... 40 A
- BD01 for 40 A ... 160 A
- BD2 for 160 A ... 1250 A
- PEC for 800 A ... 6000 A
- LD for 1100 A ... 5000 A
- LX for 800 A ... 6300 A

All busway systems are "Type-tested low-voltage controlgear assemblies" (TTA) according to IEC/EN 60439-1 and -2. They thus provide a safety standard which meets the high demands of automated production facilities and building management systems.

Other advantages:

- Well arranged network topology
- Easy retrofitting when loads change
- Low operating costs thanks to high availability
- Easy planning and mounting

Area-wide solutions for lighting systems and small loads

Be it in furniture stores, supermarkets or greenhouses – with the CD-K system (up to 40 A) you can easily mount and supply power to lighting systems over large areas. The attractive design of the busway trunking systems is very suitable for sales rooms open to the public.

Power for loads with no fixed location

The BD01 system is ideal for power distribution (up to 160 A) in craft businesses and the skilled trades. The busbar enclosures can be easily and quickly connected. An anti-rotation element in the outgoing enclosures prevents incorrect mounting and guarantees easy conversion while production is in progress. Other advantages: Minimum keeping of stocks and straightforward planning thanks to one standard size for five different levels of current.

The BD01 system is quickly mounted and ideal for power distribution in craft businesses and the skilled trades, e.g. in photographic studios.

Universal power distribution

The BD2 system (up to 1250 A) supplies power to medium-size loads in buildings and all sectors of industry. Pre-assembled outgoing enclosures with the most diverse equipment enable universal use. With only two standard sizes for all levels of current, stock keeping and planning are greatly facilitated.

Safe power conveyance for petrochemicals

The encapsulated PEC system (up to 6000 A) is extremely resistant to external interference thanks to its high degree of protection. It guarantees the safe conveyance of power in severe weather as well as under harsh industrial conditions with dust, dirt and aggressive media. Typical applications are the petrochemical industry, refuse incineration plants and power stations.

High availability in production

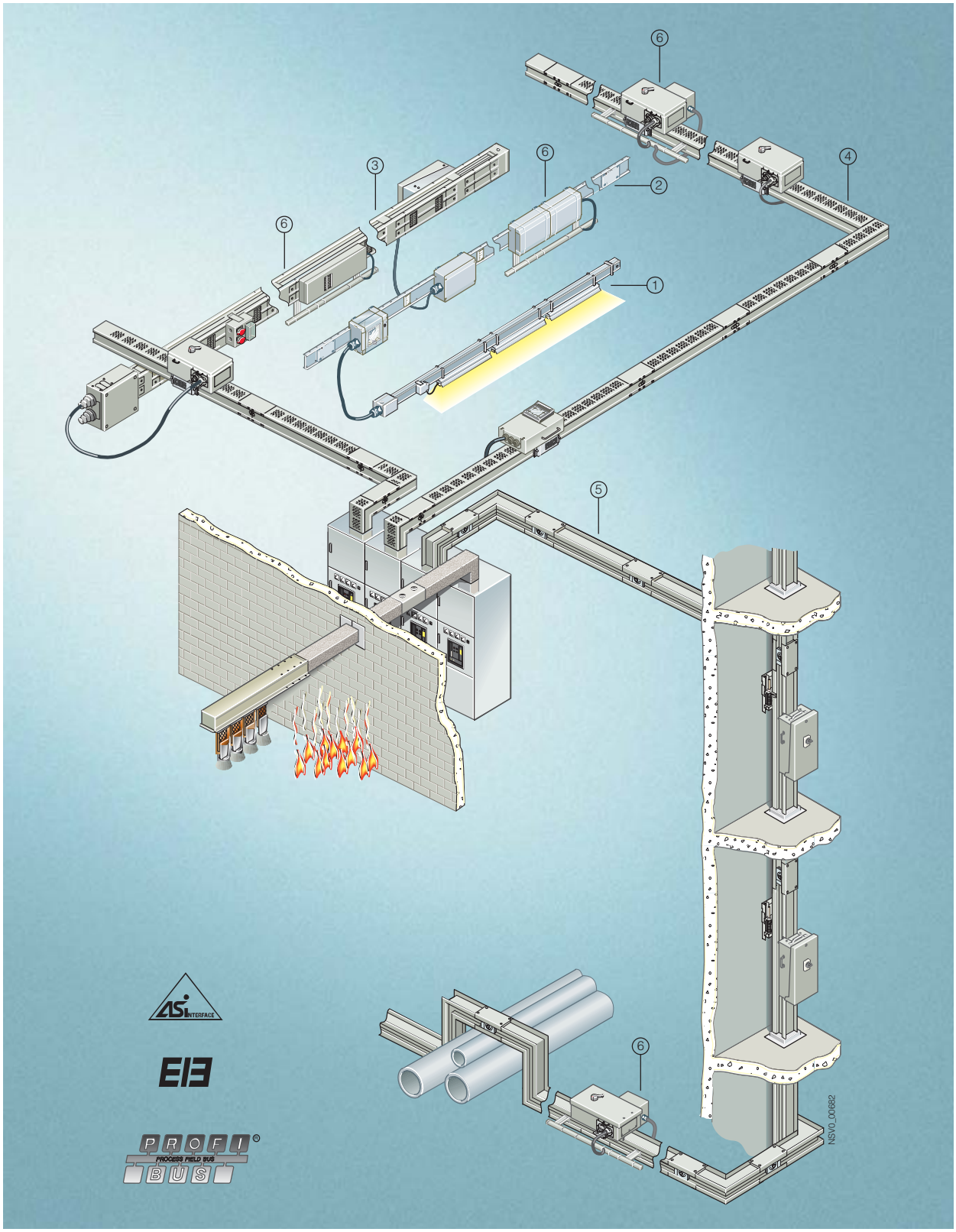
The ventilated LD system (up to 5000 A) conveys electricity to production facilities with a high demand for power, e.g. in the automobile industry. A separate PE bar enables the assured response of the protective device over long conducting paths. The high short-circuit resistance permits protection by medium-voltage circuit-breakers for the conveyance of power between the transformer and the main infeed. Outgoing enclosures up to 1250 A can be plugged into the live system without causing any problems.

Flexible power distribution for multi-storey buildings

The LX sandwich system (up to 6300 A) is used wherever large amounts of power have to be conveyed independently of position. Be it for radio broadcasting stations, computer centers or Internet providers – conductor configurations with an insulated PE/ground conductor and double neutral conductor cross-section guarantee an interference-free power supply. Outgoing enclosures up to 1250 A are available as standard.

Systems overview

Overview



Systems overview

① *CD-K system up to 40 A*

- 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 outgoing points fitted to both sides
- Uniform current loading of the conductors through splitting of the subsequent outgoing pieces among the individual phases
- Fast and flexible change of load locations through outgoing pieces (also with live system)

② *BD01 system up to 160 A*

- High 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 outgoing enclosures
- Positive opening and closing of the outgoing point

③ *BD2 system up to 1250 A*

- High degree of protection up to IP55 for use in the harsh industrial world
- 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 outgoing enclosures and outgoing points
- Sealable throughout

④ *LD system up to 5000 A*

- High degree of protection up to IP54 for optimum power distribution in industry
- Quick and easy mounting
- Reliable and safe operation
- Space-saving, compact design up to 5000 A in one enclosure
- Load outgoing 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.

PEC system

The busbar trunking system for power conveyance under extreme ambient conditions (IP68).

Detailed information on this system is available from your sales office.

⑥ *Communication-capable busway systems*

Can be used with the systems BD01, BD2, LD and LX

- Communication-capable function expansions for combination with known outgoing enclosures
- Applications:
  - Control of lighting for large areas
  - Remote switching and signaling in the industrial sector
  - Consumption recording of distributed power feeders
- Connection to the bus systems EIB, AS-Interface and PROFIBUS
- Easy contacting of the bus cable by insulation displacement method
- Easy and quick planning
- Flexible expansions and modifications
- Module system
- Retrofitting of existing installations

More information

Selection software

Busbar*Select*

Selection software for busway systems up to 1250 A

This CD-ROM is available free of charge from your sales office.

Catalog

LV 70

SIVACON 8PS – CD-K, BD01, BD2 busway systems up to 1250 A

Technical information

LV 71 T

Planner information for SIVACON 8PS –

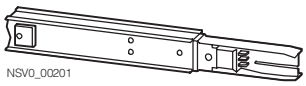
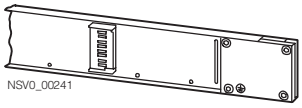
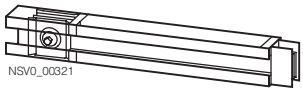
- BD2A/BD2C busway systems from 160 to 1250 A
- LDA/LDC busway systems from 1100 to 5000 A

LV 72 T

Planner information for SIVACON 8PS – LXA/LXC busway systems from 800 to 6300 A

Features overview

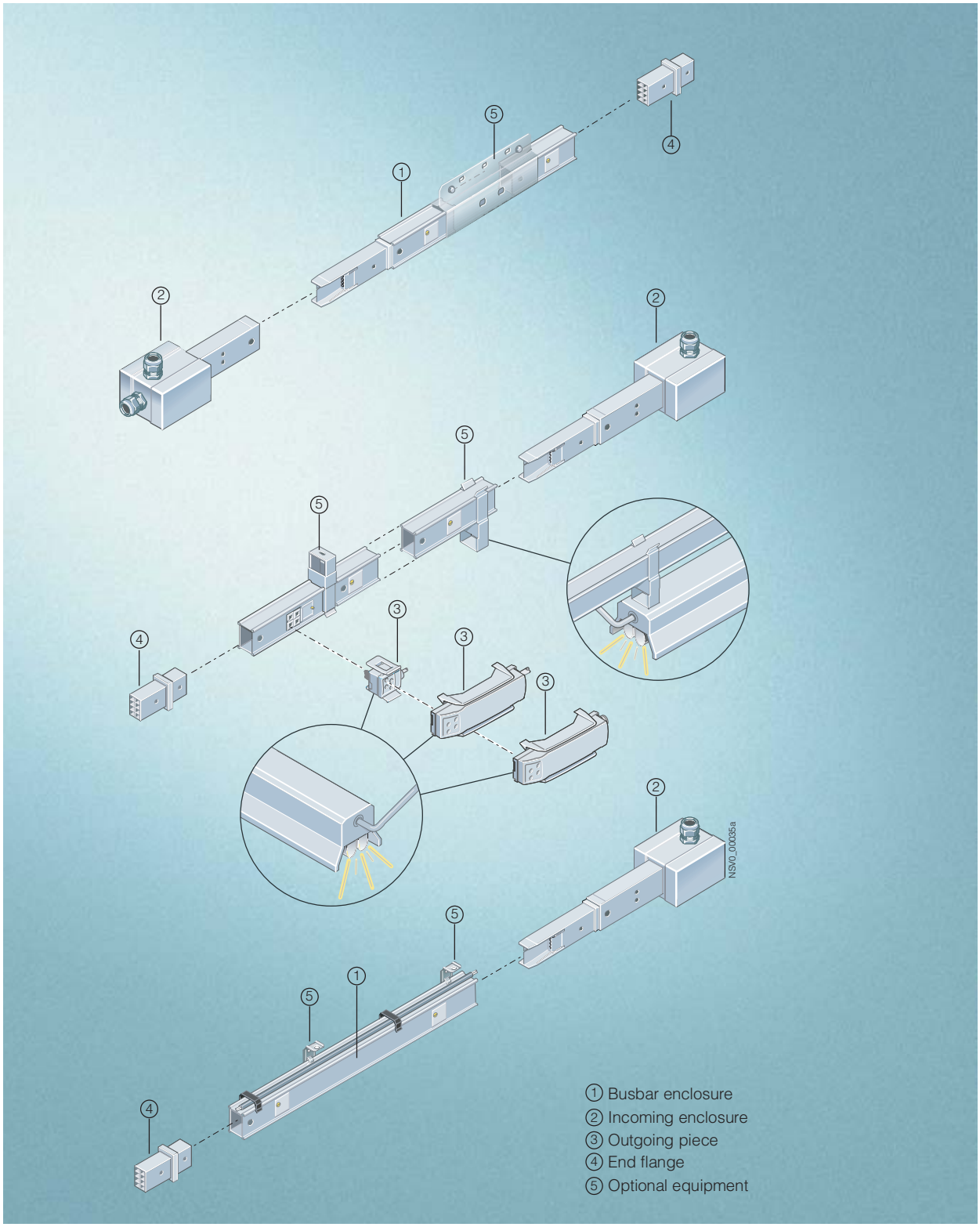
Overview

Busway 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, 6, 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, 5	Up to IP54	-5/+40
LXA01 ... LXA10 **LXC01 ... LXC10**  NSV0_00321	800 ... 4500, 1000 ... 6300	690	50 ... 60	3, 4, 5, clean earth, optionally 200% neutral conductor PE = enclosure	Up to IP55	-5/+40
PEC	800 ... 6000	1000	50 ... 60	4, 5	IP66, IP68 (140 h)	-5/+40

Mounting position	Length m	Outgoing points	Outgoing enclosures	Material	Fire load kWh/m	Can be combined with communication-capable outgoing enclosures 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 Cu conductor, painted sheet steel enclosure	0.1 ... 0.48	--
Upright, flat (outgoing points downward)	2 3	On one side every 0.5 or 1 m	Up to 63 A	Insulated Al or Cu conductor, painted sheet steel enclosure	0.76	Lighting control
Upright; flat and vertical	0.5 ... 3.25	None On two sides offset every 0.25 or 0.5 m	Up to 630 A	Al or Cu-busbars, painted sheet steel enclosure	0.6 ... 0.67 (without outgoing points)	Lighting control, remote switching, signaling and consumption measurement
Horizontal, upright and vertical	0.5 ... 3.2	None On one side every 1 m On two sides every 1 m	Up to 1250 A	Insulated Al or Cu busbars, painted sheet steel enclosure	4.16 ... 8.83 (without outgoing points)	Remote switching, signaling and consumption measurement
Horizontal, upright and vertical	0.35 ... 3	None On one side every 0.5 m On two sides every 0.5 m	Up to 1250 A	Insulated Al or Cu busbars, painted aluminum enclosure	1.95 ... 11.07 (without outgoing points)	Remote switching, signaling and consumption measurement
Horizontal and vertical				Cast resin system, Cu busbars		

CD-K system – 25 ... 40 A

Overview



Version

Type-tested low-voltage controlgear combination (TTA) according to

- IEC 60439-1 and EN 60439-1 (VDE 0660 Part 500)
- IEC 60439-2 and EN 60439-2 (VDE 0660 Part 502)

Degree of protection

- High degree of protection up to IP55

Components

① Busbar enclosures

- 3, 4 and 5-wire system
- Equipment on one side:
  - 2 or 3 outgoing feeders spaced 1 m apart
  - 5 outgoing feeders spaced 0.5 m apart
- Equipment on one side:
  - 2, 3 or 5 outgoing feeders spaced 1 m apart
  - 2, 3 or 5 outgoing feeders spaced 0.5 m apart
- Lengths of 2 m and 3 m
- Plug-in connection without tools
- Codable outgoing points

② Incoming enclosures

- Initial infeeds
- Final infeeds

③ Outgoing pieces

- 3-pole, 10 A and 16 A, phase can be plugged over optionally to L1, L2, L3), N and PE
- 5-pole, 10 A and 16 A, L1, L2, L3, N, PE

End flange

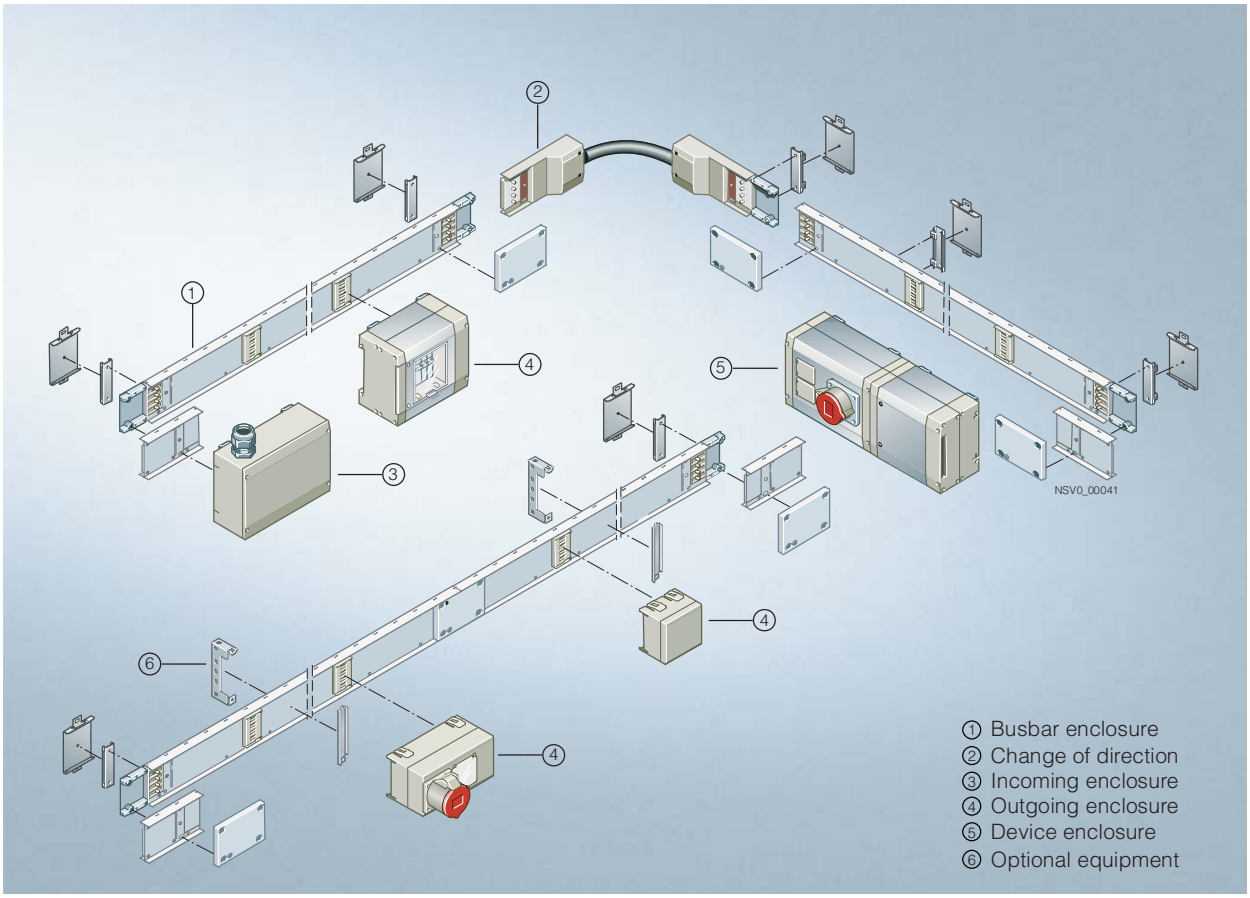
④ Optional equipment

- Mounting bracket
- Suspension hook
- Suspension bracket
- Cable fixture
- Coding set

For selection and ordering data, see Catalog LV70 "SIVACON 8PS Busway systems CD-K, BD01, BD2 up to 1250 A".

BD01 system – 40 ... 160 A

Overview



Version

Type-tested low-voltage controlgear combination (TTA) according to

- IEC 60439-1 and EN 60439-1 (VDE 0660 Part 500)
- IEC 60439-2 and EN 60439-2 (VDE 0660 Part 502)

Degree of protection

- High degree of protection up to IP55

Components

① Straight busbar enclosures
- 5-wire system
- 2 or 3 outgoing feeders spaced 1 m apart
- 4 or 6 outgoing feeders spaced 0.5 m apart
- Lengths of 2 m and 3 m

② Changes of direction
- Flexible change of direction

③ Incoming enclosures
- Universal infeed

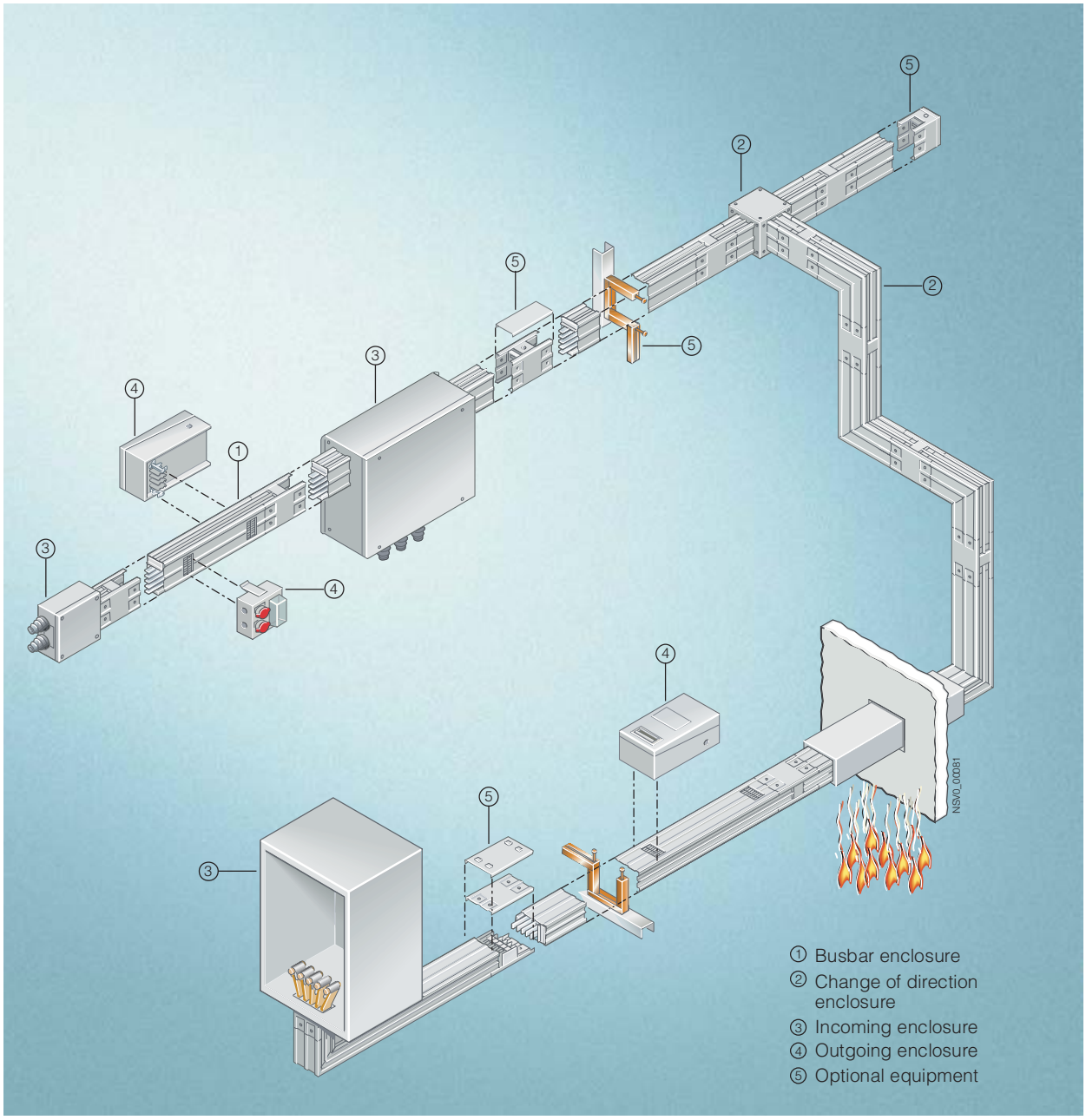
④ Outgoing enclosures
- Up to 63 A
- With built-in parts or for customized device installation
- For 3, 4 or 8 modular widths (MW)
- Without or with device installation unit

⑤ Device enclosures
- For 4 or 8 modular widths (MW)
- Without or with device installation unit
- Without or with socket assembly

⑥ Optional equipment
- Fixing and suspending
- Coding set

For selection and ordering data, see Catalog LV70 "SIVACON 8PS Busway Systems CD-K, BD01, BD2 up to 1250 A".

Overview



BD2 system – 160 ... 1250 A

Version

Type-tested low-voltage controlgear assembly (TTA) according to

- IEC 60439-1 and EN 60439-1 (VDE 0660 Part 500)
- IEC 60439-2 and EN 60439-2 (VDE 0660 Part 502)

Degree of protection

- High degree of protection up to IP55

Components

① Straight busbar enclosures

- Without or with fire protection
- 5-wire system
- Standard lengths of 3.25 m, 2.25 m and 1.25 m
- Selectable lengths from 0.5 m to 3.24 m
- Outgoing points
  - None
  - On two sides offset every 0.25 m or 0.5 m
- Fire protection: fire resistance class S90 and S120 according to DIN 4102, Sheet 2 to 4

② Changes of direction

- Upright or flat
- Without or with fire protection
- L-enclosure without or with configurable angle
- Z-enclosure
- T-enclosure
- K-enclosure
- Movable change of direction up to 800 A

③ Incoming enclosures

- Initial/final infeed
- Middle infeed
- Stud terminal
- Cable entry possible from 3 sides
- Distribution board infeed

④ Outgoing enclosures

- Up to 25 A
  - Molded-plastic enclosure
- From 63 A to 630 A
  - Sheet steel enclosure, hot-galvanized, powder coating

Device enclosures

- For 8 modular widths (MW)
- Without or with fire device installation unit, cover powder-coated

⑤ Optional equipment

- End flange
- For a higher degree of protection
- For fixing
  - Universal mounting bracket for upright or flat arrangement
  - Fastening elements for vertical bars, for wall or ceiling mounting

For selection and ordering data, see Catalog LV70 "SIVACON 8PS Busway systems CD-K, BD01, BD2 up to 1250 A".

Selection and ordering data

Scope of delivery

	8MC2	8MF2	8MF5	8MF6
Standard design				
Frames	Welded, zinkcor-coated and powder-coated	Welded, zinkcor-coated and powder-coated	Screwed (not assembled), zinkcor-coated and powder-coated	Screwed (not assembled), zinkcor-coated and powder-coated
• Side frame profile	Sheet steel 2 mm	Sheet steel 2.5 mm	Sheet steel 2.5 mm	Sheet steel 2.5 mm
• Transverse stay profile	Sheet steel 2.5 mm	Sheet steel 2.5 mm	Sheet steel 4 mm	Sheet steel 4 mm
Cladding parts				
• Rear panel	Folded edges, sheet steel 1.5 mm, galvanized	Folded edges, sheet steel 1.5 mm, powder-coated		
• Side panels (only for stand-alone installation)	Folded edges, sheet steel 1.5 mm, powder-coated			
• Door	Sheet steel 1.5 mm, powder-coated, front door (hinged right) or double-wing doors for width of 1000 mm and more, espagnolette lock with two-way key according to DIN 43668, lock insert with 3 mm Ø pin, 180° hinge (angle of opening when cubicles mounted side-by-side approx. 130°)		Sheet steel 1.5 mm, powder-coated, front door (hinged right) or double-wing doors for width of 1200 mm and more, espagnolette lock with two-way key according to DIN 43668, lock insert with 3 mm Ø pin, 180° hinge (angle of opening when cubicles mounted side-by-side approx. 130°)	
• Decorative trim	--	Petrol		
• Top plate	Smooth, sheet steel 1.5 mm, galvanized			
Coating	Powder-coating, finely structured surface, for indoor installation			
• Cubicle color	RAL 7032[1] (other cubicle colors on request)			
• Frame color	RAL 7032		RAL 7022/RAL 7032	
Degree of protection	IP40/IP54 according to EN 60529			

1) The colors RAL 7032 and SN 611 ergo gray according to the Siemens standard are identical in price.

Order designations of the standard versions

8MC2 and 8MF2 cubicles

		8 MC 2 ■ ■ ■ - ■ ■ 8 MF 2 ■ ■ ■ - ■ ■
Height	1800 mm	8
	2000 mm	0
	2200 mm	2
Width	600 mm	6
	800 mm	8
	900 mm	9
	1000 mm	0
	1200 mm	2
Depth	400 mm	4
	600 mm	6
Degree of protection	IP40	4
	IP55	5
Installation	Stand-alone installation with two side panels	E
	Series-connected installation without side panels	R

8MF5 and 8MF6 cubicles

		8 MF 5 ■ ■ ■ - ■ ■ 8 MF 6 ■ ■ ■ - ■ ■
Height	1800 mm	8
	2000 mm	0
	2200 mm	2
Width	600 mm	6
	800 mm	8
	900 mm	9
	1200 mm	2
Depth	400 mm	4
	600 mm	6
	800 mm	8
Degree of protection	IP40	4
	IP55	5
Installation	Stand-alone installation with two side panels	E
	Series-connected installation without side panels	R

System Cubicles

Non-ventilated cubicles

Height	Width	Depth	DT	Stand-alone installation		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	DT	Series-connected installation		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU						Order No.	Price per PU				
mm	mm	mm							kg							kg
8MC2 standard cubicles (welded)																
Degree of protection IP40																
1800	600	400	C	**8MC2 864-4E**		1	1 unit	195	85.000	C	**8MC2 864-4R**		1	1 unit	195	85.000
		600	C	**8MC2 866-4E**		1	1 unit	195	90.000	C	**8MC2 866-4R**		1	1 unit	195	90.000
		800	C	**8MC2 868-4E**		1	1 unit	195	100.000	C	**8MC2 868-4R**		1	1 unit	195	100.000
	800	400	C	**8MC2 884-4E**		1	1 unit	195	95.000	C	**8MC2 884-4R**		1	1 unit	195	95.000
		600	C	**8MC2 886-4E**		1	1 unit	195	100.000	C	**8MC2 886-4R**		1	1 unit	195	100.000
		800	C	**8MC2 888-4E**		1	1 unit	195	110.000	C	**8MC2 888-4R**		1	1 unit	195	110.000
	900	400	C	**8MC2 894-4E**		1	1 unit	195	100.000	C	**8MC2 894-4R**		1	1 unit	195	100.000
		600	C	**8MC2 896-4E**		1	1 unit	195	110.000	C	**8MC2 896-4R**		1	1 unit	195	110.000
		800	C	**8MC2 898-4E**		1	1 unit	195	120.000	C	**8MC2 898-4R**		1	1 unit	195	120.000
	1000	400	C	**8MC2 804-4E**		1	1 unit	195	100.000	C	**8MC2 804-4R**		1	1 unit	195	100.000
		600	C	**8MC2 806-4E**		1	1 unit	195	110.000	C	**8MC2 806-4R**		1	1 unit	195	110.000
		800	C	**8MC2 808-4E**		1	1 unit	195	120.000	C	**8MC2 808-4R**		1	1 unit	195	120.000
	1200	400	C	**8MC2 824-4E**		1	1 unit	195	115.000	C	**8MC2 824-4R**		1	1 unit	195	115.000
		600	C	**8MC2 826-4E**		1	1 unit	195	125.000	C	**8MC2 826-4R**		1	1 unit	195	125.000
		800	C	**8MC2 828-4E**		1	1 unit	195	135.000	C	**8MC2 828-4R**		1	1 unit	195	135.000
2000	600	400	C	**8MC2 064-4E**		1	1 unit	195	105.000	C	**8MC2 064-4R**		1	1 unit	195	105.000
		600	C	**8MC2 066-4E**		1	1 unit	195	105.000	C	**8MC2 066-4R**		1	1 unit	195	105.000
		800	C	**8MC2 068-4E**		1	1 unit	195	120.000	C	**8MC2 068-4R**		1	1 unit	195	120.000
	800	400	C	**8MC2 084-4E**		1	1 unit	195	110.000	C	**8MC2 084-4R**		1	1 unit	195	110.000
		600	C	**8MC2 086-4E**		1	1 unit	195	120.000	C	**8MC2 086-4R**		1	1 unit	195	120.000
		800	C	**8MC2 088-4E**		1	1 unit	195	165.000	C	**8MC2 088-4R**		1	1 unit	195	165.000
	900	400	C	**8MC2 094-4E**		1	1 unit	195	125.000	C	**8MC2 094-4R**		1	1 unit	195	125.000
		600	C	**8MC2 096-4E**		1	1 unit	195	135.000	C	**8MC2 096-4R**		1	1 unit	195	135.000
		800	C	**8MC2 098-4E**		1	1 unit	195	145.000	C	**8MC2 098-4R**		1	1 unit	195	145.000
	1000	400	C	**8MC2 004-4E**		1	1 unit	195	130.000	C	**8MC2 004-4R**		1	1 unit	195	130.000
		600	C	**8MC2 006-4E**		1	1 unit	195	145.000	C	**8MC2 006-4R**		1	1 unit	195	145.000
		800	C	**8MC2 008-4E**		1	1 unit	195	155.000	C	**8MC2 008-4R**		1	1 unit	195	155.000
	1200	400	C	**8MC2 024-4E**		1	1 unit	195	145.000	C	**8MC2 024-4R**		1	1 unit	195	145.000
		600	C	**8MC2 026-4E**		1	1 unit	195	155.000	C	**8MC2 026-4R**		1	1 unit	195	155.000
		800	C	**8MC2 028-4E**		1	1 unit	195	165.000	C	**8MC2 028-4R**		1	1 unit	195	165.000
2200	600	400	C	**8MC2 264-4E**		1	1 unit	195	130.000	C	**8MC2 264-4R**		1	1 unit	195	130.000
		600	C	**8MC2 266-4E**		1	1 unit	195	135.000	C	**8MC2 266-4R**		1	1 unit	195	135.000
		800	C	**8MC2 268-4E**		1	1 unit	195	145.000	C	**8MC2 268-4R**		1	1 unit	195	145.000
	800	400	C	**8MC2 284-4E**		1	1 unit	195	135.000	C	**8MC2 284-4R**		1	1 unit	195	135.000
		600	C	**8MC2 286-4E**		1	1 unit	195	145.000	C	**8MC2 286-4R**		1	1 unit	195	145.000
		800	C	**8MC2 288-4E**		1	1 unit	195	175.000	C	**8MC2 288-4R**		1	1 unit	195	175.000
	900	400	C	**8MC2 294-4E**		1	1 unit	195	140.000	C	**8MC2 294-4R**		1	1 unit	195	140.000
		600	C	**8MC2 296-4E**		1	1 unit	195	165.000	C	**8MC2 296-4R**		1	1 unit	195	165.000
		800	C	**8MC2 298-4E**		1	1 unit	195	175.000	C	**8MC2 298-4R**		1	1 unit	195	175.000
	1000	400	C	**8MC2 204-4E**		1	1 unit	195	165.000	C	**8MC2 204-4R**		1	1 unit	195	165.000
		600	C	**8MC2 206-4E**		1	1 unit	195	175.000	C	**8MC2 206-4R**		1	1 unit	195	175.000
		800	C	**8MC2 208-4E**		1	1 unit	195	185.000	C	**8MC2 208-4R**		1	1 unit	195	185.000
	1200	400	C	**8MC2 224-4E**		1	1 unit	195	185.000	C	**8MC2 224-4R**		1	1 unit	195	185.000
		600	C	**8MC2 226-4E**		1	1 unit	195	195.000	C	**8MC2 226-4R**		1	1 unit	195	195.000
		800	C	**8MC2 228-4E**		1	1 unit	195	210.000	C	**8MC2 228-4R**		1	1 unit	195	210.000

* You can order this quantity or a multiple thereof.

Height	Width	Depth	DT	Stand-alone installation		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	DT	Series-connected installation		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU						Order No.	Price per PU				
mm	mm	mm							kg							kg
Degree of protection IP54																
1800	600	400	C	**8MC2 864-5E**		1	1 unit	195	85.000	C	**8MC2 864-5R**		1	1 unit	195	85.000
		600	C	**8MC2 866-5E**		1	1 unit	195	90.000	C	**8MC2 866-5R**		1	1 unit	195	90.000
		800	C	**8MC2 868-5E**		1	1 unit	195	100.000	C	**8MC2 868-5R**		1	1 unit	195	100.000
	800	400	C	**8MC2 884-5E**		1	1 unit	195	95.000	C	**8MC2 884-5R**		1	1 unit	195	95.000
		600	C	**8MC2 886-5E**		1	1 unit	195	100.000	C	**8MC2 886-5R**		1	1 unit	195	100.000
		800	C	**8MC2 888-5E**		1	1 unit	195	110.000	C	**8MC2 888-5R**		1	1 unit	195	110.000
	900	400	C	**8MC2 894-5E**		1	1 unit	195	100.000	C	**8MC2 894-5R**		1	1 unit	195	100.000
		600	C	**8MC2 896-5E**		1	1 unit	195	110.000	C	**8MC2 896-5R**		1	1 unit	195	110.000
		800	C	**8MC2 898-5E**		1	1 unit	195	120.000	C	**8MC2 898-5R**		1	1 unit	195	120.000
	1000	400	C	**8MC2 804-5E**		1	1 unit	195	100.000	C	**8MC2 804-5R**		1	1 unit	195	100.000
		600	C	**8MC2 806-5E**		1	1 unit	195	110.000	C	**8MC2 806-5R**		1	1 unit	195	110.000
		800	C	**8MC2 808-5E**		1	1 unit	195	120.000	C	**8MC2 808-5R**		1	1 unit	195	120.000
	1200	400	C	**8MC2 824-5E**		1	1 unit	195	115.000	C	**8MC2 824-5R**		1	1 unit	195	115.000
		600	C	**8MC2 826-5E**		1	1 unit	195	125.000	C	**8MC2 826-5R**		1	1 unit	195	125.000
		800	C	**8MC2 828-5E**		1	1 unit	195	135.000	C	**8MC2 828-5R**		1	1 unit	195	135.000
2000	600	400	C	**8MC2 064-5E**		1	1 unit	195	105.000	C	**8MC2 064-5R**		1	1 unit	195	105.000
		600	C	**8MC2 066-5E**		1	1 unit	195	105.000	C	**8MC2 066-5R**		1	1 unit	195	105.000
		800	C	**8MC2 068-5E**		1	1 unit	195	120.000	C	**8MC2 068-5R**		1	1 unit	195	120.000
	800	400	C	**8MC2 084-5E**		1	1 unit	195	110.000	C	**8MC2 084-5R**		1	1 unit	195	110.000
		600	C	**8MC2 086-5E**		1	1 unit	195	120.000	C	**8MC2 086-5R**		1	1 unit	195	120.000
		800	C	**8MC2 088-5E**		1	1 unit	195	165.000	C	**8MC2 088-5R**		1	1 unit	195	165.000
	900	400	C	**8MC2 094-5E**		1	1 unit	195	125.000	C	**8MC2 094-5R**		1	1 unit	195	125.000
		600	C	**8MC2 096-5E**		1	1 unit	195	135.000	C	**8MC2 096-5R**		1	1 unit	195	135.000
		800	C	**8MC2 098-5E**		1	1 unit	195	145.000	C	**8MC2 098-5R**		1	1 unit	195	145.000
	1000	400	C	**8MC2 004-5E**		1	1 unit	195	130.000	C	**8MC2 004-5R**		1	1 unit	195	130.000
		600	C	**8MC2 006-5E**		1	1 unit	195	145.000	C	**8MC2 006-5R**		1	1 unit	195	145.000
		800	C	**8MC2 008-5E**		1	1 unit	195	155.000	C	**8MC2 008-5R**		1	1 unit	195	155.000
	1200	400	C	**8MC2 024-5E**		1	1 unit	195	145.000	C	**8MC2 024-5R**		1	1 unit	195	145.000
		600	C	**8MC2 026-5E**		1	1 unit	195	155.000	C	**8MC2 026-5R**		1	1 unit	195	155.000
		800	C	**8MC2 028-5E**		1	1 unit	195	165.000	C	**8MC2 028-5R**		1	1 unit	195	165.000
2200	600	400	C	**8MC2 264-5E**		1	1 unit	195	130.000	C	**8MC2 264-5R**		1	1 unit	195	130.000
		600	C	**8MC2 266-5E**		1	1 unit	195	135.000	C	**8MC2 266-5R**		1	1 unit	195	135.000
		800	C	**8MC2 268-5E**		1	1 unit	195	145.000	C	**8MC2 268-5R**		1	1 unit	195	145.000
	800	400	C	**8MC2 284-5E**		1	1 unit	195	135.000	C	**8MC2 284-5R**		1	1 unit	195	135.000
		600	C	**8MC2 286-5E**		1	1 unit	195	145.000	C	**8MC2 286-5R**		1	1 unit	195	145.000
		800	C	**8MC2 288-5E**		1	1 unit	195	175.000	C	**8MC2 288-5R**		1	1 unit	195	175.000
	900	400	C	**8MC2 294-5E**		1	1 unit	195	140.000	C	**8MC2 294-5R**		1	1 unit	195	140.000
		600	C	**8MC2 296-5E**		1	1 unit	195	165.000	C	**8MC2 296-5R**		1	1 unit	195	165.000
		800	C	**8MC2 298-5E**		1	1 unit	195	175.000	C	**8MC2 298-5R**		1	1 unit	195	175.000
	1000	400	C	**8MC2 204-5E**		1	1 unit	195	165.000	C	**8MC2 204-5R**		1	1 unit	195	165.000
		600	C	**8MC2 206-5E**		1	1 unit	195	175.000	C	**8MC2 206-5R**		1	1 unit	195	175.000
		800	C	**8MC2 208-5E**		1	1 unit	195	185.000	C	**8MC2 208-5R**		1	1 unit	195	185.000
	1200	400	C	**8MC2 224-5E**		1	1 unit	195	185.000	C	**8MC2 224-5R**		1	1 unit	195	185.000
		600	C	**8MC2 226-5E**		1	1 unit	195	195.000	C	**8MC2 226-5R**		1	1 unit	195	195.000
		800	C	**8MC2 228-5E**		1	1 unit	195	210.000	C	**8MC2 228-5R**		1	1 unit	195	210.000

If the door is required in hinged left design, the Order No. must be supplemented with -Z and the text: hinged left.
Special sizes on request.

