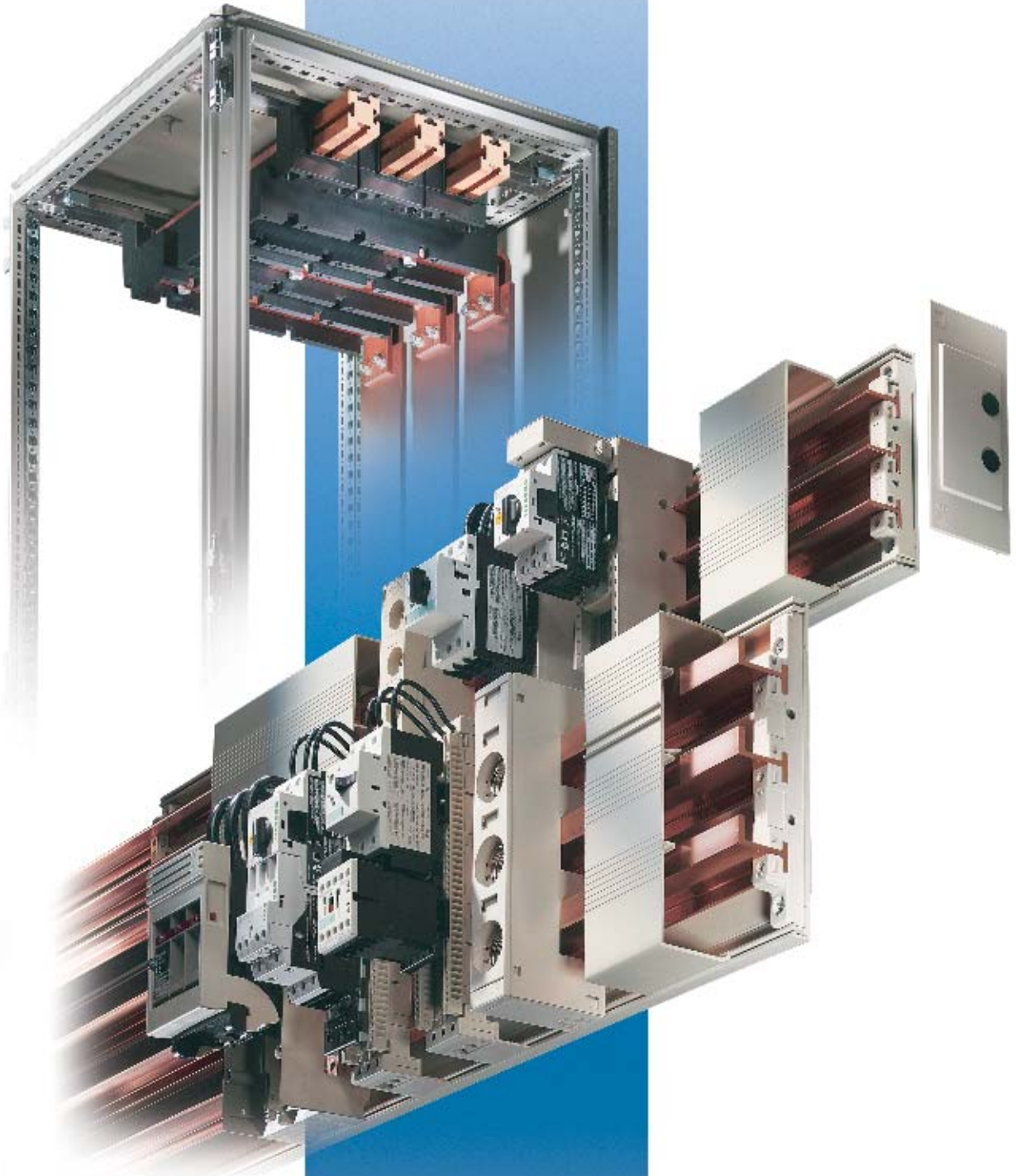


SV

Industrial electronics

Power distribution components

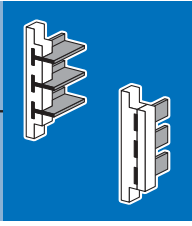
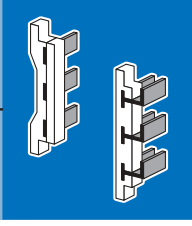
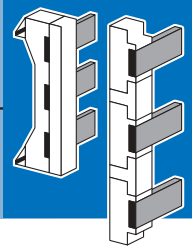
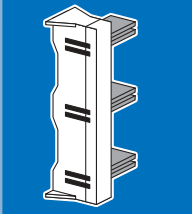
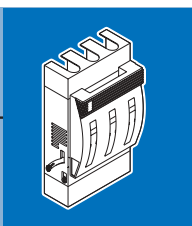
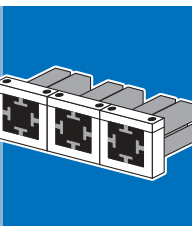
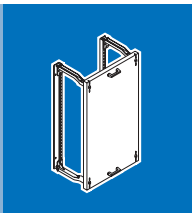
Reliable, cost-effective, complete



FRIEDHELM LOH GROUP



Rittal power distribution components

	Bar centre distance (mm)	Number of poles		Busbar dimensions	
				Rittal special busbars	Flat copper bars
Rittal Mini-PLS busbar system up to 250 A	40	3-pole		120 mm ²	
Busbar systems up to 360 A	40	3-pole			12 x 5 – 15 x 10 mm
Busbar systems up to 800 A	60	1 – 5-pole			12 x 5 – 30 x 10 mm
Rittal PLS busbar system up to 800 A/1600 A	60	3-pole		300 mm ² 900 mm ²	
Busbar systems up to 1250 A	100	3-pole			30 – 60 x 10 mm
Busbar systems up to 1600 A	185	3-pole			50 – 80 x 10 mm
Busbar systems up to 2500 A/3000 A	150	2 x 3-pole			60/80 x 10 mm 100 x 10 mm
Components for mounting plate assembly					
Accessories, software, technical information					
Rittal Maxi-PLS up to 2000 A/3200 A	100 150	3-/4-pole		45 x 45 mm 60 x 60 mm	
Rittal ISV installation distribution enclosure					

NH isolators				NH on-load isolators					Con- nec- tion tech- nology	Compo- nent adaptor	Bus mounting fuse bases	Cover systems			
00	1	2	3	000	00	1	2	3					From page		
													Overview	12	Busbar systems 40 mm
													Rittal Mini-PLS busbar system up to 250 A	20	
													Rittal Mini-PLS components	22	
													Busbar systems up to 360 A	26	
													Components and accessories	27	
													Overview	32	Busbar systems 60 mm
													Busbar systems up to 800 A/1600 A	40	
													Components and accessories	46	
													Overview	76	Busbar systems 100/185 mm
													Busbar systems up to 1250 A	80	
													Components and accessories	82	
													Overview	92	Busbar systems 150 mm
													Busbar systems up to 1600 A	94	
													Components and accessories	96	
													Overview	98	Busbar systems/ busbars
													Busbar systems up to 2500 A/3000 A	99	
													NH on-load isolators	100	NH isolators/ busbars
													Busbars and accessories	104	
													Rittal SV Software	106	
													Overview of power circuit-breakers	110	
													Technical information	114	Maxi-PLS system 2000 A/3200 A
													Overview	124	
													Maxi-PLS components	134	
													SV-TS 8 enclosures	160	
													Technical information	180	ISV installation distribution enclosure
													ISV installation distribution enclosures	186	
													Planning sequence	204	
													Index A – Z	208	

Innovative PLS ideas: Only from Rittal

With Rittal PLS systems, you know you are on the right track when it comes to finding the perfect solution to current and future tasks.

The system is based on three special busbars from Rittal, each of which are trail-blazers in their own sector.



Rittal Mini-PLS up to 250 A

The outstanding feature is the T-shaped support of the special bar section, as well as the unrestricted top mounting of the support and busbar connectors. Components are assembled from the front using a plug and lock action.

Rittal PLS up to 800 A/1600 A

The copper busbar in the shape of a "1" forms an ideal unit with the support. The special design of the busbar permits unrestricted top mounting of the support with power distribution components for 60 mm bar centre distance.

Rittal Maxi-PLS up to 2000 A/3200 A

This special Rittal busbar symbolises simple, compact system assembly without any machining. Type-tested modular system technology forms the basis for a system design which conforms to the pertinent regulations. Together with the SV-TS 8 enclosure system, this is the ideal unit.



Fast and complete!

Holistic system solutions, fast assembly and tailor-made wiring make PLS systems particularly efficient.



Compact and safe

Clear structures and consistent use of the enclosure's interior space are typical of Rittal PLS systems. The shockproof design is a key priority.



High load capacity and top mounting!

Powerful design complete with safety back-up – the ingenious shape of all Rittal PLS special busbars permits a high thermal and static load capacity. The busbar supports are suitable for unrestricted top-mounting.

Cost-effective

As energy consumption levels look set to rise, growing importance is attached to the rational assembly of power supply units.

The cost-effectiveness aspect is an outstanding characteristic of the broad spectrum of components in the Rittal low-voltage distributor range.





Individual solutions!

Rittal offers an innovative range of low-voltage power distribution solutions for the compact, safe configuration of busbar systems.



Fast assembly!

No machining, little effort, and an assembly with high contact stability – these are the characteristic features of rational system configuration with Rittal SV components.



Compact power!

The copper busbars in the Mini-PLS, PLS and Maxi-PLS were specially developed by Rittal. The sections are ingeniously shaped to make them more versatile than flat copper bars.

The new system concept

Rittal SV-TS 8 with Maxi-PLS – the solution for low-voltage distributors and switchgear in the heavy current sector. The future-oriented, complete modular system offers a new dimension in cost-effectiveness and reliability, thanks to its quick-fit assembly.

Complete

Rittal busbar systems combined with assembly and fuse components provide the ultimate in complete, professional solutions.





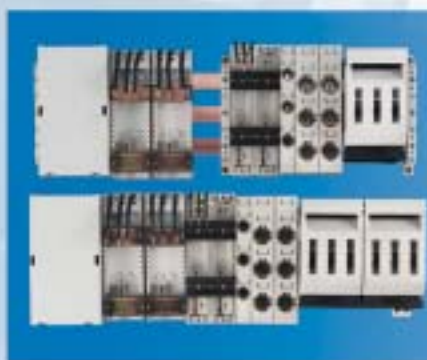
Tailor-made components!

Rittal power distribution components and enclosure systems are carefully coordinated in terms of dimensions and mounting technology, or else form a complete system unit, as in the case of Rittal Maxi-PLS and SV-TS 8 enclosure systems.



System diversity!

Component adaptors with the appropriate mounting and connection technology are available for standard protective equipment and switchgear.



Functional yet compact!

Rittal SV systems are designed for optimum space utilisation. The two Rittal special busbar systems PLS and Mini-PLS are particularly outstanding in this respect because the busbar supports are suitable for top mounting. This means that an extra size 00 isolator can be added, for example.

Project planning made easy

Information is the key to solving complex tasks. With this in mind, Rittal has published a textbook summarising the key facts about using power distribution components. The special software program "SV Plan" saves time with the project planning, calculation and documentation of busbar systems.

Reliable

Modern, heavy-duty power distributors offer future-oriented solutions.

Rittal power distribution components provide innovative, tested systems for electrical engineers.





Bus technology included!

The option of combining switchgear with load feeder modules for bus technology allows low voltage distributors to be integrated with modern industrial controllers.



Contact stability!

The clamping screw and snap-on technology in Rittal power distribution components ensures vibration resistant connection and attachment to busbars with high contact stability.



All-round contact hazard protection!

Achieve the required levels of contact hazard protection with standard components! Base tray and cover sections for all-round encapsulation of busbar systems, system covers for terminals, cover sections for individual busbars, holder covers and end covers.

Type-tested systems

Type testing for temperature rise and short-circuit resistance performed in accredited testing laboratories e.g. to DIN VDE 0660, part 500 or IEC 60 439-1 provides an impressive testimony to the suitability of Rittal busbar systems.

Busbar systems

Compact, space-saving assembly is the outstanding feature of busbar systems with 40 mm bar centre distance.



Rittal Mini-PLS busbar system up to 250 A

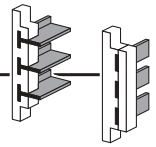
- Compact assembly, thanks to top mounting of the one-piece busbar supports.
- High static and thermal load capacity of the bar section.

Busbar systems up to 360 A

- Two-piece busbar support for flat copper bars from 12 x 5 to 15 x 10 mm.
- Reduction of the bar cross-section via a system of inserts.

40 mm

bar centre
distance, up to
250 A/360 A



Busbar systems
40 mm



The benefit lies in the system

- Simple, fast assembly of the components, thanks to plug-and-lock action and snap-on mounting.
- Safety, thanks to all-round contact hazard protection.
- Individual applications in the lower current range.
- Type-tested systems.

Comparison of busbar systems

Rittal Mini-PLS busbar system up to 250 A

The Rittal Mini-PLS busbar system will particularly impress you with its unique space utilisation and fast assembly of all components.

The busbar concept:

- High static and thermal load capacity, thanks to the T support form of the special profile.
- The components are easily inserted from the front and make reliable contact.
- One-piece busbar support.
- Contact hazard protection thanks to all-round encapsulation (end cover, base tray section and cover section).



Compact

- Full-surface top mounting of the busbar supports and busbar connector sets.
- Precise-fit installation, because the build height (160 mm) matches the installation space requirement exactly.
- Rittal Mini-PLS components: Busbar connection adaptor, component adaptor and quick-fit component adaptor, bus-mounting fuse base, adaptor to accommodate NH on-load isolator size 000.

Busbar systems up to 360 A

A particularly cost-effective system for using four different copper cross-sections.

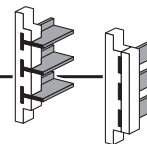
- Two-part busbar support including inserts for flat copper bars 12 x 5, 12 x 10, 15 x 5 and 15 x 10 mm.
- All-round contact hazard protection analogous to the Rittal Mini-PLS. Busbar covers may be used as an alternative.



Cost-effective

- Simple component assembly via plug and lock action from the front.
- Modern multi-functional component adaptor (snap-on mounting) for quick assembly of protective devices and switchgear.
- Other components: Busbar connection adaptor, bus-mounting fuse base, adaptor to accommodate the NH on-load isolator size 000.

40 mm



Busbar systems
40 mm



Overview of busbar system components

Rittal Mini-PLS busbar system up to 250 A

- The special busbars are simply pushed into the one-piece support and locked into position.
- The Rittal Mini-PLS support system and busbar connector set are easily fitted with top-mounting components.

- The end cover simply snaps into the side area of the support. The base tray section ensures contact hazard protection at the rear. The integral clip groove ensures secure fastening of the cover section.



Mini-PLS end cover
for side contact hazard protection of the Mini-PLS assembly.

Page 20

Mini-PLS base tray section
for rear contact hazard protection of the Mini-PLS assembly.

Page 20

Mini-PLS busbar support up to 250 A, 3-pole
40 mm bar centre distance.

Page 20

Busbar systems up to 360 A

- The busbars are inserted into the two-piece support.
- The inserts pre-integrated into the busbar support facilitate accommodation of 12 x 5, 12 x 10 and 15 x 5 mm busbars. Without these inserts, the maximum bar cross-section of 15 x 10 mm is used.
- End cover, base tray section and cover section are identical to contact hazard protection in the Mini-PLS.



End cover
For side contact hazard protection of the busbar assembly.

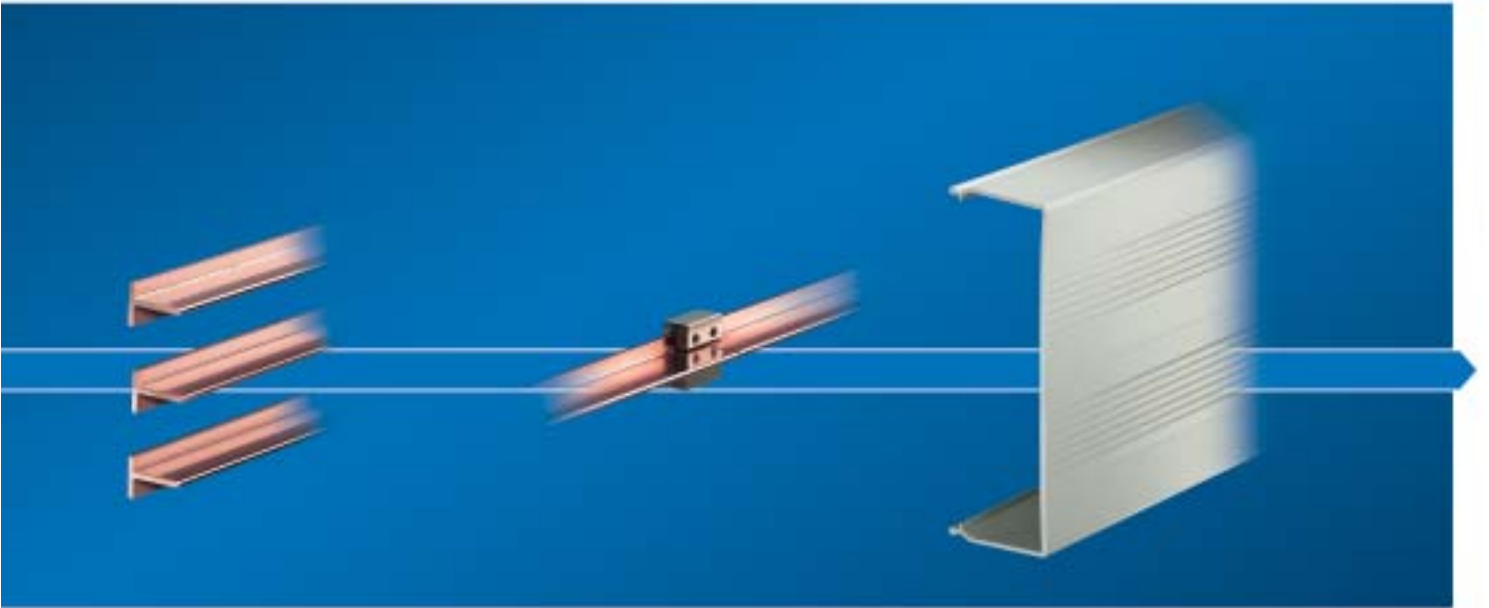
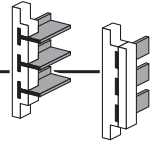
Page 26

Base tray section
For rear contact hazard protection of the busbar assembly.

Page 26

Busbar support up to 360 A, 3-pole
40 mm bar centre distance. Two-piece support including inserts for bar dimensions 12 x 5/10 and 15 x 5/10 mm.

Page 26



Mini-PLS special busbars E-Cu 250 A, 120 mm²

Bar thickness in the vicinity of the component attachment is 3 mm.

Page 20

Mini-PLS busbar connector kit up to 250 A

For connection of Mini-PLS special busbars; no drilling required.

Page 20

Mini-PLS cover sections

For clip-on mounting onto the Mini-PLS base tray section.

Page 20



Busbars of E-Cu 57

Dimensions: 12 x 5 to 15 x 10 mm.

Page 26

Busbar cover sections

Contact hazard protection, thanks to full encapsulation of the busbars.

Page 26

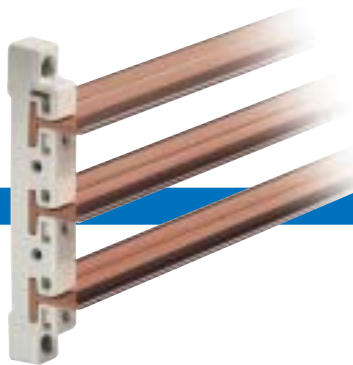
Cover sections

For clip-on mounting onto the base tray section.

Page 26

Overview of components

Rittal Mini-PLS busbar system up to 250 A



Busbar connection adaptor



Mini-PLS busbar connection adaptor up to 63 A and up to 250 A

For connecting round conductors and laminated copper bars. Power circuit-breakers or NH isolators, size 000, may optionally be mounted on the enclosure cover of the 250 A version.

Page 21

Bus-mounting fuse base



Mini-PLS bus-mounting fuse base D 02-E 18

Rated current 63 A, rated operating voltage 400 V AC. Simple to connect, because the 3-pole fuse unit is prewired on terminals.

Page 25

Busbar systems up to 360 A



Busbar connection adaptor



Busbar connection adaptor up to 360 A

For connecting round conductors and laminated copper bars. Power circuit-breakers or NH isolators, size 000, may optionally be mounted on the enclosure cover.

Page 27

Conductor connection clamps

Page 48

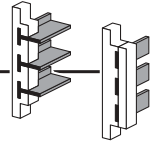
Bus-mounting fuse base



Bus-mounting fuse base D 02-E 18

Rated current 63 A, rated operating voltage 400 V AC. Simple to connect, because the 3-pole fuse unit is prewired on terminals.

Page 27



Component adaptor



Mini-PLS component adaptors 12/25/40 A
with connection cables. Construction width 45, 54, 72, 90, 99 and 108 mm.
Mini-PLS quick-fit component adaptors 25 A (32 A)
Fast, 3-pole sliding contact. Top-mounted equipment is positioned on a sliding DIN rail.
Mini-PLS component adaptor, 100 A
with mounting plate and connection cables. Construction width 90 mm.

Page 22 – 24

NH on-load isolators size 000



Mini-PLS busbar adaptor
For mounting the NH on-load isolator, size 000, on Rittal Mini-PLS. Fitted connection cables are included.

Page 25

NH on-load isolators size 000

Page 25

Component adaptor

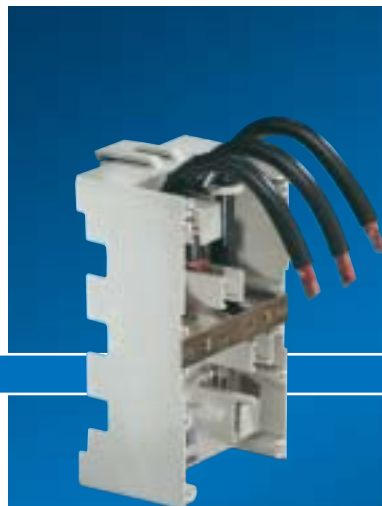


Multi-functional component adaptor 12/25/40 A
Construction width 45, 54, 90, 99 and 108 mm. With connection cables or terminals as standard. Optional cable outlet at the top, or top and bottom.

Component adaptor 100 A
with mounting plate and connection cables. Construction width 90 mm.

Page 28 – 31

NH on-load isolators size 000



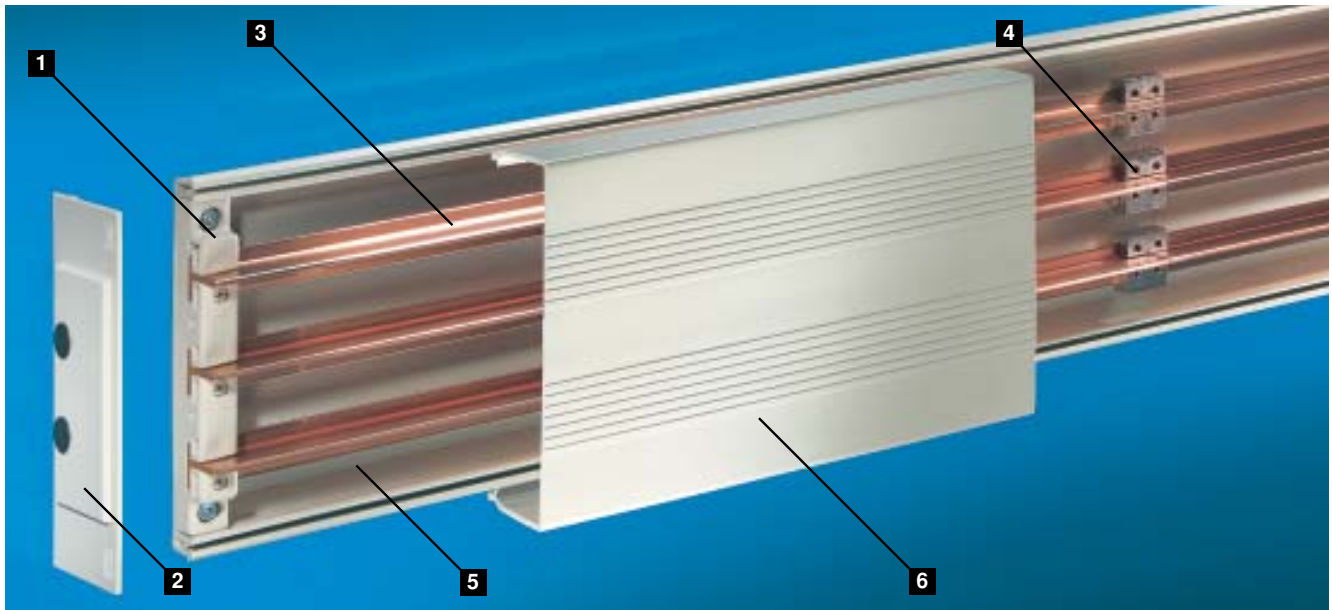
Busbar adaptor
For mounting the NH on-load isolator, size 000, on 40 mm busbar systems. Fitted connection cables are included.