*** You can order this quantity or a multiple thereof.**

System Cubicles

Non-ventilated cubicles

Height	Width	Depth	DT	Stand-alone installation		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	DT	Series-connected installation		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU						Order No.	Price per PU				
mm	mm	mm							kg							kg
8MF2 standard cubicles (welded)																
Degree of protection IP40																
1800	600	400	C	**8MF2 864-4E**		1	1 unit	195	85.000	C	**8MF2 864-4R**		1	1 unit	195	85.000
		600	C	**8MF2 866-4E**		1	1 unit	195	90.000	C	**8MF2 866-4R**		1	1 unit	195	90.000
		800	C	**8MF2 868-4E**		1	1 unit	195	100.000	C	**8MF2 868-4R**		1	1 unit	195	100.000
	800	400	C	**8MF2 884-4E**		1	1 unit	195	95.000	C	**8MF2 884-4R**		1	1 unit	195	95.000
		600	C	**8MF2 886-4E**		1	1 unit	195	100.000	C	**8MF2 886-4R**		1	1 unit	195	100.000
		800	C	**8MF2 888-4E**		1	1 unit	195	110.000	C	**8MF2 888-4R**		1	1 unit	195	110.000
	900	400	C	**8MF2 894-4E**		1	1 unit	195	100.000	C	**8MF2 894-4R**		1	1 unit	195	100.000
		600	C	**8MF2 896-4E**		1	1 unit	195	110.000	C	**8MF2 896-4R**		1	1 unit	195	110.000
		800	C	**8MF2 898-4E**		1	1 unit	195	120.000	C	**8MF2 898-4R**		1	1 unit	195	120.000
	1000	400	C	**8MF2 804-4E**		1	1 unit	195	100.000	C	**8MF2 804-4R**		1	1 unit	195	100.000
		600	C	**8MF2 806-4E**		1	1 unit	195	110.000	C	**8MF2 806-4R**		1	1 unit	195	110.000
		800	C	**8MF2 808-4E**		1	1 unit	195	120.000	C	**8MF2 808-4R**		1	1 unit	195	120.000
	1200	400	C	**8MF2 824-4E**		1	1 unit	195	115.000	C	**8MF2 824-4R**		1	1 unit	195	115.000
		600	C	**8MF2 826-4E**		1	1 unit	195	125.000	C	**8MF2 826-4R**		1	1 unit	195	125.000
		800	C	**8MF2 828-4E**		1	1 unit	195	135.000	C	**8MF2 828-4R**		1	1 unit	195	135.000
2000	600	400	C	**8MF2 064-4E**		1	1 unit	195	105.000	C	**8MF2 064-4R**		1	1 unit	195	105.000
		600	C	**8MF2 066-4E**		1	1 unit	195	105.000	C	**8MF2 066-4R**		1	1 unit	195	105.000
		800	C	**8MF2 068-4E**		1	1 unit	195	120.000	C	**8MF2 068-4R**		1	1 unit	195	120.000
	800	400	C	**8MF2 084-4E**		1	1 unit	195	110.000	C	**8MF2 084-4R**		1	1 unit	195	110.000
		600	C	**8MF2 086-4E**		1	1 unit	195	120.000	C	**8MF2 086-4R**		1	1 unit	195	120.000
		800	C	**8MF2 088-4E**		1	1 unit	195	165.000	C	**8MF2 088-4R**		1	1 unit	195	165.000
	900	400	C	**8MF2 094-4E**		1	1 unit	195	125.000	C	**8MF2 094-4R**		1	1 unit	195	125.000
		600	C	**8MF2 096-4E**		1	1 unit	195	135.000	C	**8MF2 096-4R**		1	1 unit	195	135.000
		800	C	**8MF2 098-4E**		1	1 unit	195	145.000	C	**8MF2 098-4R**		1	1 unit	195	145.000
	1000	400	C	**8MF2 004-4E**		1	1 unit	195	130.000	C	**8MF2 004-4R**		1	1 unit	195	130.000
		600	C	**8MF2 006-4E**		1	1 unit	195	145.000	C	**8MF2 006-4R**		1	1 unit	195	145.000
		800	C	**8MF2 008-4E**		1	1 unit	195	155.000	C	**8MF2 008-4R**		1	1 unit	195	155.000
	1200	400	C	**8MF2 024-4E**		1	1 unit	195	145.000	C	**8MF2 024-4R**		1	1 unit	195	145.000
		600	C	**8MF2 026-4E**		1	1 unit	195	155.000	C	**8MF2 026-4R**		1	1 unit	195	155.000
		800	C	**8MF2 028-4E**		1	1 unit	195	165.000	C	**8MF2 028-4R**		1	1 unit	195	165.000
2200	600	400	C	**8MF2 264-4E**		1	1 unit	195	130.000	C	**8MF2 264-4R**		1	1 unit	195	130.000
		600	C	**8MF2 266-4E**		1	1 unit	195	135.000	C	**8MF2 266-4R**		1	1 unit	195	135.000
		800	C	**8MF2 268-4E**		1	1 unit	195	145.000	C	**8MF2 268-4R**		1	1 unit	195	145.000
	800	400	C	**8MF2 284-4E**		1	1 unit	195	135.000	C	**8MF2 284-4R**		1	1 unit	195	135.000
		600	C	**8MF2 286-4E**		1	1 unit	195	145.000	C	**8MF2 286-4R**		1	1 unit	195	145.000
		800	C	**8MF2 288-4E**		1	1 unit	195	175.000	C	**8MF2 288-4R**		1	1 unit	195	175.000
	900	400	C	**8MF2 294-4E**		1	1 unit	195	140.000	C	**8MF2 294-4R**		1	1 unit	195	140.000
		600	C	**8MF2 296-4E**		1	1 unit	195	165.000	C	**8MF2 296-4R**		1	1 unit	195	165.000
		800	C	**8MF2 298-4E**		1	1 unit	195	175.000	C	**8MF2 298-4R**		1	1 unit	195	175.000
	1000	400	C	**8MF2 204-4E**		1	1 unit	195	165.000	C	**8MF2 204-4R**		1	1 unit	195	165.000
		600	C	**8MF2 206-4E**		1	1 unit	195	175.000	C	**8MF2 206-4R**		1	1 unit	195	175.000
		800	C	**8MF2 208-4E**		1	1 unit	195	185.000	C	**8MF2 208-4R**		1	1 unit	195	185.000
	1200	400	C	**8MF2 224-4E**		1	1 unit	195	185.000	C	**8MF2 224-4R**		1	1 unit	195	185.000
		600	C	**8MF2 226-4E**		1	1 unit	195	195.000	C	**8MF2 226-4R**		1	1 unit	195	195.000
		800	C	**8MF2 228-4E**		1	1 unit	195	210.000	C	**8MF2 228-4R**		1	1 unit	195	210.000

* You can order this quantity or a multiple thereof.

Height	Width	Depth	DT	Stand-alone installation		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	DT	Series-connected installation		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU						Order No.	Price per PU				
mm	mm	mm							kg							kg
Degree of protection IP54																
1800	600	400	C	**8MF2 864-5E**		1	1 unit	195	85.000	C	**8MF2 864-5R**		1	1 unit	195	85.000
		600	C	**8MF2 866-5E**		1	1 unit	195	90.000	C	**8MF2 866-5R**		1	1 unit	195	90.000
		800	C	**8MF2 868-5E**		1	1 unit	195	100.000	C	**8MF2 868-5R**		1	1 unit	195	100.000
	800	400	C	**8MF2 884-5E**		1	1 unit	195	95.000	C	**8MF2 884-5R**		1	1 unit	195	95.000
		600	C	**8MF2 886-5E**		1	1 unit	195	100.000	C	**8MF2 886-5R**		1	1 unit	195	100.000
		800	C	**8MF2 888-5E**		1	1 unit	195	110.000	C	**8MF2 888-5R**		1	1 unit	195	110.000
	900	400	C	**8MF2 894-5E**		1	1 unit	195	100.000	C	**8MF2 894-5R**		1	1 unit	195	100.000
		600	C	**8MF2 896-5E**		1	1 unit	195	110.000	C	**8MF2 896-5R**		1	1 unit	195	110.000
		800	C	**8MF2 898-5E**		1	1 unit	195	120.000	C	**8MF2 898-5R**		1	1 unit	195	120.000
	1000	400	C	**8MF2 804-5E**		1	1 unit	195	100.000	C	**8MF2 804-5R**		1	1 unit	195	100.000
		600	C	**8MF2 806-5E**		1	1 unit	195	110.000	C	**8MF2 806-5R**		1	1 unit	195	110.000
		800	C	**8MF2 808-5E**		1	1 unit	195	120.000	C	**8MF2 808-5R**		1	1 unit	195	120.000
	1200	400	C	**8MF2 824-5E**		1	1 unit	195	115.000	C	**8MF2 824-5R**		1	1 unit	195	115.000
		600	C	**8MF2 826-5E**		1	1 unit	195	125.000	C	**8MF2 826-5R**		1	1 unit	195	125.000
		800	C	**8MF2 828-5E**		1	1 unit	195	135.000	C	**8MF2 828-5R**		1	1 unit	195	135.000
2000	600	400	C	**8MF2 064-5E**		1	1 unit	195	105.000	C	**8MF2 064-5R**		1	1 unit	195	105.000
		600	C	**8MF2 066-5E**		1	1 unit	195	105.000	C	**8MF2 066-5R**		1	1 unit	195	105.000
		800	C	**8MF2 068-5E**		1	1 unit	195	120.000	C	**8MF2 068-5R**		1	1 unit	195	120.000
	800	400	C	**8MF2 084-5E**		1	1 unit	195	110.000	C	**8MF2 084-5R**		1	1 unit	195	110.000
		600	C	**8MF2 086-5E**		1	1 unit	195	120.000	C	**8MF2 086-5R**		1	1 unit	195	120.000
		800	C	**8MF2 088-5E**		1	1 unit	195	165.000	C	**8MF2 088-5R**		1	1 unit	195	165.000
	900	400	C	**8MF2 094-5E**		1	1 unit	195	125.000	C	**8MF2 094-5R**		1	1 unit	195	125.000
		600	C	**8MF2 096-5E**		1	1 unit	195	135.000	C	**8MF2 096-5R**		1	1 unit	195	135.000
		800	C	**8MF2 098-5E**		1	1 unit	195	145.000	C	**8MF2 098-5R**		1	1 unit	195	145.000
	1000	400	C	**8MF2 004-5E**		1	1 unit	195	130.000	C	**8MF2 004-5R**		1	1 unit	195	130.000
		600	C	**8MF2 006-5E**		1	1 unit	195	145.000	C	**8MF2 006-5R**		1	1 unit	195	145.000
		800	C	**8MF2 008-5E**		1	1 unit	195	155.000	C	**8MF2 008-5R**		1	1 unit	195	155.000
	1200	400	C	**8MF2 024-5E**		1	1 unit	195	145.000	C	**8MF2 024-5R**		1	1 unit	195	145.000
		600	C	**8MF2 026-5E**		1	1 unit	195	155.000	C	**8MF2 026-5R**		1	1 unit	195	155.000
		800	C	**8MF2 028-5E**		1	1 unit	195	165.000	C	**8MF2 028-5R**		1	1 unit	195	165.000
2200	600	400	C	**8MF2 264-5E**		1	1 unit	195	130.000	C	**8MF2 264-5R**		1	1 unit	195	130.000
		600	C	**8MF2 266-5E**		1	1 unit	195	135.000	C	**8MF2 266-5R**		1	1 unit	195	135.000
		800	C	**8MF2 268-5E**		1	1 unit	195	145.000	C	**8MF2 268-5R**		1	1 unit	195	145.000
	800	400	C	**8MF2 284-5E**		1	1 unit	195	135.000	C	**8MF2 284-5R**		1	1 unit	195	135.000
		600	C	**8MF2 286-5E**		1	1 unit	195	145.000	C	**8MF2 286-5R**		1	1 unit	195	145.000
		800	C	**8MF2 288-5E**		1	1 unit	195	175.000	C	**8MF2 288-5R**		1	1 unit	195	175.000
	900	400	C	**8MF2 294-5E**		1	1 unit	195	140.000	C	**8MF2 294-5R**		1	1 unit	195	140.000
		600	C	**8MF2 296-5E**		1	1 unit	195	165.000	C	**8MF2 296-5R**		1	1 unit	195	165.000
		800	C	**8MF2 298-5E**		1	1 unit	195	175.000	C	**8MF2 298-5R**		1	1 unit	195	175.000
	1000	400	C	**8MF2 204-5E**		1	1 unit	195	165.000	C	**8MF2 204-5R**		1	1 unit	195	165.000
		600	C	**8MF2 206-5E**		1	1 unit	195	175.000	C	**8MF2 206-5R**		1	1 unit	195	175.000
		800	C	**8MF2 208-5E**		1	1 unit	195	185.000	C	**8MF2 208-5R**		1	1 unit	195	185.000
	1200	400	C	**8MF2 224-5E**		1	1 unit	195	185.000	C	**8MF2 224-5R**		1	1 unit	195	185.000
		600	C	**8MF2 226-5E**		1	1 unit	195	195.000	C	**8MF2 226-5R**		1	1 unit	195	195.000
		800	C	**8MF2 228-5E**		1	1 unit	195	210.000	C	**8MF2 228-5R**		1	1 unit	195	210.000

If the door is required in hinged left design, the Order No. must be supplemented with -Z and the text: hinged left.
Special sizes on request.

*** You can order this quantity or a multiple thereof.**

System Cubicles

Non-ventilated cubicles

Height	Width	Depth	DT	Stand-alone installation		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	DT	Series-connected installation		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU						Order No.	Price per PU				
mm	mm	mm							kg							kg
8MF5 standard cubicles (screwed, not assembled)																
Degree of protection IP40																
1800	600	400	C	**8MF5 864-4E**		1	1 unit	195	85.000	C	**8MF5 864-4R**		1	1 unit	195	85.000
		600	C	**8MF5 866-4E**		1	1 unit	195	90.000	C	**8MF5 866-4R**		1	1 unit	195	90.000
		800	C	**8MF5 868-4E**		1	1 unit	195	100.000	C	**8MF5 868-4R**		1	1 unit	195	100.000
	800	400	C	**8MF5 884-4E**		1	1 unit	195	95.000	C	**8MF5 884-4R**		1	1 unit	195	95.000
		600	C	**8MF5 886-4E**		1	1 unit	195	100.000	C	**8MF5 886-4R**		1	1 unit	195	100.000
		800	C	**8MF5 888-4E**		1	1 unit	195	110.000	C	**8MF5 888-4R**		1	1 unit	195	110.000
	900	400	C	**8MF5 894-4E**		1	1 unit	195	100.000	C	**8MF5 894-4R**		1	1 unit	195	100.000
		600	C	**8MF5 896-4E**		1	1 unit	195	110.000	C	**8MF5 896-4R**		1	1 unit	195	110.000
		800	C	**8MF5 898-4E**		1	1 unit	195	120.000	C	**8MF5 898-4R**		1	1 unit	195	120.000
	1200	400	C	**8MF5 824-4E**		1	1 unit	195	115.000	C	**8MF5 824-4R**		1	1 unit	195	115.000
		600	C	**8MF5 826-4E**		1	1 unit	195	125.000	C	**8MF5 826-4R**		1	1 unit	195	125.000
		800	C	**8MF5 828-4E**		1	1 unit	195	135.000	C	**8MF5 828-4R**		1	1 unit	195	135.000
2000	600	400	C	**8MF5 064-4E**		1	1 unit	195	105.000	C	**8MF5 064-4R**		1	1 unit	195	105.000
		600	C	**8MF5 066-4E**		1	1 unit	195	105.000	C	**8MF5 066-4R**		1	1 unit	195	105.000
		800	C	**8MF5 068-4E**		1	1 unit	195	120.000	C	**8MF5 068-4R**		1	1 unit	195	120.000
	800	400	C	**8MF5 084-4E**		1	1 unit	195	110.000	C	**8MF5 084-4R**		1	1 unit	195	110.000
		600	C	**8MF5 086-4E**		1	1 unit	195	120.000	C	**8MF5 086-4R**		1	1 unit	195	120.000
		800	C	**8MF5 088-4E**		1	1 unit	195	165.000	C	**8MF5 088-4R**		1	1 unit	195	165.000
	900	400	C	**8MF5 094-4E**		1	1 unit	195	125.000	C	**8MF5 094-4R**		1	1 unit	195	125.000
		600	C	**8MF5 096-4E**		1	1 unit	195	135.000	C	**8MF5 096-4R**		1	1 unit	195	135.000
		800	C	**8MF5 098-4E**		1	1 unit	195	145.000	C	**8MF5 098-4R**		1	1 unit	195	145.000
	1200	400	C	**8MF5 024-4E**		1	1 unit	195	145.000	C	**8MF5 024-4R**		1	1 unit	195	145.000
		600	C	**8MF5 026-4E**		1	1 unit	195	155.000	C	**8MF5 026-4R**		1	1 unit	195	155.000
		800	C	**8MF5 028-4E**		1	1 unit	195	165.000	C	**8MF5 028-4R**		1	1 unit	195	165.000
2200	600	400	C	**8MF5 264-4E**		1	1 unit	195	130.000	C	**8MF5 264-4R**		1	1 unit	195	130.000
		600	C	**8MF5 266-4E**		1	1 unit	195	135.000	C	**8MF5 266-4R**		1	1 unit	195	135.000
		800	C	**8MF5 268-4E**		1	1 unit	195	145.000	C	**8MF5 268-4R**		1	1 unit	195	145.000
	800	400	C	**8MF5 284-4E**		1	1 unit	195	135.000	C	**8MF5 284-4R**		1	1 unit	195	135.000
		600	C	**8MF5 286-4E**		1	1 unit	195	145.000	C	**8MF5 286-4R**		1	1 unit	195	145.000
		800	C	**8MF5 288-4E**		1	1 unit	195	175.000	C	**8MF5 288-4R**		1	1 unit	195	175.000
	900	400	C	**8MF5 294-4E**		1	1 unit	195	140.000	C	**8MF5 294-4R**		1	1 unit	195	140.000
		600	C	**8MF5 296-4E**		1	1 unit	195	165.000	C	**8MF5 296-4R**		1	1 unit	195	165.000
		800	C	**8MF5 298-4E**		1	1 unit	195	175.000	C	**8MF5 298-4R**		1	1 unit	195	175.000
	1200	400	C	**8MF5 224-4E**		1	1 unit	195	185.000	C	**8MF5 224-4R**		1	1 unit	195	185.000
		600	C	**8MF5 226-4E**		1	1 unit	195	195.000	C	**8MF5 226-4R**		1	1 unit	195	195.000
		800	C	**8MF5 228-4E**		1	1 unit	195	210.000	C	**8MF5 228-4R**		1	1 unit	195	210.000

* You can order this quantity or a multiple thereof.

Height	Width	Depth	DT	Stand-alone installation		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	DT	Series-connected installation		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU						Order No.	Price per PU				
mm	mm	mm							kg							kg
Degree of protection IP54																
1800	600	400	C	**8MF5 864-5E**		1	1 unit	195	85.000	C	**8MF5 864-5R**		1	1 unit	195	85.000
		600	C	**8MF5 866-5E**		1	1 unit	195	90.000	C	**8MF5 866-5R**		1	1 unit	195	90.000
		800	C	**8MF5 868-5E**		1	1 unit	195	100.000	C	**8MF5 868-5R**		1	1 unit	195	100.000
	800	400	C	**8MF5 884-5E**		1	1 unit	195	95.000	C	**8MF5 884-5R**		1	1 unit	195	95.000
		600	C	**8MF5 886-5E**		1	1 unit	195	100.000	C	**8MF5 886-5R**		1	1 unit	195	100.000
		800	C	**8MF5 888-5E**		1	1 unit	195	110.000	C	**8MF5 888-5R**		1	1 unit	195	110.000
	900	400	C	**8MF5 894-5E**		1	1 unit	195	100.000	C	**8MF5 894-5R**		1	1 unit	195	100.000
		600	C	**8MF5 896-5E**		1	1 unit	195	110.000	C	**8MF5 896-5R**		1	1 unit	195	110.000
		800	C	**8MF5 898-5E**		1	1 unit	195	120.000	C	**8MF5 898-5R**		1	1 unit	195	120.000
	1200	400	C	**8MF5 824-5E**		1	1 unit	195	115.000	C	**8MF5 824-5R**		1	1 unit	195	115.000
		600	C	**8MF5 826-5E**		1	1 unit	195	125.000	C	**8MF5 826-5R**		1	1 unit	195	125.000
		800	C	**8MF5 828-5E**		1	1 unit	195	135.000	C	**8MF5 828-5R**		1	1 unit	195	135.000
2000	600	400	C	**8MF5 064-5E**		1	1 unit	195	105.000	C	**8MF5 064-5R**		1	1 unit	195	105.000
		600	C	**8MF5 066-5E**		1	1 unit	195	105.000	C	**8MF5 066-5R**		1	1 unit	195	105.000
		800	C	**8MF5 068-5E**		1	1 unit	195	120.000	C	**8MF5 068-5R**		1	1 unit	195	120.000
	800	400	C	**8MF5 084-5E**		1	1 unit	195	110.000	C	**8MF5 084-5R**		1	1 unit	195	110.000
		600	C	**8MF5 086-5E**		1	1 unit	195	120.000	C	**8MF5 086-5R**		1	1 unit	195	120.000
		800	C	**8MF5 088-5E**		1	1 unit	195	165.000	C	**8MF5 088-5R**		1	1 unit	195	165.000
	900	400	C	**8MF5 094-5E**		1	1 unit	195	125.000	C	**8MF5 094-5R**		1	1 unit	195	125.000
		600	C	**8MF5 096-5E**		1	1 unit	195	135.000	C	**8MF5 096-5R**		1	1 unit	195	135.000
		800	C	**8MF5 098-5E**		1	1 unit	195	145.000	C	**8MF5 098-5R**		1	1 unit	195	145.000
	1200	400	C	**8MF5 024-5E**		1	1 unit	195	145.000	C	**8MF5 024-5R**		1	1 unit	195	145.000
		600	C	**8MF5 026-5E**		1	1 unit	195	155.000	C	**8MF5 026-5R**		1	1 unit	195	155.000
		800	C	**8MF5 028-5E**		1	1 unit	195	165.000	C	**8MF5 028-5R**		1	1 unit	195	165.000
2200	600	400	C	**8MF5 264-5E**		1	1 unit	195	130.000	C	**8MF5 264-5R**		1	1 unit	195	130.000
		600	C	**8MF5 266-5E**		1	1 unit	195	135.000	C	**8MF5 266-5R**		1	1 unit	195	135.000
		800	C	**8MF5 268-5E**		1	1 unit	195	145.000	C	**8MF5 268-5R**		1	1 unit	195	145.000
	800	400	C	**8MF5 284-5E**		1	1 unit	195	135.000	C	**8MF5 284-5R**		1	1 unit	195	135.000
		600	C	**8MF5 286-5E**		1	1 unit	195	145.000	C	**8MF5 286-5R**		1	1 unit	195	145.000
		800	C	**8MF5 288-5E**		1	1 unit	195	175.000	C	**8MF5 288-5R**		1	1 unit	195	175.000
	900	400	C	**8MF5 294-5E**		1	1 unit	195	140.000	C	**8MF5 294-5R**		1	1 unit	195	140.000
		600	C	**8MF5 296-5E**		1	1 unit	195	165.000	C	**8MF5 296-5R**		1	1 unit	195	165.000
		800	C	**8MF5 298-5E**		1	1 unit	195	175.000	C	**8MF5 298-5R**		1	1 unit	195	175.000
	1200	400	C	**8MF5 224-5E**		1	1 unit	195	185.000	C	**8MF5 224-5R**		1	1 unit	195	185.000
		600	C	**8MF5 226-5E**		1	1 unit	195	195.000	C	**8MF5 226-5R**		1	1 unit	195	195.000
		800	C	**8MF5 228-5E**		1	1 unit	195	210.000	C	**8MF5 228-5R**		1	1 unit	195	210.000

If the door is required in hinged left design, the Order No. must be supplemented with -Z and the text: hinged left.
Special sizes on request.

*** You can order this quantity or a multiple thereof.**

System Cubicles

Non-ventilated cubicles

Height	Width	Depth	DT	Stand-alone installation		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	DT	Series-connected installation		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU						Order No.	Price per PU				
mm	mm	mm							kg							kg
8MF6 standard cubicles (screwed, not assembled)																
Degree of protection IP40																
1800	600	400	C	**8MF6 864-4E**		1	1 unit	195	85.000	C	**8MF6 864-4R**		1	1 unit	195	85.000
		600	C	**8MF6 866-4E**		1	1 unit	195	90.000	C	**8MF6 866-4R**		1	1 unit	195	90.000
		800	C	**8MF6 868-4E**		1	1 unit	195	100.000	C	**8MF6 868-4R**		1	1 unit	195	100.000
	800	400	C	**8MF6 884-4E**		1	1 unit	195	95.000	C	**8MF6 884-4R**		1	1 unit	195	95.000
		600	C	**8MF6 886-4E**		1	1 unit	195	100.000	C	**8MF6 886-4R**		1	1 unit	195	100.000
		800	C	**8MF6 888-4E**		1	1 unit	195	110.000	C	**8MF6 888-4R**		1	1 unit	195	110.000
	900	400	C	**8MF6 894-4E**		1	1 unit	195	100.000	C	**8MF6 894-4R**		1	1 unit	195	100.000
		600	C	**8MF6 896-4E**		1	1 unit	195	110.000	C	**8MF6 896-4R**		1	1 unit	195	110.000
		800	C	**8MF6 898-4E**		1	1 unit	195	120.000	C	**8MF6 898-4R**		1	1 unit	195	120.000
	1200	400	C	**8MF6 824-4E**		1	1 unit	195	115.000	C	**8MF6 824-4R**		1	1 unit	195	115.000
		600	C	**8MF6 826-4E**		1	1 unit	195	125.000	C	**8MF6 826-4R**		1	1 unit	195	125.000
		800	C	**8MF6 828-4E**		1	1 unit	195	135.000	C	**8MF6 828-4R**		1	1 unit	195	135.000
2000	600	400	C	**8MF6 064-4E**		1	1 unit	195	105.000	C	**8MF6 064-4R**		1	1 unit	195	105.000
		600	C	**8MF6 066-4E**		1	1 unit	195	105.000	C	**8MF6 066-4R**		1	1 unit	195	105.000
		800	C	**8MF6 068-4E**		1	1 unit	195	120.000	C	**8MF6 068-4R**		1	1 unit	195	120.000
	800	400	C	**8MF6 084-4E**		1	1 unit	195	110.000	C	**8MF6 084-4R**		1	1 unit	195	110.000
		600	C	**8MF6 086-4E**		1	1 unit	195	120.000	C	**8MF6 086-4R**		1	1 unit	195	120.000
		800	C	**8MF6 088-4E**		1	1 unit	195	165.000	C	**8MF6 088-4R**		1	1 unit	195	165.000
	900	400	C	**8MF6 094-4E**		1	1 unit	195	125.000	C	**8MF6 094-4R**		1	1 unit	195	125.000
		600	C	**8MF6 096-4E**		1	1 unit	195	135.000	C	**8MF6 096-4R**		1	1 unit	195	135.000
		800	C	**8MF6 098-4E**		1	1 unit	195	145.000	C	**8MF6 098-4R**		1	1 unit	195	145.000
	1200	400	C	**8MF6 024-4E**		1	1 unit	195	145.000	C	**8MF6 024-4R**		1	1 unit	195	145.000
		600	C	**8MF6 026-4E**		1	1 unit	195	155.000	C	**8MF6 026-4R**		1	1 unit	195	155.000
		800	C	**8MF6 028-4E**		1	1 unit	195	165.000	C	**8MF6 028-4R**		1	1 unit	195	165.000
2200	600	400	C	**8MF6 264-4E**		1	1 unit	195	130.000	C	**8MF6 264-4R**		1	1 unit	195	130.000
		600	C	**8MF6 266-4E**		1	1 unit	195	135.000	C	**8MF6 266-4R**		1	1 unit	195	135.000
		800	C	**8MF6 268-4E**		1	1 unit	195	145.000	C	**8MF6 268-4R**		1	1 unit	195	145.000
	800	400	C	**8MF6 284-4E**		1	1 unit	195	135.000	C	**8MF6 284-4R**		1	1 unit	195	135.000
		600	C	**8MF6 286-4E**		1	1 unit	195	145.000	C	**8MF6 286-4R**		1	1 unit	195	145.000
		800	C	**8MF6 288-4E**		1	1 unit	195	175.000	C	**8MF6 288-4R**		1	1 unit	195	175.000
	900	400	C	**8MF6 294-4E**		1	1 unit	195	140.000	C	**8MF6 294-4R**		1	1 unit	195	140.000
		600	C	**8MF6 296-4E**		1	1 unit	195	165.000	C	**8MF6 296-4R**		1	1 unit	195	165.000
		800	C	**8MF6 298-4E**		1	1 unit	195	175.000	C	**8MF6 298-4R**		1	1 unit	195	175.000
	1200	400	C	**8MF6 224-4E**		1	1 unit	195	185.000	C	**8MF6 224-4R**		1	1 unit	195	185.000
		600	C	**8MF6 226-4E**		1	1 unit	195	195.000	C	**8MF6 226-4R**		1	1 unit	195	195.000
		800	C	**8MF6 228-4E**		1	1 unit	195	210.000	C	**8MF6 228-4R**		1	1 unit	195	210.000

* You can order this quantity or a multiple thereof.

Height	Width	Depth	DT	Stand-alone installation		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	DT	Series-connected installation		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				Order No.	Price per PU						Order No.	Price per PU				
mm	mm	mm							kg							kg
Degree of protection IP54																
1800	600	400	C	**8MF6 864-5E**		1	1 unit	195	85.000	C	**8MF6 864-5R**		1	1 unit	195	85.000
		600	C	**8MF6 866-5E**		1	1 unit	195	90.000	C	**8MF6 866-5R**		1	1 unit	195	90.000
		800	C	**8MF6 868-5E**		1	1 unit	195	100.000	C	**8MF6 868-5R**		1	1 unit	195	100.000
	800	400	C	**8MF6 884-5E**		1	1 unit	195	95.000	C	**8MF6 884-5R**		1	1 unit	195	95.000
		600	C	**8MF6 886-5E**		1	1 unit	195	100.000	C	**8MF6 886-5R**		1	1 unit	195	100.000
		800	C	**8MF6 888-5E**		1	1 unit	195	110.000	C	**8MF6 888-5R**		1	1 unit	195	110.000
	900	400	C	**8MF6 894-5E**		1	1 unit	195	100.000	C	**8MF6 894-5R**		1	1 unit	195	100.000
		600	C	**8MF6 896-5E**		1	1 unit	195	110.000	C	**8MF6 896-5R**		1	1 unit	195	110.000
		800	C	**8MF6 898-5E**		1	1 unit	195	120.000	C	**8MF6 898-5R**		1	1 unit	195	120.000
	1200	400	C	**8MF6 824-5E**		1	1 unit	195	115.000	C	**8MF6 824-5R**		1	1 unit	195	115.000
		600	C	**8MF6 826-5E**		1	1 unit	195	125.000	C	**8MF6 826-5R**		1	1 unit	195	125.000
		800	C	**8MF6 828-5E**		1	1 unit	195	135.000	C	**8MF6 828-5R**		1	1 unit	195	135.000
2000	600	400	C	**8MF6 064-5E**		1	1 unit	195	105.000	C	**8MF6 064-5R**		1	1 unit	195	105.000
		600	C	**8MF6 066-5E**		1	1 unit	195	105.000	C	**8MF6 066-5R**		1	1 unit	195	105.000
		800	C	**8MF6 068-5E**		1	1 unit	195	120.000	C	**8MF6 068-5R**		1	1 unit	195	120.000
	800	400	C	**8MF6 084-5E**		1	1 unit	195	110.000	C	**8MF6 084-5R**		1	1 unit	195	110.000
		600	C	**8MF6 086-5E**		1	1 unit	195	120.000	C	**8MF6 086-5R**		1	1 unit	195	120.000
		800	C	**8MF6 088-5E**		1	1 unit	195	165.000	C	**8MF6 088-5R**		1	1 unit	195	165.000
	900	400	C	**8MF6 094-5E**		1	1 unit	195	125.000	C	**8MF6 094-5R**		1	1 unit	195	125.000
		600	C	**8MF6 096-5E**		1	1 unit	195	135.000	C	**8MF6 096-5R**		1	1 unit	195	135.000
		800	C	**8MF6 098-5E**		1	1 unit	195	145.000	C	**8MF6 098-5R**		1	1 unit	195	145.000
	1200	400	C	**8MF6 024-5E**		1	1 unit	195	145.000	C	**8MF6 024-5R**		1	1 unit	195	145.000
		600	C	**8MF6 026-5E**		1	1 unit	195	155.000	C	**8MF6 026-5R**		1	1 unit	195	155.000
		800	C	**8MF6 028-5E**		1	1 unit	195	165.000	C	**8MF6 028-5R**		1	1 unit	195	165.000
2200	600	400	C	**8MF6 264-5E**		1	1 unit	195	130.000	C	**8MF6 264-5R**		1	1 unit	195	130.000
		600	C	**8MF6 266-5E**		1	1 unit	195	135.000	C	**8MF6 266-5R**		1	1 unit	195	135.000
		800	C	**8MF6 268-5E**		1	1 unit	195	145.000	C	**8MF6 268-5R**		1	1 unit	195	145.000
	800	400	C	**8MF6 284-5E**		1	1 unit	195	135.000	C	**8MF6 284-5R**		1	1 unit	195	135.000
		600	C	**8MF6 286-5E**		1	1 unit	195	145.000	C	**8MF6 286-5R**		1	1 unit	195	145.000
		800	C	**8MF6 288-5E**		1	1 unit	195	175.000	C	**8MF6 288-5R**		1	1 unit	195	175.000
	900	400	C	**8MF6 294-5E**		1	1 unit	195	140.000	C	**8MF6 294-5R**		1	1 unit	195	140.000
		600	C	**8MF6 296-5E**		1	1 unit	195	165.000	C	**8MF6 296-5R**		1	1 unit	195	165.000
		800	C	**8MF6 298-5E**		1	1 unit	195	175.000	C	**8MF6 298-5R**		1	1 unit	195	175.000
	1200	400	C	**8MF6 224-5E**		1	1 unit	195	185.000	C	**8MF6 224-5R**		1	1 unit	195	185.000
		600	C	**8MF6 226-5E**		1	1 unit	195	195.000	C	**8MF6 226-5R**		1	1 unit	195	195.000
		800	C	**8MF6 228-5E**		1	1 unit	195	210.000	C	**8MF6 228-5R**		1	1 unit	195	210.000

If the door is required in hinged left design, the Order No. must be supplemented with -Z and the text: hinged left.
Special sizes on request.

*** You can order this quantity or a multiple thereof.**

Cubicle Air-Conditioning

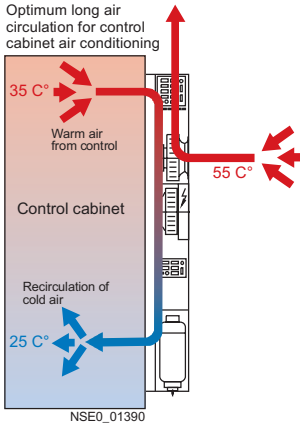
Introduction

Overview

In control cubicles, depending on the ambient conditions (e.g. heat, cold, air humidity etc.), there may be a tendency to overheat or for mold to form. In such cases the cubicles should be air-conditioned. The following air-conditioning equipment is available for this purpose:

- Filter fans
- Air conditioners/cooling equipment
- Heat exchangers
- Heaters/thermostats

When selecting the individual air-conditioning units, attention should be paid to the ambient temperature, power losses of the installed equipment, maximum permissible device temperatures and heat dissipation of the cubicle used. In addition, the required degree of protection must also be taken into account.