Page 27

NH on-load isolators size 000

Page 27

Rittal Mini-PLS up to 250 A



1 Mini-PLS busbar supports up to 250 A, 3-pole

40 mm bar centre distance.
Rated current up to 250 A,
rated operating voltage up to 690 V AC,
50/60 Hz to VDE 0660.

Material:

Polyamide (PA 6.6),
30 % fibreglass-reinforced.
Continuous operating temperature:
max. 140°C.
Fire protection corresponding to
UL 94-V0.

Packs of	Model No. SV
4	9600.000

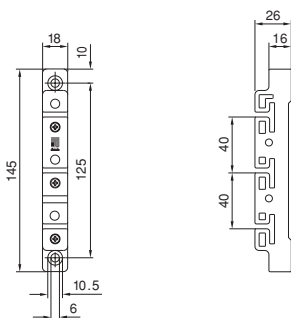
Short-circuit resistance diagram
see page 108.

2 Mini-PLS end cover

For side contact hazard protection of
the Mini-PLS assembly up to 250 A, for
simply clip-on mounting to SV 9600.000.

Packs of	Model No. SV
2	9610.000

SV 9600.000



3 Mini-PLS special busbars E-Cu 250 A, 120 mm²

3 mm bar thickness.

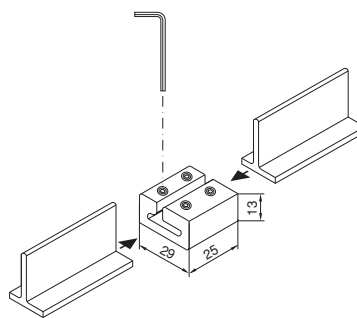
Length mm	Packs of	Model No. SV
500	3	9601.000
700	3	9602.000
1100	3	9603.000
1500	3	9624.000

4 Mini-PLS busbar connector kit up to 250 A

For connecting Mini-PLS special
busbars; no drilling required.
Maximum tightening torque 2 Nm.

Packs of	Model No. SV
3	9611.000

SV 9611.000



5 Mini-PLS base tray sections for Mini-PLS assembly up to 250 A.

Length mm	Packs of	Model No. SV
250	1	9604.000
500	1	9605.000
700	1	9606.000
1100	1	9607.000

6 Mini-PLS cover sections

May be cut to length individually; for
clip-on mounting onto the Mini-PLS
base tray section.

Length mm	Packs of	Model No. SV
250	1	9608.000
500	1	9609.000

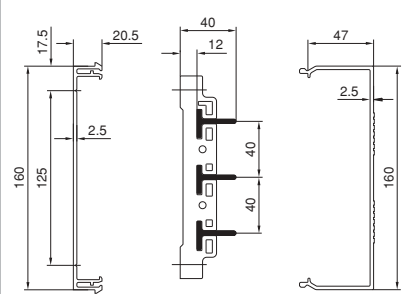
Material:

Mini-PLS base tray and cover sections

Thermally modified hard PVC.
Continuous operating temperature:
max. 100°C.
Fire protection corresponding to
UL 94-V0.

SV 9604.000 –
SV 9607.000

SV 9608.000
SV 9609.000





Mini-PLS busbar connection adaptor

	1	2
Including cover		
Rated current up to	63 A	250 A
Rated operating voltage	690 V ~	690 V ~
Connection	top/bottom	top/bottom
Connection of round conductors up to	35 mm ²	120 mm ²
Clamping area for laminated copper bars	10 x 8 mm	17 x 15 mm
Tightening torque		
• Terminal screw	2 – 3 Nm	2 – 3 Nm
Packs of	1	1
Model No. SV	9613.000	9612.000

Material:

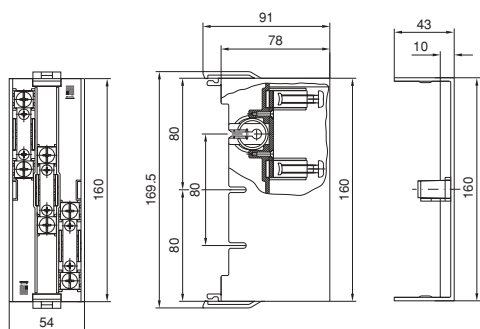
Polyamide (PA 6.6),
30 % fibreglass-reinforced.
Continuous operating temperature:
max. 140°C.
Fire protection corresponding to
UL 94-V0.



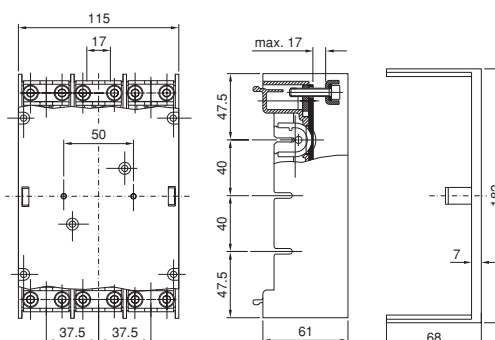
Accessories:

Laminated copper bars
Rittal Flexibar "S",
see page 105.

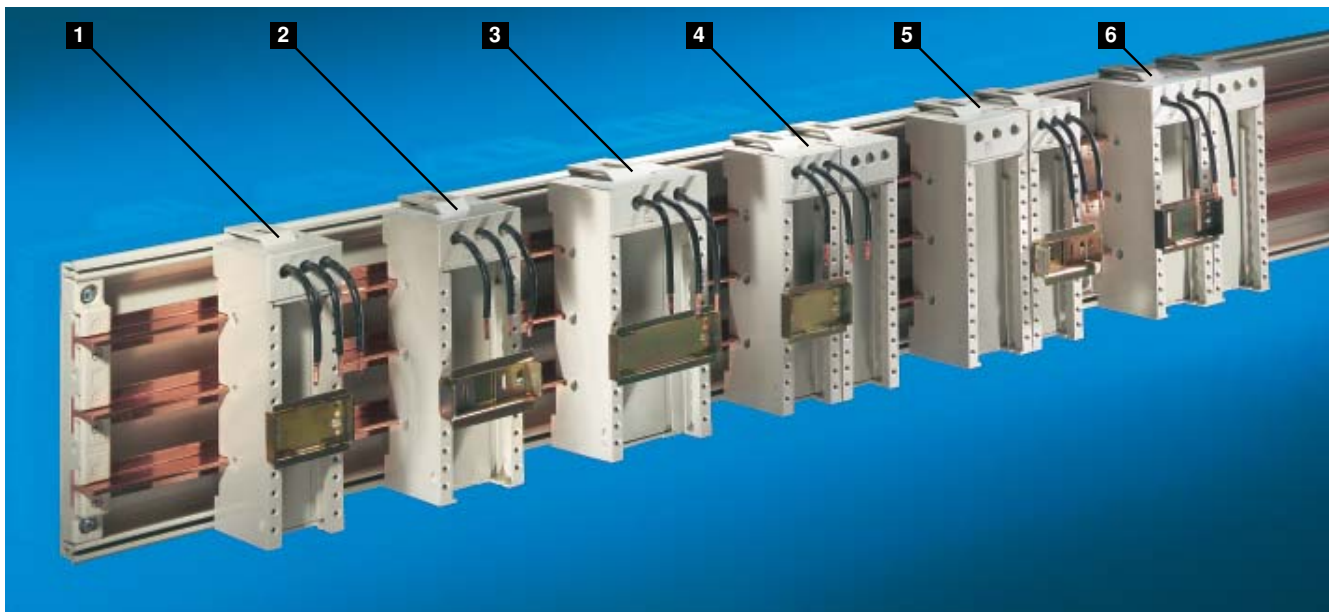
SV 9613.000



SV 9612.000



Rittal Mini-PLS components



Mini-PLS component adaptors 12 A/25 A

Cable outlet at the top.

Construction width	1 45 mm			2 54 mm		3 72 mm		4 90 mm	5 99 mm	6 108 mm
Rated current up to	12 A	25 A	25 A	25 A	25 A	25 A	25 A	25 A	25 A	25 A
Rated operating voltage	690 V ~	690 V ~	690 V ~	690 V ~	690 V ~	690 V ~	690 V ~	690 V ~	690 V ~	690 V ~
Connection cables*	AWG 14	AWG 12	AWG 12	AWG 12	AWG 12	AWG 12	AWG 12	AWG 12	AWG 12	AWG 12
Support rails	Quantity	1	1	1	1	1	1	1	1	1
	Height	7.5 mm	7.5 mm	15 mm	7.5 mm	15 mm	7.5 mm	15 mm	7.5 mm	15 mm
Packs of	1	1	1	1	1	1	1	1	1	1
Model No. SV	9614.110	9614.100	9615.100	9614.000	9615.000	9625.000	9626.000	9629.010	9629.020	9629.030

For power circuit-breakers

Make (equipment models see page 110)

Moeller		•	•		•	•	•	•		•
Siemens	•	•	•		•			•	•	
ABB		•	•	•	•					
AEG		•	•	•	•					
Allen Bradley		•	•					•		
Telemecanique		•	•				•	•		•
Universal application	•	•	•	•	•	•	•	•	•	•

* AWG = American Wire Gauges
AWG 14 = 2.08 mm² ± 2.5 mm²
AWG 12 = 3.31 mm² ± 4 mm²

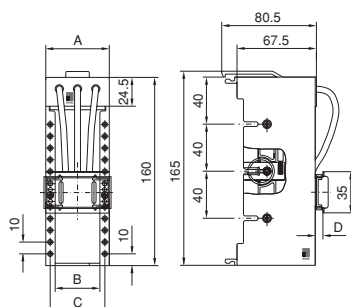
Note:

The current carrying capacity of the supply cables fitted as standard can be found on page 113.

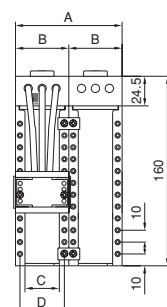
Material:

Polyamide (PA 6.6),
30 % fibreglass-reinforced.
Continuous operating temperature:
max. 140°C.
Fire protection corresponding to
UL 94-V0.

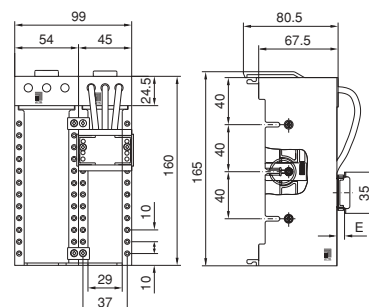
SV 9614.000 – SV 9626.000



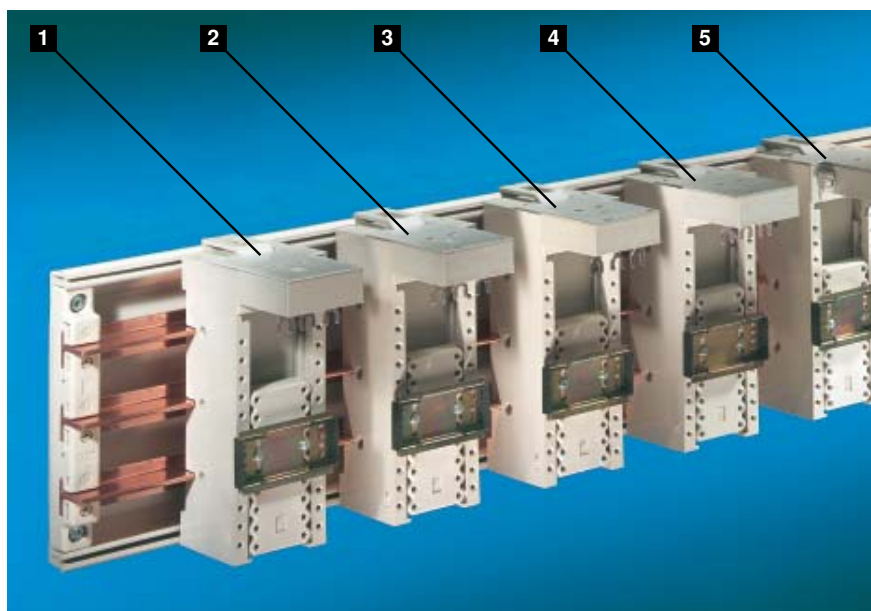
SV 9629.010 SV 9629.030



SV 9629.020



Model No. SV	A	B	C	D	E
9614.000	54	38	46.5	7.5	–
9614.100	45	29	37	7.5	–
9614.110	45	29	37	7.5	–
9615.000	54	38	46.5	15	–
9615.100	45	29	37	15	–
9625.000	72	56	64.5	7.5	–
9626.000	72	56	64.5	15	–
9629.010	90	45	29	37	7.5
9629.020	–	–	–	–	15
9629.030	108	54	38	46.5	7.5



Mini-PLS quick-fit component adaptors 25 A (32 A)

With mounting slide for quick slide-in contacting to the respective component-specific contact block.

Construction width	1 54 mm	2 54 mm	3 54 mm	4 54 mm	5 54 mm
Rated current up to	25 A at 35°C ambient temperature 32 A at 25°C ambient temperature				
Rated operating voltage	690 V ~				
Support rails	Quantity	1			
	Height	7.5 mm			
Packs of	1	1	1	1	1
Model No. SV	9618.000	9619.000	9620.000	9621.000	9622.000

For power circuit-breakers

Make (equipment models see page 111)

Moeller		•	•		•
Siemens					•
ABB					•
AEG	•				
Allen Bradley			•		
General Electric	•				
Schiele	•				
Telemecanique				•	•
Universal application	•	•	•	•	•

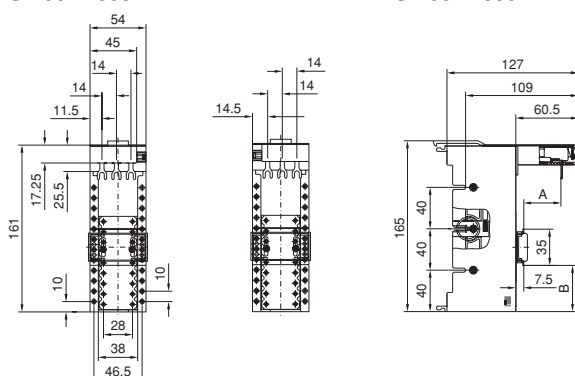
Material:

Polyamide (PA 6.6), 30 % fibreglass-reinforced.
Continuous operating temperature: max. 140°C.
Fire protection corresponding to UL 94-V0.

**SV 9618.000 –
SV 9621.000**

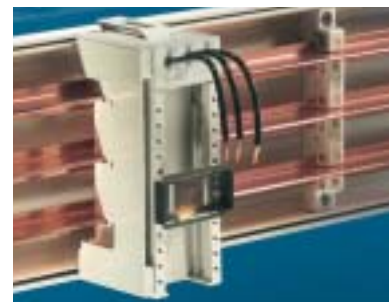
SV 9622.000

**SV 9618.000 –
SV 9622.000**



Model No. SV	A	B
9618.000	23	45
9619.000	30	40
9620.000	39	41
9621.000	27	46
9622.000	33	43

Accessories:



Insert strip

To extend the construction width of Mini-PLS component adaptors and quick-fit component adaptors

Width	Packs of	Model No. SV
9 mm	2	9623.000

Support rails

For Mini-PLS component adaptors.
Height: 7.5 mm.
Including assembly parts.

Width	Packs of	Model No. SV
45 mm	10	9320.150
54 mm	10	3548.000
72 mm	10	3549.000

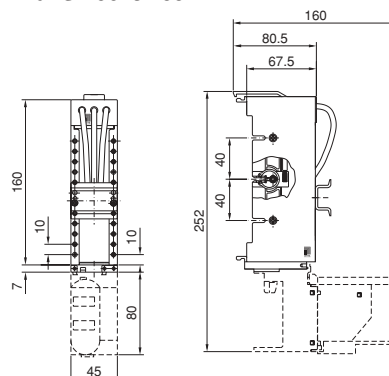


Plug-in connector

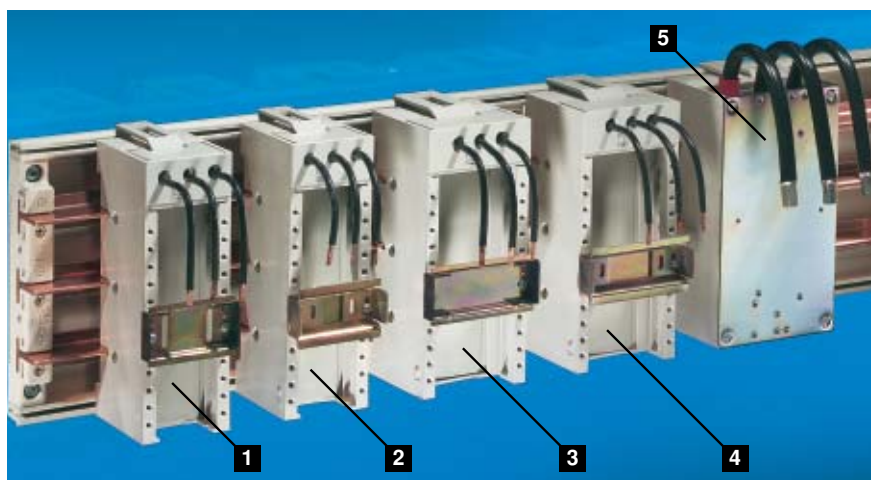
For fitting the AS-interface load feeder module with matching support type 3RK1 901-3CA00 (Siemens) to the Mini-PLS component adaptor with 45 and 54 mm construction width.

Packs of	Model No. SV
1	9623.100

**SV 9614.000 – SV 9615.100
with SV 9623.100**



Rittal Mini-PLS components



Mini-PLS component adaptors 40 A/100 A

Cable outlet at the top.

Construction width	1 54 mm	2 54 mm	3 72 mm	4 72 mm	5 90 mm
Rated current up to	40 A	40 A	40 A	40 A	100 A
Rated operating voltage	690 V ~	690 V ~	690 V ~	690 V ~	690 V ~
Connection cables	AWG 10*	AWG 10*	AWG 10*	AWG 10*	35 mm ²
Support rails	Quantity 1	1	1	1	—
	Height 7.5 mm	15 mm	7.5 mm	15 mm	—
Packs of	1	1	1	1	1
Model No. SV	9616.000	9617.000	9627.000	9628.000	9629.000

For power circuit-breakers

Make (equipment models see page 110)

Moeller		•	•	•	•
Siemens		•			•
ABB		•			•
AEG					•
Allen Bradley	•	•			•
Merlin Gerin					•
Telemecanique				•	•
Universal application	•	•	•	•	•

* AWG = American Wire Gauges
AWG 10 = 5.26 mm² ± 6 mm²

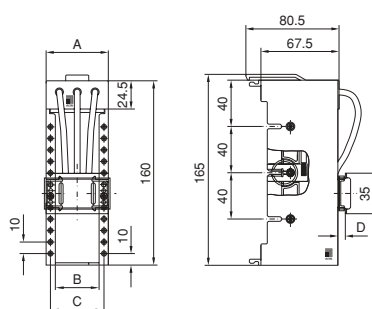
Note:

The current carrying capacity of the supply cables fitted as standard can be found on page 113.

Material:

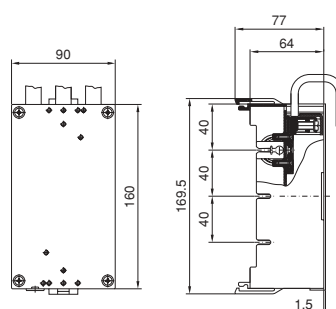
Polyamide (PA 6.6),
30 % fibreglass-reinforced.
Continuous operating temperature:
max. 140°C. Fire protection
corresponding to UL 94-V0.

SV 9616.000 / SV 9617.000
SV 9627.000 / SV 9628.000



Model No. SV	A	B	C	D
9616.000	54	38	46.5	7.5
9617.000	54	38	46.5	15
9627.000	72	56	64.5	7.5
9628.000	72	56	64.5	15

SV 9629.000



Accessories:

Insert strip

To extend the construction width of the Mini-PLS component adaptor, 40 A.

Width	Packs of	Model No. SV
9 mm	2	9623.000

Support rails

For Mini-PLS component adaptors.

Height: 7.5 mm.

Including assembly parts.

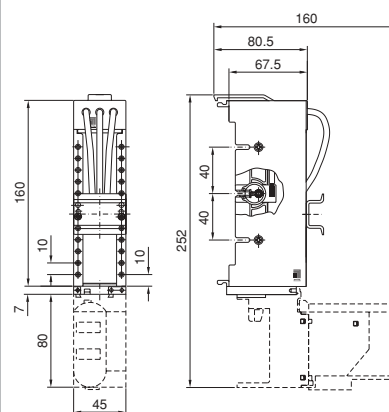
Width	Packs of	Model No. SV
54 mm	10	3548.000
72 mm	10	3549.000

Plug-in connector

For fitting the AS-interface load feeder module with matching support type 3RK1 901-3CA00 (Siemens) to the Mini-PLS component adaptor with 54 mm construction width.

Packs of	Model No. SV
1	9623.100

SV 9616.000 / SV 9617.000
with SV 9623.100



Support rails

for mounting power circuit-breakers (see page 110 for component types) on SV 9629.000.

Width: 72 mm, height: 15 mm.

Including assembly screws.

Packs of	Model No. SV
5	9320.120



1 Mini-PLS bus-mounting fuse base D 02-E 18

Rated current 63 A,
rated operating voltage 400 V AC.
Terminal for round conductors up to
16 mm².

Material:

Polyamide (PA 6.6),
30 % fibreglass-reinforced.
Continuous operating temperature:
max. 140°C.
Fire protection corresponding to
UL 94-V0.

Packs of	Model No. SV
1	9630.000

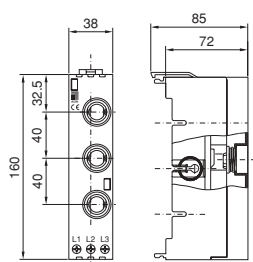
Supply includes: Cover.

Accessories:

Identification labels for SV 9630.000

Packs of	Model No. SV
100	9320.080

SV 9630.000



2 NH on-load isolators size 000

Design: size 000, 100 A, 690 V ~.
Cable outlet top/bottom.
Connection: Terminal up to 50 mm².
Tightening torque: 3 Nm.

Packs of	Model No. SV
1	3431.000

3 Mini-PLS busbar adaptor

For mounting SV 3431.000 on Rittal
Mini-PLS.
Includes fitted connection cables
35 mm².

Packs of	Model No. SV
1	9629.100

Accessories:

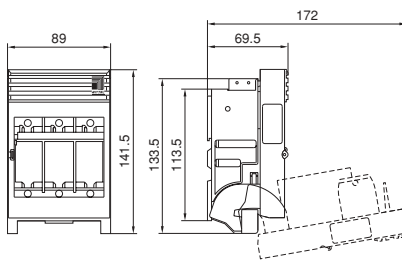
Micro-switch

For monitoring the switch position of the
NH unit, size 000 (lid unit).

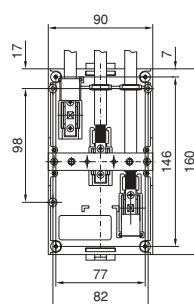
Packs of	Model No. SV
5	3071.000

Technical specifications and material
properties see page 114/115.