Benefits

Installing air-conditioning equipment in SICUBE system cubicles ensures high fault tolerance for switchgear and controlgear installations and consequently a high level of availability of machines and plants.

Filter fans

Benefits

After heat dissipation through the surface of a control cubicle and/or ventilation apertures in the enclosure parts of the cubicles, filter fans are the most cost-effective method of removing heat from the cubicles. However, the effect is to achieve only a cubicle temperature that is above the ambient temperature.

Selection and ordering data

	Size	Voltage	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		V							kg
Filter fans with standard filter mat									
	1	230	C	**8MR3 101-0MA**		1	1 unit	195	0.550
		115	C	**8MR3 101-0JA**		1	1 unit	195	0.550
	2	230	C	**8MR3 102-0MA**		1	1 unit	195	0.750
		115	C	**8MR3 102-0JA**		1	1 unit	195	0.750
	3	230	C	**8MR3 103-0MA**		1	1 unit	195	1.750
		115	C	**8MR3 103-0JA**		1	1 unit	195	1.750
	4	230	C	**8MR3 104-0MA**		1	1 unit	195	1.750
		115	C	**8MR3 104-0JA**		1	1 unit	195	1.750
	5	230	C	**8MR3 105-0MA**		1	1 unit	195	3.000
		115	C	**8MR3 105-0JA**		1	1 unit	195	3.000
	6	230	C	**8MR3 106-0MA**		1	1 unit	195	3.500
		115	C	**8MR3 106-0JA**		1	1 unit	195	3.500

	Size	Size	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		mm × mm							kg
Outlet filters with standard filter mat									
	1	105 × 105	D	**8MR3 111-0AA**		1	1 unit	195	0.100
	2	150 × 150	D	**8MR3 112-0AA**		1	1 unit	195	0.150
	3/4	250 × 250	D	**8MR3 113-0AA**		1	1 unit	195	0.500
	5/6	325 × 325	D	**8MR3 115-0AA**		1	1 unit	195	0.800
Roof filter fans with standard filter mat									
	1	417 × 367	D	**8MR3 140-1DA**		1	1 unit	195	6.800
	2	530 × 350	D	**8MR3 180-1DA**		1	1 unit	195	8.500

* You can order this quantity or a multiple thereof.

Overview

At ambient temperatures that are higher than the permissible device temperatures it is necessary to use air conditioners. All of these units operate with CFC-free coolants. Air conditioners dehumidify the air inside the cubicle.

Air conditioners for door and side mounting (recessable)

Benefits

Cooling units for door or side-panel mounting or top mounting

Two separate air circuits ensure that no ambient air enters the cubicle. Powerful radial-flow fans provide for good air circulation in the cubicle. Simple control of temperature with integrated thermostat (top-mounting units).

Side-mounting units

Intelligent standard electronics with greatest customer benefit:

- Test mode
- Temperature limits
- Startup delay
- Door contact function
- Fault alarm contact
- Local diagnostics
- UL approval

Selection and ordering data

	Size	Voltage	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		V							kg
Air conditioners for door and side mounting (recessable)									
	1000	230	C	**8MR5 510-1TE**		1	1 unit	195	45.000
	1500		C	**8MR5 515-1TE**		1	1 unit	195	45.000
	2000	400/440	C	**8MR5 520-1TE**		1	1 unit	195	55.000
	2500		C	**8MR5 525-1TE**		1	1 unit	195	58.000
Air conditioners for side mounting									
	320	115/230	C	**8MR4 032-1SA**		1	1 unit	195	19.000
	500		C	**8MR4 050-1SA**		1	1 unit	195	19.000
	820		D	**8MR5 082-1SA**		1	1 unit	195	43.000
	1100		D	**8MR5 110-1SA**		1	1 unit	195	53.000
	1400		D	**8MR5 140-1SA**		1	1 unit	195	58.000
	1400	400/440	D	**8MR5 144-1SA**		1	1 unit	195	58.000
	1800		D	**8MR5 180-1SA**		1	1 unit	195	75.000
	2500		D	**8MR5 250-1SA**		1	1 unit	195	75.000
	3200	230	C	**8MR4 320-2SB**		1	1 unit	195	72.500
	5000		C	**8MR4 500-2SB**		1	1 unit	195	75.000
Air conditioners for top mounting									
	810	230	D	**8MR5 081-1DA**		1	1 unit	195	40.000
	1150		D	**8MR5 115-1DA**		1	1 unit	195	45.000
	1600		D	**8MR5 160-1DA**		1	1 unit	195	50.000
	3000	400	D	**8MR5 300-1DA**		1	1 unit	195	73.000
	3200		C	**8MR4 320-2DB**		1	1 unit	195	73.500
	5000		C	**8MR4 500-2DB**		1	1 unit	195	76.000

*** You can order this quantity or a multiple thereof.**

Cubicle Air-Conditioning

Heat exchangers

Overview

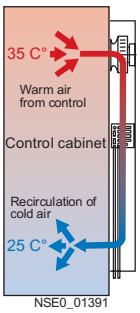
Air-to-air principle (8ME78)

Heat exchangers operating according to the air-to-air principle work with two entirely separate air circuits: An external and an internal circuit. A fan sucks in cool air from the outside. A second fan forces the heated air inside the cubicle past a large-surface-area finned separating element, which passes on the heat to the external circuit.

Air-to-water principle (8MR5)

Heat exchangers operating according to the air-to-water principle work with one air circuit. The warm air inside the cubicle is forced across the heat exchanger by a fan. As a result, the heat is dissipated to the cooling medium, water, and the air inside the cubicle is cooled.

Selection and ordering data

	Version	Voltage	Size	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		V								kg
Heat exchangers										
	Aluminum, untreated	115	16/06	D	**8ME7 842-0**		1	1 unit	195	19.000
	Aluminum, untreated	220 ... 240	16/06	D	**8ME7 844-0**		1	1 unit	195	19.000
	Painted in RAL 7032	220 ... 240	16/06	D	**8ME7 844-1**		1	1 unit	195	19.000
	Aluminum, untreated	115	20/06	D	**8ME7 862-0**		1	1 unit	195	22.000
	Aluminum, untreated	220 ... 240	20/06	D	**8ME7 864-0**		1	1 unit	195	22.000
	Painted in RAL 7032	220 ... 240	20/06	D	**8ME7 864-1**		1	1 unit	195	22.000

	Rating	Voltage	H × W × D	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	W	V	mm							kg
Heat exchangers for side mounting										
	650	230	500 × 200 × 100	D	**8MR5 065-2WS**		1	1 unit	195	5.500
	1000		500 × 200 × 100	D	**8MR5 100-2WS**		1	1 unit	195	7.000
	1450		1350 × 390 × 189	D	**8MR5 145-2WS**		1	1 unit	195	28.000
	1500		950 × 400 × 115	D	**8MR5 150-2WS**		1	1 unit	195	16.000
	2450	230	1350 × 390 × 189	D	**8MR5 245-2WS**		1	1 unit	195	31.000
	3000		950 × 400 × 190	D	**8MR5 300-2WS**		1	1 unit	195	21.000
	4000		860 × 560 × 137	D	**8MR5 400-2WS**		1	1 unit	195	31.000
	5000		1400 × 460 × 235	D	**8MR5 500-2WS**		1	1 unit	195	32.000
Heat exchangers for top mounting										
	1450	230	600 × 390 × 140	D	**8MR5 145-2WD**		1	1 unit	195	21.000
	2100		720 × 465 × 190	D	**8MR5 210-2WD**		1	1 unit	195	30.000

* You can order this quantity or a multiple thereof.

Heaters

Benefits

Control cubicle heaters are used to prevent malfunctions due to condensation or corrosion and to maintain the temperature of control cubicles (maintaining a minimum temperature). The design of the aluminum section ensures even temperature distribution and hence an optimum heating effect across the entire surface.

All devices are also available in UL-approved and in special-voltage versions.

Selection and ordering data

	Rating	Voltage	Series	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	W	V								kg
Heaters										
	10	110 ... 250	HGK047	B	**8MR2 110-0B**		1	2 units	195	0.200
	20		HGK047	B	**8MR2 110-2B**		1	2 units	195	0.400
	30		HGK047	B	**8MR2 110-3B**		1	2 units	195	0.400
	15	110 ... 250	HG140	C	**8MR2 130-1A**		1	2 units	195	0.600
	20		HG140	C	**8MR2 130-3A**		1	2 units	195	0.600
	45		HG140	C	**8MR2 130-4A**		1	1 unit	195	0.300
	60		HG140	C	**8MR2 130-6A**		1	1 unit	195	0.400
	75		HG140	C	**8MR2 130-7A**		1	1 unit	195	0.500
	100		HG140	C	**8MR2 130-0A**		1	1 unit	195	0.500
	150		HG140	C	**8MR2 130-5A**		1	1 unit	195	0.700

Heating fans

Benefits

At higher heat outputs of 150 W and above, heaters with fans (heating fans) are used. The integrated fans provide for better air circulation and therefore bring about an even air temperature in the cubicle.

All devices are also available in UL-approved and in special-voltage versions.

Selection and ordering data

	Rating	Voltage	Series	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	W	V								kg
Heating fans										
	250	220 ... 250	HGL046	B	**8MR2 122-4E**		1	1 unit	195	1.000
	400		HGL046	B	**8MR2 122-8E**		1	1 unit	195	1.300
	350	230	CR027	C	**8MR2 140-3C**		1	1 unit	195	1.100
	550		CR027	C	**8MR2 140-5C**		1	1 unit	195	1.100
	600	230	HV030	C	**8MR2 140-6C**		1	1 unit	195	0.600
	600		HVL030	C	**8MR2 140-6D**		1	1 unit	195	1.000

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* You can order this quantity or a multiple thereof.

Cubicle Air-Conditioning

19" withdrawable fan units

Benefits

The compact, powerful withdrawable fan unit is used for circulating the air in control and server cubicles and for targeted heat removal in 19" modules.

The natural convection on the cubicle surface is improved, preventing the formation of hot spots.

Selection and ordering data

	Rating	Voltage	Series	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	W	V								kg
19" withdrawable fan units										
	45	230	LE 019	C	**8MR2 190-1A**		1	1 unit	195	3.300

Thermostats

Benefits

Thermostats (NC/NO contacts) are used to control cooling devices, filter fans or heat exchangers or for switching sensors when a set temperature is exceeded.

Selection and ordering data

	Version	Temperature	Series	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		°C								kg
Thermostats										
	NC contact	0 ... +60	KTO 01140	B	**8MR2 170-1BA**		1	3 units	195	0.150
		-10 ... +50		C	**8MR2 170-1CA**		1	3 units	195	0.150
		+20 ... +80		C	**8MR2 170-1DA**		1	3 units	195	0.150
	NO contact	0 ... +60	KTS 01141	B	**8MR2 170-1BB**		1	3 units	195	0.150
		-10 ... +50		C	**8MR2 170-1CB**		1	3 units	195	0.150
		+20 ... +80		C	**8MR2 170-1DB**		1	3 units	195	0.150
Twin thermostats										
	NC and NO	+20 ... +80	ZR 011	C	**8MR2 170-1E**		1	2 units	195	0.180
Mechanical thermostats										
	CO contact	+10 ... +60	FZK 011	B	**8MR2 170-1A**		1	2 units	195	0.200
		-20 ... +30		C	**8MR2 170-1B**		1	1 unit	195	0.100

* You can order this quantity or a multiple thereof.

Benefits

- Modular design principle for a variety of cubicle combinations, whether for individual or side-by-side installation
- High standard of quality and safety
- Flexible expansion with many different assembly kits and accessories
- Easy to install thanks to modular kit system
- Reliable contacting due to grounding concept with threadforming tapping screws
- The appropriate version to suit every requirement
- Easy planning and configuring
- Attractive design

Application

The individual and side-by-side cubicles of the SIKUS 3200 system conform to the relevant standards.
They can be used as main distribution boards and sub-distribution boards in:

- Administrative and non-residential buildings
- Industrial and commercial buildings
- Public buildings such as schools and hospitals

Other possible uses include those as a control cubicle for heating, ventilation, electronics and communication.

Note:
The order data are to be found on the CD "CA01".

General data

Overview

System

The new Siemens switchboard system, based on decades of experience with distribution boards, is of modular design.

Particular attention was paid to individual installation practices.

The system includes unequipped boards as flat packs (delivered in individual parts for customer assembly, see also Part 3) in degree of protection IP43, unequipped boards ready assembled in degree of protection IP55, assembly kits for project-related and individual compilation, and a comprehensive range of accessories.

Enclosures

Material: Sheet steel, electrolytically zinc-coated, powder-coated.

Sheet thickness:
Degree of protection IP43/IP55
Body1 mm, door 1 mm

Color: RAL 7035 light gray
Other RAL colors on request

Assembly kits

The assembly kits consist of sendzimir-galvanized sheet steel and molded-plastic covers for a wide range of configuration possibilities, for example for switchgear and installation equipment.

The largest controls that can be installed in the ALPHA 630-DIN floor-mounted distribution boards are the Siemens controls up to a maximum rated current of 630 A.

Cubicle dimensions

All dimensions in mm
Height: Internal dimension: 1800
External dimension with base: 1950
Width (internal/external dimensions):
250/300, 500/550, 750/800, 1000/1050, 1250/1300
Depth (external dimension): 210, 250, 320
Assembly kits in section size grid dimension
Height x Width: 150 x 250

Benefits

- Available as a flat pack (kit for customer assembly; the assembly kits can be mounted directly on the platform) or preassembled as an unequipped board
- Easy planning thanks to modular design
- Generous wiring compartments behind the standard mounting rail
- Extensive range of assembly kits for Siemens switchgear and installation equipment for individual and project-related composition
- Assembly made easier by modules with keyhole mounting and quick-release locks
- System design in conformance with DIN, EN and VDE specifications
- Sturdy sheet-steel housing
- Degrees of protection: IP43 and IP55
- Safety class 1 (protective conductor connection) and safety class 2 (total insulation)
- High-quality surface finish: Cubicles made of electrolytically zinc-coated and powder-coated sheet steel, system components made of sendzimir-galvanized sheet steel, small components and screws galvanized and chromated (colorless)
- Doors can be hinged right or left
- Door opening angle 170°
- Replaceable locking systems (accessories)
- Transparent doors in Giugiaro design (accessories)
- Front cover with sealable 90° quick-release locks
- Environmentally friendly and recyclable plastics

Application

The ALPHA 630-DIN floor-mounted distribution boards are used wherever an ALPHA 400-DIN wall-mounting distribution board no longer provides sufficient component and wiring space, for example in administrative, non-residential, commercial and industrial buildings.

It rounds off the Siemens distribution board range with three different depths: 210 mm, 250 mm and 320 mm.

The distribution boards and components are designed as part of a modular system.

With just a few standard elements, they provide the widest possible variety and project-related mounting and configuration possibilities.

The ALPHA 630-DIN floor-mounted distribution boards comprise wall cubicles with up to 12 installation equipment units, each with 12 MW per unit of width (250 mm). The standard mounting rail row spacing is 150 mm as standard. A total of 5 board widths of 250 mm each (internal dimension) are available.

The cubicles are designed to meet safety class 1 (PE/ground terminal) and safety class 2 (total insulation). For floor-mounted distribution boards the standard degrees of protection are IP43 with a depth of 210 mm (flat pack: delivery in separate parts) and IP55 (unequipped board, preassembled) with depths of 250 mm and 320 mm. The rated current is 630 A.

40 mm or 60 mm busbar systems with dimensions up to 30 mm × 10 mm can be installed.

The modular system allows easy planning, configuring, cost calculation, ordering and assembly.

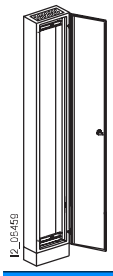
The assembly kits available for all the switchgear and installation equipment that can be fitted are designed such that only one size of screwdriver is needed for mounting.

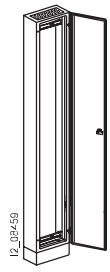
Overview

- Types of delivery:
  - Flat pack (cubicle assembly kit for customer assembly: The cubicle-height rapid mounting kits (RMK) and the assembly kits can be mounted directly on the platform (rear panel) of this kit)
  - Unequipped cubicle, preassembled
- Cubicle depth 210 mm
- Safety class 1 (protective conductor connection) and safety class 2 (total insulation)
- Degree of protection IP43
- Color RAL 7035 (light gray)
- Enclosure (with base) unassembled with door[1] supplied separately packed or enclosure (with base) preassembled with door[1] and espagnolette lock, which can be replaced with other locking systems
- Flanges on the outgoing side, one 2-component flange per section width

Selection and ordering data

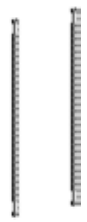
Cubicle (internal/external dimensions) Height mm	Width mm	DT	Safety class 1 Order No. PG 039	Price per PU	PU (UNIT, SET, M)	PS*	Weight per PU approx. kg	DT	Safety class 2 Order No. PG 039	Price per PU	PU (UNIT, SET, M)	PS*	Weight per PU approx. kg
Cubicle depth 210 mm			***Delivery as flat pack, degree of protection IP43***										
1800/ 1950 with base	250/300	A	**8GK1 302-8KK12**		1	1 unit	26.500	B	**8GK1 312-8KK12**		1	1 unit	29.000
	500/550	A	**8GK1 302-8KK22**		1	1 unit	37.500	A	**8GK1 312-8KK22**		1	1 unit	40.500
	750/800	A	**8GK1 302-8KK32**		1	1 unit	48.500	B	**8GK1 312-8KK32**		1	1 unit	52.000
	1000/1050	A	**8GK1 302-8KK42**		1	1 unit	59.000	B	**8GK1 312-8KK42**		1	1 unit	63.500
	1250/1300	A	**8GK1 302-8KK52**		1	1 unit	70.000	B	**8GK1 312-8KK52**		1	1 unit	75.000
Cubicle depth 210 mm			***Delivery as unequipped distribution board, preassembled, degree of protection IP43***										
1800/ 1950 with base	250/300	B	**8GK1 322-8KK12**		1	1 unit	26.500	B	**8GK1 332-8KK12**		1	1 unit	29.000
	500/550	A	**8GK1 322-8KK22**		1	1 unit	37.500	B	**8GK1 332-8KK22**		1	1 unit	40.500
	750/800	A	**8GK1 322-8KK32**		1	1 unit	48.500	B	**8GK1 332-8KK32**		1	1 unit	52.000
	1000/1050	B	**8GK1 322-8KK42**		1	1 unit	59.000	B	**8GK1 332-8KK42**		1	1 unit	63.500
	1250/1300	B	**8GK1 322-8KK52**		1	1 unit	70.000	B	**8GK1 332-8KK52**		1	1 unit	75.000





Accessories

	Height mm	Depth mm	DT	Order No. PG 039	Price per PU	PU (UNIT, SET, M)	PS*	Weight per PU approx. kg
	Longitudinal stays 2 longitudinal stays are required for each assembly kit for mounting the assembly kits in the unequipped distribution boards (1 set = 2 units)							
	1800	210	A	**8GK4 853-8KK00**		1	1 unit	2.500



Assembly kits see page Page 14/40 onwards.
For accessories, see page Page 14/50 onwards.

1) From a cubicle width of 750 mm/800 mm a double door is supplied.

*** You can order this quantity or a multiple thereof.**

Unequipped Distribution Boards

8GK1 surface-mounting distribution boards

Overview

- Delivered as unequipped distribution board, preassembled
- Cubicle depths 250 mm and 320 mm
- Safety class 1 (protective conductor connection) and safety class 2 (total insulation)
- Degree of protection IP55
- Color RAL 7035 (light gray)
- Enclosure (with base) unassembled with door[1] supplied separately packed or enclosure (with base) preassembled with door[1] and espagnolette lock, which can be replaced with other locking systems
- Flanges on the incoming and outgoing side, one 2-component flange per section width

Selection and ordering data

Cubicle (internal/external dimensions) Height mm	Width mm	DT	Safety class 1 Order No. PG 039	Price per PU	PU (UNIT, SET, M)	PS*	Weight per PU approx. kg	DT	Safety class 2 Order No. PG 039	Price per PU	PU (UNIT, SET, M)	PS*	Weight per PU approx. kg
Cubicle depth 250 mm			***Delivery as unequipped distribution board, preassembled, degree of protection IP55***										
1800/1950 with base	250/300	B	**8GK1 323-8KK13**		1	1 unit	39.500	A	**8GK1 333-8KK13**		1	1 unit	41.500
	500/550	A	**8GK1 323-8KK23**		1	1 unit	55.000	A	**8GK1 333-8KK23**		1	1 unit	58.000
	750/800	A	**8GK1 323-8KK33**		1	1 unit	70.000	A	**8GK1 333-8KK33**		1	1 unit	74.500
	1000/1050	A	**8GK1 323-8KK43**		1	1 unit	86.500	B	**8GK1 333-8KK43**		1	1 unit	91.000
	1250/1300	A	**8GK1 323-8KK53**		1	1 unit	102.500	B	**8GK1 333-8KK53**		1	1 unit	107.500
Cubicle depth 320 mm			***Delivery as unequipped distribution board, preassembled, degree of protection IP55***										
1800/1950 with base	250/300	B	**8GK1 323-8KK14**		1	1 unit	43.500	B	**8GK1 333-8KK14**		1	1 unit	45.500
	500/550	A	**8GK1 323-8KK24**		1	1 unit	59.000	B	**8GK1 333-8KK24**		1	1 unit	62.000
	750/800	A	**8GK1 323-8KK34**		1	1 unit	75.000	A	**8GK1 333-8KK34**		1	1 unit	78.500
	1000/1050	A	**8GK1 323-8KK44**		1	1 unit	90.500	A	**8GK1 333-8KK44**		1	1 unit	95.000
	1250/1300	A	**8GK1 323-8KK54**		1	1 unit	106.500	B	**8GK1 333-8KK54**		1	1 unit	112.000

Accessories

	Height mm	Depth mm	DT	Price € per PU	PU (UNIT, SET, M)	PS*	Weight per PU approx. kg
	Longitudinal stays						
	2 longitudinal stays are required for each assembly kit for mounting the assembly kits in the unequipped distribution boards (1 set = 2 units)						
	1800	250/320	A	**8GK4 853-8KK01**	1	1 unit	2.500

Assembly kits see page Page 14/40 onwards.
For accessories, see page Page 14/50 onwards.

1) From a cubicle width of 750 mm/800 mm a double door is supplied.

* You can order this quantity or a multiple thereof.

8GK1 surface-mounting distribution boards

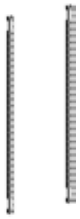
Overview

- Marshaling boxes for supporting the incoming/outgoing cables, option for terminal blocks available
- Large, foamed front cover with fixing screws
- Dimensions: height 350 mm, depths 210 mm, 250 mm and 320 mm
- Safety class 1 (PE/ground terminal)
- Degree of protection IP43 and IP55
- Color RAL 7035 (light gray)
- Flanges must be ordered separately

Selection and ordering data

Marshalling boxes Outer dimensions			DT	Safety class 1		PU (UNIT, SET, M)	PS*	Weight per PU approx.
Height	Width			Order No. PG 039	Price per PU			
mm	mm							kg
Marshalling boxes depth 210 mm				***Degree of protection IP43***				
350	300	□	B	**8GK1 382-0KK12**		1	1 unit	6.540
	550	□□	B	**8GK1 382-0KK22**		1	1 unit	9.780
	800	□□□	B	**8GK1 382-0KK32**		1	1 unit	13.030
	1050	□□□□	B	**8GK1 382-0KK42**		1	1 unit	16.270
	1300	□□□□□	B	**8GK1 382-0KK52**		1	1 unit	19.510
Marshalling boxes depth 250 mm				***Degree of protection IP55***				
350	300	□	B	**8GK1 383-0KK13**		1	1 unit	7.090
	550	□□	B	**8GK1 383-0KK23**		1	1 unit	10.850
	800	□□□	B	**8GK1 383-0KK33**		1	1 unit	14.610
	1050	□□□□	B	**8GK1 383-0KK43**		1	1 unit	18.380
	1300	□□□□□	B	**8GK1 383-0KK53**		1	1 unit	22.140
Marshalling box depth 320 mm				***Degree of protection IP55***				
350	300	□	B	**8GK1 383-0KK14**		1	1 unit	8.380
	550	□□	B	**8GK1 383-0KK24**		1	1 unit	12.420
	800	□□□	B	**8GK1 383-0KK34**		1	1 unit	16.460
	1050	□□□□	B	**8GK1 383-0KK44**		1	1 unit	20.500
	1300	□□□□□	B	**8GK1 383-0KK54**		1	1 unit	24.550

Accessories

	Height	Depth	DT	Order No. PG 039	Price per PU	PU (UNIT, SET, M)	PS*	Weight per PU approx.
	mm	mm						kg
	**Stays**							
	Stays are available for mounting in the marshalling boxes (1 set = 2 units)							
	300	210	A	**8GK4 855-2KK02**		1	1 set	0.560
		250, 320	B	**8GK4 855-2KK03**		1	1 unit	1.000

* You can order this quantity or a multiple thereof.

Assembly Kits for Unequipped Distribution Boards

8GK4 assembly kits for modular installation devices

Overview

- Assembly kits for individual and project-related assembly, comprising: switching device holders, unequipped panel cover with supports, screws and fixing accessories
- Dimensions of assembly kits (mm)
  Height: 150, 300, 450, 600
  Width: 250, 500, 750
  Section size grid dimensions H × W: 150 × 250
- The front cover for unequipped panels is sealable as a standard and facilitates a fast and reliable fixation to the supports thanks to its quick-acting locking technique.

Note: For installing the assembly kits in the unequipped distribution boards, 2 longitudinal stays per assembly kit are required; these must be ordered in addition.

Selection and ordering data

	Assembly kits (external dimensions) Height	Width	Rows/ MW	DT	Row spacing 150 mm, without N/PE bar Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm	mm								kg
	150	250	1/12	A	**8GK4 351-1KK12**		1	1 unit	039	0.600
		500	1/24	A	**8GK4 351-1KK22**		1	1 unit	039	1.200
		750	1/36	B	**8GK4 351-1KK32**		1	1 unit	039	1.500
	300	250	2/24	A	**8GK4 351-2KK12**		1	1 unit	039	1.200
		500	2/48	A	**8GK4 351-2KK22**		1	1 unit	039	2.400
		750	2/72	A	**8GK4 351-2KK32**		1	1 unit	039	3.000
	450	250	3/36	A	**8GK4 351-3KK12**		1	1 unit	039	1.800
		500	3/72	A	**8GK4 351-3KK22**		1	1 unit	039	3.600
		750	3/108	A	**8GK4 351-3KK32**		1	1 unit	039	4.500
	600	250	4/48	A	**8GK4 351-4KK12**		1	1 unit	039	2.400
		500	4/96	A	**8GK4 351-4KK22**		1	1 unit	039	4.800
		750	4/144	A	**8GK4 351-4KK32**		1	1 unit	039	6.000

The 250 mm-wide ASSEMBLY KITS are equipped with 7.5 mm standard mounting rails.

The 500 mm/750 mm-wide ASSEMBLY KITS are equipped with 15 mm standard mounting rails.

For accessories, see page Page 14/50 onwards.

* You can order this quantity or a multiple thereof.

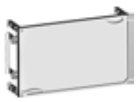
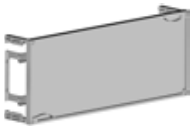
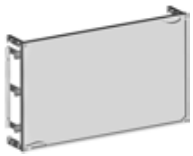
8GK4 assembly kits for terminal blocks, horizontal

Overview

- Assembly kits for individual and project-related assembly, comprising: switching device holders, unequipped panel cover with supports, screws and fixing accessories
- Dimensions of assembly kits (mm)
  Height: 150, 300, 450
  Width: 250, 500, 750
  Section size grid dimensions H × W: 150 × 250
- The front cover for unequipped panels is sealable as a standard and facilitates a fast and reliable fixation to the supports thanks to its quick-acting locking technique.

Note:
For installing the assembly kits in the unequipped distribution boards, 2 longitudinal stays per assembly kit are required; these must be ordered in addition (see Page 14/37).

Selection and ordering data

	Assembly kits (external dimensions) Height	Width	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm	mm							kg
	Terminal strip stepped and insulated, closed with unequipped panel cover								
	150	250	A	**8GK4 401-1KK12**		1	1 unit	039	0.700
	300	250	A	**8GK4 401-2KK12**		1	1 unit	039	1.400
		500	A	**8GK4 401-2KK22**		1	1 unit	039	2.800
		750	A	**8GK4 401-2KK32**		1	1 unit	039	4.200
	450	500	A	**8GK4 401-3KK22**		1	1 unit	039	4.200
		750	A	**8GK4 401-3KK32**		1	1 unit	039	6.300

For accessories, see page Page 14/50 onwards.

*** You can order this quantity or a multiple thereof.**

Assembly Kits for Unequipped Distribution Boards

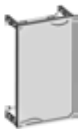
8GK4 assembly kits for terminal blocks, vertical

Overview

- Assembly kits for individual and project-related assembly, comprising: switching device holders, unequipped panel cover with supports, screws and fixing accessories
- Dimensions of the assembly kits (mm) according to DIN 43870
  Height: 300, 450, 600
  Width: 250, 500, 750
  Section size grid dimensions H × W: 150 × 250
- The front cover for unequipped panels is sealable as a standard and facilitates a fast and reliable fixation to the supports thanks to its quick-acting locking technique.

Note:
For installing the assembly kits in the unequipped distribution boards, 2 longitudinal stays per assembly kit are required; these must be ordered in addition (see Page 14/37).

Selection and ordering data

	Assembly kits (external dimensions) Height	Width	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm	mm							kg
	Terminal strip insulated, closed with unequipped panel cover								
	300	250	A	**8GK4 402-2KK12**		1	1 unit	039	1.300
		500	B	**8GK4 402-2KK22**		1	1 unit	039	2.600
		750	B	**8GK4 402-2KK32**		1	1 unit	039	3.000
	450	250	A	**8GK4 402-3KK12**		1	1 unit	039	1.900
		500	B	**8GK4 402-3KK22**		1	1 unit	039	3.900
		750	A	**8GK4 402-3KK32**		1	1 unit	039	4.500
	600	250	A	**8GK4 402-4KK12**		1	1 unit	039	2.600
		500	B	**8GK4 402-4KK22**		1	1 unit	039	5.200
		750	B	**8GK4 402-4KK32**		1	1 unit	039	6.000

For accessories, see page Page 14/50 onwards.

* You can order this quantity or a multiple thereof.

Overview

- Assembly kits for individual and project-related assembly, comprising: switching device holders, unequipped panel cover with supports, mounting bracket (depth-adjustable), screws and fixing accessories
- Dimensions of the assembly kits (mm) according to DIN 43870
  Height: 300, 450, 600
  Width: 250, 500, 750
  Section size grid dimensions H × W: 150 × 250
- The front cover for unequipped panels is sealable as a standard and facilitates a fast and reliable fixation to the supports thanks to its quick-acting locking technique.

Note:
For installing the assembly kits in the unequipped distribution boards, 2 longitudinal stays per assembly kit are required; these must be ordered in addition (see Page 14/37).

Selection and ordering data

	Assembly kits (external dimensions) Height	Width	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm	mm							kg
	Terminal strip insulated, closed with unequipped panel cover								
	300	250	A	**8GK4 451-2KK12**		1	1 unit	039	2.200
		500	A	**8GK4 451-2KK22**		1	1 unit	039	4.400
		750	B	**8GK4 451-2KK32**		1	1 unit	039	5.000
	450	250	A	**8GK4 451-3KK12**		1	1 unit	039	3.300
		500	A	**8GK4 451-3KK22**		1	1 unit	039	6.600
		750	B	**8GK4 451-3KK32**		1	1 unit	039	7.000
	600	250	A	**8GK4 451-4KK12**		1	1 unit	039	4.400
		500	A	**8GK4 451-4KK22**		1	1 unit	039	8.800
		750	B	**8GK4 451-4KK32**		1	1 unit	039	9.000

For accessories, see page Page 14/50 onwards.

*** You can order this quantity or a multiple thereof.**

Assembly Kits for Unequipped Distribution Boards

8GK4 assembly kits for unequipped sections

Overview

- Assembly kits for individual and project-related assembly, comprising: switching device holders, unequipped panel cover with supports, screws and fixing accessories
- Dimensions of the assembly kits (mm) according to DIN 43870
  Height: 75, 150, 300, 450, 600
  Width: 250, 500.750
  Section size grid dimensions H × W: 150 × 250
- The front cover for unequipped panels is sealable as a standard and facilitates a fast and reliable fixation to the supports thanks to its quick-acting locking technique.

Note:
For installing the assembly kits in the unequipped distribution boards, 2 longitudinal stays per assembly kit are required; these must be ordered in addition (see Page 14/37).

Selection and ordering data

	Assembly kits (external dimensions) Height	Width	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm	mm							kg
	75	250	A	**8GK4 501-0KK12**		1	1 unit	039	0.130
		500	B	**8GK4 501-0KK22**		1	1 unit	039	0.260
	150	250	A	**8GK4 501-1KK12**		1	1 unit	039	0.260
		500	A	**8GK4 501-1KK22**		1	1 unit	039	0.520
		750	A	**8GK4 501-1KK32**		1	1 unit	039	0.800
	300	250	A	**8GK4 501-2KK12**		1	1 unit	039	0.520
		500	A	**8GK4 501-2KK22**		1	1 unit	039	1.040
		750	A	**8GK4 501-2KK32**		1	1 unit	039	1.300
	450	250	A	**8GK4 501-3KK12**		1	1 unit	039	0.780
		500	A	**8GK4 501-3KK22**		1	1 unit	039	1.560
		750	A	**8GK4 501-3KK32**		1	1 unit	039	1.800
	600	250	A	**8GK4 501-4KK12**		1	1 unit	039	1.040
		500	A	**8GK4 501-4KK22**		1	1 unit	039	2.080
		750	A	**8GK4 501-4KK32**		1	1 unit	039	2.300

For accessories, see page Page 14/50 onwards.

* You can order this quantity or a multiple thereof.

8GK4 assembly kits for 3NP4 fuse switch disconnectors for mounting on support plates

Overview

- Assembly kits for individual and project-related assembly, comprising: switching device holders, unequipped panel cover with supports, screws and fixing accessories
- Dimensions of assembly kits (mm)
  Height: 300, 450
  Width: 250, 500
  Section size grid dimensions H × W: 150 × 250
- The front cover for unequipped panels is sealable as a standard and facilitates a fast and reliable fixation to the supports thanks to its quick-acting locking technique.

Note:
For installing the assembly kits in the unequipped distribution boards, 2 longitudinal stays per assembly kit are required; these must be ordered in addition (see Page 14/37).

Selection and ordering data

	Assembly kits (external dimensions) Height mm	Width mm		DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
For 3NP4 fuse switch disconnectors for mounting on support plates										
	with matching cover and molded-plastic masking frame									
	up to 160 A, for NH000 LV HRC fuse switch disconnectors									
	300	250	1 × 3NP40 10	A	**8GK4 551-2KK12**		1	1 unit	039	1.900
			2 × 3NP40 10	A	**8GK4 552-2KK12**		1	1 unit	039	1.900
	450	250	4 × 3NP40 10	A	**8GK4 553-3KK12**		1	1 unit	039	1.900
	up to 160 A, for NH00 LV HRC fuse switch disconnectors									
	300	250	1 × 3NP40 70	A	**8GK4 554-2KK12**		1	1 unit	039	1.900
			2 × 3NP40 70	A	**8GK4 555-2KK12**		1	1 unit	039	1.900
	up to 250 A, for NH1 LV HRC fuse switch disconnectors									
	450	250	1 × 3NP42 70	A	**8GK4 556-3KK12**		1	1 unit	039	2.100
	up to 400 A, for NH2 LV HRC fuse switch disconnectors									
	450	250	1 × 3NP43 70	B	**8GK4 557-3KK12**		1	1 unit	039	2.100
	up to 630 A, for NH3 LV HRC fuse switch disconnectors									
	450	500	1 × 3NP44 70	B	**8GK4 558-3KK13**		1	1 unit	039	2.300

For accessories, see page Page 14/50 onwards.

* You can order this quantity or a multiple thereof.

Assembly Kits for Unequipped Distribution Boards

8GK4 assembly kits for 3NP4 fuse switch disconnectors for mounting on busbars

Overview

- Assembly kits for individual and project-related assembly, comprising: switching device holders, unequipped panel cover with supports, screws and fixing accessories
- Dimensions of assembly kits (mm)
  Height: 300, 450
  Width: 250
  Section size grid dimensions H × W: 150 × 250
- The front cover for unequipped panels is sealable as a standard and facilitates a fast and reliable fixation to the supports thanks to its quick-acting locking technique.

Note:
For installing the assembly kits in the unequipped distribution boards, 2 longitudinal stays per assembly kit are required; these must be ordered in addition (see Page 14/37).

The copper busbar and the busbar holders must be ordered in addition (see Page 14/52).

Selection and ordering data

	Assembly kits (external dimensions) Height mm	Width mm		DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
	Busbar center-to-center distance 40 mm/60 mm, with matching cover and molded-plastic masking frame									
	up to 160 A, for NH000 LV HRC fuse switch disconnectors									
	300	250	1 × 3NP40 15/3NP40 16	A	**8GK4 651-2KK12**		1	1 unit	039	1.200
			2 × 3NP40 15/3NP40 16	A	**8GK4 652-2KK12**		1	1 unit	039	1.200
	up to 160 A, for NH00 LV HRC fuse switch disconnectors									
	450	250	1 × 3NP40 75/3NP40 76	A	**8GK4 653-3KK12**		1	1 unit	039	1.500
			2 × 3NP40 75/3NP40 76	A	**8GK4 654-3KK12**		1	1 unit	039	1.500
	up to 250 A, for NH1 LV HRC fuse switch disconnectors									
	450	250	1 × 3NP42 75/3NP42 76	A	**8GK4 655-3KK12**		1	1 unit	039	1.800

For accessories, see page Page 14/50 onwards.

* You can order this quantity or a multiple thereof.

8GK4 assembly kits for SENTRON VL/VF circuit-breakers

Overview

- Assembly kits for individual and project-related assembly, comprising: switching device holders, unequipped panel cover with supports, screws and fixing accessories
- Dimensions of assembly kits (mm)
  Height: 450, 600
  Width: 250, 500
  Section size grid dimensions H × W: 150 × 250
- The front cover for unequipped panels is sealable as a standard and facilitates a fast and reliable fixation to the supports thanks to its quick-acting locking technique.