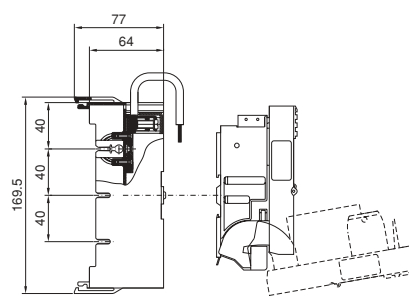
SV 3431.000



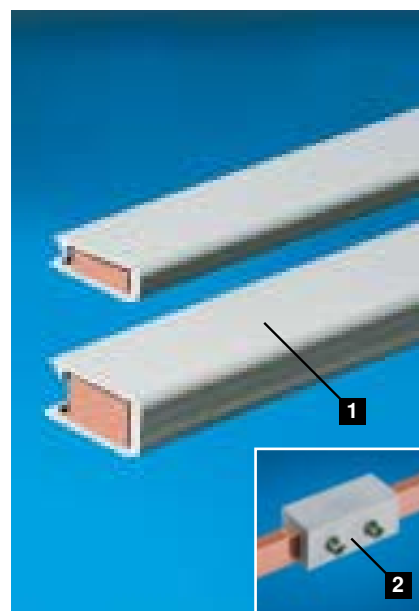
SV 9629.100



SV 3431.000 with SV 9629.100



Busbar systems up to 360 A



1 Busbar support up to 360 A, 3-pole

40 mm bar centre distance.
Rated current up to 360 A, rated operating voltage up to 1000 V AC, 50/60 Hz to VDE 0660.
Bar accommodation 12 x 5 to 15 x 10 mm. Including inserts.

Material:

Fibreglass-reinforced, thermoplastic polyester (PBT).
Continuous operating temperature: max. 140°C.
Fire protection corresponding to UL 94-V0.

Packs of	Model No. SV
4	9350.000

Short-circuit resistance diagram
see page 108.

Technical information

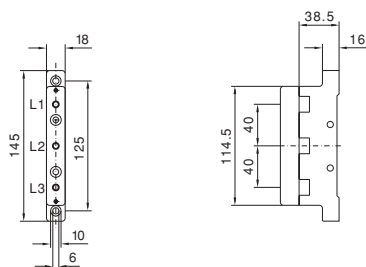
For calculation of the rated current, see page 120.

2 End cover

For side contact hazard protection of the busbar assembly.
Suitable for connection to SV 9350.000.

Packs of	Model No. SV
2	9610.000

SV 9350.000



3 Busbars made from E-Cu 57

to DIN 1759, DIN 40 500.
Length: 2400 mm/bar.

Size	Packs of	Model No. SV
12 x 5 mm	6	3580.000
12 x 10 mm	6	3580.100
15 x 5 mm	6	3581.000
15 x 10 mm	6	3581.100

4 Base tray sections

Length	Packs of	Model No. SV
250 mm	1	9604.000
500 mm	1	9605.000
700 mm	1	9606.000
1,100 mm	1	9607.000

5 Cover sections

May be cut to length as required; for clip-on mounting to the base tray section.

Length	Packs of	Model No. SV
250 mm	1	9608.000
500 mm	1	9609.000

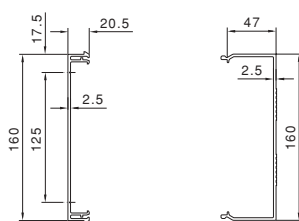
Material:

Base tray and cover sections

Thermally modified hard PVC. Continuous operating temperature: max. 100°C. Fire protection corresponding to UL 94-V0.

SV 9604.000 –
SV 9607.000

SV 9608.000
SV 9609.000



1 Busbar cover sections

Contact hazard protection by covering the busbars. May be cut to the required length.
Length: 1000 mm/section.

Material:

Thermally modified hard PVC.
Continuous operating temperature: max. 100°C.
Fire protection corresponding to UL 94-V0.

For busbars E-Cu	Packs of	Model No. SV
12/15 x 5 mm	4	9350.010
12/15 x 10 mm	4	9350.060

2 Busbar connector

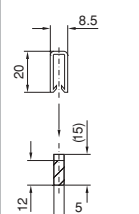
For connecting busbars E-Cu from 12 x 5 to 15 x 10 mm, no drilling required. Tightening torque: 10 Nm.

Material:

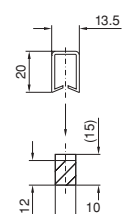
Brass. Nickel-plated surface finish.

Packs of	Model No. SV
3	9350.070

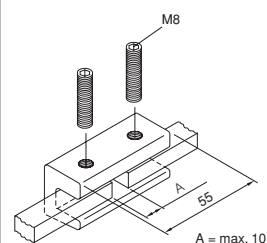
SV 9350.010

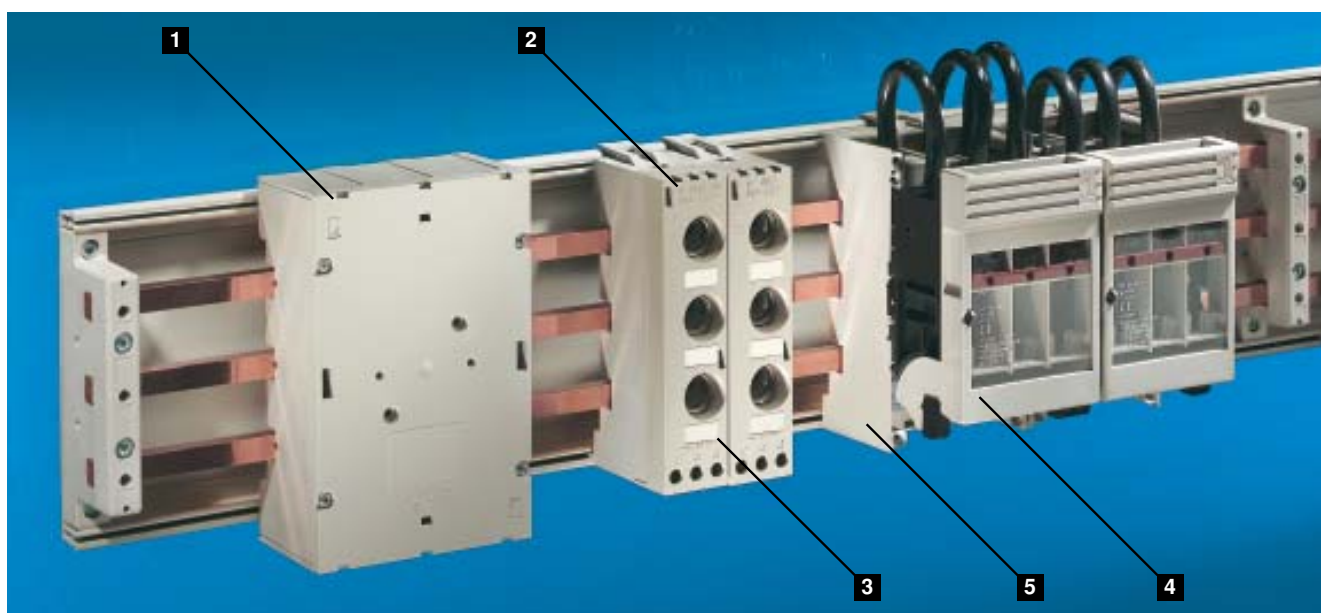


SV 9350.060



SV 9350.070





1 Busbar connection adaptor up to 360 A

For connecting round conductors up to 120 mm² (max. 250 A) and laminated copper bars (max. 360 A).
Clamping area: 17 x 15 mm.
Connection: top/bottom.
Rated operating voltage 690 V~.
Tightening torque:
Terminal screw 2 – 3 Nm.

Material:

Polyamide (PA 6.6),
30 % fibreglass-reinforced.
Continuous operating temperature:
max. 140°C.
Fire protection corresponding to
UL 94-V0.

For busbars E-Cu	Packs of	Model No. SV
12 x 5/10 mm	1	9350.020
15 x 5/10 mm	1	9350.030

Supply includes:
Cover.



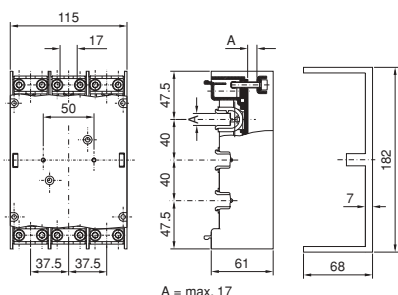
Accessories:

Laminated copper bars
Rittal Flexibar "S", see page 105.

Conductor connection clamps

For the connection of round conductors
1 – 50 mm², see page 48.

SV 9350.020
SV 9350.030



2 Bus-mounting fuse base D 02-E 18

Rated current 63 A,
rated operating voltage 400 V AC.
Terminal for round conductors
up to 16 mm².
For E-Cu busbars 12 x 5 mm and
12 x 10 mm.

Material:

Polyamide (PA 6.6),
30 % fibreglass-reinforced.
Continuous operating temperature:
max. 140°C.
Fire protection corresponding to
UL 94-V0.

Packs of	Model No. SV
1	9350.050

Supply includes:
Cover.



Also required:

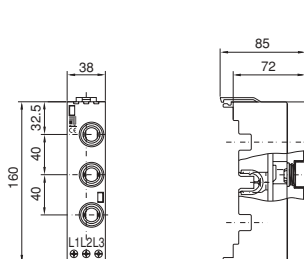
Base tray section,
see page 26.

Accessories:

3 Identification labels

Packs of	Model No. SV
100	9320.080

SV 9350.050



4 NH on-load isolators size 000

Design: size 000, 100 A, 690 V ~.
Cable outlet top/bottom.
Connection: Terminal up to 50 mm².
Tightening torque: 3 Nm.

Packs of	Model No. SV
1	3431.000

Technical specifications and material
properties see page 114/115.

5 Busbar adaptor

For mounting SV 3431.000 on 40 mm
bar systems.
Including 35 mm² connection cables
fitted as standard.

For busbars E-Cu	Packs of	Model No. SV
12 x 5/10 mm	1	9350.400
15 x 5/10 mm	1	9350.410



Also required:

Base tray section, see page 26.

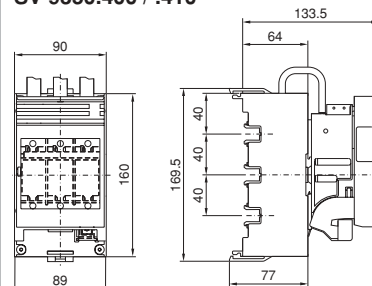
Accessories:

Micro-switch for SV 3431.000

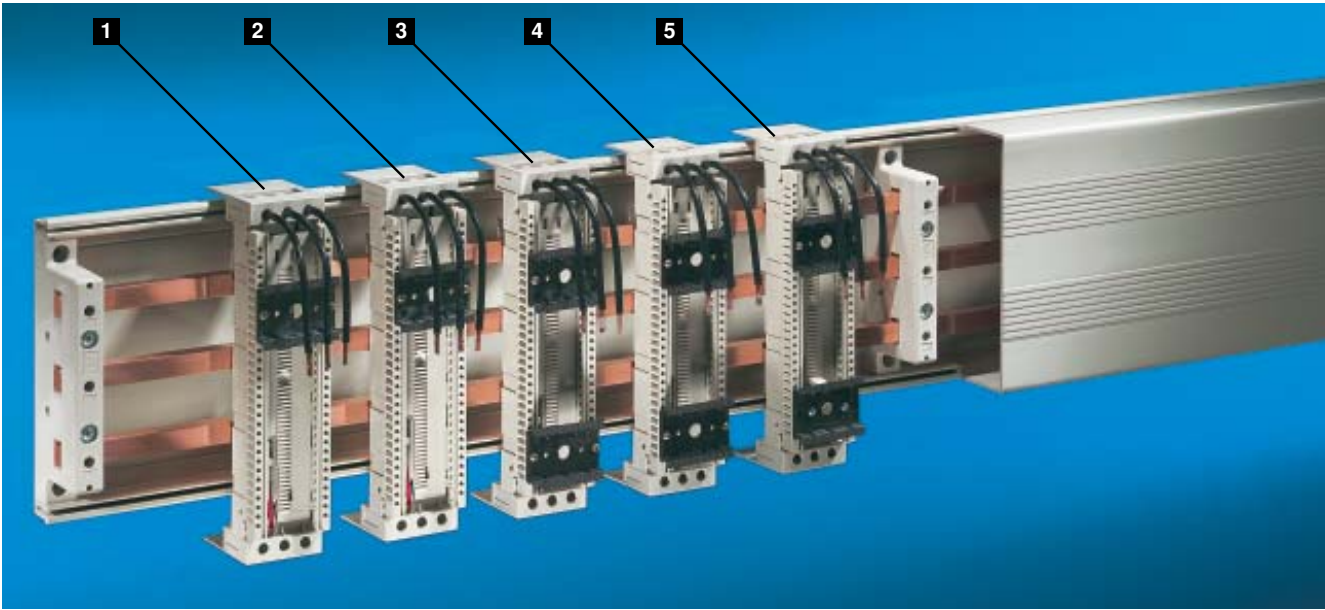
To indicate the switching position of the
NH unit (lid unit).

Packs of	Model No. SV
5	3071.000

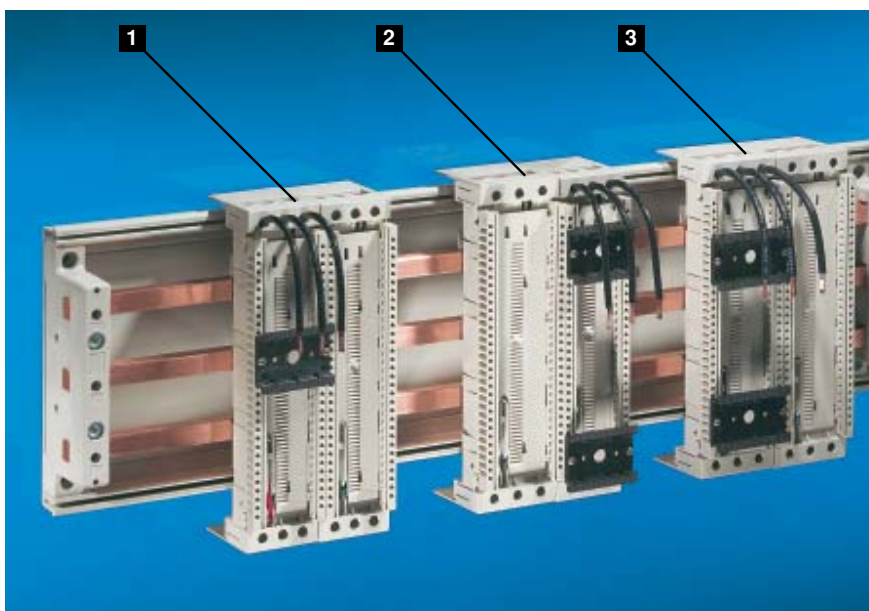
SV 3431.000 with
SV 9350.400 / .410



Multi-functional component adaptor 12 A/25 A



Multi-functional component adaptor 12 A/25 A																	
For snap-on mounting.																	
Construction width	1	2	3	4	5												
Rated current up to	12 A	25 A	25 A	25 A	25 A												
Rated operating voltage	690 V ~	690 V ~	690 V ~	690 V ~	690 V ~												
Cable outlet	top	top	top	top	top												
Connection cables*	AWG 14	AWG 12	AWG 12	AWG 12	AWG 12												
Support rails	Quantity	1	2	2	2 (1 variable)												
	Height	10 mm	10 mm	10 mm	10 mm												
Packs of	1	1	1	1	1												
For 5 mm bar thickness Model No. SV	9350.080	9350.100	9350.120	9350.260	9350.140												
For 10 mm bar thickness Model No. SV	9350.090	9350.110	9350.130	9350.270	9350.150												
For power circuit-breakers Make (equipment models see page 111)																	
Moeller		•															
Siemens	•	•															
AEG		•															
Allen Bradley		•		•													
Telemecanique		•		•													
Universal application	•	•	•	•	•												
* AWG = American Wire Gauges AWG 14 = 2.08 mm² ± 2.5 mm² AWG 12 = 3.31 mm² ± 4 mm²		Note: The current carrying capacity of the supply cables fitted as standard can be found on page 113.		Material: Polyamide (PA 6.6), 30 % fibreglass-reinforced. Continuous operating temperature: max. 140°C. Fire protection corresponding to UL 94-V0.													
SV 9350.080 / .090 SV 9350.100 / .110		SV 9350.120 / .130 SV 9350.140 / .150 SV 9350.260 / .270															
				<table><tr><td>Model No. SV</td><td>A</td><td>B</td></tr><tr><td>9350.120 / .130</td><td>38.5</td><td>100</td></tr><tr><td>9350.140 / .150</td><td colspan="2">variable</td></tr><tr><td>9350.260 / .270</td><td>28.0</td><td>125</td></tr></table>		Model No. SV	A	B	9350.120 / .130	38.5	100	9350.140 / .150	variable		9350.260 / .270	28.0	125
Model No. SV	A	B															
9350.120 / .130	38.5	100															
9350.140 / .150	variable																
9350.260 / .270	28.0	125															



Multi-functional component adaptor 25 A

For snap-on mounting.

	1	2	3
Construction width	90 mm	99 mm	108 mm
Rated current up to	25 A	25 A	25 A
Rated operating voltage	690 V ~	690 V ~	690 V ~
Cable outlet	top	top	top
Connection cables*	AWG 12	AWG 12	AWG 12
Support rails	Quantity 1 Height 10 mm	2 10 mm	2 10 mm
Packs of	1	1	1
For 5 mm bar thickness Model No. SV	9350.280	9350.300	9350.320
For 10 mm bar thickness Model No. SV	9350.290	9350.310	9350.330

For power circuit-breakers

Make (equipment models see page 111)

Moeller	•		•
Siemens	•	•	
AEG			
Allen Bradley	•		
Telemecanique	•		•
Universal application	•	•	•

* AWG = American Wire Gauges
AWG 12 = 3.31 mm² $\triangleq$ 4 mm²

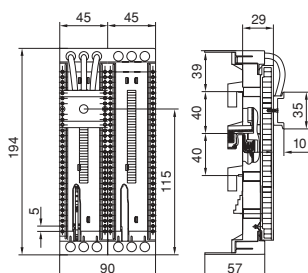
Note:

The current carrying capacity of the supply cables fitted as standard can be found on page 113.

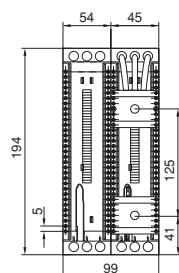
Material:

Polyamide (PA 6.6),
30 % fibreglass-reinforced.
Continuous operating temperature:
max. 140°C.
Fire protection corresponding to
UL 94-V0.

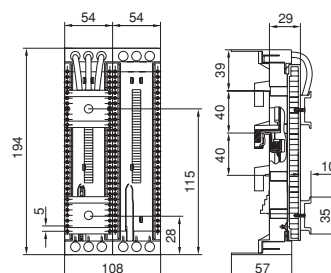
SV 9350.280
SV 9350.290



SV 9350.300
SV 9350.310



SV 9350.320
SV 9350.330



Accessories:

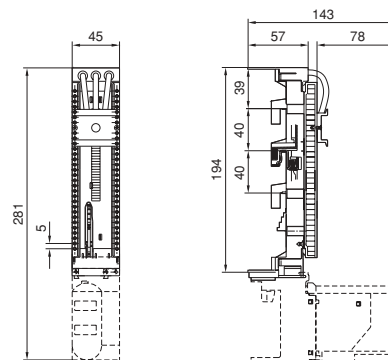


Plug-in connector

For fitting the AS-interface load feeder module with matching support 3RK1 901-3CA00 (Siemens) to the multi-functional component adaptor with 45 mm construction width.

Packs of	Model No. SV
1	9320.110

SV 9350.080 – SV 9350.270
with SV 9320.110



Mounting clip

Including support rail, 45 mm wide, for additional locking of motor starter combinations.

Packs of	Model No. SV
5	9320.140

Support rails

Including assembly screws.

Width mm	Height mm	Packs of	Model No. SV
45	7.5	10	9320.150*
45	10.0	5	9320.090
54	10.0	5	9320.100

* Metal bar

Multi-functional component adaptor 25/40/100 A



Multi-functional component adaptor 25 A/40 A

For snap-on mounting.

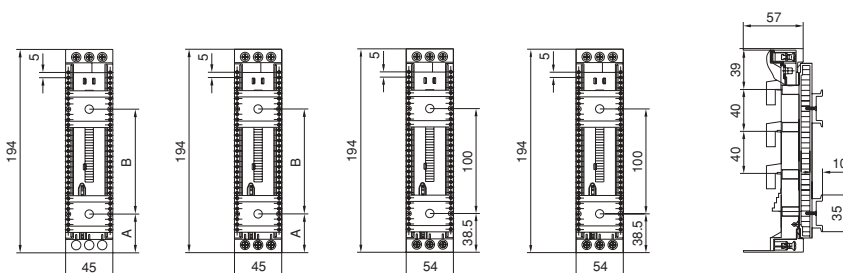
Construction width	1 45 mm		2 54 mm	
Rated current up to	25 A		40 A	
Rated operating voltage	690 V ~		690 V ~	
Cable outlet	top	top/bottom	top	top/bottom
Connection of round conductors up to	16 mm ²	16 mm ²	16 mm ²	16 mm ²
Support rails	Quantity	2 (1 variable)	2	2
	Height	10 mm	10 mm	10 mm
Packs of	1	1	1	1
For 5 mm bar thickness Model No. SV	9350.160	9350.180	9350.220	9350.240
For 10 mm bar thickness Model No. SV	9350.170	9350.190	9350.230	9350.250

Material:

Polyamide (PA 6.6),
30 % fibreglass-reinforced.
Continuous operating temperature:
max. 140°C.
Fire protection corresponding to
UL 94-V0.

Model No. SV	A	B
9350.160 9350.170	variable	
9350.180 9350.190	38.5	100

SV 9350.160 SV 9350.180 SV 9350.220 SV 9350.240
SV 9350.170 SV 9350.190 SV 9350.230 SV 9350.250



Accessories:



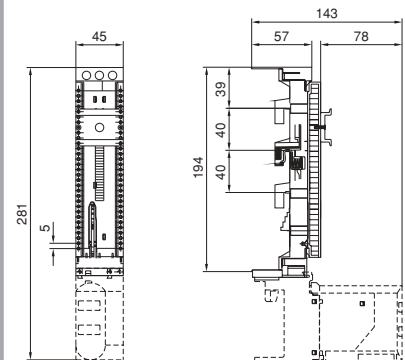
WN98017.eps

Plug-in connector

For fitting the AS-interface load feeder module with matching support 3RK1 901-3CA00 (Siemens) to the multi-functional component adaptor with 45 mm construction width.

Packs of	Model No. SV
1	9320.110

SV 9350.160 / SV 9350.170 with SV 9320.110



Mounting clip

Including support rail, 45 mm wide, for additional locking of motor starter combinations.

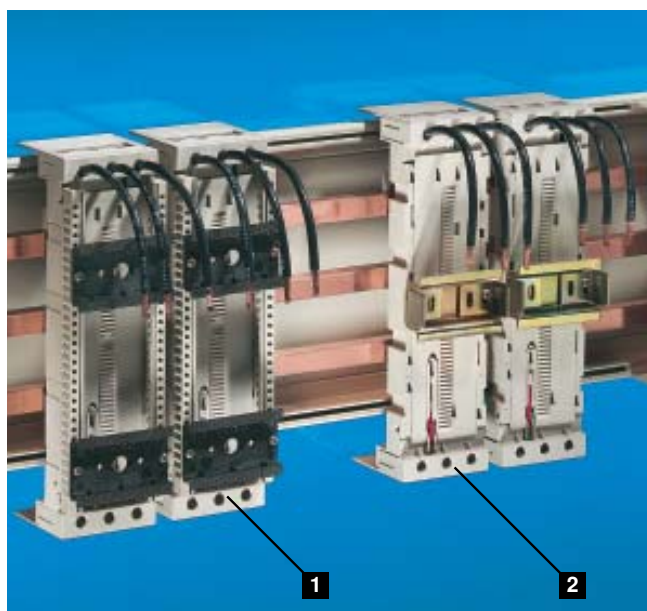
Packs of	Model No. SV
5	9320.140

Support rails

Including assembly screws.

Width mm	Height mm	Packs of	Model No. SV
45	7.5	10	9320.150*
45	10.0	5	9320.090
54	10.0	5	9320.100

* Metal bar



Multi-functional component adaptor 40 A

For snap-on mounting.