Note:
For installing the assembly kits in the unequipped distribution boards, 2 longitudinal stays per assembly kit are required; these must be ordered in addition (see Page 14/37).

Selection and ordering data

	Assembly kits (external dimensions) Height mm	Width mm		DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
	3-pole									
	450	250	1 × VL160X, 1 × VL160, 1 × VL250	A	**8GK4 701-3KK12**		1	1 unit	039	1.900
	600	250	1 × VL400	B	**8GK4 702-4KK12**		1	1 unit	039	1.900
			1 × VL630	B	**8GK4 703-4KK13**		1	1 unit	039	2.300
	4-pole									
	600	500	1 × VL630	B	**8GK4 704-4KK13**		1	1 unit	039	8.800
	3- and 4-pole									
 f630_06	300	250	1 × 3VF2, 2 × 3VF2	B	**8GE3 712-1**		1	1 unit	042	3.800
 f630_07			1 × 3VF3, 2 × 3VF3	B	**8GE3 710-7**		1	1 set	042	4.100
 f630_10	450	250	1 × 3VF4, 2 × 3VF4	B	**8GE3 711-0**		1	1 set	042	4.900
 f630_13			1 × 3VF5	B	**8GE3 711-2**		1	1 unit	042	4.900

For accessories, see page Page 14/50 onwards.

*** You can order this quantity or a multiple thereof.**

Assembly Kits for Unequipped Distribution Boards

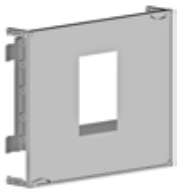
8GK4 assembly kits for 3NJ4 in-line fuse switch disconnectors

Overview

- Assembly kits for individual and project-related assembly, comprising: switching device holders, unequipped panel cover with supports, screws and fixing accessories
- Dimensions of assembly kits (mm)
  Height: 600
  Width: 250, 500, 750
  Section size grid dimensions H × W: 150 × 250
- The front cover for unequipped panels is sealable as a standard and facilitates a fast and reliable fixation to the supports thanks to its quick-acting locking technique.

Note:
For installing the assembly kits in the unequipped distribution boards, 2 longitudinal stays per assembly kit are required; these must be ordered in addition (see Page 14/37).

Selection and ordering data

	Assembly kits (external dimensions) Height	Width		DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm	mm								kg
	Busbar center-to-center distance 100 mm with busbar holder									
	600	250	4 × 3NJ4, size 00	B	**8GK4 751-4KK13**		1	1 unit	039	3.000
		500	9 × 3NJ4, size 00	A	**8GK4 751-4KK23**		1	1 unit	039	3.500
		750	14 × 3NJ4, size 00	A	**8GK4 751-4KK33**		1	1 unit	039	5.000

For accessories, see page Page 14/50 onwards.

* You can order this quantity or a multiple thereof.

8GK4 assembly kits for bus-mounting fuse bases for mounting on busbar systems

Overview

- Assembly kits for individual and project-related assembly, comprising: switching device holders, unequipped panel cover with supports, busbar holder for bar-mounting fuse base, screws and fixing accessories
- Dimensions of assembly kits (mm)
  Height: 300, 450
  Width: 250
  Section size grid dimensions H × W: 150 × 250
- The front cover for unequipped panels is sealable as a standard and facilitates a fast and reliable fixation to the supports thanks to its quick-acting locking technique.

Note:
For installing the assembly kits in the unequipped distribution boards, 2 longitudinal stays per assembly kit are required; these must be ordered in addition (see Page 14/37).

The copper busbar must be ordered in addition (see page Page 14/52).

Selection and ordering data

	Assembly kits (external dimensions) Height	Width		DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm	mm								kg
	3-pole, busbar center-to-center distance 60 mm									
	300	250	7 x NEOZED D02	A	**8GK4 801-2KK12**		1	1 unit	039	1.200
	450	250	7 x NEOZED D02	A	**8GK4 801-3KK12**		1	1 unit	039	1.500

For accessories, see page Page 14/50 onwards.

*** You can order this quantity or a multiple thereof.**

Accessories

Unequipped distribution boards

Selection and ordering data

	Assembly kits (external dimensions) Height	Width	Depth	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm	mm	mm							kg
	**Transparent doors (Giugiaro design)** Degree of protection IP43, color RAL 7035 (light gray)[1] The standard sheet-steel doors can be replaced by these doors. From widths of 800 mm the transparent doors are supplied as double doors.									
	**1850**	300		B	**8GK9 503-0KK10**		1	1 unit	039	9.150
		550		B	**8GK9 503-0KK20**		1	1 unit	039	14.310
		800		B	**8GK9 503-0KK30**		1	1 unit	039	19.470
		1050		B	**8GK9 503-0KK40**		1	1 unit	039	24.630
		1300		B	**8GK9 503-0KK50**		1	1 unit	039	29.790
	**Flanges** for fast and proper wiring									
	1-component flange (degree of protection: IP55) For incoming-side cable entry with 11 possible knockouts Max. ∅ 50.5 mm, plastic material			A	**8GK9 100-0KK00**		1	1 unit	039	0.200
	2-component flange (degree of protection: IP55) For outgoing-side cable entry with 44 possible knockouts Consisting of two elastic components			A	**8GK9 100-0KK01**		1	1 unit	039	0.200
	Flange plate, sheet steel For metric screwed glands									
	Degree of protection IP43			A	**8GK9 100-0KK02**		1	1 unit	039	0.800
	Degree of protection IP55			B	**8GK9 100-0KK03**		1	1 unit	039	1.000
	Bases[2]									
	**100**	300	210	B	**8GK9 901-0KK12**		1	1 unit	039	4.000
		550		B	**8GK9 901-0KK22**		1	1 unit	039	4.500
		800		A	**8GK9 901-0KK32**		1	1 unit	039	5.000
		1050		B	**8GK9 901-0KK42**		1	1 unit	039	5.500
		1300		B	**8GK9 901-0KK52**		1	1 unit	039	6.000
		300	250	B	**8GK9 901-0KK13**		1	1 unit	039	4.500
		550		B	**8GK9 901-0KK23**		1	1 unit	039	5.000
		800		B	**8GK9 901-0KK33**		1	1 unit	039	5.500
		1050		B	**8GK9 901-0KK43**		1	1 unit	039	6.000
		1300		B	**8GK9 901-0KK53**		1	1 unit	039	6.500
		300	320	B	**8GK9 901-0KK14**		1	1 unit	039	5.000
		550		B	**8GK9 901-0KK24**		1	1 unit	039	5.500
		800		B	**8GK9 901-0KK34**		1	1 unit	039	6.000
		1050		B	**8GK9 901-0KK44**		1	1 unit	039	6.500
		1300		B	**8GK9 901-0KK54**		1	1 unit	039	7.000

1) Other degrees of protection and colors on request.

2) Other base heights, e.g. 30-mm height on request.

* You can order this quantity or a multiple thereof.

		Width	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		mm							kg
	Locking systems								
	Lock-and-release lever Recessable, with pushbutton system		A	**8GK9 561-0KK01**		1	1 unit	039	0.300
	Lock insert For fitting the profile half cylinder		A	**8GK9 561-0KK02**		1	1 unit	039	0.150
	Profile semicylinder, 40 mm with E012 lock With insert for the lock-and-release lever, to be used only in conjunction with the lock insert (this must be ordered separately)		A	**8GK9 561-0KK00**		1	1 unit	039	0.150
	Cable propping bars								
	For strain relief C-profile 30 mm x 15 mm	250	A	**8GK9 911-0KK10**		1	1 unit	039	0.800
		500	A	**8GK9 911-0KK20**		1	1 unit	039	1.100
		750	A	**8GK9 911-0KK30**		1	1 unit	039	1.300
		1000	A	**8GK9 911-0KK40**		1	1 unit	039	1.400
		1250	A	**8GK9 911-0KK50**		1	1 unit	039	1.500
	Circuit diagram pockets								
	DIN A 3, made of sheet steel, depth 10 mm		B	**8GK9 910-0KK22**		1	1 unit	039	0.100
	DIN A 4, transparent sleeve		A	**8GK9 910-0KK23**		1	1 unit	039	0.100
	Siemens nameplates								
SIEMENS	Made of aluminum, self-adhesive, color petrol		A	**8GD9 084**		1	1 unit	042	0.020

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* You can order this quantity or a multiple thereof.

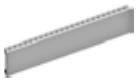
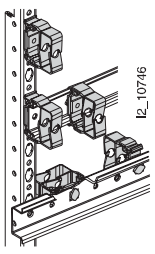
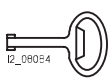
Accessories

Assembly kits

Selection and ordering data

	Height	Length	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm	mm							kg
 **Busbar holders** With matching support plate									
5-pole For mounting directly on longitudinal stays									
Busbar center-to-center distance 40 mm For copper busbars 12 × 5 (10) mm and for mounting 3NP fuse switch disconnectors	300		A	**8GK9 651-0KK00**		1	1 unit	039	0.800
 **Busbar center-to-center distance 60 mm** For copper busbars 12 × 5 (10) mm 20 × 5 (10) mm, 30 × 5 (10) mm	450		A	**8GK9 671-0KK00**		1	1 unit	039	0.800
 **3-pole**									
Busbar center-to-center distance 60 mm For copper busbars 12 × 5 (10) mm 20 × 5 (10) mm, 30 × 5 (10) mm									
For 3NP fuse switch disconnectors	300		A	**8GK9 711-0KK00**		1	1 unit	039	0.800
For bus-mounting fuse bases	300		A	**8GK9 711-0KK01**		1	1 unit	039	0.800
Copper busbars									
Copper cross-section 12 × 5 mm, 250 A		250	A	**8GK9 731-0KK10**		1	1 unit	039	0.100
		500	A	**8GK9 731-0KK20**		1	1 unit	039	0.330
		750	A	**8GK9 731-0KK30**		1	1 unit	039	0.500
		1000	A	**8GK9 731-0KK40**		1	1 unit	039	0.660
		1250	A	**8GK9 731-0KK50**		1	1 unit	039	0.830
Copper cross-section 20 × 5 mm, 320 A		250	B	**8GK9 733-0KK10**		1	1 unit	039	0.290
		500	B	**8GK9 733-0KK20**		1	1 unit	039	0.570
		750	B	**8GK9 733-0KK30**		1	1 unit	039	0.850
		1000	B	**8GK9 733-0KK40**		1	1 unit	039	1.120
		1250	B	**8GK9 733-0KK50**		1	1 unit	039	1.470
Copper cross-section 30 × 5 mm, 450 A		250	B	**8GK9 735-0KK10**		1	1 unit	039	0.400
		500	A	**8GK9 735-0KK20**		1	1 unit	039	0.750
		750	B	**8GK9 735-0KK30**		1	1 unit	039	1.460
		1000	B	**8GK9 735-0KK40**		1	1 unit	039	2.170
		1250	B	**8GK9 735-0KK50**		1	1 unit	039	2.880
Copper cross-section 30 × 10 mm, 630 A		250	B	**8GK9 736-0KK10**		1	1 unit	039	0.750
		500	B	**8GK9 736-0KK20**		1	1 unit	039	1.720
		750	A	**8GK9 736-0KK30**		1	1 unit	039	2.600
		1000	A	**8GK9 736-0KK40**		1	1 unit	039	3.400
		1250	B	**8GK9 736-0KK50**		1	1 unit	039	4.600
 **Supports for unequipped panel covers**									
Long version, plastic material (1 set = 4 units)			A	**8GK9 910-0KK30**		1	1 unit	039	0.200
 **N/PE bars**									
For mounting on longitudinal stays, with 2 × 29 clamping points, 16 mm², length 250 mm			A	**8GK9 910-0KK10**		1	1 unit	039	0.320
 **N/PE bars as plug-in terminals** Each with 6 screw connectors from 2.5 to 16 mm² and 21 plug-type connectors from 1.5 to 4 mm², for mounting on longitudinal stays in 30° inclined position			B	**8GK9 910-0KK11**		1	1 unit	039	0.100
With 6 screw connectors from 2.5 to 16 mm² and 21 plug-type connectors from 1.5 to 4 mm² on the PE bar, and one N-N bar with 2 screw connectors from 2.5 to 16 mm² and 10 plug-type connectors from 1.5 to 4 mm², for mounting on longitudinal stays in 30° inclined position			A	**8GK9 910-0KK12**		1	1 unit	039	0.001

* You can order this quantity or a multiple thereof.

			Height	Width	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
			mm	mm							kg
	**Terminals for circular conductors**	Conductor cross-section in mm^2									
	Busbar thickness 5 mm	1.5 ... 16			▶	**8US19 21-2AA00**		100	100 units	103	0.100
		1.5 ... 35			▶	**8US19 21-2AB00**		1	50 units	103	0.046
		16 ... 70			▶	**8US19 21-2AD00**		1	50 units	103	0.072
		16 ... 120			▶	**8US19 21-2AC00**		1	50 units	103	0.107
	Busbar thickness 10 mm	1.5 ... 16			▶	**8US19 21-2BA00**		1	100 units	103	0.020
		1.5 ... 35			▶	**8US19 21-2BB00**		1	50 units	103	0.040
		16 ... 70			▶	**8US19 21-2BD00**		1	50 units	103	0.070
		16 ... 120			▶	**8US19 21-2BC00**		1	50 units	103	0.100
	**Replacement door hinges** For wall-mounted/floor-mounted distribution boards (1 set = 2 units)				A	**8GK9 920-0KK24**		1	1 set	038	0.200
	**Partitions** For visual and spatial separation of different potentials, plastic material	Vertical	300		A	**8GK9 301-2KK01**		1	1 unit	039	0.150
			450		A	**8GK9 301-3KK01**		1	1 unit	039	0.225
		Horizontal		250	A	**8GK9 103-0KK10**		1	1 unit	039	0.200
				500	A	**8GK9 103-0KK20**		1	1 unit	039	0.400
				750	B	**8GK9 103-0KK30**		1	1 unit	039	0.600
	**Cubicle-height mounting plates** With fixing screws, sendzimir-galvanized sheet steel, for mounting on longitudinal stays, no covers possible		1800	250	B	**8GK9 533-0KK10**		1	1 unit	039	7.200
				500	B	**8GK9 533-0KK20**		1	1 unit	039	14.400
				750	B	**8GK9 533-0KK30**		1	1 unit	039	21.600
				1000	B	**8GK9 533-0KK40**		1	1 unit	039	28.800
				1250	B	**8GK9 533-0KK50**		1	1 unit	039	36.000
	**Blanking strips** Color RAL 7035 (light gray)										
	For 12 MW (1 MW = 18 mm)				A	**8GK9 910-0KK00**		1	1 unit	039	0.030
	Length 1 m Without predetermined breaking point, for cutting to length				A	**8GK9 910-0KK01**		1	1 unit	039	0.500
	Connecting sets, IP55 For mounting enclosures side-by-side Screws, washers, nuts and 10 m roll of sealing tape				A	**8GK9 920-0KK31**		1	1 unit	039	0.500
	**Wiring clips** For standard mounting rail (1 set = 10 units)				A	**8GK9 910-1KK80**		1	1 set	039	0.800
	**Spare keys** For double-bit locking				A	**8GD9 290**		1	1 unit	042	0.055

* You can order this quantity or a multiple thereof.

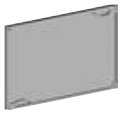
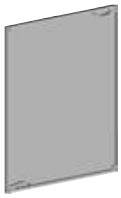
Accessories

Orders for large quantities of section covers

Overview

- Section covers, closed, in large order quantities (big packs)
- Dimensions of section covers (mm)
  Height: 75, 150, 300, 450, 600
  Width: 250, 500, 750

Selection and ordering data

	Assembly kits (external dimensions)		DT	Order No. PG 039	Price per PU	PU (UNIT, SET, M)	PS*	Weight per PU approx.
	Height	Width						
	mm	mm						kg
	Closed							
	75	250	B	**8GK9 601-0KK10**		1	1 unit	1.000
	150	250	B	**8GK9 601-1KK10**		1	1 unit	1.300
		500	B	**8GK9 601-1KK20**		1	1 unit	7.000
		750	B	**8GK9 601-1KK30**		1	1 unit	8.500
	300	250	A	**8GK9 601-2KK10**		1	1 set	2.600
		500	B	**8GK9 601-2KK20**		1	1 unit	13.000
		750	B	**8GK9 601-2KK30**		1	1 unit	14.500
	450	250	B	**8GK9 601-3KK10**		1	1 unit	3.900
		500	B	**8GK9 601-3KK20**		1	1 unit	7.800
		750	B	**8GK9 601-3KK30**		1	1 unit	20.500
	600	250	B	**8GK9 601-4KK10**		1	1 unit	5.200
		500	B	**8GK9 601-4KK20**		1	1 unit	24.000
		750	B	**8GK9 601-4KK30**		1	1 unit	26.500

* You can order this quantity or a multiple thereof.

Overview

- Section covers, with cutout, in large order quantities (big packs)
- Dimensions of section covers (mm)
  Height: 150, 300, 450, 600
  Width: 250, 500, 750
  Row spacing: 125, 150

Selection and ordering data

	Section covers (external dimensions) Height mm	Width mm	Rows/ MW	DT	Row spacing 125 mm Order No. PG 039	Price per PU	PU (UNIT, SET, M)	PS*	Weight per PU approx. kg	DT	Row spacing 150 mm Order No. PG 039	Price per PU	PU (UNIT, SET, M)	PS*	Weight per PU approx. kg
	with cutout														
	150	250	1/12		--					B	**8GK9 601-1KK11**		1	1 unit	1.100
		500	1/24		--					B	**8GK9 601-1KK21**		1	1 unit	3.800
		750	1/36		--					B	**8GK9 601-1KK31**		1	1 unit	5.500
	300	250	2/24	B	**8GK9 601-2KK12**		1	1 unit	2.200	B	**8GK9 601-2KK11**		1	1 unit	2.200
		500	2/48	B	**8GK9 601-2KK22**		1	1 unit	5.900	B	**8GK9 601-2KK21**		1	1 unit	5.900
		750	2/72		--					B	**8GK9 601-2KK31**		1	1 unit	8.500
	450	250	3/36	B	**8GK9 601-3KK12**		1	1 unit	3.300	B	**8GK9 601-3KK11**		1	1 unit	3.300
		500	3/72	B	**8GK9 601-3KK22**		1	1 unit	8.000	B	**8GK9 601-3KK21**		1	1 unit	8.000
		750	3/108		--					B	**8GK9 601-3KK31**		1	1 unit	11.500
	600	250	4/48	B	**8GK9 601-4KK12**		1	1 unit	4.400	B	**8GK9 601-4KK11**		1	1 unit	4.400
		500	4/96	B	**8GK9 601-4KK22**		1	1 unit	10.100	B	**8GK9 601-4KK21**		1	1 unit	10.100
		750	4/144		--					B	**8GK9 601-4KK31**		1	1 unit	14.500

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* You can order this quantity or a multiple thereof.

Accessories

Orders for large quantities of assembly kits

Selection and ordering data

		Width	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		mm							kg
	**Supports for unequipped panel covers**								
	Plastic material								
	Long version		B	**8GK9 910-0KK31**		1	1 unit	039	2.000
	Short version		B	**8GK9 910-0KK24**		1	1 unit	039	1.000
	**Supports for higher demands**								
	Metal/plastic material (1 set = 100 units)		B	**8GK9 910-0KK25**		1	1 set	039	3.600
	**15 mm standard mounting rails**								
		250	A	**8GK9 910-1KK10**		1	1 unit	039	1.800
		500	A	**8GK9 910-1KK20**		1	1 unit	039	3.600
		750	A	**8GK9 910-1KK30**		1	1 unit	039	5.400
		1000	A	**8GK9 910-1KK40**		1	1 unit	039	7.200
		1250	B	**8GK9 910-1KK50**		1	1 unit	039	9.600
	**Extra-deep brackets**								
	For recessed mounting of standard mounting rails (1 set = 2 units)		B	**8GK9 910-0KK34**		1	1 unit	039	0.050
	Standard mounting rail holders								
	For 15 mm standard mounting rail and supports, long version consisting of 1 left and 1 right holder								
	For 1 standard mounting rail (1 set = 10 units)		A	**8GK9 910-1KK81**		1	1 set	039	1.000
	For 2 standard mounting rails (1 set = 20 units)		A	**8GK9 910-1KK83**		1	1 set	039	3.200
	For 3 standard mounting rails (1 set = 20 units)		A	**8GK9 910-1KK84**		1	1 set	039	5.500
	For 4 standard mounting rails (1 set = 20 units)		A	**8GK9 910-1KK85**		1	1 set	039	7.700
	**Quick-lock screws**								
	Plastic material, color RAL 7035 (1 set = 20 units)		A	**8GK9 910-0KK26**		1	1 set	039	0.100
	**Installation tools**								
	For supports, short and long version, with ergonomic handle		B	**8GK9 910-0KK27**		1	1 unit	039	0.200

* You can order this quantity or a multiple thereof.

Overview

Assembly center for easy equipping of control cubicles, comprising: Base on rollers, with quick height adjustment facility and tiling top-mounted frame, for control cubicle panels up to 20 kg or with pneumatic springs up to 75 kg.

Benefits

- Flexible height adjustment
- Weight compensation, i.e. the workpiece becomes as light as a feather
- Tilting top-mounted frame (0° horizontal to 90° vertical)
- Safety thanks to multiple-disk brakes, steel springs and catch hooks
- With rollers for mobility (2 rollers with parking brakes)
- Higher load capacity through pneumatic springs
- Fine adjustment with tension spring

Selection and ordering data

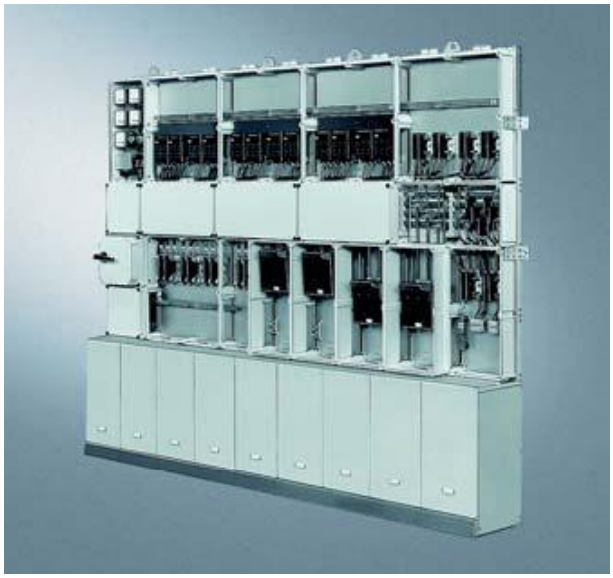
	Width	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm							kg
Assembly centers								
	1130	D	**8GK9 998-0KK50**		1	1 unit	039	53.000

* You can order this quantity or a multiple thereof.

General data

Overview

The 8HP distribution system is a modular system for low-voltage small distribution boards, control panels and power distribution boards.



8HP distribution board with support rack and cable space cover

Benefits

The optimum design of these high-quality materials fulfills all the demands made on modern enclosures. This includes:

- Protective 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

Protective insulation

All enclosure parts and operating mechanisms are constructed so that they fulfill the conditions of the protective measure "total insulation" according to DIN VDE 0100, Part 410, when they are closed during operation. Enclosure fixings are situated outside the device installation space.

Application

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 switchgear assemblies (TTA) according to EN 60439-1/DIN VDE 0660 Part 500. The enclosure corresponds to the protective measure "total insulation" according to DIN VDE 0100.

Standards

DIN VDE 0660 Part 500

Specifications for type-tested low-voltage switchgear assemblies (TTA)

DIN VDE 0110

Standards for rating the creepage distances and clearances of electrical equipment

IEC 60439-1

Ready-made controls assemblies for low voltage

DIN VDE 0660 Part 107

Specifications for low-voltage controls

DIN VDE 0100

Standards for the erection of power installations with rated voltages up to 1000 V.

Declaration of conformity

This declares conformity of the components and distribution boards with the safety requirements for low-voltage equipment as specified in the EU Directive dated 19.02.1973.

Special tests

Fire tests for equipment used in mining are performed by the Versuchsgrube Tremonia, Dortmund, Germany.

Shock tests for equipment used in protective rooms are performed by the "Bundesamt für Zivilschutz", Bonn, Germany, regulation category RK 1.0/10 to safety level "A", Certificate of Use 036 /95.

Earthquake tests are performed by the IAB, Ottobrunn, Germany. Tests for use in EX zone 2 (special version).

The enclosure is **UL-certified**.

Installation conditions

Installation	Climatic conditions to DIN 50010	Special operating and ambient conditions
Indoor installation No further measures necessary. **External installation** Measures: e.g. protected erection or protective cover, if necessary with additional walls and door (protective cubicle). **Outdoor installation** Only permissible with the measures described for external installation.	An indoor climate is an environment in rooms that are designed so that objects are largely separated from the direct influence of an open-air climate. An external environment is an environment in rooms that are designed so that objects are protected against direct sunlight and precipitation and, if necessary, against wind, but are otherwise exposed to an open-air climate. An open-air climate is an environment that affects objects in the open air.	If the operating and ambient conditions differ from the standard conditions to DIN VDE 0660 Part 500, Item 6.1, appropriate measures must be taken to protect and maintain the operating capability of the switchgear and controlgear combination for "Special operating and ambient conditions" according to Item 6.2 (mechanical protection, ventilation, indoor heating, breathers etc.).

Conversion from Pg to metric screw connections

A new option for using metric screwed connections was tested for the 8HP molded-plastic distribution system. The result of this test showed that the Pg openings listed in the following table are also suitable for the use of metric screw connections. Metric screw connections with lock nuts are used. Corresponding sealing washers are used in order to ensure degree of protection IP65.

The values for the tested conversions from Pg to metric screwed glands are shown in the following table.

Pg	Borehole diameter	Metric thread
	mm	
13.5	20.4	M20
16	22.5	M22
21	28.3	M28
29	37	M36
36	47	M46
42	54	M52
49	59.3	M58

Single enclosures

Selection and ordering data

Version	Enclosure size	Mounting depth	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		mm							kg
Empty enclosures, complete									
• All empty enclosures are equipped with metal mounting plates. • The quick-acting locks of the covers need tools for opening and can be shut manually. • The enclosures have removable knockouts for flange openings and cable entries.									
 With transparent cover	1	147	B	**8HP2 021**		1	1 unit	046	1.500
	2	147	B	**8HP2 022**		1	1 unit	046	2.600
	2	212	B	**8HP2 012**		1	1 unit	046	2.900
	2	212	B	**8HP2 032**		1	1 unit	046	2.700
	2.5	147	B	**8HP2 027**		1	1 unit	046	3.600
	2.5	185	B	**8HP2 047**		1	1 unit	046	3.800
	3	147	B	**8HP2 023**		1	1 unit	046	4.700
	4	147	B	**8HP2 024**		1	1 unit	046	9.800
With cover, opaque	1	147	B	**8HP2 001**		1	1 unit	046	1.500
	2	147	B	**8HP2 002**		1	1 unit	046	2.600
	3	147	B	**8HP2 003**		1	1 unit	046	5.100
	4	147	B	**8HP2 004**		1	1 unit	046	9.900
Intermediate frames									
 For enlarging the mounting depth of empty enclosures by 92.5 mm. Several intermediate frames can be mounted one on the other.									
	3	92.5	B	**8HP1 283**		1	1 unit	046	1.100
	4	92.5	B	**8HP1 284**		1	1 unit	046	1.700
Individual components for empty enclosures									
 Enclosure bases	1	107	B	**8HP1 101**		1	1 unit	046	0.600
	2	107	B	**8HP1 102**		1	1 unit	046	0.900
	2.5	107	B	**8HP1 107**		1	1 unit	046	1.300
	3	107	B	**8HP1 103**		1	1 unit	046	1.500
	4	107	B	**8HP1 104**		1	1 unit	046	2.600
Transparent covers	1	40	B	**8HP1 221**		1	1 unit	046	0.300
	2	40	B	**8HP1 222**		1	1 unit	046	0.500
	2	105	B	**8HP1 232**		1	1 unit	046	0.700
	2.5	40	B	**8HP1 227**		1	1 unit	046	0.700
	2.5	78	B	**8HP1 247**		1	1 unit	046	0.900
	3	40	B	**8HP1 223**		1	1 unit	046	0.800
	4	40	B	**8HP1 224**		1	1 unit	046	2.100
Opaque covers	1	40	B	**8HP1 201**		1	1 unit	046	0.500
	2	40	B	**8HP1 202**		1	1 unit	046	0.600
	2	105	B	**8HP1 212**		1	1 unit	046	0.900
	3	40	B	**8HP1 203**		1	1 unit	046	1.300
	4	40	B	**8HP1 204**		1	1 unit	046	2.200
 Mounting plates (metal)	1		B	**8HP6 301**		1	1 unit	046	0.500
	2		B	**8HP6 302**		1	1 unit	046	1.100
	2.5		B	**8HP6 307**		1	1 unit	046	1.600
	3		B	**8HP6 303**		1	1 unit	046	2.400
	4		B	**8HP6 304**		1	1 unit	046	5.100

* You can order this quantity or a multiple thereof.

Selection and ordering data

Version	Enclosure size	Possible equipment	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Enclosures for modular installation devices									
 • Assembly kits including cover plates • The equipping options are specified in modular widths (1 MW = 18 mm). • PE and N outgoing feeders: One PE and N bar each, 6 × 6 mm, each with 1 incoming terminal 16 mm² for size 1 and 35 mm² for sizes 2 to 3. • 8WA2 860 outgoing terminals must be ordered separately, see Accessories.									
With transparent cover	1	1 × 11 MW	B	**8HP2 501**		1	1 unit	046	1.200
	2	2 × 14 MW	B	**8HP2 532**		1	1 unit	046	2.000
	2.5	3 × 14 MW	B	**8HP2 523**		1	1 unit	046	3.000
	3	4 × 14 MW	B	**8HP2 534**		1	1 unit	046	3.500
With cover, opaque	1	1 × 11 MW	B	**8HP2 511**		1	1 unit	046	1.300
	2	2 × 14 MW	B	**8HP2 542**		1	1 unit	046	2.200
	3	4 × 14 MW	B	**8HP2 544**		1	1 unit	046	3.900
With cover and operating flaps	1	1 × 11 MW	B	**8HP2 521**		1	1 unit	046	1.400
	2	2 × 14 MW	B	**8HP2 552**		1	1 unit	046	2.400
	3	4 × 14 MW	B	**8HP2 554**		1	1 unit	046	4.200
Cover with operating flaps, opaque	2	1 operating flap	B	**8HP1 351**		1	1 unit	046	0.600
	3	3 operating flaps	B	**8HP1 353**		1	1 unit	046	1.300
Enclosures with NEOZED screw-in fuse links									
 • Factory-assembled assembly kits with NEOZED bases including cover plates • The bars can be equipped with further terminals from the available accessories.									
25 A (E27)	2		A	**8HP2 157**		1	1 unit	046	4.000
Enclosures with DIAZED screw-in fuse links									
• Factory-assembled assembly kits with DIAZED bases including cover plates • PE and N outgoing feeders: One rail-mounting terminal each on copper bar, 6 x 6 mm, for each 3-pole circuit 25 A/4 mm² (8WA2 860), 63 A/16 mm² (8WA2 861). • The bars can be equipped with further terminals from the available accessories.									
25 A (E27)	1	2 × 3 × 25 A	B	**8HP2 122**		1	1 unit	046	1.800
	2	4 × 3 × 25 A	B	**8HP2 124**		1	1 unit	046	3.100
	2	5 × 3 × 25 A	B	**8HP2 125**		1	1 unit	046	3.400
	2.5	7 × 3 × 25 A	B	**8HP2 126**		1	1 unit	046	4.700
	3	8 × 3 × 25 A	B	**8HP2 128**		1	1 unit	046	5.700
	3	10 × 3 × 25 A	B	**8HP2 130**		1	1 unit	046	6.100
63 A (E33)	1	2 × 3 × 63 A	B	**8HP2 131**		1	1 unit	046	2.100
	2	4 × 3 × 63 A	B	**8HP2 133**		1	1 unit	046	3.800
	2.5	6 × 3 × 63 A	B	**8HP2 135**		1	1 unit	046	5.200
	3	8 × 3 × 63 A	B	**8HP2 137**		1	1 unit	046	7.000
25 A (E27) and 63 A (E33)	2	2 × 3 × 25 A and 3 × 3 × 63 A	B	**8HP2 145**		1	1 unit	046	3.800
	2.5	5 × 3 × 25 A and 2 × 3 × 63 A	B	**8HP2 152**		1	1 unit	046	5.100
		2 × 3 × 25 A and 4 × 3 × 63 A	B	**8HP2 153**		1	1 unit	046	4.800
	3	6 × 3 × 25 A and 4 × 3 × 63 A	B	**8HP2 146**		1	1 unit	046	6.800
		7 × 3 × 25 A and 3 × 3 × 63 A	B	**8HP2 147**		1	1 unit	046	6.800
		2 × 3 × 25 A and 8 × 3 × 63 A	B	**8HP2 148**		1	1 unit	046	7.400

* You can order this quantity or a multiple thereof.

Complete enclosures

Enclosures with LV HRC fuse bases

- All integrated LV HRC fuse bases (660 V AC, 440 V DC) up to 250 A with integrated PEN terminal.
- From 400 A without N and PE terminal.
- Connections:
  NH 00 over terminal clamp,
  NH 1 and NH 2 over M10 terminal screws,
  NH 3 over M12 terminal screws.

	Enclosure size	LV HRC fuse bases	Rated current I_n	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
			A							kg
With transparent cover	1	3 × NH 00[1]	160	B	**8HP2 300**		1	1 unit	046	2.400
	2	3 × NH 00[1]	160	B	**8HP2 301**		1	1 unit	046	3.500
		6 × NH 00[2]	160	B	**8HP2 302**		1	1 unit	046	4.300
	2	3 × NH 1[3]	250	B	**8HP2 311**		1	1 unit	046	4.400
	2	3 × NH 2[4]	400	B	**8HP2 312**		1	1 unit	046	5.500
	2	3 × NH 3[4]	630	B	**8HP2 314**		1	1 unit	046	7.200
	2.5	3 × NH 1[3]	250	B	**8HP2 306**		1	1 unit	046	5.000
		3 × NH 2[4]	400	B	**8HP2 307**		1	1 unit	046	6.000
		3 × NH 3[4]	630	B	**8HP2 318**		1	1 unit	046	5.500
	3	3 × NH 2[4]	400	B	**8HP2 313**		1	1 unit	046	6.500
		3 × NH 3[4]	630	B	**8HP2 315**		1	1 unit	046	18.300
With cover, opaque	1	3 × NH 00[1]	160	B	**8HP2 320**		1	1 unit	046	2.500
	2	3 × NH 00[1]	160	B	**8HP2 321**		1	1 unit	046	3.700
		6 × NH 00[2]	160	B	**8HP2 322**		1	1 unit	046	4.500
	2	3 × NH 1[3]	250	B	**8HP2 331**		1	1 unit	046	4.600
		3 × NH 2[4]	400	B	**8HP2 332**		1	1 unit	046	5.700
		3 × NH 3[4]	630	B	**8HP2 334**		1	1 unit	046	7.400
	3	3 × NH 2[4]	400	B	**8HP2 333**		1	1 unit	046	6.900
		3 × NH 3[4]	630	B	**8HP2 335**		1	1 unit	046	18.800

1) PEN terminal up to 35 mm^2, 1 × 8JH4 04 fitted.
For the 5th conductor an additional 8JH4 04 terminal can be fitted.

2) PEN terminal up to 35 mm^2, 1 × 8JH4 043 fitted.
For the 5th conductor an additional 8JH4 043 terminal can be fitted.

3) PEN terminal up to 70 mm^2, 1 × 8JH4 01 fitted.
For the 5th conductor an additional 8JH4 01 terminal can be fitted.

4) N/PE conductors must be passed through uncut.

* You can order this quantity or a multiple thereof.

Selection and ordering data

Meter enclosures

- With meter support plate or meter mounting rails (size 2) with meter fixing screws
- Sealing cap can be ordered as an accessory
- Distance bolts (15 mm) for raising the meter support plates are included in delivery if cables are routed underneath

Enclosure size	Mounting depth	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm							kg
2	137	B	**8HP2 622**		1	1 unit	046	1.700
2	202	B	**8HP2 632**		1	1 unit	046	1.800
2.5	145	B	**8HP2 627**		1	1 unit	046	2.300
2.5	183	B	**8HP2 647**		1	1 unit	046	2.300
2.5[1)]	183	C	**8HP2 657**		1	1 unit	046	2.400
3	145	B	**8HP2 623**		1	1 unit	046	2.400
3	237	B	**8HP2 653**		1	1 unit	046	4.000
4	145	B	**8HP2 624**		1	1 unit	046	4.900
4	237	B	**8HP2 654**		1	1 unit	046	7.600

1) With hinged window and reach-through guard, lockable with padlock

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* You can order this quantity or a multiple thereof.