Construction width	1 54 mm	2 54 mm
Rated current up to	40 A	40 A
Rated operating voltage	690 V ~	690 V ~
Cable outlet	top	top
Connection cables*	AWG 10	AWG 10
Support rails	Quantity 2	1
	Height 10 mm	15 mm
Packs of	1	1
For 5 mm bar thickness		
Model No. SV	9350.200	9350.340
For 10 mm bar thickness		
Model No. SV	9350.210	9350.350

For power circuit-breakers

Make (equipment models see page 111)

Moeller		•
Siemens		•
ABB	•	•
AEG	•	
Allen Bradley	•	
Universal application	•	•

* AWG = American Wire Gauges
AWG 10 = 5.26 mm² ± 6 mm²

Note:

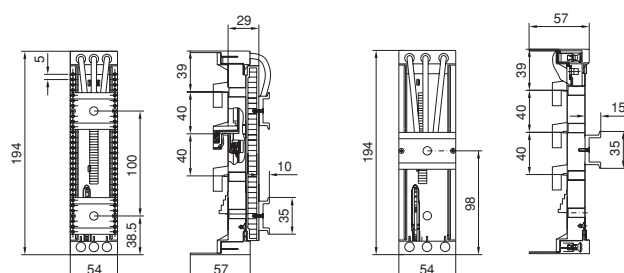
The current carrying capacity of the supply cables fitted as standard can be found on page 113.

Material:

Polyamide (PA 6.6), 30 % fibreglass-reinforced.
Continuous operating temperature: max. 140°C.
Fire protection corresponding to UL 94-V0.

SV 9350.200
SV 9350.210

SV 9350.340
SV 9350.350



Component adaptor 100 A

For snap-on mounting.

Construction width	90 mm	
Rated current up to	100 A	
Rated operating voltage	690 V ~	
Cable outlet	top	
Connection cables	35 mm ²	
For busbars E-Cu	12 x 5 mm 12 x 10 mm	15 x 5 mm 15 x 10 mm
Packs of	1	1
Model No. SV	9350.420	9350.430

For power circuit-breakers

Make (equipment models see page 111)

Moeller	•
Siemens	•
ABB	•
AEG	•
Allen Bradley	•
Merlin Gerin	•
Telemecanique	•
Universal application	•

Material:

Polyamide (PA 6.6), 30 % fibreglass-reinforced.
Continuous operating temperature: max. 140°C.
Fire protection corresponding to UL 94-V0.



Also required:

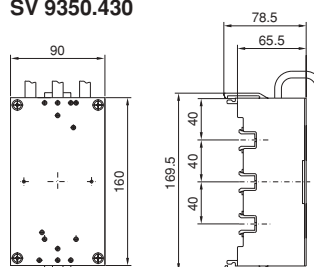
Base tray section,
see page 26.



Accessories:

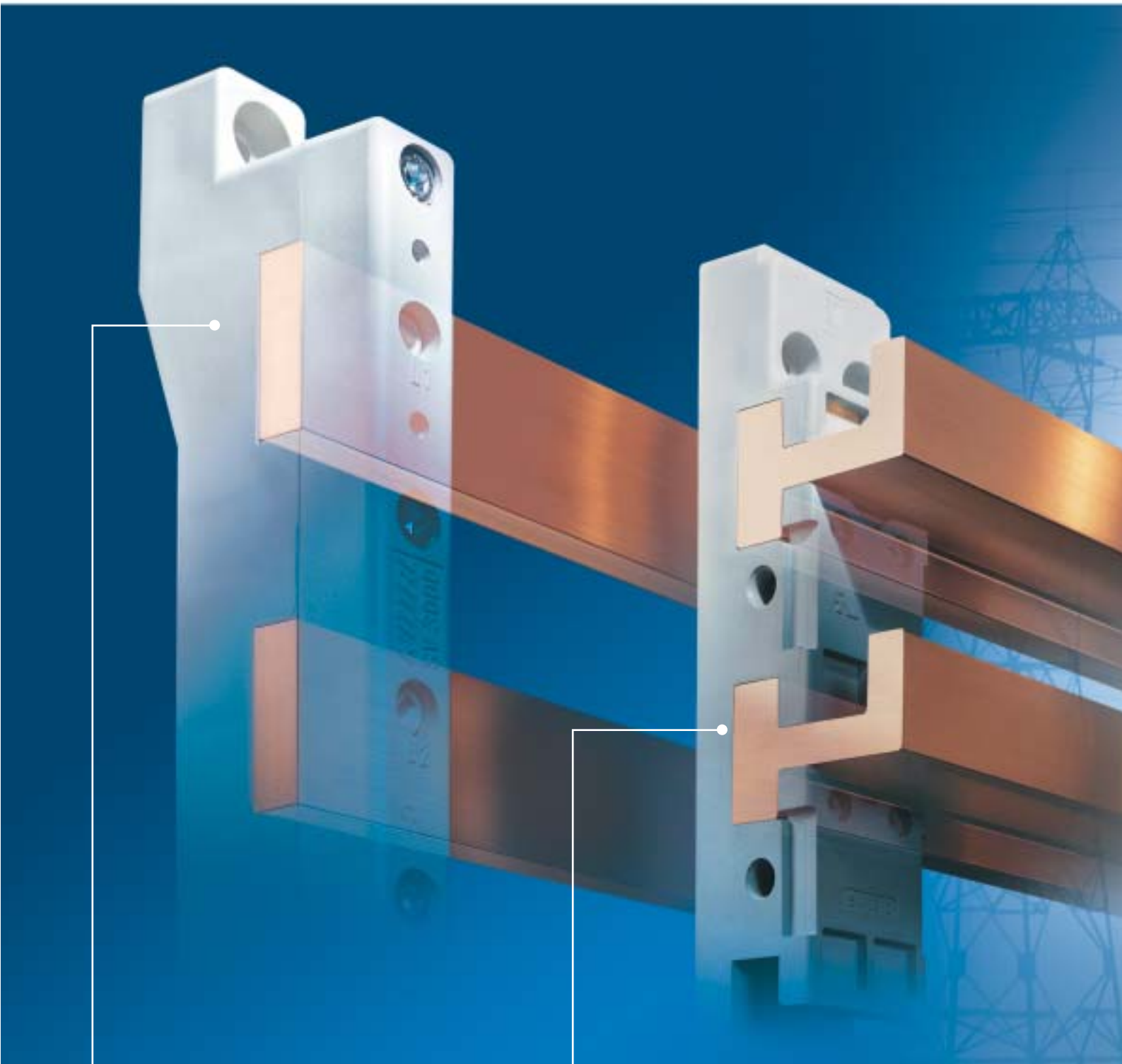
Support rails
(Model No. SV 9320.120),
see page 24.

SV 9350.420
SV 9350.430



Busbar systems

Rittal offers an exceptional range of solutions for the key application area of low-voltage distribution.



Busbar systems up to 800 A

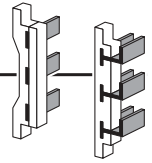
- Two-piece busbar support for flat copper bars from 12 x 5 to 30 x 10 mm.
- Bar cross-section reduction using insert technology.
- 1-, 2-, 3-, 4- and 5-pole.

Rittal PLS busbar system up to 800 A/1600 A

- High static and thermal load capacity.
- Extremely compact configuration, thanks to top-mounting of busbar supports.

60 mm

**bar centre
distance, up to
800 A/1600 A**



**Busbar systems
60 mm**



Versatility and competitive advantages with Rittal busbar systems

- Type-tested systems.
- Effective space utilisation.
- Simple, fast system assembly.

Two busbar systems, one range of components for 3-pole assembly

Comparison of busbar systems

Busbar systems up to 800 A

This system is particularly cost effective, because it uses commercially available flat copper bars.

- Two-piece busbar supports – 1-pole, 2-pole, 3-pole, 4-pole and 5-pole (combination of 2-pole and 3-pole).
- By using inserts, the maximum bar accommodation is reduced from 30 x 10 mm to 12 x 5 mm in all common millimetre formats.

- End covers, support covers, system covers and busbar covers are available for contact hazard protection.



A wide choice of solutions

The large number of support components (1-pole to 5-pole) and copper cross-sections (12 x 5 to 30 x 10 mm) is supplemented by an individual selection of different components for 3-pole configuration with 60 mm bar centre distance.

- Busbar connection adaptors and conductor connection clamps for power infeed.
- Bus-mounting fuse bases.
- Component adaptors and multifunctional component adaptors for

compact assembly and wiring of commercially available protective equipment and switchgear.

- Component support (without contact system)
- NH bus-mounting on-load isolator, sizes 00 to 3, with or without fuse monitoring.
- NH on-load isolators size 000
- NH fused isolators, size 00

Rittal PLS busbar system up to 800 A/1600 A

The outstanding features of Rittal PLS are its consistent space utilisation, high standard of safety and contact hazard protection.

- One-piece busbar support.
- High static and thermal load capacity, thanks to the special styling of the profile.
- Optimum heat dissipation, thanks to the large surface area of the special copper bars.
- All-round encapsulation with end cover, base tray section and cover section.



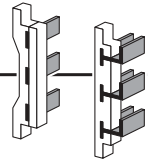
Performance in a confined space

Rittal PLS has two decisive advantages over flat copper bars:

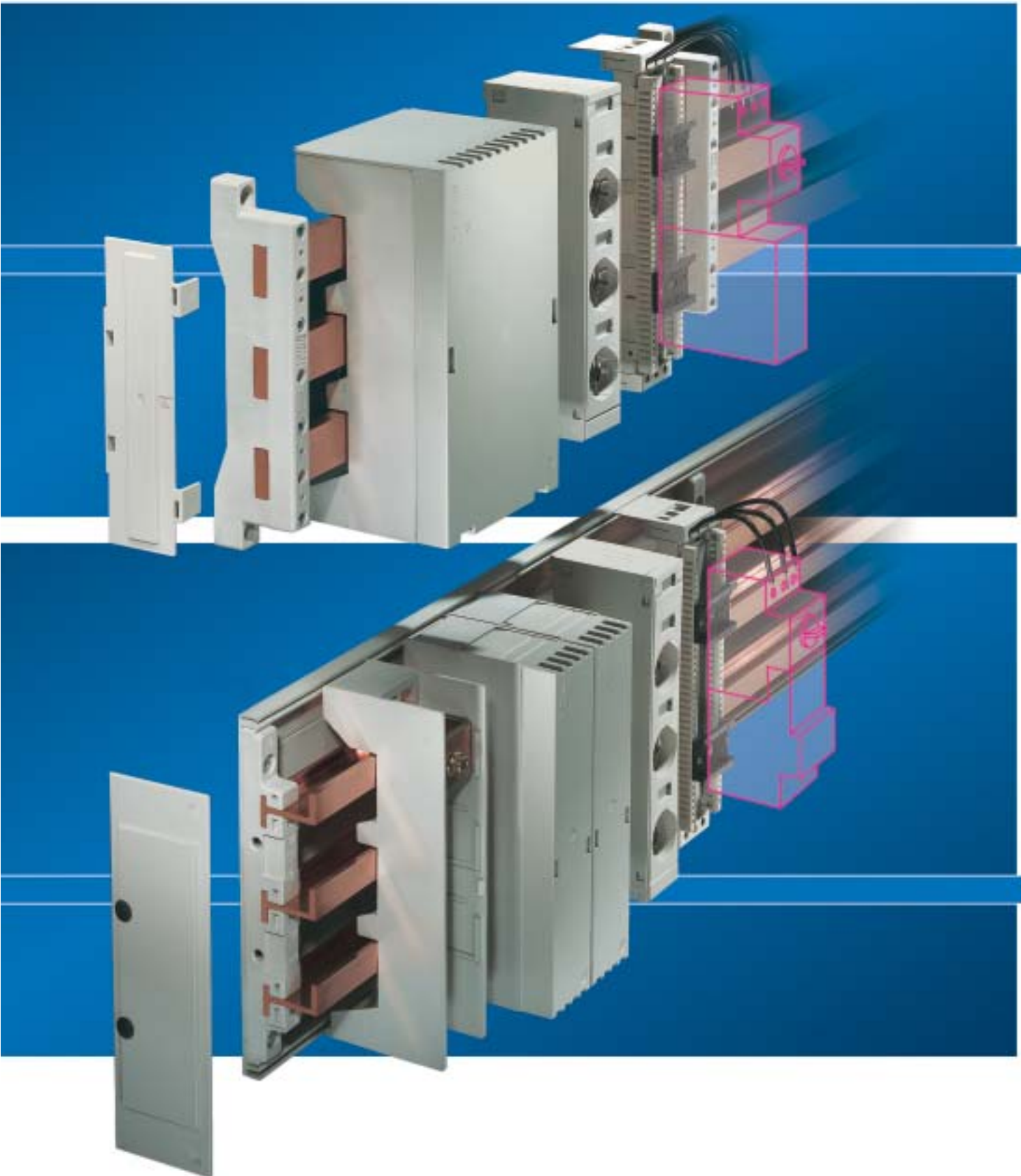
- 60 mm bar centre distance with a load of up to 1600 A.
 - Unrestricted top mounting of the PLS busbar support with power distribution components.
- In other words, free positioning of the support means easier planning, greater stability where required, and more effective space utilisation.