Infeed enclosures

Selection and ordering data

	Version	Enclosure size	LV HRC fuse bases	Rated current I_n	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
				A							kg
Enclosures with fuse switch disconnectors											
	• Transparent cover with quick-release screws • Connections: - 3NP40 1: Pillar terminal - 3NP4.: Cable lug connection - 3NP52: Terminal clamp - 3NP53: M10 terminal screws										
	With transparent cover	1	1 × NH 000[1]	160	B	**8HP2 437**		1	1 unit	046	2.100
		1	1 × NH 00[2]	160	B	**8HP2 438**		1	1 unit	046	2.650
		2	2 × NH 000[1]	160	B	**8HP2 440**		1	1 unit	046	3.200
		2	3 × NH 000[1]	160	B	**8HP2 441**		1	1 unit	046	3.700
		2	1 × NH 00[2]	160	B	**8HP2 442**		1	1 unit	046	3.800
		2	1 × NH 00[2]	160	B	**8HP2 405**		1	1 unit	046	4.200
		2	2 × NH 00[2]	160	B	**8HP2 443**		1	1 unit	046	5.150
		2	1 × NH 1[3]	250	C	**8HP2 444**		1	1 unit	046	6.400
		2	1 × NH 1[3]	250	C	**8HP2 410**		1	1 unit	046	7.600
		2	1 × NH 2[4]	400	C	**8HP2 414**		1	1 unit	046	8.600
		2.5	1 × NH 00[2]	160	B	**8HP2 445**		1	1 unit	046	4.500
		2.5	1 × NH 00[2]	160	B	**8HP2 426**		1	1 unit	046	4.800
		2.5	2 × NH 00[2]	160	B	**8HP2 446**		1	1 unit	046	5.700
		2.5	1 × NH 1[3]	250	C	**8HP2 447**		1	1 unit	046	7.000
		3	1 × NH 1[5]	250	B	**8HP2 448**		1	1 unit	046	8.700
		3	1 × NH 1[4]	250	C	**8HP2 411**		1	1 unit	046	9.400
		3	1 × NH 1[5]	250	C	**8HP2 412**		1	1 unit	046	10.700
		3	1 × NH 2[4]	400	C	**8HP2 415**		1	1 unit	046	10.400
		3	1 × NH 2[5]	400	C	**8HP2 416**		1	1 unit	046	11.700
		3	1 × NH 3[5]	630	C	**8HP2 417**		1	1 unit	046	13.000
	Molded-plastic masking frames	1	For 8HP2 437		C	**8HP6 431**		1	1 unit	046	0.221
		1	For 8HP2 438		C	**8HP6 422**		1	1 unit	046	0.224
		2	For 8HP2 440		C	**8HP6 432**		1	1 unit	046	0.465
		2	For 8HP2 441		C	**8HP6 432**		1	1 unit	046	0.465
		2	For 8HP2 442		C	**8HP6 423**		1	1 unit	046	0.230
		2	For 8HP2 443		C	**8HP6 424**		1	1 unit	046	0.203
		2	For 8HP2 444		C	**8HP6 427**		1	1 unit	046	0.250
		2	For 8HP2 414		C	**8HP6 406**		1	1 unit	046	0.653
		2.5	For 8HP2 445		C	**8HP6 423**		1	1 unit	046	0.230
		2.5	For 8HP2 446		C	**8HP6 424**		1	1 unit	046	0.203
		2.5	For 8HP2 447		C	**8HP6 427**		1	1 unit	046	0.250
		3	For 8HP2 448		C	**8HP6 428**		1	1 unit	046	0.430
		3	For 8HP2 415		C	**8HP6 406**		1	1 unit	046	0.653

1) For a 4th and 5th conductor, 8WA1 205 terminals or 8GJ9 318-2 supports can be installed for 2 copper bars, 6 mm × 6 mm.

2) For a 4th and 5th conductor, 8WA1 205 terminals, 50 mm^2 can be installed.

3) Installation facility for 2 PEN terminals 8WA1 206, 95 mm^2

4) N/PE conductors must be passed through uncut.

5) Installation facility for 8JK4 04 terminal.

* You can order this quantity or a multiple thereof.

Version	Enclosure size	Switch disconnector	Rated current I_n	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
			A							kg
Main and EMERGENCY-STOP switches										
• Opaque cover with integrated switch disconnector as main control and EMERGENCY-STOP switch in the distribution board system										
Main control switches										
Handle: Black	2	3KA50[1]	63	C	**8HP2 705**		1	1 unit	046	4.331
Display plate:		3KA53[2]	160	C	**8HP2 714**		1	1 unit	046	3.400
Light gray		3KA55[3]	250	C	**8HP2 732**		1	1 unit	046	7.802
		3KA57[4]	400	C	**8HP2 716**		1	1 unit	046	8.915
	3	3KE42[5]	250	C	**8HP2 733**		1	1 unit	046	10.960
		3KE43[6]	400	C	**8HP2 735**		1	1 unit	046	10.807
		3KE44[7]	630	C	**8HP2 736**		1	1 unit	046	13.695
		3KE45[7]	800	C	**8HP2 738**		1	1 unit	046	14.290
EMERGENCY-STOP switches										
Handle: Red	2	3KA50[1]	63	C	**8HP2 742**		1	1 unit	046	4.202
Display plate:		3KA53[2]	160	C	**8HP2 744**		1	1 unit	046	5.454
Yellow		3KA55[3]	250	C	**8HP2 752**		1	1 unit	046	7.808
		3KA57[4]	400	C	**8HP2 746**		1	1 unit	046	7.485
	3	3KE42[5]	250	C	**8HP2 753**		1	1 unit	046	10.625
		3KE43[6]	400	C	**8HP2 755**		1	1 unit	046	10.900
		3KE44[7]	630	C	**8HP2 756**		1	1 unit	046	20.220
		3KE45[7]	800	C	**8HP2 758**		1	1 unit	046	14.329
Enclosures with switch disconnector with fuses										
• Opaque cover • Switch disconnector with mounted LV HRC fuses • With motor switching capacity and disconnector characteristics, can be used as main and EMERGENCY-STOP switch according to DIN VDE 0113 • With integrated door-coupling rotary operating mechanism • Lockable with 3 padlocks										
Main control switches										
Handle: Black	2	3KL50[1]	63	C	**8HP2 710**		1	1 unit	046	4.331
Display plate:		3KL52[2]	125	C	**8HP2 713**		1	1 unit	046	5.324
Light gray		3KL55[4]	250	C	**8HP2 715**		1	1 unit	046	9.342
EMERGENCY-STOP switches										
Handle: Red	2	3KL50[1]	63	C	**8HP2 741**		1	1 unit	046	4.353
Display plate:		3KL52[2]	125	C	**8HP2 743**		1	1 unit	046	5.324
Yellow		3KL55[4]	250	C	**8HP2 745**		1	1 unit	046	4.331
Load transfer switches and parallel switches										
• To be assembled in the workshop from two 3KE switch disconnectors, an assembly kit and a size 4 enclosure • The switches must be connected using copper busbars or NYA cables • The changeover operating mechanism is supplied in the "break-before-make" version • If the "make-before-break" version is required, the order number must be supplemented with "–Z" and the desired version must be specified										
Comprising:	Enclosure			B	**8HP1 104**		1	1 unit	046	2.600
and	Cover			B	**8HP1 204**		1	1 unit	046	2.200
and	Intermediate frames			B	**2 x 8HP1 284**		1	1 unit	046	1.700
plus:	Switch disconnectors	250 A (500 A)[8]		B	**2 x 3KE42 30-0AA**		1	1 unit	103	3.879
or	Switch disconnectors	400 A (800 A)[8]		B	**2 x 3KE43 30-0AA**		1	1 unit	103	3.870
or	Switch disconnectors	630 A (1260 A)[8]		B	**2 x 3KE44 30-0AA**		1	1 unit	103	6.915
and	Assembly kit with changeover operating mechanism			C	**8HP5 458**		1	1 unit	046	6.815
or	Assembly kit with shifting linkage for parallel switching			C	**8HP5 457**		1	1 unit	046	4.947

1) 8WA1 205 terminal for 4th conductor installed. For the 5th conductor an identical terminal can be installed in addition.

2) 8WA1 206 terminal for 4th conductor installed. For the 5th conductor an identical terminal can be installed in addition.

3) 8JK4 01 terminal for 4th conductor installed. For the 5th conductor an identical terminal can be installed in addition.

4) 8JU1 201 terminal for 4th conductor installed. For the 5th conductor an identical terminal can be installed in addition.

5) 8JK4 01 terminal for 4th conductor installed. For the 5th conductor an identical terminal can be installed in addition.

6) 8JK4 04 terminal for 4th conductor installed.

7) 8JK4 06 terminal for 4th conductor installed.

8) Values in brackets apply to parallel switches. For thermal reasons the rated operating current is reduced to approximately 80 % of the rated nominal current.

*** You can order this quantity or a multiple thereof.**

Components for busbar systems

Selection and ordering data

	Designation	For Cu busbars	Rated current of Cu busbars (85 °C)	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		mm × mm	A							kg
Busbar holders										
	**Busbar holders**	12 × 5 and 2 × (12 × 5)	250 400	B	**8HP1 701**		1	1 unit	046	0.090
		20 × 8 and 2 × (20 × 8)	400 630	B	**8HP1 704**		1	1 unit	046	0.150
		2 × (30 × 10)	1000	B	**8HP1 703**		1	1 unit	046	0.220
	**Retaining brackets** (1 set = 2 units) for fixing detached 8HP1 70 busbar holders. (in illustration alongside shown with integrated busbar holder)			B	**8HP1 706**		1	1 unit	046	0.060
	**Partitions** As end plate and barrier			B	**8HP1 708**		1	1 unit	046	0.200
	**Connecting lugs** For retaining brackets for detached busbar holders			B	**8HP1 707**		1	1 unit	046	0.005

	Designation	Conductor cross-section (solid or stranded)		DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		1 busbar	2 busbars							
		mm^2	mm^2							kg
Incoming and outgoing terminals for 12 × 5 mm or 2 × (12 × 5) mm busbars										
	**Terminals**	1.5 to 16		▶	**8US19 21-2AA00**		100	100 units	103	0.100
		10 to 35		▶	**8US19 21-2AB00**		1	50 units	103	0.046
		16 to 70		▶	**8US19 21-2AD00**		1	50 units	103	0.072
		16 to 120		▶	**8US19 21-2AC00**		1	50 units	103	0.107
			1.5 to 16	▶	**8US19 21-2BA00**		1	100 units	103	0.020
			10 to 35	▶	**8US19 21-2BB00**		1	50 units	103	0.040
			16 to 70	▶	**8US19 21-2BD00**		1	50 units	103	0.070
			16 to 120	▶	**8US19 21-2BC00**		1	50 units	103	0.100
		1.5 to 16	--	A	**8JH4 102**		1	1 unit	046	0.010
		10 to 35	--	A	**8JH4 104**		1	1 unit	046	0.030
		16 to 70 16 to 95	16 to 35 16 to 70	A A	**8JH4 105** **8JH4 106**		1 1	1 unit 1 unit	046 046	0.030 0.070
		25 to 120	25 to 50	A	**8JK3 061**		1	1 unit	046	0.090

* You can order this quantity or a multiple thereof.

	Designation	For busbars	Conductors to be connected (solid or stranded)	Clamping points	Conductors per clamping point	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		mm x mm	mm^2									kg
Incoming and outgoing terminals for 20 × busbars 8 mm or 2 × (20 × 8) mm; 2 × (30 × 10) mm												
	**Terminals**	20 × 8 or 2 × (20 × 8)	1.5 to 10	2	2	B	**8JK3 113**		1	1 unit	046	0.040
			10 to 70	2	1	B	**8JK3 143**		1	1 unit	046	0.110
			50 to 240	1	1	B	**8JK3 171**		1	1 unit	046	0.300
			50 to 240	1	2	B	**8JK3 172**		1	1 unit	046	0.420
		2 × (30 × 10)	10 to 70; on double busbars, divide the terminals alternately between the two bars in order to even the load			B	**8JK3 544**		1	1 unit	046	0.100
	**Bolt-type terminals for cable lugs**	2 x (30 x 10)	M12, up to 2 × 240 cable lug or bar connection			B	**8HP1 724**		1	1 unit	046	0.250

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* You can order this quantity or a multiple thereof.

Accessories

Components for busbar systems

Extension terminals

	Designation	For busbars mm × mm	Remarks	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
	**Extension terminals** (1 set = 2 units)	12 × 5	When using single busbars a copper connecting piece 12 × 5 mm or 20 × 8 mm must be made; when using 2 × Cu (20 × 8) mm the busbars overlap in the area of the connection point.	A	**8JK3 201**		1	1 set	046	0.100
		20 × 8 or 2 × (20 × 8)		B	**8JK3 281**		1	1 unit	046	0.230
		2 × (30 × 10)		B	**8HP1 728**		1	1 unit	046	0.400

	For busbars Number	Cross-section	Busbar center-to-center distance mm	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Busbar holders and holders for PE/N bars for free mounting, cover profiles										
	1	6 × 6 mm	--	B	**8JH4 230**		1	1 unit	046	0.010
	1 for 35 mm standard mounting rail	6 × 6 mm	--	B	**8HP6 601**		1	1 unit	046	0.010
	2 × 1 for 35 mm standard mounting rail (1 pair)	6 × 6 mm	--	B	**8GF9 318-2**		1	1 set	042	0.040
	2 × 1 can be screwed on (1 pair)	6 × 6 mm		B	**8GF9 320-1**		1	1 set	042	0.040
	1 × 3	12 × 5 mm to 30 × 10 mm								
	Outside fixing		60	A	**8US19 23-2AA00**		1	10 units	103	0.214
	Inside fixing		60	A	**8US19 23-3AA00**		1	10 units	103	0.200
	**Cover profiles, 1000 mm long**									
	Width 20 to 30 mm									
	5 mm thick			A	**8US19 22-2AA00**		1	10 units	103	0.156
	10 mm thick			A	**8US19 22-2BA00**		1	10 units	103	0.105

* You can order this quantity or a multiple thereof.

Designation	For busbars	Conductor cross-section (solid or stranded)	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm × mm	mm^2							kg
Incoming and outgoing terminals for busbars 6 × 6 mm, 16 × 3 mm[1]									
Terminals	6 × 6	1 to 4	A	**8WA2 860**		1	50 units	041	0.004
		1.5 to 16	A	**8WA2 861**		1	50 units	041	0.008
		2.5 to 16	A	**8JH4 112**		1	1 unit	046	0.007
		16 to 35	A	**8JH4 114**		1	1 unit	046	0.013
	16 × 3[1]	1.5 to 16	A	**8JH4 122**		1	1 unit	046	0.012
		10 to 35	A	**8JH4 124**		1	1 unit	046	0.024
		16 to 50	A	**8JH4 125**		1	1 unit	046	0.030
		10 to 70	B	**8JK3 441**		1	1 unit	046	0.060

Designation	Cross-section	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm							kg
Busbar copper, approx. 2 m long (1 unit)								
Busbar copper In the case of busbar holders in cover plates, the length of the busbar is the total of the external enclosure dimensions plus 12 mm	6 × 6	B	**8WC5 020**		1	1 unit	103	0.640
	12 × 5	B	**8WC5 023**		1	1 unit	103	1.100
	20 × 5	B	**8WC5 026**		1	1 unit	103	1.780
	20 × 8	B	**8WC5 027**		1	1 unit	103	2.840
	20 × 10	B	**8WC5 028**		1	1 unit	103	3.200
	25 × 5	B	**8WC5 031**		1	1 unit	103	2.240
	30 × 5	B	**8WC5 033**		1	1 unit	103	2.680
	30 × 10	B	**8WC5 034**		1	1 unit	103	5.360

Designation	Cross-section	Length	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	mm × mm								kg
Busbar copper (1 set = 5 bars)									
Busbar copper When the busbar holders are mounted in cover plates, the length of the busbars is equal to the total of the external dimensions of the busbar boxes plus 12 mm.	Cu 12 × 5	For 3 sections of each 307 mm	A	**8HP1 783**		1	1 unit	046	2.500
		For 4 sections of each 307 mm	A	**8HP1 784**		1	1 unit	046	3.300
		For 5 sections of each 307 mm	A	**8HP1 785**		1	1 unit	046	3.900
		For 6 sections of each 307 mm	A	**8HP1 786**		1	1 unit	046	4.900
	Cu 20 × 8	For 3 sections of each 307 mm	B	**8HP1 793**		1	1 unit	046	6.620
		For 4 sections of each 307 mm	B	**8HP1 794**		1	1 unit	046	8.800
		For 5 sections of each 307 mm	B	**8HP1 795**		1	1 unit	046	11.000
		For 6 sections of each 307 mm	B	**8HP1 796**		1	1 unit	046	13.160

	Designation	For enclosure size	Notes	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
										kg
Busbar assembly kits 250 A, 40 mm center-to-center distance										
	**Busbar assembly kits** These can be connected to each other with 8JK3201 extension terminals.	**2** 4 × Cu (12 × 5) mm with 4 incoming terminals up to 95 mm^2 and 4 outgoing terminals up to 16 mm^2	--	B	**8HP1 790**		1	1 unit	046	1.000
		**3** 4 × Cu (12 × 5) mm with 4 incoming terminals up to 95 mm^2 and 8 outgoing terminals up to 16 mm^2	--	B	**8HP1 791**		1	1 unit	046	1.800

1) For bus-mounting bars and connection assembly kits in the case of DIAZED assembly kits.

* You can order this quantity or a multiple thereof.

Accessories

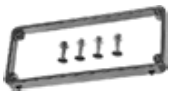
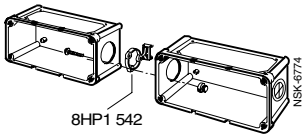
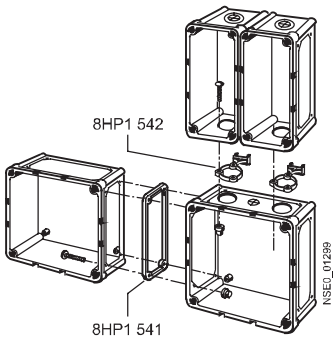
Components for busbar systems

	For conductor cross-section (solid or stranded)[1] Incoming leads Number	Incoming leads Cross-section[2] mm²	Outgoing leads Number	Outgoing leads Cross-section[2] mm²	Tightening torque Nm	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Base terminals, single-pole, insulated												
	2	4 to 10	2	4 to 10	2.0	B	**8JH4 02**		1	1 unit	046	0.030
	1	4 to 35	1	4 to 35	2.0	A	**8JH4 04**		1	1 unit	046	0.080
	1	4 to 35	1	4 to 35	2.0	A	**8JH4 043**		1	1 unit	046	0.150
	1	4 to 35	1	4 to 35	2.0	A	**8JH4 044**		1	1 unit	046	0.200
	1	6 to 70	1	6 to 70	6.0	B	**8JK4 01**		1	1 unit	046	0.110
	1 or 2	35 to 150 6 to 50	1 or 2	35 to 150 6 to 50	10.0	D	**8JK4 04**		1	1 unit	046	0.250
	2	50 to 240	2	50 to 185	6.0	B	**8JK4 06**		1	1 unit	046	0.680
	1	50 to 240	1	50 to 240	6.0	B	**8JK4 061**		1	1 unit	046	0.480
	Molded-plastic partitions For 8JK4 06 and 8JK4 061 terminals					B	**8JK4 100**		1	1 unit	046	0.010

1) In the case of finely stranded and extra finely stranded conductors, the maximum cross-section must be reduced in some cases by up to two steps. If necessary the conductors must be protected with end sleeves or similar against fanning out.
When connecting Al conductors, commercially available Al-Cu adapter pieces or clamping connections must be used.

2) When using different cross-sections, the larger conductor must be laid below the other.

* You can order this quantity or a multiple thereof.

	Designation	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Sealing frames								
	**Sealing frames**							
	Including locking screws and nuts	B	**8HP1 541**		1	1 unit	046	0.110
	Including locking screws and nuts	B	**8HP1 542**		1	1 unit	046	0.070
	Can be used on the narrow side of size 1 enclosures							
								
								
	When enclosures are connected to each other, sealing frames are required between the flange openings.							
Cover plates including fixing screws and seals [1]								
	If enclosure knockouts do not meet requirements, the end cover plates with or without knockouts mentioned here can be mounted.							
	**Without knockouts**	B	**8HP1 500**		1	1 unit	046	0.170
	With knockouts							
	8 × Pg 16 or 6 × Pg 16 plus 2 × Pg 36	B	**8HP1 511**		1	1 unit	046	0.170
	4 × Pg 21 plus 4 × Pg 16 or 4 × Pg 21 plus 4 × Pg 29 or 4 8HP1 80 rubber cable glands.	B	**8HP1 512**		1	1 unit	046	0.170
	For 8 8HP1 80. rubber cable glands or 8 × Pg 29	B	**8HP1 513**		1	1 unit	046	0.170

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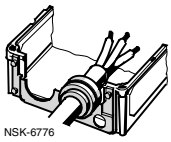
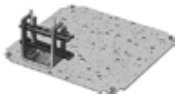
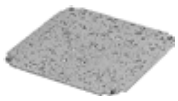
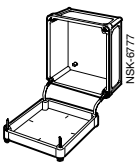
* You can order this quantity or a multiple thereof.

Accessories

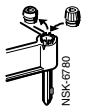
Enclosures

	Designation	For cables	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		mm ∅							kg
Cable entries									
	**Rubber cable entries** For insertion in 38 mm ∅ knockouts according to Pg 29. Can also be used as blanking plug.	For 1 cable with 12 to 29 mm ∅	B	**8HP1 805**		1	1 unit	046	0.012
		For 2 cables with 6 to 15 mm ∅	B	**8HP1 806**		1	1 unit	046	0.012
		For 3 cables with 4 to 12.5 mm ∅	B	**8HP1 807**		1	1 unit	046	0.012
		For 4 cables with 4 to 12 mm ∅	B	**8HP1 808**		1	1 unit	046	0.012

1) For conversion from Pg to metric screwed glands, see "General Data – Application".

	Designation	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
								kg
	**Cable entry plates** Including mounting parts. seal, two 8HC6 900 rubber cable glands for cables from 14 to 65 mm ∅ and a knockout for Pg 21 cable gland	B	**8HP1 520**		1	1 unit	046	0.350
 NSK-6776								
	**Protective caps** For cables entries on the above-mentioned cable entry plate. Poke-proof!	B	**8HP1 525**		1	1 unit	046	0.030
	Rubber cable entries For cables from 14 to 65 mm ∅ (as spare part for cable entry plate)	B	**8HC6 900**		1	1 unit	046	0.050
	**Strain relief cleats** On mounting plate size 2, for enclosures sizes 2 to 4, complete for one cable, installation facility for 2nd strain relief cleat for double cable	B	**8HP6 322**		1	1 unit	046	1.550
	**Strain reliefs** For individual mounting and for 8HP6 322	B	**8HP1 530**		1	1 unit	046	0.380
	**Mounting plates** Size 2, for terminal mounting in enclosures sizes 2 to 4 for max. five 8JK4 04, 8JK4 06 or 8JK4 061 terminals For terminals, see page page 14/70.	B	**8HP6 312**		1	1 unit	046	1.180
 NSK-6777	**Screws for cover hinges** (1 set = 2 units)	B	**8HP1 811**		1	1 unit	046	0.040
	Quick-release cover locks (1 set = 4 units)	B	**8HP1 813**		1	1 unit	046	0.100

* You can order this quantity or a multiple thereof.

	Designation	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
	**Grip ends** Straight knurled, for opening by hand (1 set = 4 units)	B	**8HP1 810**		1	1 unit	046	0.040
	Self-tapping screws	B	**8HP6 621**		1	1 unit	046	0.150
	**Actuating flaps** With snap-lock, lockable, with 6 mm padlock, degree of protection IP65 12 modular widths (1 MW = 18 mm)	B	**8HP1 440**		1	1 unit	046	17.500
	**Actuating flaps** With screwed lock, degree of protection IP65 5 modular widths (1 MW = 18 mm) 2 modular widths (1 MW = 18 mm)	B B	**8HP1 441** **8HP1 442**		1 1	1 unit 1 unit	046 046	0.100 0.050
								
	Hinged covers with tension springs[1] Degree of protection IP54 8 modular widths (1 MW = 18 mm)	C	**8HA4 14**		1	1 unit	046	0.200
	**Fixing rails** With tapped holes M4, fixing length 236 mm	B	**8JK1 13**		1	1 unit	046	0.050
	**Mounting rails** For meters, time switches and time relays, fixing length 236 mm	B	**8JH1 41**		1	1 unit	046	0.070
	**Standard mounting rails** 35 mm according to EN 50022 (thickness 1 mm), fixing length 236 mm	B	**8HP6 510**		1	1 unit	046	0.100
	Mounting plates 2 mm metal sheet, sendzimir-galvanized, for fixing with self-tapping screws 100 × 273 mm 150 × 273 mm 200 × 273 mm	A A A	**8HP6 341** **8HP6 342** **8HP6 343**		1 1 1	1 unit 1 unit 1 unit	046 046 046	0.500 0.700 1.000

1) Cannot be used with 8HP5 5.. assembly kits.

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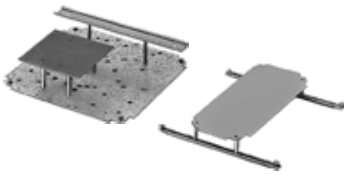
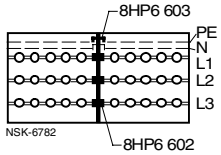
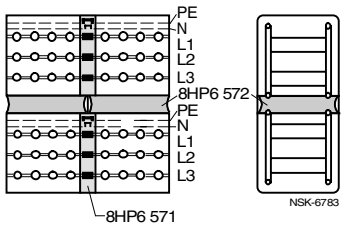
* You can order this quantity or a multiple thereof.

Accessories

Installations

	Designation	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Stud bolts								
	**M5 stud bolts** Hexagonal, for screwing directly into the M5 threaded bushes in the enclosure base							
	Length 10 mm	B	**8HP6 615**		1	1 unit	046	0.020
	Length 15 mm	B	**8HP6 611**		1	1 unit	046	0.020
	Length 30 mm	B	**8HP6 612**		1	1 unit	046	0.040
	Length 50 mm	B	**8HP6 613**		1	1 unit	046	0.060
	Length 35 mm	B	**8HP6 614**		1	1 unit	046	0.050
	**M4 stud bolts** For screwing into 8JK1 13 fixing rail or mounting plates							
	Length 20 mm	X	**8JH1 353**		1	1 unit	103	0.006
	Length 30 mm	X	**8JH1 354**		1	1 unit	103	0.009
	Length 45 mm	A	**8JH1 355**		1	1 unit	103	0.014
	Length 50 mm	D	**8JH1 356**		1	1 unit	103	0.016
Insulation carriers								
	**Insulation carriers** For insulated mounting of mounting rails onto plates, frame profiles and standard mounting rails according to EN 50022-35	A	**8WA1 857**		1	20 units	041	0.010
	Labels For identification of insulation carrier	A	**8WA1 864**		1	100 units	041	0.009
Blanking covers								
	**Blanking cover plates** Made of molded-plastic in RAL 7035 light gray							
	For enclosure size 2	B	**8HP6 586**		1	1 unit	046	0.250
	For enclosure size 3	B	**8HP6 588**		1	1 unit	046	0.500
Connection assembly kits								
	**Connection assembly kits for 2 DIAZED or NEOZED fuse assembly kits** The bars of the connection assembly kit can be equipped with incoming terminals up to 50 mm^2, Order No. 8JH4 125 or 70 mm^2, Order No. 8JK3 441 (see page 14/69). Note load rating of the bus-mounting base bar 160 A.							
	Kits for 3 busbars 16 x 3 mm (L1, L2, L3)	B	**8HP6 602**		1	1 unit	046	0.100
	Kits for N/PE bars (2 units are required for 5 conductors)	B	**8HP6 603**		1	1 unit	046	0.080
Intermediate covering strips								
	For multiple installation of assembly kits with cover plates for covering the intermediate spaces. These are essential when using cover locks with manual operation.							
	Covering strips, 285 mm long							
	Vertical	B	**8HP6 571**		1	1 unit	046	0.020
	Horizontal	B	**8HP6 572**		1	1 unit	046	0.020

* You can order this quantity or a multiple thereof.

	Designation	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Pushbuttons and indicator lights								
 ① ② ③	3SB and 3SA totally insulated push-buttons and indicator lights can be installed in the enclosures of the 8HP system. (For technical specifications and selection and ordering data see Catalog "BERO – Sensor Technology for Automation") When equipment with front plate fixing is mounted in the cover, it is recommended to use 8HP1 811 cover hinge screws to relieve the strain on the cables, see page 14/72. In the case of equipment for floor mounting it is recommended to use actuators with extended stroke in order to compensate for cover and mounting tolerances. ① 3SB1 installed in enclosure size 2 ② 3SB10 00-0B.. with extended stroke ③ 3SB14 20-0C for floor mounting							
Measuring instruments								
	**Holders for measuring instruments** For mounting on mounting plates □ 96 or □ 72	B	**8HP6 201**		1	1 unit	046	0.100
	**Masking frames for measuring instruments** Made of plastic, for shielding busbars, terminals etc., hinged, 250 × 250 mm							
	Without cutouts	B	**8HP6 203**		1	1 unit	046	0.540
	With 4 cutouts □ 96	B	**8HP6 204**		1	1 unit	046	0.400
Accessories for meter enclosures								
	ISO meter support plates With meter fixing screws according to DIN 46300 and distance bolts (15 mm)							
	For enclosure size 2.5	B	**8HP6 111**		1	1 unit	046	0.400
	For enclosure sizes 3 and 4	B	**8HP6 112**		1	1 unit	046	0.600
	8JH1 41 meter support rail and 8JK1 13 fixing rail (see page 14/73)							
	**Sealing caps** For sealing the quick-release cover locks (1 set = 2 units)	B	**8HP1 815**		1	1 set	046	0.010
	**Sealing fasteners** Captive, for sealing the quick-release cover locks (1 set = 2 units)	B	**8HP1 816**		1	1 set	046	0.010
	**Hinged windows** For maximum-demand meters and time switches	B	**8HC4 80**		1	1 unit	046	0.440

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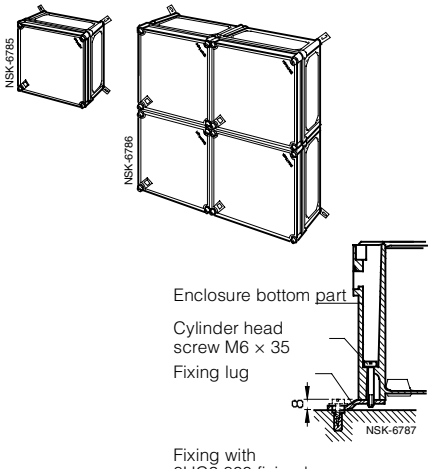
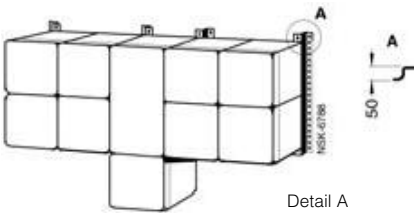
* You can order this quantity or a multiple thereof.

Installations

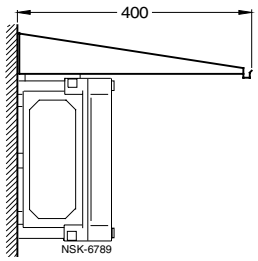
	Designation	For switch	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Single operating mechanisms, with total insulation									
	**Single operating mechanisms for switch disconnectors** Lockable with padlocks								
	For fitting in size 2 enclosures with raised cover and in size 3 and 4 enclosures with intermediate frame	3KL50, 3KA50 ▶ "EMERGENCY-STOP" ▶		**8UC61 11-1BB10** **8UC61 21-3BB10**		1 1	1 unit 1 unit	103 103	0.347 0.353
	8UC61, 8UC62: Blanking cover ☐ 75 mm 8UC63, 8UC64: Blanking cover ☐ 100 mm	3KL52, 3KA53 ▶ "EMERGENCY-STOP" ▶		**8UC62 12-1BB20** **8UC62 22-3BB20**		1 1	1 unit 1 unit	103 103	0.404 0.426
		3KL55, 3KA57 ▶ "EMERGENCY-STOP" ▶		**8UC63 13-1BB30** **8UC63 23-3BB30**		1 1	1 unit 1 unit	103 103	0.973 0.999
		3KE42, 3KE43 "EMERGENCY-STOP" ▶	B	**8UC63 14-1BB44** **8UC63 24-3BB44**		1 1	1 unit 1 unit	103 103	1.153 1.173
		3KE44, 3KE45 ▶ "EMERGENCY-STOP" ▶		**8UC64 14-1BB44** **8UC64 24-3BB44**		1 1	1 unit 1 unit	103 103	1.171 1.189
	**Single operating mechanisms for 3VF circuit-breakers**								
	Enclosure size 2 with raised cover or size 3 with intermediate frame	3VF4 3VF5	D D	**3VF9 423-1EA00** **3VF9 523-1EA00**		1 1	1 unit 1 unit	113 113	2.000 1.080
	Enclosure size 3 with intermediate frame	3VF6	D	**3VF9 623-1EA00**		1	1 unit	113	0.140

	Designation	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Wall mounting of distribution boards								
	Fixing lugs For individual enclosures and consumer units complete with cylinder head screws M6 × 35 (1 set = 4 units)	B	**8HC3 800**		1	1 unit	046	0.100
	 Fixing with 8HC3 800 fixing lugs							
	Wall mounting brackets With elongated holes 7 mm × 44 mm							
	700 mm long	B	**8HC3 510**		1	1 unit	046	2.530
	2000 mm long	B	**8HP9 020**		1	1 unit	046	7.500
	 Detail A							

For EMERGENCY-STOP operating mechanisms for SENTRON VL and 3VF circuit-breakers, see "SENTRON Switching and Protection Devices - Air Circuit-Breakers".

*** You can order this quantity or a multiple thereof.**

Rain guards



Designation	Enclosure width (Width = X × 307 + 185 mm)	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	X							kg
Rain guards Made of sendzimir-galvanized metal sheeting, 1.5 mm thick. Enclosure width								
For wall fixing	1	B	**8HP9 121**		1	1 unit	046	3.700
	2	B	**8HP9 122**		1	1 unit	046	5.500
	3	B	**8HP9 123**		1	1 unit	046	7.300
	4	B	**8HP9 124**		1	1 unit	046	9.200
With additional fixing for 8HP frame	3	B	**8HP9 133**		1	1 unit	046	8.000
	4	B	**8HP9 134**		1	1 unit	046	9.900
With additional fixing for 8HP frame and supporting cross-arm	5	B	**8HP9 135**		1	1 unit	046	12.400
	6	B	**8HP9 136**		1	1 unit	046	14.300

Tools and aids

Designation	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
							kg
Separating tools With 1 blade for easy cutting out of the flange knockouts in the side panels of the enclosures.	B	**8HP9 000**		1	1 unit	046	0.150
Replacement blades	B	**8HP9 001**		1	1 unit	046	0.010

Hand-held circle cutters For cutting out the Pg knockouts in the side panels of the enclosures and the end plate							
Pg 13.5	B	**8HP9 002**		1	1 unit	046	0.200
Pg 16	B	**8HP9 003**		1	1 unit	046	0.200
Pg 21	B	**8HP9 004**		1	1 unit	046	0.200
Pg 36	B	**8HP9 006**		1	1 unit	046	0.250
Pg 48	B	**8HP9 007**		1	1 unit	046	0.250

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*** You can order this quantity or a multiple thereof.**

Support racks and cable space covers

8HP distribution board with support rack and cable space cover

Support rack

Support rack made of sendzimir-galvanized shaped sheet metal for mounting 8HP distribution boards.

Punched holes at spacings of 307 mm x 307 mm enable the different distribution boards to be fixed using the supplied captive nuts.

Widths (3, 4, 5, 6) x 307 mm (= distribution board width); for greater widths, racks can be connected together.

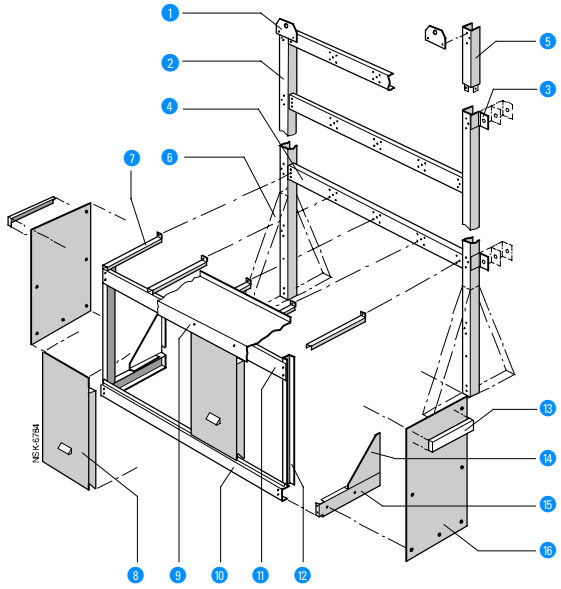
Height 6 x 307 mm; the height can be increased by 307 mm using an extension.

Cable space cover

Cable space cover for mounting on the 8HP support rack or an appropriate profiled iron frame, with plug-in molded-plastic covers (color light gray, RAL 7035).

Heights 370 and 677 mm. With the 8HP9 057 double flange, enclosures can also be fitted under the cable space cover. On the outer sides however, due to the joining sheets, only enclosures of size 1 in the case of 370 mm height and enclosures of size 2 for 677 mm height can be used.

For distribution boards > 6 widths = 1842 mm, 2 cable space covers must be ordered in accordance with the support racks. However, as in this case only 1 set of side walls ⑯ and 1 set of corner covers ⑬ are required, it is advisable to order the second cable space cover in separate parts – without the specified items.



Individual parts for support rack and cable space cover
① Lifting lug
② Support profile
③ Wall mounting bracket
④ Mounting rail
⑤ Support profile extension
⑥ Supporting foot for free-standing installation
⑦ Support strut
⑧ Section cover
⑨ Top cover
⑩ Skirting board
⑪ Lateral profile
⑫ Corner profile
⑬ Corner cover
⑭ Joining sheet
⑮ Side strut
⑯ Side panel

* You can order this quantity or a multiple thereof.

Support racks and cable space covers

Fig. No.	Designation	Dimensions	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		mm							kg
Components of the support racks									
2	**Support profiles** (including 4 wall mounting brackets 3, 2 lifting lugs 1 and fixing accessories) 1 pair	1952	A	**8HP9 030**		1	1 unit	046	11.200
4	**Mounting rails** Including fixing accessories		A	**8HP9 032**		1	1 unit	046	2.700
	3 sections (for a distribution board width of 921 mm)	821	A	**8HP9 032**		1	1 unit	046	2.700
	4 sections (for a distribution board width of 1228 mm)	1128	A	**8HP9 035**		1	1 unit	046	3.600
	5 sections (for a distribution board width of 1535 mm)	1435	A	**8HP9 036**		1	1 unit	046	4.500
	6 sections (for a distribution board width of 1842 mm)	1742	A	**8HP9 037**		1	1 unit	046	5.400
5	**Support profile extensions** 1 pair	307	A	**8HP9 034**		1	1 unit	046	0.900
3	**Wall mounting brackets** 1 pair (if additionally needed)	For wall spacings from 50 to 100	B	**8HP9 033**		1	1 unit	046	0.100
–	**Joining brackets** For joining two frames and simultaneous wall fixing behind the enclosures		B	**8HP9 060**		1	1 unit	046	0.300
6	**Supporting feet** For free-standing installation without cable space cover		B	**8HP9 031**		1	1 unit	046	2.000

	Designation	Number of sections	Height	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
			mm							kg
Cable space covers										
	Complete, but unassembled	3	370	B	**8HP9 103**		1	1 unit	046	9.300
			677	B	**8HP9 113**		1	1 unit	046	11.400
		4	370	B	**8HP9 104**		1	1 unit	046	11.000
			677	B	**8HP9 114**		1	1 unit	046	13.700
		5	370	B	**8HP9 105**		1	1 unit	046	12.700
			677	B	**8HP9 115**		1	1 unit	046	16.000
		6	370	B	**8HP9 106**		1	1 unit	046	14.400
			677	B	**8HP9 116**		1	1 unit	046	18.300

Components of the cable space cover	Corner profile	Lateral profile	Support strut	Side strut	Joining sheet	Skirting board	Top cover	Corner cover	Section cover	Side panel	Bolts and nuts
	1 pair each	1 unit each		2 units each	2 units each	1 unit each	1 unit each	1 pair each		1 pair each	1 bag each
8HP9 103	8HP9 061	8HP9 063	4 x 8HP9 067	8HP9 045	8HP9 046	8HP9 038	8HP9 073	8HP9 083	3 x 8HP9 071	8HP9 081	8HP9 058
8HP9 113	8HP9 062	8HP9 063	4 x 8HP9 067	8HP9 045	8HP9 046	8HP9 038	8HP9 073	8HP9 083	3 x 8HP9 072	8HP9 082	8HP9 058
8HP9 104	8HP9 061	8HP9 064	5 x 8HP9 067	8HP9 045	8HP9 046	8HP9 040	8HP9 074	8HP9 083	4 x 8HP9 071	8HP9 081	8HP9 058
8HP9 114	8HP9 062	8HP9 064	5 x 8HP9 067	8HP9 045	8HP9 046	8HP9 040	8HP9 074	8HP9 083	4 x 8HP9 072	8HP9 082	8HP9 058
8HP9 105	8HP9 061	8HP9 065	6 x 8HP9 067	8HP9 045	8HP9 046	8HP9 041	8HP9 075	8HP9 083	5 x 8HP9 071	8HP9 081	8HP9 058
8HP9 115	8HP9 062	8HP9 065	6 x 8HP9 067	8HP9 045	8HP9 046	8HP9 041	8HP9 075	8HP9 083	5 x 8HP9 072	8HP9 082	8HP9 058
8HP9 106	8HP9 061	8HP9 066	7 x 8HP9 067	8HP9 045	8HP9 046	8HP9 042	8HP9 076	8HP9 083	6 x 8HP9 071	8HP9 081	8HP9 058
8HP9 116	8HP9 062	8HP9 066	7 x 8HP9 067	8HP9 045	8HP9 046	8HP9 042	8HP9 076	8HP9 083	6 x 8HP9 072	8HP9 082	8HP9 058

*** You can order this quantity or a multiple thereof.**

Accessories

Support racks and cable space covers

Fig. No.	Designation	Dimensions Base height or width	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Individual parts for cable space covers									
12	**Corner profiles** (1 pair)	370 mm high	B	**8HP9 061**		1	1 unit	046	0.500
		677 mm high	B	**8HP9 062**		1	1 unit	046	1.000
11	**Lateral profiles**								
	3 sections	921 mm	B	**8HP9 063**		1	1 unit	046	1.100
	4 sections	1228 mm	B	**8HP9 064**		1	1 unit	046	1.470
	5 sections	1535 mm	B	**8HP9 065**		1	1 unit	046	1.820
	6 sections	1842 mm	B	**8HP9 066**		1	1 unit	046	2.200
7	**Support struts** (number of sections +1)	--	B	**8HP9 067**		1	1 unit	046	0.200
15	**Side struts**	--	B	**8HP9 045**		1	1 unit	046	0.900
14	**Joining sheets**	--	B	**8HP9 046**		1	1 unit	046	0.700
10	**Skirting boards**								
	3 sections	921 mm	B	**8HP9 038**		1	1 unit	046	1.800
	4 sections	1228 mm	B	**8HP9 040**		1	1 unit	046	2.400
	5 sections	1535 mm	B	**8HP9 041**		1	1 unit	046	3.000
	6 sections	1842 mm	B	**8HP9 042**		1	1 unit	046	3.600
9	**Top covers**								
	3 sections		B	**8HP9 073**		1	1 unit	046	1.000
	4 sections		B	**8HP9 074**		1	1 unit	046	1.300
	5 sections		B	**8HP9 075**		1	1 unit	046	1.700
	6 sections		B	**8HP9 076**		1	1 unit	046	2.000
13	**Corner covers**								
8	**Section cover** (1 pair)		B	**8HP9 083**		1	1 unit	046	0.100
		370 mm high	B	**8HP9 071**		1	1 unit	046	0.350
		677 mm high	B	**8HP9 072**		1	1 unit	046	0.820
16	**Side panels** (1 pair)	370 mm high	B	**8HP9 081**		1	1 unit	046	1.200
		677 mm high	B	**8HP9 082**		1	1 unit	046	2.200
--	**Double flanges**[1)]		B	**8HP9 057**		1	1 unit	046	0.300
--	**Nuts and bolts** (Assortment, sufficient for 6 sections)		B	**8HP9 058**		1	1 unit	046	0.800

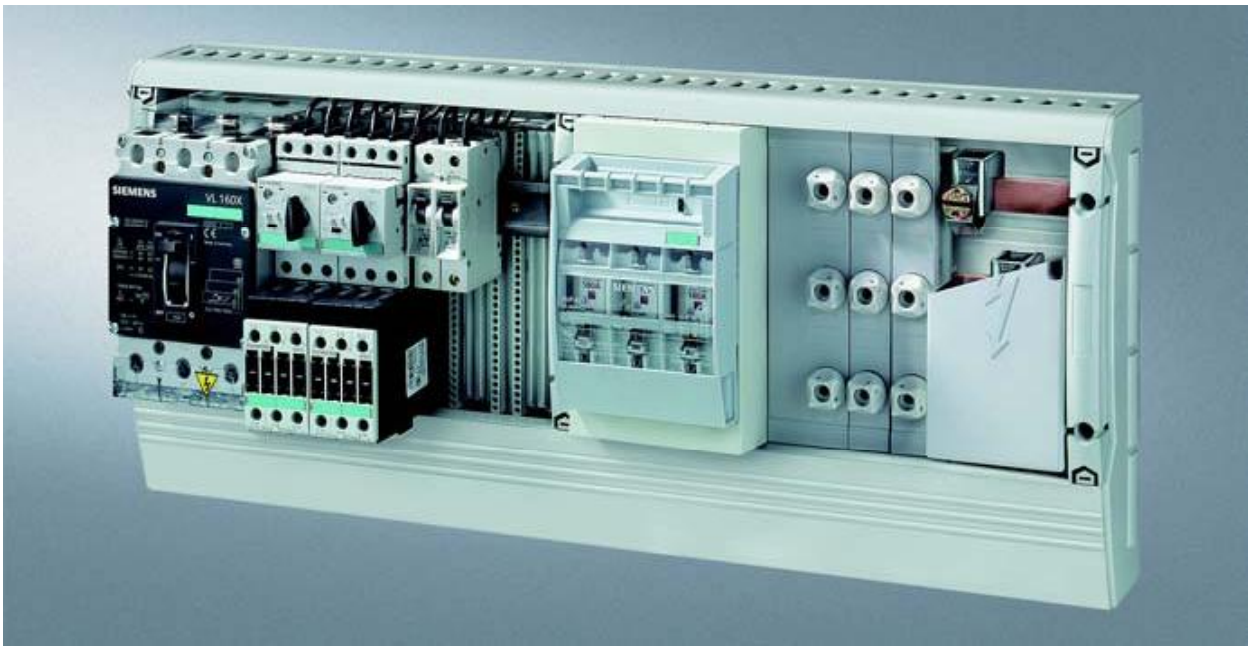
1) For mounting enclosures under the cable space cover.

More information

For more information, see Catalog ET A1 "ALPHA Small Distribution Boards and Distribution Boards"

* You can order this quantity or a multiple thereof.

Overview



Benefits

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 feeders of the same power 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 safety is therefore guaranteed.

Application

Mounting current-limiting (protection) devices such as fuse switch disconnectors and circuit-breakers, but also complete load feeders, directly onto busbars has become a commonly used technique.

More information

Design

8US busbar systems with 40 mm and 60 mm busbar center-to-center distance as well as flat copper profiles have now become firmly established on the world market. The permissible busbar temperature is a decisive factor when dimensioning the busbars. The busbar temperature is dependent on the current and the current distribution, on the busbar cross-section and the busbar surface, on the position of the busbars, convection and the ambient temperature. The values stated in the table below can only be considered as reference values because the conditions vary with each location. The values are based on uninterrupted current over the whole busbar length.

The trend toward busbars proves most advantageous when the incoming supply is centrally located and the load is distributed symmetrically on both sides.

Function

Short-circuit strength

The short-circuit strength of the busbar system is dependent on the distance of the busbar supports and on the busbar cross-section.

The short-circuit strength of the whole system is dependent on the short-circuit strength of the busbars and of the adapters with circuit-breakers or switch disconnectors (see "Molded-case circuit-breakers (MCCB)" and "Switch disconnectors").

If one of these values is lower than the prospective short-circuit current at the mounting point, a current-limiting protective device has to be mounted upstream of the 8US busbar system. This may also be mounted as a feeder circuit-breaker on the busbar system itself.

General data

Technical specifications

Uninterrupted current for busbars, E-Cu bare, at 35 °C ambient temperature in accordance with DIN 43671

Busbar dimensions	System	Uninterrupted current at a busbar temperature of		
		65 °C	85 °C	105 °C
mm	mm	A	A	A
12 × 5	40 + 60	188	248	295
15 × 5	40 + 60	222	293	349
20 × 5	60	274	362	430
25 × 5	60	327	432	513
30 × 5	60	379	500	595
12 × 10	40 + 60	302	398	474
20 × 10	60	427	564	670
30 × 10	60	573	756	900
Special profile up to 1600 A	60	1020	1020	1600

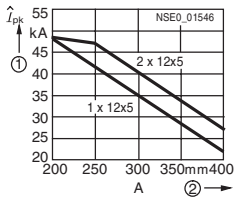
Technical specifications of the system components

Rated insulation voltage U_i	**AC 1000 V**[1)]
Short-circuit strength	
of the 8US1 device adapters	Current limiting by means of associated circuit-breakers/load feeders up to 50 kA
of the busbar systems	see Characteristic Curves
Material	
of the 8US1 busbar supports, device adapters and device holders	Fiberglass-strengthened polyamide
Color	RAL 7035, light gray
Temperature resistance	
of the 8US1 busbar supports, device adapters and device holders	120 °C
of the AWG connecting leads	105 °C
of the cover profiles and end covers	70 °C
Approvals	
Busbar supports, device adapters, device holders and terminals	UR, CSA

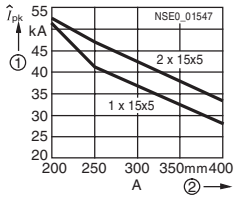
1) Reduction of U_i when using certain terminals in the 40-mm system, see Terminals

Characteristic curves

40 mm busbar system

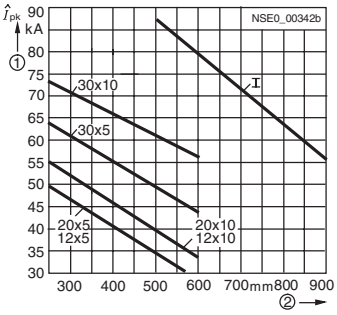


① Peak current I_{pk}
② Spacing for busbar supports



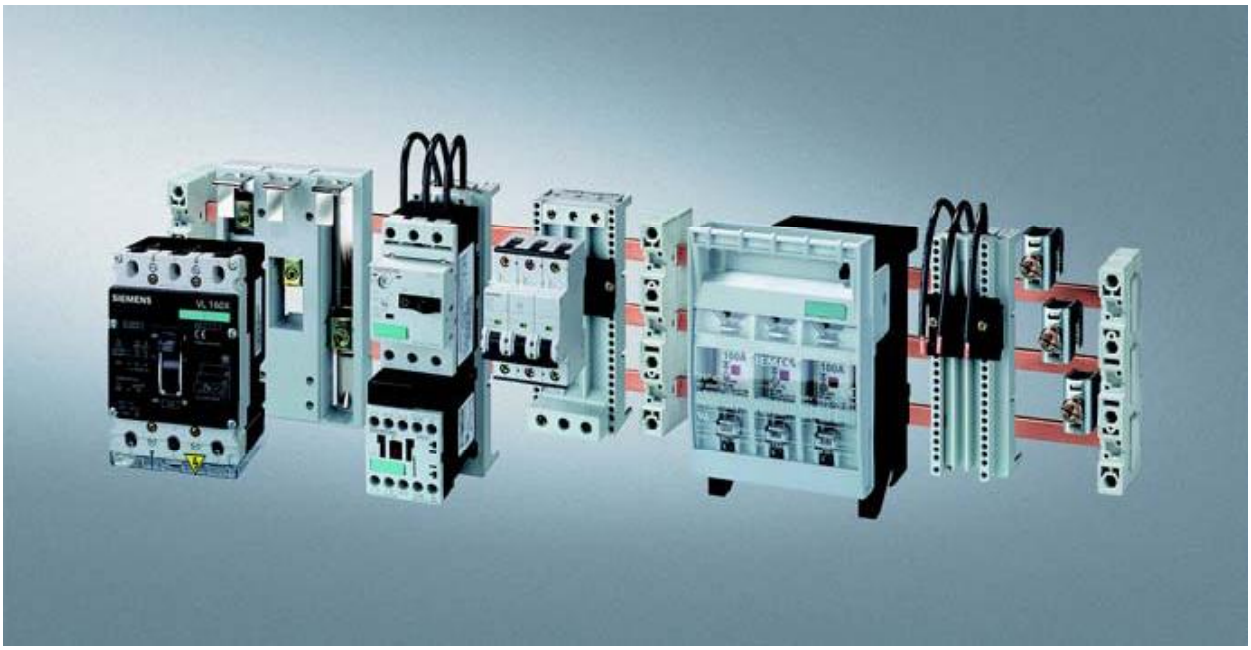
① Peak current I_{pk}
② Spacing for busbar supports

60 mm busbar system



① Peak current I_{pk}
② Spacing for busbar supports

Overview



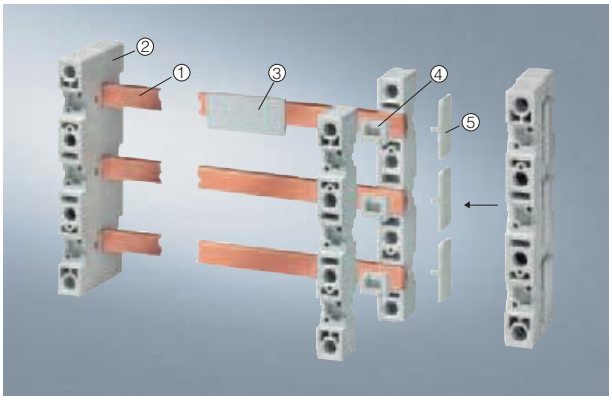
The 40 mm busbar system is used in machinery and plant building, in motor control centers and in power distribution systems of the low power range up to 400 A.

The busbar cross-sections are adapted to the rated currents and are available in the sizes 12 x 5 mm, 12 x 10 mm, 15 x 5 mm and 15 x 10 . The basic system is configured without covers. If touch protection is required, this is possible with busbar covers.

An optimized spectrum of busbar device adapters offers numerous adaptation and mounting options. Terminals round off the product range of the 40 mm busbar system.

Base assemblies

Overview



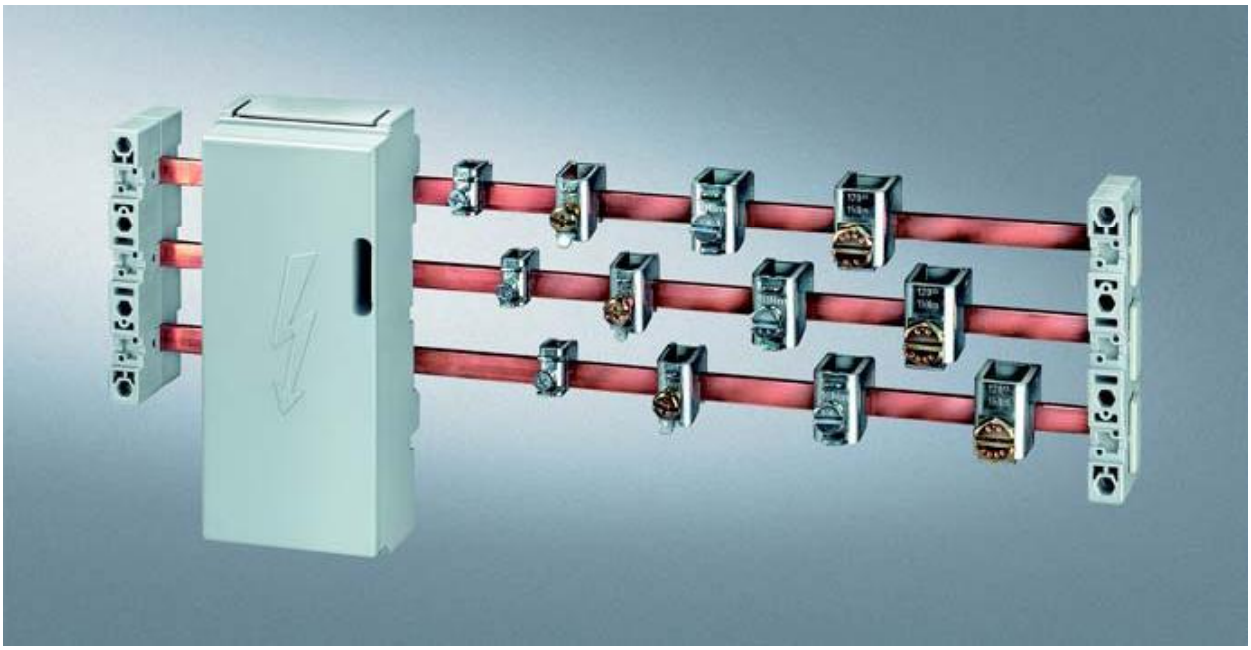
① Flat copper profile
② Busbar support
③ Cover profile
④ Inlay part
⑤ Covering cap

Selection and ordering data

	Description		DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
	Busbar supports								
	End and intermediate holders for flat copper profiles								
	12 mm x 5 mm.12 mm x 10 mm, 15 mm x 5 mm.15 mm 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)		A	**8US19 03-3AB00**		1	1 unit	103	0.184
	5-pole 12 mm x 5 mm and 12 mm x 10 mm with inside fixing	L1–L3 + N + PE/N	A	**8US19 03-5AA00**		1	1 unit	103	0.137
	Flat copper profile (flat profile, approx. 2 m long, bare, to EN 12167)								
	12 mm × 5 mm		B	**8WC5 023**		1	1 unit	103	1.100
	15 mm × 5 mm		B	**8WC5 021**		1	1 unit	103	1.550
	Cover profiles for busbars								
	12 mm x 5 mm	1000 mm long	A	**8US19 22-2CA00**		1	10 units	103	0.200

* You can order this quantity or a multiple thereof.

Overview



Selection and ordering data

	Description	Conductor cross-section	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		mm^2							kg
	Terminals for circular conductors[1)2)]								
	5 mm busbar thickness								
	12 mm × 5 mm, 15 mm × 5 mm, 20 mm × 5 mm, 25 mm × 5 mm, 30 mm × 5 mm	1.5 ... 16	▶	**8US19 21-2AA00**		100	100 units	103	0.100
		4 ... 35	▶	**8US19 21-2AB00**		1	50 units	103	0.046
		16 ... 70	▶	**8US19 21-2AD00**		1	50 units	103	0.072
		16 ... 120	▶	**8US19 21-2AC00**		1	50 units	103	0.107
		1.5 ... 16	A	**8US19 21-2AA01**		1	15 units	103	0.020
		4 ... 35	A	**8US19 21-2AB01**		1	15 units	103	0.020
		16 ... 70	A	**8US19 21-2AD01**		1	15 units	103	0.020
		16 ... 120	A	**8US19 21-2AC01**		1	15 units	103	0.020
	10 mm busbar thickness								
	12 mm × 10 mm, 15 mm × 10 mm, 20 mm × 10 mm, 25 mm × 10 mm, 30 mm × 10 mm	1.5 ... 16	▶	**8US19 21-2BA00**		1	100 units	103	0.020
		4 ... 35	▶	**8US19 21-2BB00**		1	50 units	103	0.040
		16 ... 70	▶	**8US19 21-2BD00**		1	50 units	103	0.070
		16 ... 120	▶	**8US19 21-2BC00**		1	50 units	103	0.100
		1.5 ... 16	A	**8US19 21-2BA01**		1	15 units	103	0.020
		4 ... 35	A	**8US19 21-2BB01**		1	15 units	103	0.040
		16 ... 70	A	**8US19 21-2BD01**		1	15 units	103	0.070
		16 ... 120	A	**8US19 21-2BC01**		1	15 units	103	0.100
	Covering caps for terminals for circular conductors (attachment to busbars)								
	For terminals up to120 mm^2		▶	**8US19 22-1GA00**		1	10 units	103	0.126
	200 mm long, 84 mm wide								

1) 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) When using the 8US19 03-5AA00 busbar support with a 12 mm x 10 mm busbar, U_i is reduced to

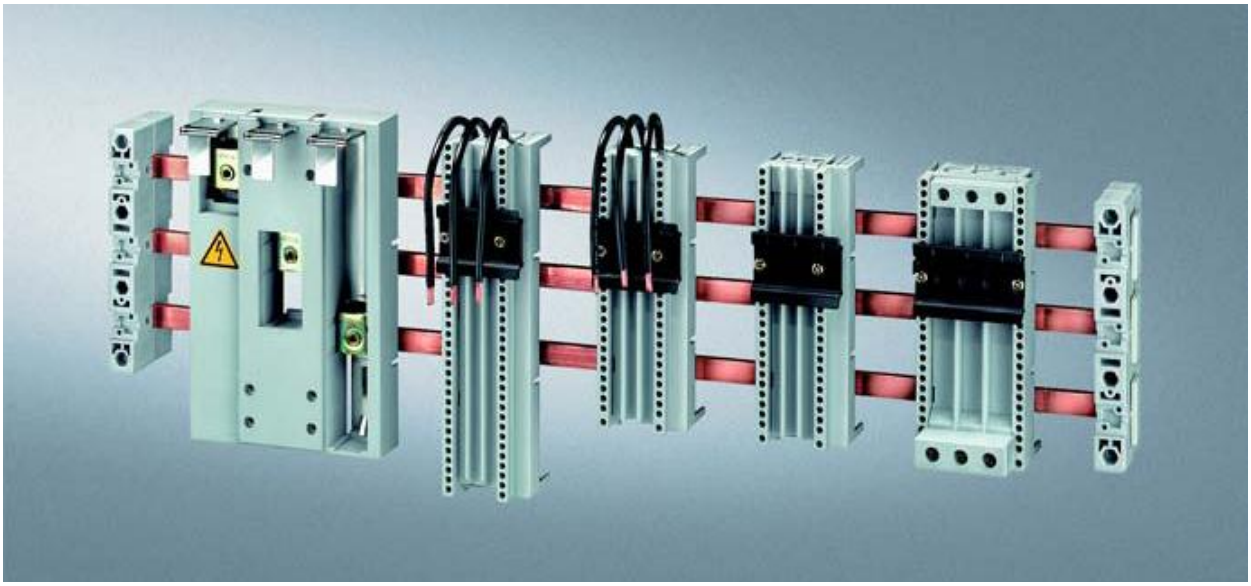
a) 690 V when using the 8US19 21-2.A0. or 8US19 21-2.B0 terminals.

b) 480 V when using the 8US19 21-2.C0. or 8US19 21-2.D0. terminals.

*** You can order this quantity or a multiple thereof.**

Busbar adapters and device holders

Overview



Selection and ordering data

For flat copper profiles 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	Con-nec-tion lead	Adap-ter length	Adap-ter width	Rated voltage	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
			A	AWG	mm	mm	V							kg
	For SIRIUS													
	Size S00/S0													
	Circuit-breaker	1	25	12	121	45	690	▶	**8US10 51-5DJ07**		1	1 unit	103	0.106
	Circuit-breaker + lateral auxiliary switch	1	25	12	121	55	690	▶	**8US10 61-5DJ07**		1	1 unit	103	0.119
	Contactor + overload relay	1	25	12	139	45	690	▶	**8US10 51-5DK07**		1	1 unit	103	0.164
	Direct start load feeders	1	25	12	182	45	690	▶	**8US10 51-5DM07**		1	1 unit	103	0.184
	Reversing feeder adapter	1	25	12	182	45	690	▶	**8US10 51-5DM07**		1	1 unit	103	0.184
	+ Switching device holders	1	--	--	182	45	--	▶	+ **8US10 50-5AM00**		1	1 unit	103	0.182
 Direct feeder	+ Connec. keys (2 items needed for attachment)	--	--	--	--	--	--	▶	+ **8US19 98-1AA00**		100	100 units	103	0.100
	Size S00 – Cage Clamp													
	Direct start load feeders	1	12.5	14	182	45	690	▶	**8US10 51-5CM47**		1	1 unit	103	0.193
	Size S2													
	Circuit-breaker	1	56	8	139	55	690	▶	**8US10 61-5FK08**		1	1 unit	103	0.231
	Circuit-breaker + lateral auxiliary switch	1	56	8	139	55	690	▶	**8US10 61-5FK08**		1	1 unit	103	0.231
	Contactor + overload relay	1	56	8	182	55	690	▶	**8US10 61-5FM08**		1	1 unit	103	0.278
	Direct start load feeders	1	56	8	242	55	690	▶	**8US10 61-5FP08**		1	1 unit	103	0.308
	Reversing feeder adapter	1	56	8	242	55	690	▶	**8US10 61-5FP08**		1	1 unit	103	0.308
	+ Switching device holder[1)]	--	--	--	242	54	--	▶	+ **8US10 60-5AP00**		1	1 unit	103	0.244
 Reversing feeder	+ Connection keys (2 items needed for attachment)	--	--	--	--	--	--	▶	+ **8US19 98-1AA00**		100	100 units	103	0.100

* You can order this quantity or a multiple thereof.

	Busbar device adapters	Number of mounting rails (35 mm)	Rated current	Con-nec-tion lead	Adap-ter length	Adap-ter width	Rated voltage	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
			A	AWG	mm	mm	V							kg
	Size S3													
	Circuit-breaker	--	100	Bars	182	70	Up to 460[2]	▶	**8US11 11-4SM00**		1	1 unit	103	0.541
	Circuit-breaker	1	100	4	182	72	Up to 690[3]	▶	**8US10 11-4TM00**		1	1 unit	103	0.478
 8US10 11-4SL01	**For 3VF circuit-breakers**													
	3VF3		205	Bars	175	108	690	A	**8US10 11-4SB00**		1	1 unit	103	0.500
	For 3VL circuit-breakers[4]													
	3VL1	--	160	Bars	175	108	690	A	**8US10 11-4SL01**		1	1 unit	103	0.585
	3VL2	--	160	Bars	175	108	690	A	**8US10 11-4SL01**		1	1 unit	103	0.585
 8US10 50-5RM07	**With terminals (at top) for any arrangement of components**													
	1.5 mm^2 to 4 mm^2	1	25	--	139	45	690	A	**8US10 50-5RK07**		1	1 unit	103	0.149
	1.5 mm^2 to 4 mm^2	1	25	--	182	45	690	A	**8US10 50-5RM07**		1	1 unit	103	0.177
 8US10 60-5AK00	16 mm^2 (top) and 35 mm^2 (bottom)[5]	1	80	--	139	54	690	A	**8US10 60-5AK00**		1	1 unit	103	0.295
	Device holders for lateral attachment to busbar device adapters of the same length													
	Device holder	1	--	--	139	45	--	A	**8US10 50-5AK00**		1	1 unit	103	0.149
	Device holder	1	--	--	139	55	--	A	**8US10 60-5AK08**		1	1 unit	103	0.162
	Device holder	1	--	--	182	45	--	▶	**8US10 50-5AM00**		1	1 unit	103	0.182
	Device holder	1	--	--	182	55	--	▶	**8US10 60-5AM00**		1	1 unit	103	0.197
	Device holder	--	--	--	242	54	--	▶	**8US10 60-5AP00**		1	1 unit	103	0.244
 8US10 60-5AM00	Connection keys (2 items needed for attachment)	--	--	--	--	--	--	▶	**8US19 98-1AA00**		100	100 units	103	0.100
	Lateral modules for extending busbar device adapters and device holders of the same length													
	Lateral module	--	--	--	139	13.5	--	A	**8US19 98-2BK00**		1	4 units	103	0.023
	Lateral module	--	--	--	182	13.5	--	A	**8US19 98-2BM00**		1	4 units	103	0.036

1) Spacer and fixing screw for reversing contactor are included in the delivery.
2) ≤ 400 V max. 50 kA, 400 V to 460 V max. 25 kA.
3) Up to 525 V max. 30 kA, 525 V to 690 V max. 12 kA.
4) Observe the short-circuit strength of the busbar system. Short-circuit strength > 50 kA on request.
5) Can be used simultaneously as incoming unit and outgoing unit.

*** You can order this quantity or a multiple thereof.**

Busbar adapters and device holders

3NP4 fuse switch disconnector for snapping onto 40 mm busbar systems[1)]

Rated uninterrupted current I_u	Conductor connections (on both sides)		For fuse links according to DIN 43620[2)]	For isolating links[3)]	DT	Degree of protection IP00, without fuse links, without isolating links, with terminal screws		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	Connection	For conductor cross-section				Order No.	Price per PU				
A		mm^2	Size	Size							kg
With adapter, deep, e.g. for mounting in ALPHA meter cabinets (ALPHA 400-ZS) and ALPHA distribution boards (STAB/SIKUS)											
160[4)]	Box terminal	1.5 – 50									
		Connection, top	000[5)]	00	A	**3NP40 15-0CK01**		1	1 unit	103	0.952
		Connection, bottom			A	**3NP40 15-0CJ01**		1	1 unit	103	0.970
160	Flat connector	up to 2 × 70 (M8)									
		Connection, top	00 and 000	00	A	**3NP40 75-0CE01**		1	1 unit	103	1.210
		Connection, bottom			A	**3NP40 75-0CF01**		1	1 unit	103	1.244
	Box terminal	2.5 – 70 or 2 × 2.5 – 16									
		Connection, top	00 and 000	00	A	**3NP40 75-0CK01**		1	1 unit	103	1.290
		Connection, bottom			A	**3NP40 75-0CJ01**		1	1 unit	103	1.274
With adapter, flat, to DIN 43620 Part 6, for general applications and ALPHA distribution boards (STAB/SIKUS)											
160[4)]	Box terminal	1.5 – 50									
		Connection, top	000[5)]	00	A	**3NP40 15-1CK01**		1	1 unit	103	0.892
		Connection, bottom			B	**3NP40 15-1CJ01**		1	1 unit	103	0.888
160	Flat connector	up to 2 × 70 (M8)									
		Connection, top	00 and 000	00 and 000	A	**3NP40 75-1CE01**		1	1 unit	103	1.186
		Connection, bottom			A	**3NP40 75-1CF01**		1	1 unit	103	1.189
	Box terminal	2.5 – 70 or 2 ×2.5 – 16									
		Connection, top	00 and 000	00 and 000	A	**3NP40 75-1CK01**		1	1 unit	103	1.261
		Connection, bottom			A	**3NP40 75-1CJ01**		1	1 unit	103	1.213
250	Flat connector	Up to 240 (M10)									
		Connection from bottom or top	1 and 0	1 and 0	A	**3NP42 75-1CG01**		1	1 unit	103	3.719

For all fuse switch disconnectors with flat connector 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) For mounting on only 5 mm thick busbars, a busbar thickness compensator is required for 3NP42 and 3NP43; see Accessories. 3NP44 can only be fitted on 10 mm thick busbars.

2) Fuse links see BETA protect modular installation devices.

3) Insert silver-plated isolating links.

4) 125/160 A only possible with 21-mm wide 3NY1 822 (125 A) and 3NY1 824 (160 A) fuse links, see Accessories.

5) Corresponds to size 00 with a maximum width of 21 mm (according to IEC 60269-2-1 and DIN 43620).

*** You can order this quantity or a multiple thereof.**

3NP4 fuse switch disconnectors with fuse monitoring by SIRIUS circuit-breakers[1)2)]
For snapping onto 40-mm busbar systems[3)]

Rated uninterrupted current I_u	Conductor connections (on both sides)		For fuse links according to DIN 43620 [4)]	For isolating links[5)]	DT	Degree of protection IP00, without fuse links, without isolating links, with terminal screws		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	Connection	for conductor cross-section				Order No.	Price per PU				
A		mm^2	Size	Size							kg
With adapter, deep, e.g. for mounting in ALPHA meter cabinets (ALPHA 400-ZS) and ALPHA distribution boards (STAB/SIKUS)											
160	Flat connector	up to 2 × 70 (M8)									
		Connection, top	00 and 000	00	B	**3NP40 75-0FE01**		1	1 unit	103	1.812
		Connection, bottom			B	**3NP40 75-0FF01**		1	1 unit	103	1.780
	Box terminal	2.5 – 70 or 2 x 2.5 – 16									
		Connection, top	00 and 000	00	B	**3NP40 75-0FK01**		1	1 unit	103	1.820
		Connection, bottom			B	**3NP40 75-0FJ01**		1	1 unit	103	1.831
With adapter, flat, according to DIN 43620 Part 6, for general applications and ALPHA distribution boards (STAB/SIKUS)											
160	Flat connector	Up to 2 × 70 (M8)									
		Connection, top	00 and 000	00 and 000	B	**3NP40 75-1FE01**		1	1 unit	103	1.616
		Connection, bottom			B	**3NP40 75-1FF01**		1	1 unit	103	1.620
	Box terminal	2.5 – 70 or 2 x 2.5 – 16									
		Connection, top	00 and 000	00 and 000	B	**3NP40 75-1FK01**		1	1 unit	103	1.717
		Connection, bottom			B	**3NP40 75-1FJ01**		1	1 unit	103	1.630
250	Flat connector	Up to 240 (M10)									
		Connection from top or bottom	1 and 0	1 and 0	A	**3NP42 75-1FG01**		1	1 unit	103	4.210

For all fuse switch disconnectors with flat connector 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) SIRIUS circuit-breaker, 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 mm ¥ 0.5 mm flat connector to DIN 46244-A.
3) For mounting on only 5 mm thick busbars, a busbar thickness compensator is required for 3NP42 and 3NP43; see Accessories. 3NP44 can only be fitted on 10 mm thick busbars.
4) Fuse links see Catalog ET B1 "BETA modular installation devices".
5) Insert silver-plated isolating links.

*** You can order this quantity or a multiple thereof.**

Accessories for busbar adapters and device holders

Selection and ordering data

	Description	Busbar length	Busbar width	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		mm	mm							kg
	Busbar connection pieces for bars									
	12 mm x 5 mm, 12 mm x 10 mm, 15 mm x 5 mm, 15 mm x 10 mm, 20 mm x 5 mm, 20 mm x 10 mm	55		A	**8US19 21-2BF00**		1	12 units	103	0.070
 	**Mounting rails (35 mm) – plastic**									
	Complete with fixing screws		45	A	**8US19 98-7CA15**		1	10 units	103	0.009
			55	A	**8US19 98-7CA16**		1	10 units	103	0.100
			72	A	**8US19 98-4AA00**		1	10 units	103	0.143
			90	D	**8US19 98-7CA08**		1	10 units	103	0.187
			110	A	**8US19 98-7CA10**		1	10 units	103	0.219
	Connection holders (for vertical busbar assembly)									
	Fixes the circuit-breaker to the mounting rail[1] (for SIRIUS size S00/S0)			A	**8US19 98-1DA00**		100	20 units	103	0.100
	Screw holders									
	For supplementary screw fixing of the feeder (for SIRIUS size S00/S0)			B	**8US19 98-1CA00**		100	20 units	103	0.100
	Spacers									
	Fixes the feeder to the busbar adapter (for SIRIUS size S00/S0)			►	**8US19 98-1BA00**		100	100 units	103	0.100
	Connection keys									
	For mechanical linking of adapters and switching device holders (2 units per combination)			►	**8US19 98-1AA00**		100	100 units	103	0.100
	**Outgoing terminal rails for busbar adapters**									
	Complete with supporting element for attachment to busbar device adapter and device holder									
	3 × 2.5 mm^2 (400 V) and 4 × 1.5 mm^2 (250 V)	91	45	A	**8US19 98-8AM07**		1	1 unit	103	0.061
	7 × 2.5 mm^2 (400 V)	91	54	D	**8US19 98-8AA10**		1	1 unit	103	0.072

1) for 45 mm and 55 mm mounting rail.

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* You can order this quantity or a multiple thereof.

Overview

The 60 mm busbar system is used preferably in cabinet construction, in motor control centers and in power distribution systems of the medium power range (630 A) and top power range (1600 A, special profile).

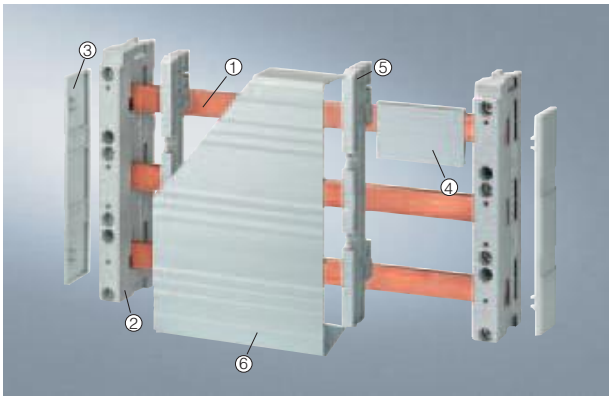
The 60 mm busbar system can be used as a basic system without covers, as a partly compartmented system or as a fully compartmented system with bottom shell. The busbar cross-sections are available in the sizes 12 x 5 mm to 30 x 10 mm and as a special profile.

Busbar device adapters for SIRIUS, 3VL circuit-breakers, 3KA and 3KL switch disconnectors, 3NP5 fuse switch disconnectors and 3NP4 directly mountable fuse-switch-disconnectors offers numerous options for configuring this busbar system. Incoming feeders, terminals and other accessories open up a large range of application.

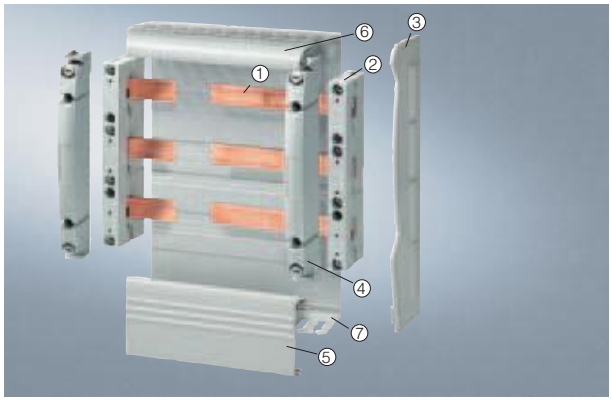
Busbars with a special profile are suitable for applications up to 1600 A. All components of the 60 mm busbar system can be fitted.

Base assemblies up to 630 A

Overview

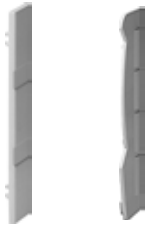


① Flat copper profile
② Busbar support
③ End cover
④ Cover profile
⑤ Reserve section holder
⑥ Reserve section cover



① Flat copper profile
② Busbar support
③ End cover for 60 mm busbar system
④ Holder for edge profile and partition profile
⑤ Edge profile for bottom trough 290 mm
⑥ Edge profile for bottom trough 230 mm
⑦ Bottom trough for 4-pole system

Selection and ordering data

	Description		DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
 8US19 23-5AA00	**Busbar supports**								
	End and intermediate holders for flat copper profiles 12 mm x 5 mm, 12 mm x 10 mm, 15 mm x 5 mm, 15 mm x 10 mm, 20 mm x 5 mm, 20 mm x 10 mm, 25 mm x 5 mm, 25 mm x 10 mm, 30 mm x 5 mm, 30 mm x 10 mm								
	2-pole, with outside fixing		A	**8US19 23-5AA00**		1	10 units	103	0.200
 8US19 23-3AA01	3-pole, with outside fixing	L1–L3	A	**8US19 23-2AA01**		1	10 units	103	0.200
	3-pole, with inside fixing	L1–L3	A	**8US19 23-3AA01**		1	10 units	103	0.200
	4-pole, with inside fixing	L1–L3 + PE/N	A	**8US19 23-4AA00**		1	10 units	103	0.269
 5SH3 506	**N-/PE busbar supports for flat copper profiles 12 mm x 5 mm, 12 mm x 10 mm, 15 mm x 5 mm, 15 mm x 10 mm, 20 mm x 5 mm, 20 mm x 10 mm, 25 mm x 5 mm, 25 mm x 10 mm, 30 mm x 5 mm, 30 mm x 10 mm**								
	Attachment to 8US19 23-2AA01 or independent installation		A	**5SH3 506**		1	4 units	016	0.070
 8US19 22-1AC00 5SH3 534	**End covers**								
	For covering unterminated busbar ends								
	For 8US19 23-2AA01 or 8US19 23-3AA01	L1–L3	A	**8US19 22-1AC00**		1	10 units	103	0.020
	4-pole, for 8US19 23-4AA00 (1 pack = 2 units, (1x right, 1x left))	L1–L3 + PE/N	A	**8US19 22-1AB00**		1	1 unit	103	0.055
	for 5SH3 532 holder								
	Height 230 mm (3-pole)		A	**5SH3 533**		1	4 units	016	0.038
	Height 290 mm (4-pole or 3-pole + cable duct), (1 pack = 2 units, (1x right, 1x left))		A	**5SH3 534**		1	4 units	016	0.048

* You can order this quantity or a multiple thereof.

Base assemblies up to 630 A

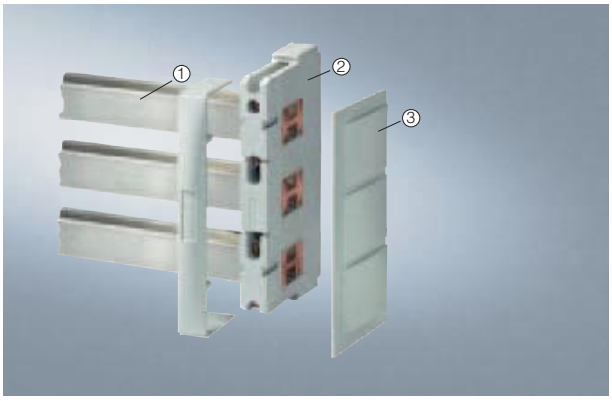
	Description	Busbar length	Busbar width	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		mm	mm							kg
	Cover profiles for busbars									
 8US19 22-2CA00	12 mm x 5 mm	1000		A	**8US19 22-2CA00**		1	10 units	103	0.200
 8US19 22-2AA00	20 mm x 5 mm, 25 mm x 5 mm, 30 mm x 5 mm	1000		A	**8US19 22-2AA00**		1	10 units	103	0.156
	12 mm x 10 mm, 15 mm x 10 mm, 20 mm x 10 mm, 25 mm x 10 mm, 30 mm x 10 mm	1000		A	**8US19 22-2BA00**		1	10 units	103	0.105
	Edge supports									
	for 5SH3 528 and 5SH3 530			A	**5SH3 532**		1	2 units	016	0.106
	Edge profiles[1]									
	for bottom trough 230 mm	1100	17 mm × 36 mm	A	**5SH3 528**		1	2 units	016	0.311
	for bottom trough 290 mm	1100	77 mm × 36 mm	A	**5SH3 530**		1	2 units	016	0.583
	Spare panel holders (for spare panel covers)									
 5SH3 536	Mounting on busbar (2 units per spare panel section)	1000	190	A	**5SH3 536**		1	4 units	016	0.040
	Blanking covers									
 5SH3 537	Mounting on 5SH3 536 reserve section holder	1000	202	A	**5SH3 537**		1	2 units	016	0.075
	Bases									
 5SH3 527	3-pole system	1100	230	A	**5SH3 526**		1	2 units	016	1.100
	4-pole system (or 3-pole system with cable duct)	1100	290	A	**5SH3 527**		1	2 units	016	1.300
	Partitions									
	slotted	1100	17 mm × 86 mm	A	**5SH3 531**		1	2 units	016	0.365
	Closed	1100	17 mm × 86 mm	A	**8US19 22-1HA00**		1	4 units	103	0.070
	Flat copper profile (flat profile, approx. 2 m long, bare, to EN 12167)									
	12 mm x 5 mm			B	**8WC5 023**		1	1 unit	103	1.100
	15 mm x 5 mm			B	**8WC5 021**		1	1 unit	103	1.550
	20 mm x 5 mm			B	**8WC5 026**		1	1 unit	103	1.780
	25 mm x 5 mm			B	**8WC5 031**		1	1 unit	103	2.240
	30 mm x 5 mm			B	**8WC5 033**		1	1 unit	103	2.680
	20 mm x 10 mm			B	**8WC5 028**		1	1 unit	103	3.200
	30 mm x 10 mm			B	**8WC5 034**		1	1 unit	103	5.360

1) When configuring a 3-pole busbar system with the bottom shell 230 mm, only 5SH3 528 is required.
When configuring a 4-pole busbar system (or a 3-pole with cable duct) with the 290 mm bottom shell, both 5SH3 528 and 5SH3 530 are required.

*** You can order this quantity or a multiple thereof.**

Base assemblies up to 1600 A

Overview



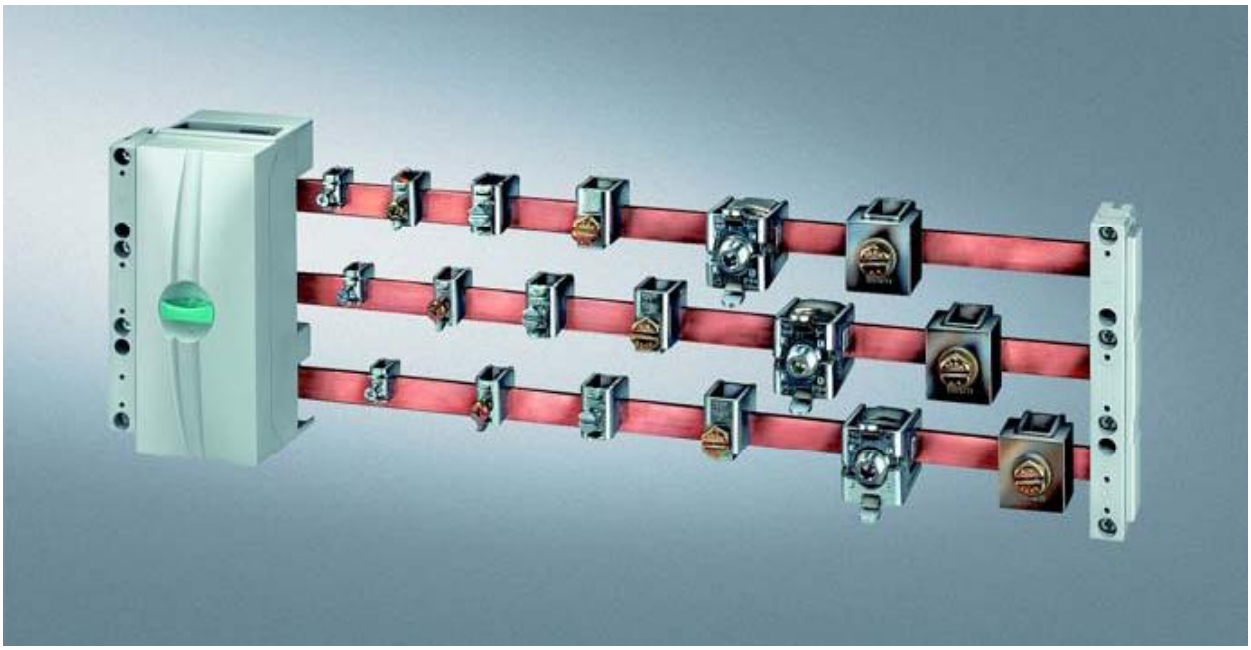
① Flat copper profile
② Busbar support
③ End cover

Selection and ordering data

	Description		DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
	Busbar supports								
	3-pole, end and intermediate holder with finger-safe busbar cover (1 pack = 2 busbar supports + finger-safe end covers)	L1–L3	A	**8US19 43-3AA00**		1	1 set	103	1.310
	**Flat copper profile (approx. 2.4 m long, tinned)**								
	Special profile up to 1600 A	720 mm^2	A	**8US19 48-2AA00**		1	1 unit	103	15.360
	Cover profiles								
	For flat copper profile	1000 mm long	A	**8US19 22-2DA00**		1	5 units	103	0.200

* You can order this quantity or a multiple thereof.

Overview



Selection and ordering data

	Description		Conductor cross-section	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
										kg
	Infeeds									
	Terminal plate with cover									
	3-pole, 6 mm² to 50 mm²	200 mm long	54 mm wide	C	**8US19 21-1BA00**		1	1 unit	103	0.397
	3-pole, 35 mm² to 120 mm²	200 mm long	81 mm wide	A	**8US19 21-1AA00**		1	1 unit	103	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 mm long	18 mm wide	A	**8US12 00-0AA00**		1	1 unit	103	0.142
	Terminals for circular conductors									
	5 mm busbar thickness[1]		mm²							
	12 mm × 5 mm,		1.5 ... 16	▶	**8US19 21-2AA00**		100	100 units	103	0.100
	15 mm × 5 mm,		4 ... 35	▶	**8US19 21-2AB00**		1	50 units	103	0.046
	20 mm × 5 mm,		16 ... 70	▶	**8US19 21-2AD00**		1	50 units	103	0.072
	25 mm × 5 mm,		16 ... 120	▶	**8US19 21-2AC00**		1	50 units	103	0.107
	30 mm × 5 mm		1.5 ... 16	A	**8US19 21-2AA01**		1	15 units	103	0.020
			4 ... 35	A	**8US19 21-2AB01**		1	15 units	103	0.020
			16 ... 70	A	**8US19 21-2AD01**		1	15 units	103	0.020
			16 ... 120	A	**8US19 21-2AC01**		1	15 units	103	0.020
	20 mm × 5 mm,		95 ... 185	▶	**8US19 41-2AA01**		1	6 units	103	0.315
	25 mm × 5 mm, 30 mm × 5 mm		150 ... 300	▶	**8US19 41-2AA02**		1	3 units	103	0.425

1) Cannot be used on a special profile up to 1600 A.

*** You can order this quantity or a multiple thereof.**

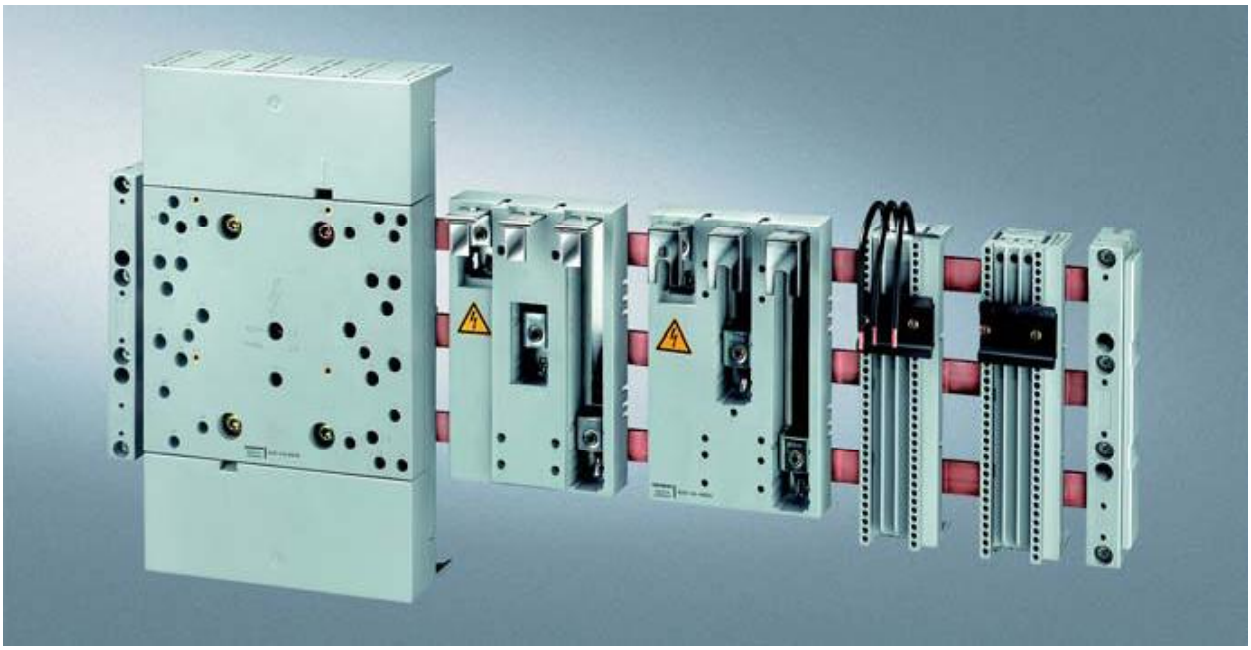
Supply and connection technologies

	Description		Conductor cross-section	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
	10 mm busbar thickness									
	12 mm × 10 mm, 15 mm × 10 mm, 20 mm × 10 mm, 25 mm × 10 mm, 30 mm × 10 mm		1.5 ... 16	▶	**8US19 21-2BA00**		1	100 units	103	0.020
			4 ... 35	▶	**8US19 21-2BB00**		1	50 units	103	0.040
			16 ... 70	▶	**8US19 21-2BD00**		1	50 units	103	0.070
			16 ... 120	▶	**8US19 21-2BC00**		1	50 units	103	0.100
			1.5 ... 16	A	**8US19 21-2BA01**		1	15 units	103	0.020
			4 ... 35	A	**8US19 21-2BB01**		1	15 units	103	0.040
			16 ... 70	A	**8US19 21-2BD01**		1	15 units	103	0.070
			16 ... 120	A	**8US19 21-2BC01**		1	15 units	103	0.100
	20 mm × 10 mm, 25 mm × 10 mm, 30 mm × 10 mm		95 ... 185	▶	**8US19 41-2AA01**		1	6 units	103	0.315
			150 ... 300	▶	**8US19 41-2AA02**		1	3 units	103	0.425
	Covering caps for terminals for circular conductors (attachment to busbar)									
	For terminals up to 120 mm^2	200 mm long	84 mm wide	▶	**8US19 22-1GA00**		1	10 units	103	0.126
	For terminals up to 300 mm^2 1)	200 mm long	270 mm wide	▶	**8US19 22-1GA02**		1	1 unit	103	0.696
	Terminals for cable lugs, copper bars or laminated copper bands									
	10 mm busbar thickness									
	For cable lugs up to 240 mm^2	(bolts threaded M10)		A	**8US19 41-2AC00**		1	6 units	103	0.368
	20 mm × 5 mm, 20 mm × 10 mm, 25 mm × 5 mm, 25 mm × 10 mm, 30 mm × 5 mm, 30 mm × 10 mm			A	**8US19 41-2BB00**		1	6 units	103	0.307
	for 2 × 40 mm × 10 mm			A	**8US19 41-2BA00**		1	3 units	103	0.824

1) Only for 20 mm × 5 mm, 20 mm × 10 mm, 25 mm × 5 mm, 25 mm × 10 mm, 30 mm × 5 mm and 30 mm × 10 mm.

* You can order this quantity or a multiple thereof.

Overview



Selection and ordering data

For flat copper profiles 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	Connection lead	Adapter length	Adapter width	Rated voltage	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
			A	AWG	mm	mm	V							kg
	For SIRIUS													
	Size S00/S0													
 Direct feeder	Circuit-breaker	1	25	12	182	45	690	▶	**8US12 51-5DM07**		1	1 unit	103	0.183
	Contactor + overload relay	1	25	12	182	45	690	▶	**8US12 51-5DM07**		1	1 unit	103	0.183
	Direct start load feeders	1	25	12	182	45	690	▶	**8US12 51-5DM07**		1	1 unit	103	0.183
	Reversing feeder adapter +	1	25	12	182	45	690	▶	**8US12 51-5DM07** +		1	1 unit	103	0.183
	Switching device holders +	1	--	--	182	45	--	▶	**8US12 50-5AM00** +		1	1 unit	103	0.158
	Connection keys (2 units needed for attachment)	--	--	--	--	--	--	▶	**8US19 98-1AA00**		100	100 units	103	0.100
	Size S00 – Cage Clamp													
	Direct start load feeders	1	12.5	14	182	45	690	▶	**8US12 51-5CM47**		1	1 unit	103	0.190
	Size S2													
	Circuit-breaker	1	56	8	182	55	690	▶	**8US12 61-5FM08**		1	6 units	103	0.263
	Contactor + overload relay	1	56	8	182	55	690	▶	**8US12 61-5FM08**		1	6 units	103	0.263
	Direct start load feeders	1	56	8	242	55	690	▶	**8US12 61-5FP08**		1	1 unit	103	0.292

*** You can order this quantity or a multiple thereof.**

Busbar adapters and device holders


Reversing feeder


8US12 11-4SB00 with 3VF3


8US12 11-4SL01

Busbar device adapters	Number of mounting rails (35 mm)	Rated current	Connection lead	Adapter length	Adapter width	Rated voltage	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		A	AWG	mm	mm	V							kg
Reversing feeder adapter	1	56	8	242	55	690	▶	**8US12 61-5FP08**		1	1 unit	103	0.292
+								+					
Switching device holders[1]	--	--	--	242	54	--	▶	**8US12 60-5AP00**		1	1 unit	103	0.243
+								+					
Connection keys (2 units needed for attachment)	--	--	--	--	--	--	▶	**8US19 98-1AA00**		100	100 units	103	0.100
Size S3													
Circuit-breaker	--	100	Bars	182	70	Up to 460[3]	▶	**8US11 11-4SM00**		1	1 unit	103	0.541
Circuit-breaker[2]	1	100	4	182	72	Up to 690[4]	A	**8US12 11-4TM00**		1	1 unit	103	0.498
For 3VF circuit-breakers													
3VF3		200	Bars	175	108	690	A	**8US12 11-4SB00**		1	1 unit	103	0.580
3VF4[5]	Mounting plate	200	Terminals 70 mm^2	254	108	690	A	**8US12 10-4AA04**		1	1 unit	103	1.147
3VF4[6], 3VF5[6]	Mounting plate	630	M10 stud terminal	320	185	690	A	**8US12 10-4AF00**		1	1 unit	103	2.769
							A	+ **8US19 27-4AF00**		1	1 unit	103	0.501
For 3VL circuit-breakers[7]													
3VL1	--	160	Bars	175	108	690	A	**8US12 11-4SL01**		1	1 unit	103	0.597
3VL1 and RCD module	--	160	M10 stud terminal	320	184	690	A	**8US12 10-4AF00**		1	1 unit	103	2.769
							A	+ **8US19 27-4AF01**		1	1 unit	103	0.575
3VL2	--	160	Bars	175	108	690	A	**8US12 11-4SL01**		1	1 unit	103	0.597
3VL3	--	250	Bars	175	108	690	A	**8US12 11-4SL00**		1	1 unit	103	0.662
3VL4	--	400	M10 stud terminal	320	184	690	A	**8US12 10-4AF00**		1	1 unit	103	2.769
							A	+ **8US19 27-4AF01**		1	1 unit	103	0.575
For switch disconnectors													
3KA52[6], 3KA53[6], 3KL52[6], 3KL53[6]	--	630	M10 stud terminal	320	184	690	A	**8US12 10-4AF00**		1	1 unit	103	2.769
3KA55[6], 3KA57[6], 3KA58[6], 3KL55[6], 3KL57[6], 3KL58[6]	--	630	M10 stud terminal	320	250	690	A	**8US12 10-4AG00**		1	1 unit	103	3.060

1) Spacer and fixing screw for reversing contactor are included in the delivery.
2) According to UL508 rated current 80 A.
3) ≤ 400 V max. 50 kA, 400 V to 460 V max. 25 kA.
4) Up to 525 V max. 30 kA, 525 V to 690 V max. 12 kA.
5) Without connecting leads. The connecting lead 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.
6) Without connecting leads. The connecting lead 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 stud terminal.
7) Observe the short-circuit strength of the busbar system. Short-circuit strength > 50 kA on request.

* You can order this quantity or a multiple thereof.

	Busbar device adapters	Number of mounting rails (35 mm)	Rated current	Connection lead	Adapter length	Adapter width	Rated voltage	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
			A	AWG	mm	mm	V							kg
	For 3NP5 fuse switch disconnectors													
	3NP50 60 (NH00)	--	160	Bars	175	108	690	A	**8US12 91-4SB00**		1	1 unit	103	0.551
	3NP52[1], 3NP53[1], 3NP54[2]	--	630	M10 stud terminal	320	250	690	A	**8US12 10-4AG00**		1	1 unit	103	3.060
	Busbar device adapters with terminals (at top) for any arrangement of components													
	1.5 mm^2 to 4 mm^2	1	25	--	182	45	690	A	**8US12 50-5RM07**		1	1 unit	103	0.174
	Device holders for lateral attachment to busbar device adapters of the same length													
	Switching device holders	1	--	--	182	45	--	▶	**8US12 50-5AM00**		1	1 unit	103	0.158
	Switching device holders	1	--	--	182	55	--	▶	**8US12 60-5AM00**		1	4 units	103	0.202
	Switching device holders	--	--	--	242	54	--	▶	**8US12 60-5AP00**		1	1 unit	103	0.243
	Connection keys (2 units needed for attachment)	--	--	--	--	--	--	▶	**8US19 98-1AA00**		100	100 units	103	0.100
	Lateral modules for extending busbar device adapters and device holders of the same length													
	Lateral module	--	--	--	182	13.5	--	A	**8US19 98-2BM00**		1	4 units	103	0.036

1) Without connecting leads. The connecting lead 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 stud terminal.

2) Without connecting leads. The connecting lead 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

14

*** You can order this quantity or a multiple thereof.**

Busbar adapters and device holders

for 3NP4 fuse-switch-disconnector for snapping onto 60 mm busbar systems[1)]

	Rated uninterrupted current I_u	Conductor connections (on both sides)		For fuse links according to DIN 43620 [2)]	For isolating links[3)]	DT	Degree of protection IP00, without fuse links, without isolating links, with terminal screws		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		Connection	For conductor cross-section				Order No.	Price per PU				
	A		mm^2	Size	Size							kg
 3NP40 16	160[4)]	Box terminal[5)]	1.5 – 50									
		Connection, top		000[6)]	00	A	**3NP40 16-1CK01**		1	1 unit	103	0.916
		Connection, bottom				►	**3NP40 16-1CJ01**		1	1 unit	103	0.950
	160	Flat connector	Up to 2 × 70 (M8)									
		Connection, top		00 and 000	00	A	**3NP40 76-1CE01**		1	1 unit	103	1.203
		Connection, bottom				►	**3NP40 76-1CF01**		1	1 unit	103	1.201
		Box terminal[5)]	2.5 – 70 or 2x2.5 – 16									
		Connection, top		00 and 000	00	B	**3NP40 76-1CK01**		1	1 unit	103	1.295
		Connection, bottom				►	**3NP40 76-1CJ01**		1	1 unit	103	1.249
 3NP42 76	250	Flat connector	Up to 150 (M10)									
		Connection from bottom or top		1 and 0	1 and 0	►	**3NP42 76-1CG01**		1	1 unit	103	3.713
	400	Flat connector	Up to 240 (M10)									
		Connection from bottom or top		2 and 1	2 and 1	►	**3NP43 76-1CG01**		1	1 unit	103	5.440
	630	Flat connector	Up to 2 × 240 (M12)									
		Connection from bottom or top		3 and 2	3 and 2	►	**3NP44 76-1CG01**		1	1 unit	103	7.688

For all fuse-switch-disconnectors with flat connector connection, the appropriate cable lug covers (3NY7 101 to 3NY7 141) must be used for finger-safe cover according to BVG A2, see Accessories.

1) For mounting on only 5 mm thick busbars, a busbar thickness compensator is required for 3NP42 and 3NP43; see Accessories. 3NP44 can only be fitted on 10 mm thick busbars.
2) Fuse links see BETA protect modular installation devices.
3) Insert silver-plated isolating links.
4) 125/160 A only possible with 21-mm wide 3NY1 822 (125 A) and 3NY1 824 (160 A) fuse links, see Accessories.
5) No further cover required for 3NP40 with box terminal.
6) Corresponds to size 00 with a maximum width of 21 mm (according to IEC 60269-2-1 and DIN 43620).

*** You can order this quantity or a multiple thereof.**

3NP4 fuse switch disconnectors with fuse monitoring by SIRIUS circuit-breakers[1)2)]
For snapping onto 60-mm busbar systems[3)]

Rated uninterrupted current I_u	Conductor connections (on both sides)		For fuse links according to DIN 43620 [4)]	For isolating links[5)]	DT	Degree of protection IP00, without fuse links, without isolating links, with terminal screws		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	Connection	For conductor cross-section				Order No.	Price per PU				
A		mm^2	Size	Size							kg
160	Flat connector	Up to 2 × 70 (M8)									
		Connection, top	00 and 000	00	B	**3NP40 76-1FE01**		1	1 unit	103	1.670
		Connection, bottom			A	**3NP40 76-1FF01**		1	1 unit	103	1.890
	Box terminal	2.5 – 70 or 2x2.5 – 16									
		Connection, top	00 and 000	00	B	**3NP40 76-1FK01**		1	1 unit	103	1.755
		Connection, bottom			B	**3NP40 76-1FJ01**		1	1 unit	103	1.915
250	Flat connector	Up to 150 (M10)									
		Connection from bottom or top	1 and 0	1 and 0	A	**3NP42 76-1FG01**		1	1 unit	103	4.171
400	Flat connector	Up to 240 (M10)									
		Connection from bottom or top	2 and 1	2 and 1	A	**3NP43 76-1FG01**		1	1 unit	103	5.845
630	Flat connector	Up to 2 × 240 (M12)									
		Connection from bottom or top	3 and 2	3 and 2	A	**3NP44 76-1FG01**		1	1 unit	103	8.235

For all fuse-switch-disconnectors with flat connector connection, the appropriate cable lug covers (3NY7 101 to 3NY7 141) must be used for finger-safe cover according to BVG A2, see Accessories.

1) SIRIUS circuit-breaker, 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 mm ¥ 0.5 mm flat connector to DIN 46244-A.

3) For mounting on only 5 mm thick busbars, a busbar thickness compensator is required for 3NP42 and 3NP43; see Accessories. 3NP44 can only be fitted on 10 mm thick busbars.

4) Fuse links see Catalog ET B1 "BETA modular installation devices".

5) Insert silver-plated isolating links.

*** You can order this quantity or a multiple thereof.**

Bus-mounting fuse bases

Selection and ordering data

- According to DIN VDE 0636
- With open captive +/– screws
- For attachment to industry-standard, unprocessed flat copper profiles with 12 mm to 30 mm bar width.

for flat copper profiles according to DIN 46433, width: 12 mm to 30 mm, thickness: 5 mm and 10 mm, and special profiles up to 1600 A

	Size	Rated current	Rated voltage	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		A	V							kg
	Mounting components									
	NEOZED SR60 bus-mounting bases									
	For 5 mm bar thickness, for NEOZED gauge pieces, 3-pole									
	D02	63	400	A	**5SG6 202**		1	4 units	016	0.141
	Over-width with free space for wiring									
	D02	63	400	A	**5SG6 204**		1	4 units	016	0.154
5SG6 202										
	10 mm busbar thickness NEOZED adapter sleeves 3-pole									
	D02	63	400	A	**5SG6 203**		1	4 units	016	0.138
	Over-width with free space for wiring									
	D02	63	400	A	**5SG6 205**		1	4 units	016	0.149
5SG6 203										
	DIAZED SR60 bus-mounting bases									
	For busbar thickness 5 mm, for use of DIAZED gauge rings SR60, 3-pole									
	DII	25	500	A	**5SF6 014**		1	2 units	016	0.230
	DIII	63	690	A	**5SF6 214**		1	2 units	016	0.318
	For use of DIAZED screw adapters 3-pole									
	DII	25	500	A	**5SF6 015**		1	2 units	016	0.222
	DIII	63	690	A	**5SF6 215**		1	2 units	016	0.310
	For busbar thickness 10 mm For use of DIAZED SR60 adapter rings 3-pole									
	DII	25	500	A	**5SF6 016**		1	2 units	016	0.233
	DIII	63	690	A	**5SF6 216**		1	2 units	016	0.316
	For use of DIAZED screw adapters 3-pole									
	DII	25	500	A	**5SF6 017**		1	2 units	016	0.220
	DIII	63	690	A	**5SF6 217**		1	2 units	016	0.328
	Mounting components									
	**NEOZED SR60 covers**									
	D02		27	A	**5SH5 241**		1	4 units	016	0.026
	Over-width with free space for wiring									
	D02		36	A	**5SH5 242**		1	4 units	016	0.031
	With double width for more free space for wiring									
	D02		54	A	**5SH5 243**		1	4 units	016	0.040
	**DIAZED SR60 covers**									
	DII		42	A	**5SH2 042**		1	2 units	016	0.050
	DIII		57	A	**5SH2 242**		1	2 units	016	0.061
	With double width for more free space for wiring									
	DII		84	A	**5SH2 043**		1	2 units	016	0.084
	DIII		114	A	**5SH2 243**		1	2 units	016	0.106

* You can order this quantity or a multiple thereof.

Selection and ordering data

for flat copper profiles according to DIN 46433, width: 12 mm to 30 mm, thickness: 5 mm and 10 mm, and special profiles up to 1600 A

	Description			DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
	Extension and connection terminals									
	Busbar connection pieces for bars									
	20 mm × 5 mm, 20 mm × 10 mm, 25 mm × 5 mm, 25 mm × 10 mm, 30 mm × 5 mm, 30 mm × 10 mm	40 mm long		A	**8US19 21-2BE00**		1	6 units	103	0.070
	12 mm × 5 mm, 12 mm × 10 mm, 15 mm × 5 mm, 15 mm × 10 mm, 20 mm × 5 mm, 20 mm × 10 mm	55 mm long		A	**8US19 21-2BF00**		1	12 units	103	0.070
	Special profile	70 mm long	(1 terminal per connection position)	A	**8US19 41-2BF00**		1	3 units	103	1.134
	**Mounting rails (35 mm) – plastic**									
	Complete with fixing screws		45 mm wide	A	**8US19 98-7CA15**		1	10 units	103	0.009
			55 mm wide	A	**8US19 98-7CA16**		1	10 units	103	0.100
			72 mm wide	A	**8US19 98-4AA00**		1	10 units	103	0.143
			90 mm wide	D	**8US19 98-7CA08**		1	10 units	103	0.187
			110 mm wide	A	**8US19 98-7CA10**		1	10 units	103	0.219
	Connection holders (for vertical busbar assembly)									
	Fixes the circuit-breaker to the mounting rail[1] (for SIRIUS size S00/S0)			A	**8US19 98-1DA00**		100	20 units	103	0.100
	Screw holders									
	For supplementary screw fixing of the feeder (for SIRIUS size S00/S0)			B	**8US19 98-1CA00**		100	20 units	103	0.100
	Spacers									
	Fixes the feeder to the busbar adapter (for SIRIUS size S00/S0)			►	**8US19 98-1BA00**		100	100 units	103	0.100
	Connection keys									
	For mechanical linking of device adapter and device holder (2 units per combination)			►	**8US19 98-1AA00**		100	100 units	103	0.100
	Outgoing terminal rails for busbar adapters									
	Complete with supporting element for attachment to busbar adapter and device holder									
	$3 \times 2.5\ mm^2$ (400 V) and $4 \times 1.5\ mm^2$ (250 V)	91 mm long	45 mm wide	A	**8US19 98-8AM07**		1	1 unit	103	0.061
	$7 \times 2.5\ mm^2$ (400 V)	91 mm long	54 mm wide	D	**8US19 98-8AA10**		1	1 unit	103	0.072

1) For 45 mm and 55 mm mounting rail.

* You can order this quantity or a multiple thereof.

Introduction

Overview

5 standard sizes of operating mechanisms are available:

Size	Rated torque[1)]	Shaft profile	Masking plate
	Nm	mm x mm	mm x mm
1	4	6 x 6	75 x 75
2	7.5	8 x 8	75 x 75
3	16	10 x 10 or 12 x 12	100 x 100
4	30	12 x 12	100 x 100
5	55	12 x 12	100 x 100

1) Operating mechanisms tested with triple torque (VDE 0660 Part 107). They are therefore qualified for use in all controls, especially for disconnectors.

Application

8UC6 door-coupling rotary operating mechanisms can be used in electrical controls, distribution and switchboards in cases where switches have to be mounted behind covers, end plates and doors that must be opened and where they are to be operated manually from outside.

Operating conditions and ambient conditions

The temperature range for operation of the rotary operating mechanisms is between –25 °C and +60 °C.

Thanks to the use of glass fiber-reinforced material for handles and masking plates as well as metal components with surface protection, the rotary operating mechanisms are suitable for rough conditions, high air humidity and aggressive atmospheres.

Degree of protection

Degree of protection when installed is IP65.

Protective measures

All rotary operating mechanisms are fully insulated.

Standards

8UC6 door-coupling rotary operating mechanisms are in line with the following regulations:

IEC 60204-1, EN 60204-1, VDE 0113	Electrical equipment of machines
IEC 60439-1, EN 60439-1, VDE 0660 Part 500	Low-voltage switchgear assemblies
IEC 60947-3	Low-voltage switchgear and controlgear
VDE 0660 Part 107	Low-voltage switchgear

Design

Operating mechanisms consist of a masking plate with handle including seal and fixing screws for door installation and of shaft coupling, extension shaft (300 mm) and coupling driver to be mounted onto the switch shaft. Operating mechanisms for 3KA/3KL/3KM switch disconnectors do not have an shaft coupling since the extension shaft is fitted directly into the switch. Extension shafts with a length of 600 mm are available.

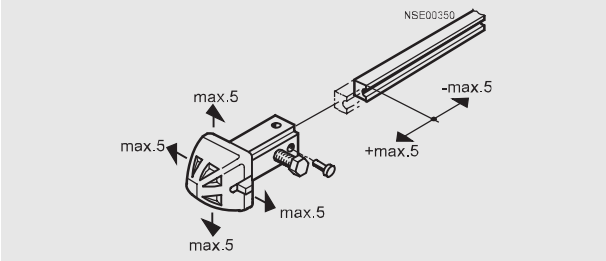
Masking plates are light-gray with black inscription, handles are black. For EMERGENCY-STOP switches, a yellow indicator plate with black inscription is mounted; the handles are red. The retractable locking device (light-gray) for padlocks is integrated in the handle.

The door interlock on the operating mechanisms is suitable for padlocks with shackle diameters of 4.5 mm to 8.5 mm (locks according to DIN 7465).

Up to three locks with shackle diameter of 8.5 mm or up to five locks with shackle diameter of 6 mm can be fitted.

Mounting instructions containing mounting dimensions and hints on activation or modification of interlocking conditions are delivered with each operating mechanism.

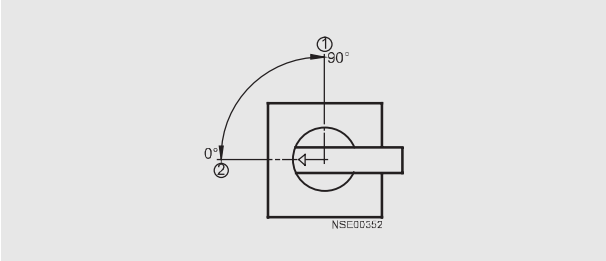
8UC6 door-coupling rotary operating mechanisms are capable of taking up a radial eccentricity of max. 5 mm between the actuating shaft of the switching device and the operating mechanism. Supporting the extension shaft is recommended with greater tolerances. ±5 mm can be compensated in axial direction. The distance between the door hinge and the center of rotary operating mechanism must not be less than 100 mm.



Permissible radial eccentricity and axial tolerance compensation

Switching position

In order to ensure compliance with locking and interlocking conditions, the controls and operating mechanisms must be installed such that, with two-position switches the "0" position lies at 9 o'clock and the "I" position at 12 o'clock.



Positions for two-position switches with 90° switching angle

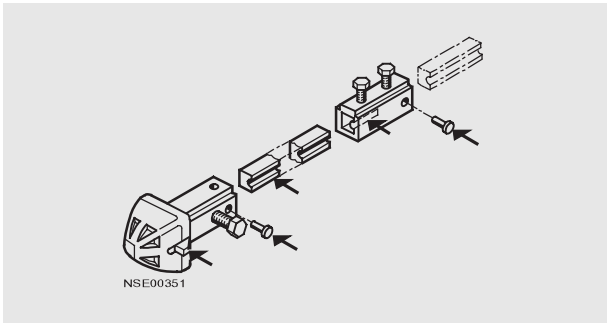
Non-interchangeability

In order to ensure that, when installing switches and door-coupling operating mechanisms, all components – the actuating shaft, shaft coupling, extension shaft, coupling driver and door-coupling operating mechanism – are assembled in the correct position with respect to one another, all the above-mentioned parts are provided with non-interchangeability features (groove and lug).

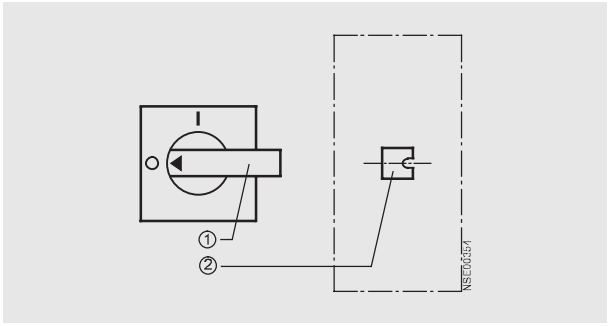
For controls whose non-interchangeability groove is not at 3 o'clock in the "O" position or switches that can be installed at an angle of 90° to the left or right, the non-interchangeability groove can be repositioned.

When the switch and the door coupling are fitted, the rivet in the shaft coupling or coupling driver is moved accordingly. All door-coupling rotary operating mechanisms listed in this catalog are supplied with the "0" position of the mechanism at 9 o'clock and the "*I*" position at 12 o'clock. This refers to controls to be installed in the normal mounting position.

In operation and when performing maintenance, these non-interchangeability features preclude the risk of accidents caused by incorrect handling or incorrect switching operations.



Non-interchangeability features (see arrows) of rotary operating mechanisms



Correlation between handle of rotary operating mechanism and actuating shaft

Stops

To prevent damage to smaller switches, an excessive manual operating torque can be absorbed by stops fitted on the inside of sizes 1 and 2 rotary operating mechanisms. These stops are supplied loose with the operating mechanisms and can be fitted as required after consulting the operating instructions.

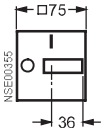
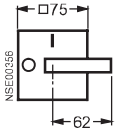
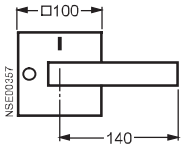
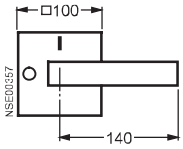
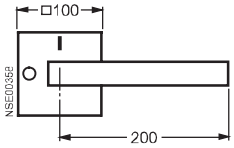
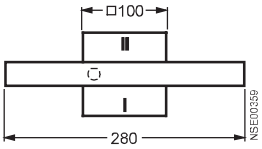
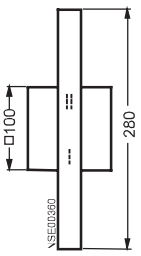
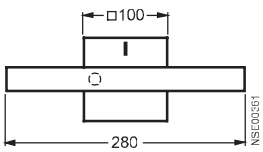
Stops are fitted at the factory to size 1 and 2 operating mechanisms with a 90° actuating angle (exception: 3V. circuit-breakers).

Pull-out strength

The pull-out strength of interlocked operating mechanisms, e.g. pulling off the shaft or destruction of the operating mechanism, amounts to ≥ 800 N when the pulling force acts directly onto the operating mechanism in direction of shaft.

For 3K switch disconnectors

Selection and ordering data

	Switching device	Rated current	Cross-section of the actuating shaft	Torque	Rotary operating mechanism	Illustrated: Handle, masking plate
	Type	A	mm	Nm	Size	
	Switch disconnectors with or without fuses					
	3KL50, 3KM50 3KA50 3KA51	63 63 80	6 x 6 6 x 6 6 x 6	3 3 3	1	
	3KL52, 3KM52 3KL53, 3KM53 3KA52 3KA53	125 160 125 160	8 x 8 8 x 8 8 x 8 8 x 8	7.5 7.5 7.5 7.5	2	
	3KL55, 3KM55 3KL57, 3KM57 3KA55 3KA57, 3KA58	250 400 250 400	10 x 10 10 x 10 10 x 10 10 x 10	16 16 16 16	3	
	3KE42 3KE43	250 400	12 x 12 12 x 12	15 15	3	
	3KL61[1] 3KE44 3KE45	630 630 1000	12 x 12 12 x 12 12 x 12	30 24 24	4	
	Switch disconnectors as changeover switches with break-before-make feature					
	3KE42 (2 units) 3KE43 (2 units) 3KE44 (2 units) 3KE45 (2 units)	250 400 630 1000	12 x 12 12 x 12 12 x 12 12 x 12	20 20 30 30	5	
	Switch disconnectors as changeover switches[2] without break-before-make feature					
	3KE42 (2 units) 3KE43 (2 units) 3KE44 (2 units) 3KE45 (2 units)	250 400 630 1000	12 x 12 12 x 12 12 x 12 12 x 12	40 40 55 55	5	
	Switch disconnectors with operating linkage (for parallel connection)					
	3KE42 (2 units) 3KE43 (2 units) 3KE44 (2 units) 3KE45 (2 units)	250 400 630 1000	12 x 12 12 x 12 12 x 12 12 x 12	40 40 55 55	5	

1) Additionally required for 3KL61: 1 shaft coupling, Order No. 8UC92 53 (see Individual Parts).

2) The door interlocking plate must be removed.

3) With shortened 8UC60 16/8UC60 17 coupling driver and reduced tolerance compensation (see Dimensional Drawings).

Door-coupling rotary operating mechanisms, complete (black handle, light-gray masking plate with black inscription)
Can be padlocked, with door interlocking

Supplied with seal and fixing screws

	DT	Rotary operating mechanism, complete		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	Components of the 8UC6 rotary operating mechanism	Order No.
		Order No.	Price per PU				kg		
3)	►	**8UC61 11-1BB10**		1	1 unit	103	0.347	Handle with masking plate	8UC61 10-1BB
	B	**8UC61 61-1BB10**		1	1 unit	103	0.300	Coupling driver for shaft □ 6 mm	8UC60 11, 8UC60 16
								Extension shaft □ 6 mm, 300 mm long	8UC60 31
3)	►	**8UC62 12-1BB20**		1	1 unit	103	0.404	Handle with masking plate	8UC62 10-1BB
	B	**8UC62 62-1BB20**		1	1 unit	103	0.370	Coupling driver for shaft □ 8 mm	8UC60 12 8UC60 17
								Extension shaft □ 8 mm, 300 mm long	8UC60 32
	►	**8UC63 13-1BB30**		1	1 unit	103	0.973	Handle with masking plate	8UC63 10-1BB
								Coupling driver for shaft □ 10 mm	8UC60 13
								Extension shaft □ 10 mm, 300 mm long	8UC60 33
	B	**8UC63 14-1BB44**		1	1 unit	103	1.153	Handle with masking plate	8UC63 10-1BB
								Coupling driver for shaft □ 12 mm	8UC60 14
								Extension shaft □ 12 mm, 300 mm long	8UC60 34
								Shaft coupling □ 12 mm to □ 12 mm	8UC60 24
	►	**8UC64 14-1BB44**		1	1 unit	103	1.171	Handle with masking plate	8UC64 10-1BB
								Coupling driver for shaft □ 12 mm	8UC60 14
								Extension shaft □ 12 mm, 300 mm long	8UC60 34
								Shaft coupling □ 12 mm to □ 12 mm	8UC60 24
	B	**8UC65 14-1BF44**		1	1 unit	103	1.183	Handle with masking plate	8UC65 10-1BF
								Coupling driver for shaft □ 12 mm	8UC60 14
								Extension shaft □ 12 mm, 300 mm long	8UC60 34
								Shaft coupling □ 12 mm to □ 12 mm	8UC60 24
	B	**8UC65 14-1FG44**		1	1 unit	103	1.137	Handle with masking plate	8UC65 10-1FG
								Coupling driver for shaft □ 12 mm	8UC60 14
								Extension shaft □ 12 mm, 300 mm long	8UC60 34
								Shaft coupling □ 12 mm to □ 12 mm	8UC60 24
	B	**8UC65 14-1BB44**		1	1 unit	103	1.265	Handle with masking plate	8UC65 10-1BB
								Coupling driver for shaft □ 12 mm	8UC60 14
								Extension shaft □ 12 mm, 300 mm long	8UC60 34
								Shaft coupling □ 12 mm to □ 12 mm	8UC60 24

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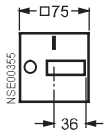
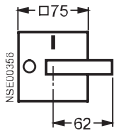
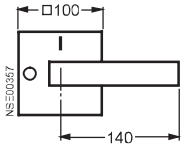
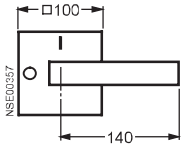
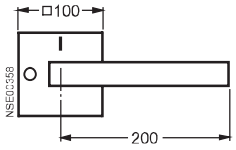
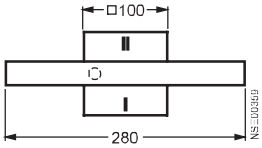
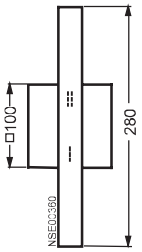
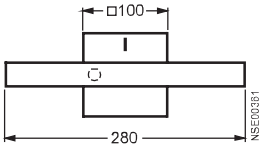
* You can order this quantity or a multiple thereof.

For 3K switch disconnectors

	Switching device	Rated current	Cross-section of the actuating shaft	Torque	Rotary operating mechanism	Illustrated: Handle, masking plate
	Type	A	mm	Nm	Size	
	Switch disconnectors with or without fuses					
	3KL50, 3KM50 3KA50 3KA51	63 63 80	6 x 6 6 x 6 6 x 6	3 3 3	1	
	3KL52, 3KM52 3KL53, 3KM53 3KA52 3KA53	125 160 125 160	8 x 8 8 x 8 8 x 8 8 x 8	7.5 7.5 7.5 7.5	2	
	3KL55, 3KM55 3KL57, 3KM57 3KA55 3KA57, 3KA58	250 400 250 400	10 x 10 10 x 10 10 x 10 10 x 10	16 16 16 16	3	
	3KE42 3KE43	250 400	12 x 12 12 x 12	15 15	3	
	3KL61[1] 3KE44 3KE45	630 630 1000	12 x 12 12 x 12 12 x 12	30 24 24	4	
	Switch disconnectors as changeover switches with break-before-make feature					
	3KE42 (2 units) 3KE43 (2 units) 3KE44 (2 units) 3KE45 (2 units)	250 400 630 1000	12 x 12 12 x 12 12 x 12 12 x 12	20 20 30 30	5	
	Switch disconnectors as changeover switches[2]) without break-before-make feature					
	3KE42 (2 units) 3KE43 (2 units) 3KE44 (2 units) 3KE45 (2 units)	250 400 630 1000	12 x 12 12 x 12 12 x 12 12 x 12	40 40 55 55	5	
	Switch disconnectors with operating linkage (for parallel connection)					
	3KE42 (2 units) 3KE43 (2 units) 3KE44 (2 units) 3KE45 (2 units)	250 400 630 1000	12 x 12 12 x 12 12 x 12 12 x 12	40 40 55 55	5	

1) Additionally required for 3KL61: 1 shaft coupling, Order No. 8UC92 53 (see Individual Parts).

2) The door interlocking plate must be removed.

EMERGENCY-STOP door-coupling rotary operating mechanisms, complete (red handle, yellow indicator plate with black inscription)
Can be padlocked, with door interlocking

Supplied with seal and fixing screws

DT	Rotary operating mechanism, complete		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	Components of the 8UC6 rotary operating mechanism	Order No.
	Order No.	Price per PU				kg		
►	**8UC61 21-3BB10**		1	1 unit	103	0.353	Handle with masking plate Coupling driver for shaft □ 6 mm Extension shaft □ 6 mm, 300 mm long	8UC61 20-3BB 8UC60 11 8UC60 31
►	**8UC62 22-3BB20**		1	1 unit	103	0.426	Handle with masking plate Coupling driver for shaft □ 8 mm Extension shaft □ 8 mm, 300 mm long	8UC62 20-3BB 8UC60 12 8UC60 32
►	**8UC63 23-3BB30**		1	1 unit	103	0.999	Handle with masking plate Coupling driver for shaft □ 10 mm Extension shaft □ 10 mm, 300 mm long	8UC63 20-3BB 8UC60 13 8UC60 33
►	**8UC63 24-3BB44**		1	1 unit	103	1.173	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC63 20-3BB 8UC60 14 8UC60 34 8UC60 24
►	**8UC64 24-3BB44**		1	1 unit	103	1.189	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC64 20-3BB 8UC60 14 8UC60 34 8UC60 24
	--						--	--
	--						--	--
B	**8UC65 24-3BB44**		1	1 unit	103	1.221	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC65 20-3BB 8UC60 14 8UC60 34 8UC60 24

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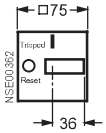
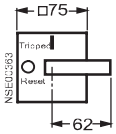
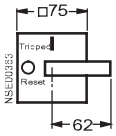
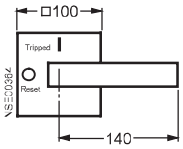
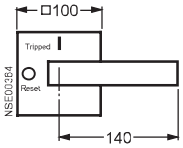
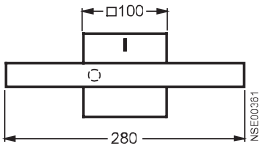
*** You can order this quantity or a multiple thereof.**

For 3VF and 3VL circuit-breakers

Selection and ordering data

	Switching device[1]	Rated current	Cross-section of the actuating shaft	Torque	Rotary operating mechanism	Illustrated: Handle, masking plate
	Type	A	mm	Nm	Size	
	3VF and 3VL circuit-breakers[2]					
	3VF2	16 ... 100	8 × 8	2	1	
	3VF3 3VF4 3VF5	16 ... 225 125 ... 250 200 ... 400	8 × 8 8 × 8 8 × 8	2 6 6	2	
	3VL1 3VL2 3VL3	16 ... 160 50 ... 160 200 ... 250	8 × 8 8 × 8 8 × 8	[3]	2	
	3VF6	315 ... 800	12 × 12	16	3	
	3VL4 3VL5 3VL6 3VL7 3VL8	200 ... 400 315 ... 600 320 ... 800 400 ... 1250 640 ... 1600	12 × 12 12 × 12 12 × 12 12 × 12 12 × 12	[3]	3	
	3VF7 3VF8	800 ... 1250 1600 ... 2500	12 × 12 12 × 12	25 50	5	

1) For 3RV motor starter protectors, see Motor Starter Protectors.

2) 3VF and 3VL circuit-breakers require in addition a front-operated rotary operating mechanism with shaft butt for direct mounting to the switch. For details of ordering the complete operating mechanism, see "Molded-Case Circuit-Breakers (MCCB)".

3) On request.

* You can order this quantity or a multiple thereof.

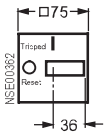
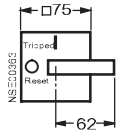
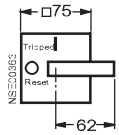
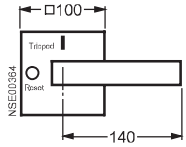
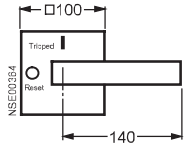
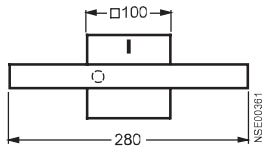
Door-coupling rotary mechanisms, complete (black handle, light-gray masking plate with black inscription)
Can be padlocked, with door interlocking

Supplied with seal and fixing screws

	DT	Rotary operating mechanism, complete		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	Components of the 8UC6 rotary operating mechanism	Order No.
		Order No.	Price per PU				kg		
2)	B	**8UC61 12-1BD22**		1	1 unit	103	0.417	Handle with masking plate	8UC61 10-1BD2)
								Coupling driver for shaft □ 8 mm	8UC60 12
								Extension shaft □ 8 mm, 300 mm long	8UC60 32
								Shaft coupling □ 8 mm to □ 8 mm	8UC60 22
2)	B	**8UC62 12-1BD22**		1	1 unit	103	0.440	Handle with masking plate	8UC62 10-1BD2)
								Coupling driver for shaft □ 8 mm	8UC60 12
								Extension shaft □ 8 mm, 300 mm long	8UC60 32
								Shaft coupling □ 8 mm to □ 8 mm	8UC60 22
2)	A	**8UC62 62-6BD22**		1	1 unit	103	0.406	Handle with masking plate	8UC62 10-6BD2)
								Coupling driver for shaft □ 8 mm	8UC60 17-2AA
								Extension shaft □ 8 mm, 300 mm long	8UC60 32
								Shaft coupling □ 8 mm to □ 8 mm	8UC60 22
2)	B	**8UC63 14-1BD44**		1	1 unit	103	1.155	Handle with masking plate	8UC63 10-1BD2)
								Coupling driver for shaft □ 12 mm	8UC60 14
								Extension shaft □ 12 mm, 300 mm long	8UC60 34
								Shaft coupling □ 12 mm to □ 12 mm	8UC60 24
2)	B	**8UC63 14-6BD44**		1	1 unit	103	1.153	Handle with masking plate	8UC63 10-6BD2)
								Coupling driver for shaft □ 12 mm	8UC60 14
								Extension shaft □ 12 mm, 300 mm long	8UC60 34
								Shaft coupling □ 12 mm to □ 12 mm	8UC60 24
2)	B	**8UC65 14-1BB44**		1	1 unit	103	1.265	Handle with masking plate	8UC65 10-1BB2)
								Coupling driver for shaft □ 12 mm	8UC60 14
								Extension shaft □ 12 mm, 300 mm long	8UC60 34
								Shaft coupling □ 12 mm to □ 12 mm	8UC60 24

*** You can order this quantity or a multiple thereof.**

For 3VF and 3VL circuit-breakers

	Switching device[1]	Rated current	Cross-section of the actuating shaft	Torque	Rotary operating mechanism	Illustrated: Handle, masking plate
	Type	A	mm	Nm	Size	
	3VF and 3VL circuit-breakers[2]					
	3VF2	16 ... 100	8 × 8	2	1	
	3VF3 3VF4 3VF5	16 ... 225 125 ... 250 200 ... 400	8 × 8 8 × 8 8 × 8	2 6 6	2	
	3VL1 3VL2 3VL3	16 ... 160 50 ... 160 200 ... 250	8 × 8 8 × 8 8 × 8	[3]	2	
	3VF6	315 ... 800	12 × 12	16	3	
	3VL4 3VL5 3VL6 3VL7 3VL8	200 ... 400 315 ... 600 320 ... 800 400 ... 1250 640 ... 1600	12 × 12 12 × 12 12 × 12 12 × 12 12 × 12	[3]	3	
	3VF7 3VF8	800 ... 1250 1600 ... 2500	12 × 12 12 × 12	25 50	5	

1) For 3RV motor starter protectors, see Motor Starter Protectors.

2) 3VF and 3VL circuit-breakers require in addition a front-operated rotary operating mechanism with shaft butt for direct mounting to the switch. For details of ordering the complete operating mechanism, see "Molded-Case Circuit-Breakers (MCCB)".

3) On request.

* You can order this quantity or a multiple thereof.

EMERGENCY-STOP door-coupling rotary mechanisms, complete (red handle, yellow indicator plate with black inscription)
Can be padlocked, with door interlocking

Supplied with seal and fixing screws

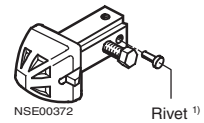
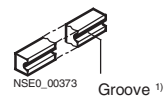
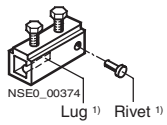
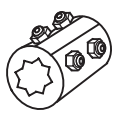
	DT	Rotary operating mechanism, complete		PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	Components of the 8UC6 rotary operating mechanism	Order No.
		Order No.	Price per PU				kg		
2)	B	**8UC61 22-3BD22**		1	1 unit	103	0.402	Handle with masking plate	8UC61 20-3BD2)
								Coupling driver for shaft □ 8 mm	8UC60 12
								Extension shaft □ 8 mm, 300 mm long	8UC60 32
								Shaft coupling □ 8 mm to □ 8 mm	8UC60 22
2)	B	**8UC62 22-3BD22**		1	1 unit	103	0.445	Handle with masking plate	8UC62 20-3BD2)
								Coupling driver for shaft □ 8 mm	8UC60 12
								Extension shaft □ 8 mm, 300 mm long	8UC60 32
								Shaft coupling □ 8 mm to □ 8 mm	8UC60 22
2)	B	**8UC62 72-8BD22**		1	1 unit	103	0.413	Handle with masking plate	8UC62 20-8BD2)
								Coupling driver for shaft □ 8 mm	8UC60 17-2AA
								Extension shaft □ 8 mm, 300 mm long	8UC60 32
								Shaft coupling □ 8 mm to □ 8 mm	8UC60 22
2)	C	**8UC63 24-3BD44**		1	1 unit	103	1.172	Handle with masking plate	8UC63 20-3BD2)
								Coupling driver for shaft □ 12 mm	8UC60 14
								Extension shaft □ 12 mm, 300 mm long	8UC60 34
								Shaft coupling □ 12 mm to □ 12 mm	8UC60 24
2)	B	**8UC63 24-8BD44**			1 unit	103	1.160	Handle with masking plate	8UC63 20-8BD2)
								Coupling driver for shaft □ 12 mm	8UC60 14
								Extension shaft □ 12 mm, 300 mm long	8UC60 34
								Shaft coupling □ 12 mm to □ 12 mm	8UC60 24
2)	B	**8UC65 24-3BB44**			1 unit	103	1.221	Handle with masking plate	8UC65 20-3BB2)
								Coupling driver for shaft □ 12 mm	8UC60 14
								Extension shaft □ 12 mm, 300 mm long	8UC60 34
								Shaft coupling □ 12 mm to □ 12 mm	8UC60 24

* You can order this quantity or a multiple thereof.

Individual parts

Selection and ordering data

	For operating mechanism Type	Cross-section of the actuating shaft mm × mm	A: Indicator lgr Handle bl B: Indicator ye Handle rd mm	DT	Components for 8UC6 door-coupling rotary operating mechanisms Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
	**Handles with masking plate (including flat gasket and fixing screws)**									
	8UC61	6 × 6	A	B	**8UC61 10-1BB**		1	1 unit	103	0.189
			A	B	**8UC61 10-1BD**		1	1 unit	103	0.189
			B	B	**8UC61 20-3BB**		1	1 unit	103	0.194
			B	B	**8UC61 20-3BD**		1	1 unit	103	0.196
	8UC62	8 × 8	A	B	**8UC62 10-1BB**		1	1 unit	103	0.188
			A	B	**8UC62 10-1BD**		1	1 unit	103	0.190
			A	B	**8UC62 10-6BD**		1	1 unit	103	0.198
			B	B	**8UC62 20-3BB**		1	1 unit	103	0.202
			B	B	**8UC62 20-3BD**		1	1 unit	103	0.193
			B	B	**8UC62 20-8BD**		1	1 unit	103	0.203
	8UC63	10 × 10	A	B	**8UC63 10-1BB**		1	1 unit	103	0.485
			A	B	**8UC63 10-1BD**		1	1 unit	103	0.490
			A	B	**8UC63 10-6BD**		1	1 unit	103	0.495
			B	B	**8UC63 20-3BB**		1	1 unit	103	0.513
			B	B	**8UC63 20-3BD**		1	1 unit	103	0.508
			B	B	**8UC63 20-8BD**		1	1 unit	103	0.513
	8UC64	12 × 12	A	B	**8UC64 10-1BB**		1	1 unit	103	0.511
			B	B	**8UC64 20-3BB**		1	1 unit	103	0.540
	8UC65	12 × 12	A	B	**8UC65 10-1BB**		1	1 unit	103	0.534
			B	B	**8UC65 20-3BB**		1	1 unit	103	0.552

	For operating mechanism Type	Cross-section of the actuating shaft mm × mm	DT	Components for 8UC6 door-coupling rotary operating mechanisms Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
 NSE00372 Rivet 1)	**Coupling drivers**								
	8UC61	6 × 6	B	**8UC60 11**		1	1 unit	103	0.078
	8UC62	8 × 8	B	**8UC60 12**		1	1 unit	103	0.075
	8UC62[2]	8 × 8	A	**8UC60 17**		1	1 unit	103	0.043
	8UC62[3])	8 × 8	A	**8UC60 17-2AA**		1	1 unit	103	0.047
	8UC63	10 × 10	B	**8UC60 13**		1	1 unit	103	0.251
	8UC63 to 8UC66	12 × 12	B	**8UC60 14**		1	1 unit	103	0.253
 NSE0_00373 Groove 1)	**Extension shafts 300 mm long**								
	8UC61	6 × 6	B	**8UC60 31**		1	1 unit	103	0.068
	8UC62	8 × 8	B	**8UC60 32**		1	1 unit	103	0.132
	8UC63	10 × 10	C	**8UC60 33**		1	1 unit	103	0.217
	8UC63 ... 8UC65	12 × 12	B	**8UC60 34**		1	1 unit	103	0.315
	8UC66[4])	12 × 12	B	**8UC60 35**		1	1 unit	103	0.323
 NSE0_00374 Lug 1) Rivet 1)	**Extension shafts 600 mm long**								
	8UC61	6 × 6	B	**8UC60 81**		1	1 unit	103	0.136
	8UC62	8 × 8	B	**8UC60 82**		1	1 unit	103	0.265
	8UC63	10 × 10	B	**8UC60 83**		1	1 unit	103	0.430
	8UC63 ... 8UC65	12 × 12	B	**8UC60 84**		1	1 unit	103	0.640
 NSE00375	**Shaft couplings**								
	8UC61	6 × 6	B	**8UC60 21**		1	1 unit	103	0.031
	8UC62	8 × 8	B	**8UC60 22**		1	1 unit	103	0.023
	8UC63	10 × 10	B	**8UC60 23**		1	1 unit	103	0.085
	8UC63 to 8UC66	12 × 12	B	**8UC60 24**		1	1 unit	103	0.077
	8UC64 (3KL61)	12 × 12	►	**8UC92 53**		1	1 unit	103	0.115

1) Non-interchangeability features.

2) Shortened coupling driver with reduced tolerance compensation.

3) Shortened coupling driver with reduced tolerance compensation for 3VL1 to 3VL3.

4) Hardened.

* You can order this quantity or a multiple thereof.

Selection and ordering data

	Switching device	Cross-section of the actuating shaft	Torque of the operating mechanism[1]	Operating mechanism Size	Color of handle	DT	Operating mechanism for fixed mounting Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	Type	mm × mm	Nm									kg
	3KA50, 3KA51, 3KL50, 3KM50	6 × 6	4	1	Black	[2] B	**8UC93 54**		1	1 unit	103	0.031
			7.5	2	Black	[2] B	**8UC93 60**		1	1 unit	103	0.047
	3KA52 3KA53, 3KL52, 3KM52, 3KL53, 3KM53	8 × 8	7.5	2	Black	B	**8UC93 62**		1	1 unit	103	0.041
					Red	B	**8UC93 63**		1	1 unit	103	0.044
	3KL55, 3KM55, 3KL57, 3KM57	10 × 10	16	3	Black	B	**8UC93 65**		1	1 unit	103	0.138
	3KA55, 3KA57, 3KA58				Red	B	**8UC93 66**		1	1 unit	103	0.160
	3KE42, 3KE43	12 × 12	16	3	Black	[3] B	**8UC93 70**		1	1 unit	103	0.128
					Red	[3] B	**8UC93 71**		1	1 unit	103	0.146
	3KE44, 3KE45	12 × 12	30	4	Black	[3] B	**8UC93 74**		1	1 unit	103	0.145
					Red	[3] B	**8UC93 75**		1	1 unit	103	0.165
	3KL61	12 × 12	55	5	Black	B	**8UC93 81**		1	1 unit	103	0.264
					Red	B	**8UC93 82**		1	1 unit	103	0.273

1) Operating mechanisms were tested with triple torque (DIN VDE 0660 Part 107). They are therefore qualified for use in all controls, especially for disconnectors.

2) Red handle available on request.

3) Additionally required: 3KX2 210-0H coupling socket.

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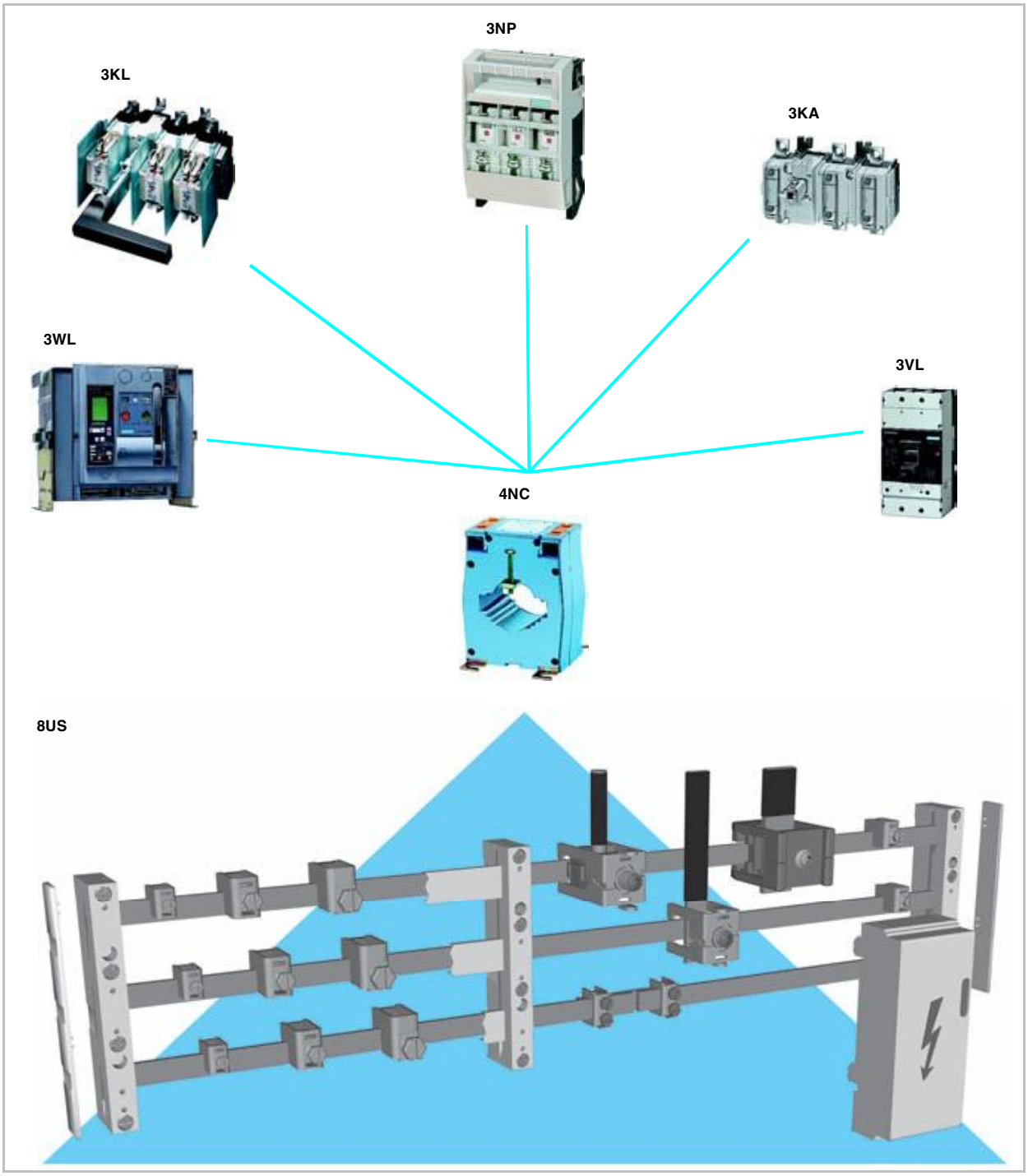
*** You can order this quantity or a multiple thereof.**

Introduction

Overview



General criteria for the selection of current transformers for measurement purposes

Standards → IEC 60185, DIN VDE 0414 Part 1 and 2

Window-type current transformers → The conductor to be measured (busbar or wire) 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 A to 75 A is achieved when the conductor to be measured is pin-wound several times.

Rated primary current I_{pn} → Current transformers can be continuously loaded with 1.3 times the primary rated current (I_{pn}).

Rated secondary current I_{sn} →
- 1 A: Particularly suitable for longer measuring leads. Cable losses of only 4 % in contrast to 5 A current transformers.
- 5 A: 5 A current transformers create 25 times the power losses on measurement leads as compared with 1 A current transformers. These stray losses result in higher power in the case of long leads. Only recommended for use with short measurement leads.

Accuracy class →
- Class 1: Operation measurement, internal metering. Current error ±1 % at $1 \times I_{pn}$ and $1.2 \times I_{pn}$
- Class 3: Coarse measurement. Current error ±3 % at $0.5 \times I_{pn}$ and $1.2 \times I_{pn}$

Rated output power P_n → The rated output power of transformers is specified in VA. The actual load should be similar to the rated output power; a lower actual load (underburden) increases the overcurrent factor and measuring instruments may be damaged in case of a short-circuit, a higher actual load (overburden) has a negative effect on the accuracy.

With a frequency of 60 Hz the rated output power increases to 1.2 times. With $16^2/_3$ Hz the output power decreases to $^1/_3$ of the rated output power.

Maximum voltage for equipment U_m → This is the rms value of the maximum voltage between the conductors of a system. For this voltage the insulation must be rated at normal operating conditions.

4NC5 current transformers are suitable for 720 V.

Overcurrent limiting factor FS → The overcurrent limiting factor is expressed using the letters FS and a factor, e.g. FS5 or FS10.

When a short-circuit current flows through the primary winding of a current transformer, the load on the measuring instruments connected to the current transformer is the lower the smaller the current factor is.

Rated short-time thermal current I_{th} → The rated short-time thermal current I_{th} is the rms value of the primary current with a duration of one second, whose heat effect the current transformer can resist without being damaged in the event of a short-circuited secondary winding.

Rated impulse current I_{dyn} → The rated impulse current I_{dyn} is the highest instantaneous value of the current after a short-circuit whose force the current transformer can resist without being damaged.

The rated impulse current is specified as peak value.

Classes 1 and 3, from 50 A to 1500 A

Selection and ordering data

	Primary rated operational current I_{pn}	Rating P_n	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	A	VA							kg
	Rated secondary current 1 A								
	Class 3								
	• For circular conductors with max. diameter 17.5 mm								
	• For busbars up to max. 12 mm × 10 mm								
	50	2.5	A	**4NC51 12-0BC20**		1	1 unit	103	0.428
	60	2.5	A	**4NC51 13-0BC20**		1	1 unit	103	0.432
	75	2.5	A	**4NC51 15-0BC20**		1	1 unit	103	0.425
	Class 1								
	• For circular conductors with max. diameter 17.5 mm								
	• For 1 busbar up to max. 12 mm × 10 mm								
	100	2.5	A	**4NC51 17-0CC20**		1	1 unit	103	0.335
	150	2.5	A	**4NC51 21-0CC20**		1	1 unit	103	0.327
	200	5	A	**4NC51 22-0CE20**		1	1 unit	103	0.356
	250	5	A	**4NC51 23-0CE20**		1	1 unit	103	0.352
	• For circular conductors with max. diameter 28 mm								
	• For 1 busbar up to max. 30 mm × 10 mm								
	• For 2 busbars up to max. 25 mm × 5 mm								
	200	5	A	**4NC52 22-0CE20**		1	1 unit	103	0.464
	250	5	A	**4NC52 23-0CE20**		1	1 unit	103	0.477
	300	5	A	**4NC52 24-0CE20**		1	1 unit	103	0.363
	400	5	A	**4NC52 25-0CE20**		1	1 unit	103	0.373
	• For circular conductors with max. diameter 36 mm								
	• For 1 busbar up to max. 50 mm × 10 mm								
	• For 2 busbars up to max. 40 mm × 5 mm								
	400	5	A	**4NC53 25-0CE20**		1	1 unit	103	0.469
	500	5	A	**4NC53 26-0CE20**		1	1 unit	103	0.410
	600	5	A	**4NC53 27-0CE20**		1	1 unit	103	0.424
	750	5	A	**4NC53 28-0CE20**		1	1 unit	103	0.391
	• For circular conductors with max. diameter 45 mm								
	• For 1 busbar up to max. 60 mm × 10 mm								
	• For 2 busbars up to max. 60 mm × 10 mm								
	• For 3 busbars up to max. 60 mm × 5 mm								
	1000	10	A	**4NC54 31-0CH20**		1	1 unit	103	0.644
	1250	10	A	**4NC54 33-0CH20**		1	1 unit	103	0.667
	1500	10	A	**4NC54 34-0CH20**		1	1 unit	103	0.713
	Rated secondary current 5 A								
	Class 3								
	• For circular conductors with max. diameter 17.5 mm								
	• For 1 busbar up to max. 12 mm × 10 mm								
	50	2.5	A	**4NC51 12-2BC20**		1	1 unit	103	0.426
	60	2.5	A	**4NC51 13-2BC20**		1	1 unit	103	0.430
	75	2.5	A	**4NC51 15-2BC20**		1	1 unit	103	0.431

* You can order this quantity or a multiple thereof.

Classes 1 and 3, from 50 A to 1500 A

Primary rated operational current I_{pn} A	Rating P_n VA	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Class 1								
• For circular conductors with max. diameter 17.5 mm • For 1 busbar up to max. 12 mm × 10 mm								
100	2.5	A	**4NC51 17-2CC20**		1	1 unit	103	0.340
150	2.5	A	**4NC51 21-2CC20**		1	1 unit	103	0.327
200	5	A	**4NC51 22-2CE20**		1	1 unit	103	0.339
250	5	A	**4NC51 23-2CE20**		1	1 unit	103	0.345
• For circular conductors with max. diameter 28 mm • For 1 busbar up to max. 30 mm × 10 mm • For 2 busbars up to max. 25 mm × 5 mm								
200	5	A	**4NC52 22-2CE20**		1	1 unit	103	0.467
250	5	A	**4NC52 23-2CE20**		1	1 unit	103	0.474
300	5	A	**4NC52 24-2CE20**		1	1 unit	103	0.356
400	5	A	**4NC52 25-2CE20**		1	1 unit	103	0.379
• For circular conductors with max. diameter 36 mm • For 1 busbar up to max. 50 mm × 10 mm • For 2 busbars up to max. 40 mm × 5 mm								
400	5	A	**4NC53 25-2CE20**		1	1 unit	103	0.452
500	5	A	**4NC53 26-2CE20**		1	1 unit	103	0.406
600	5	A	**4NC53 27-2CE20**		1	1 unit	103	0.425
750	5	A	**4NC53 28-2CE20**		1	1 unit	103	0.379
• For circular conductors with max. diameter 45 mm • For 1 busbar up to max. 60 mm × 10 mm • For 2 busbars up to max. 60 mm × 10 mm • For 3 busbars up to max. 60 mm × 5 mm								
1000	10	A	**4NC54 31-2CH20**		1	1 unit	103	0.660
1250	10	A	**4NC54 33-2CH20**		1	1 unit	103	0.631
1500	10	A	**4NC54 34-2CH20**		1	1 unit	103	0.669

Accessories

4NC51 window-type current transformers, used as pin-wound transformers, Classes 1 and 3, from 5 A to 75 A

Pin-winding increases the primary current of the current transformer. Consequently, window-type current transformers can also be used for low primary currents.

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	A	Number of required pin windings						
		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.**

Notes