The components used in the Rittal PLS are identical to the above components for the 60 mm flat copper busbar system.

60 mm



Busbar systems
60 mm



Overview of busbar system components

Busbar systems up to 800 A

- The busbars are inserted into the two-piece support.
- Inserts are used to prepare the busbar supports for the flat copper bars required. Without inserts, the maximum bar cross-sections are used, e.g. the 3-pole support up to 800 A, maximum bar accommodation E-Cu 30 x 10 mm, when using inserts for E-Cu 12 – 30 x 5 mm.



Busbar support, 1-pole

For the earth conductor (N) and the PE conductor sector (PE).
Max. bar accommodation 30 x 10 mm.

Page 40

Busbar support, 2-pole (N/PE support)

60 mm bar centre distance.
Max. bar accommodation 30 x 10 mm.

Page 40

Busbar support, 3-pole

60 mm bar centre distance.
Max. bar accommodation 30 x 10 mm.

Page 40

End cover

For contact hazard protection at the sides of the 3-pole busbar assembly.

Support cover
for the 3-pole busbar support

Page 41

Rittal PLS busbar system up to 800 A/1600 A

- The special busbars are simply pushed into the one-piece supports and locked into position.
- Thanks to the special styling of the busbars and the design of the support, the special busbars are easily fitted with Rittal top-mounting components in the vicinity of the support.
- PLS busbar and expansion connectors ensure secure connection from one enclosure to another. Shipping splits are easily achieved; no drilling required.

PLS expansion connectors guarantee thermal and mechanical compensation when connecting PLS special busbars from one enclosure to the next.



Rittal PLS up to 800 A

PLS end cover

For contact hazard protection of the PLS assembly on the sides.

Page 42

PLS busbar support up to 800 A, 3-pole

60 mm bar centre distance.

PLS base tray section

For contact hazard protection at the rear.

Page 42

PLS special busbars E-Cu 800 A, 300 mm²

5 mm bar thickness.

Page 42

PLS busbar connector set

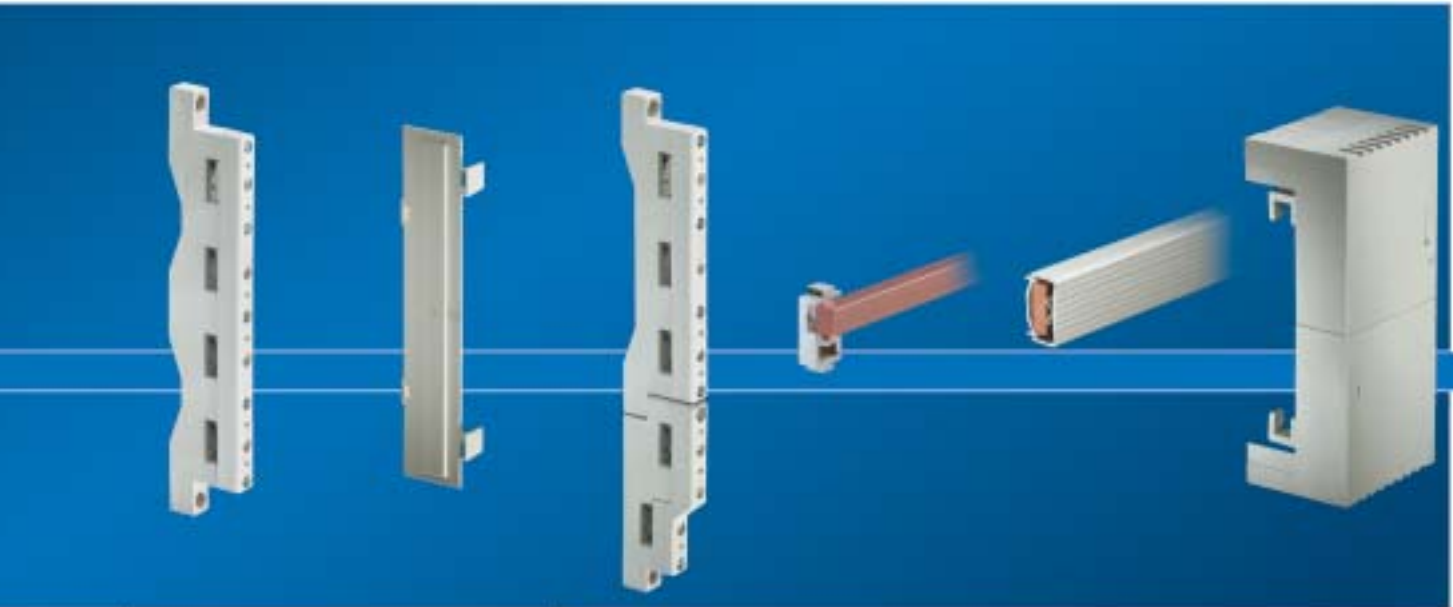
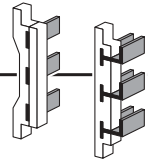
For connecting the PLS special busbars; no drilling required.

PLS expansion connectors
For thermal and mechanical compensation.

Page 43

Rittal Power distribution

60 mm



Busbar systems
60 mm

Busbar support, 4-pole

60 mm bar centre distance.
Max. bar accommodation 30 x 10 mm.

Page 40

End cover

For contact hazard protection of the 4-pole busbar assembly at the side.

Page 41

Busbar support, 5-pole

Combination of a 3-pole and a 2-pole busbar support for integrating the earth conductor (N) and the PE conductor (PE).

Page 40

Busbars of E-Cu 57
Dimensions:
12 x 5 to 30 x 10 mm.

Page 41

Inserts for busbar supports

To reduce the bar cross-section.

Page 41

Busbar cover sections

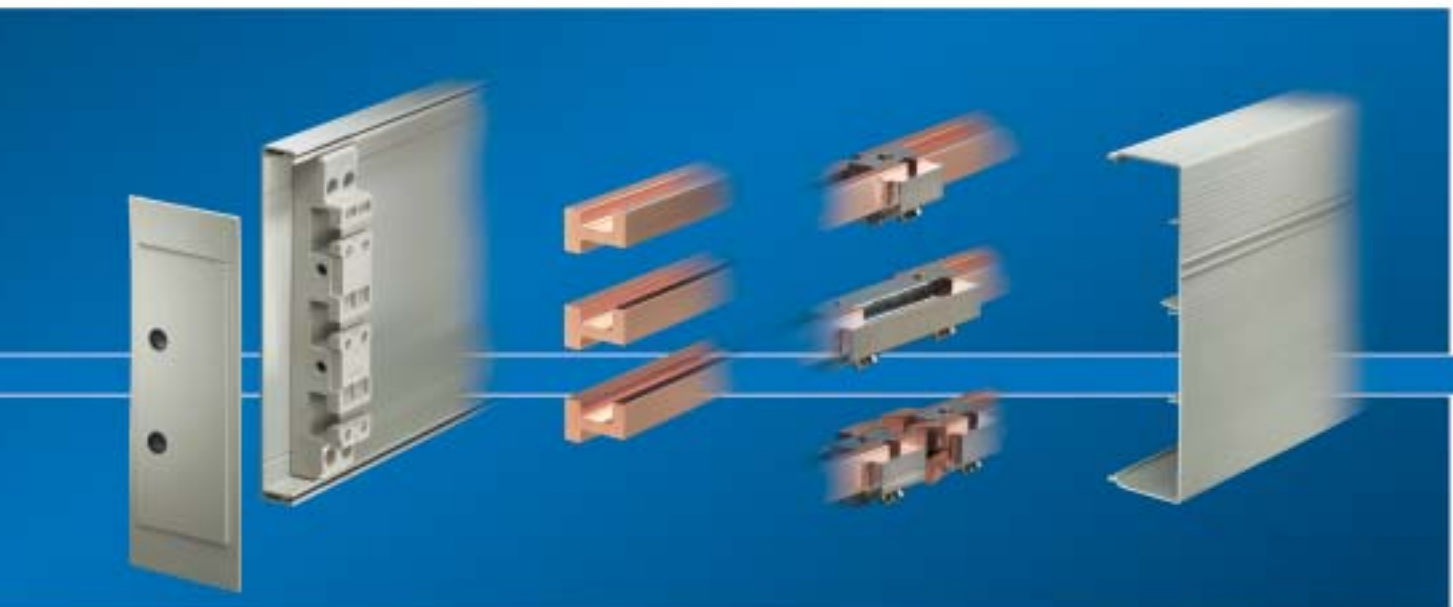
Contact hazard protection, thanks to full encapsulation of the busbars.

Page 41

System covers

Extendible like a telescope. For covering clamping points in line with regulations. Suitable for mounting on 3- and 4-pole bar systems as well as Rittal PLS bar systems.

Page 49



Rittal PLS up to 1600 A

PLS end cover

For contact hazard protection of the PLS assembly on the sides.

Page 44

PLS busbar supports up to 1600 A, 3-pole
60 mm bar centre distance.

PLS base tray section

For contact hazard protection at the rear.

Page 44

PLS busbars E-Cu 1600 A, 900 mm²
10 mm bar thickness.

Page 44

PLS busbar connector set

For connecting the PLS special busbars; no drilling required.

PLS expansion connectors

For thermal and mechanical compensation.

Page 45

PLS cover sections

For clip-on mounting onto the PLS base tray section of the 800 A and the 1600 A system. Optimum contact hazard protection with all-round encapsulation.

Page 42/44

Overview of components

Busbar system up to 800 A



Rittal PLS busbar system up to 800 A/1600 A



Connection technology



Busbar connection adaptor 63 A to 1600 A

Including cover. For connecting round conductors or laminated copper bars.

Page 46/47

Conductor connection clamps

For connecting round conductors and laminated copper bars.

Page 48

Plate clamp

For connecting laminated copper bars to flat copper bars; no drilling required.

Page 48

Bus-mounting fuse bases



Bus-mounting fuse bases

For clamping screw fastening or snap-on mounting.

Variants:

D 02-E 18, D II-E 27 and D III-E 33.

Page 62/63

Component adaptor



Multi-functional component adaptor 12/25/40 A

For compact assembly of protective equipment and switchgear. Construction width 45, 54, 90, 99 and 108 mm. With connection cables or terminals as standard.

Page 50 – 53

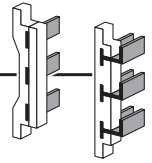
Component adaptor 50/63 A

Construction width 54, 72, 108, 126, and 144 mm. With fitted connection cables and additional terminal connections.

Page 54 – 56

Component support without contact system

Page 61



NH bus-mounting on-load isolator sizes 000/00/1/2/3

NH fused isolators size 00



WB99075.EPS

Component adaptor 100/160/250 A

With mounting plate. Construction width 90 and 110 mm. The pitch pattern of holes integrated into the mounting plates facilitates time-saving assembly of standard power circuit-breakers.

Page 58 – 60



WB99079.EPS

WB99105neu.EPS

NH on-load isolators size 000

Page 65

Busbar adaptor for NH on-load isolators size 000

For mounting the NH device on 60 mm busbar systems.

Page 65

NH bus-mounting on-load isolator, sizes 00, 1, 2 and 3

For direct mounting on 60 mm bar systems. Versions with or without fuse monitoring.

Page 66 – 73



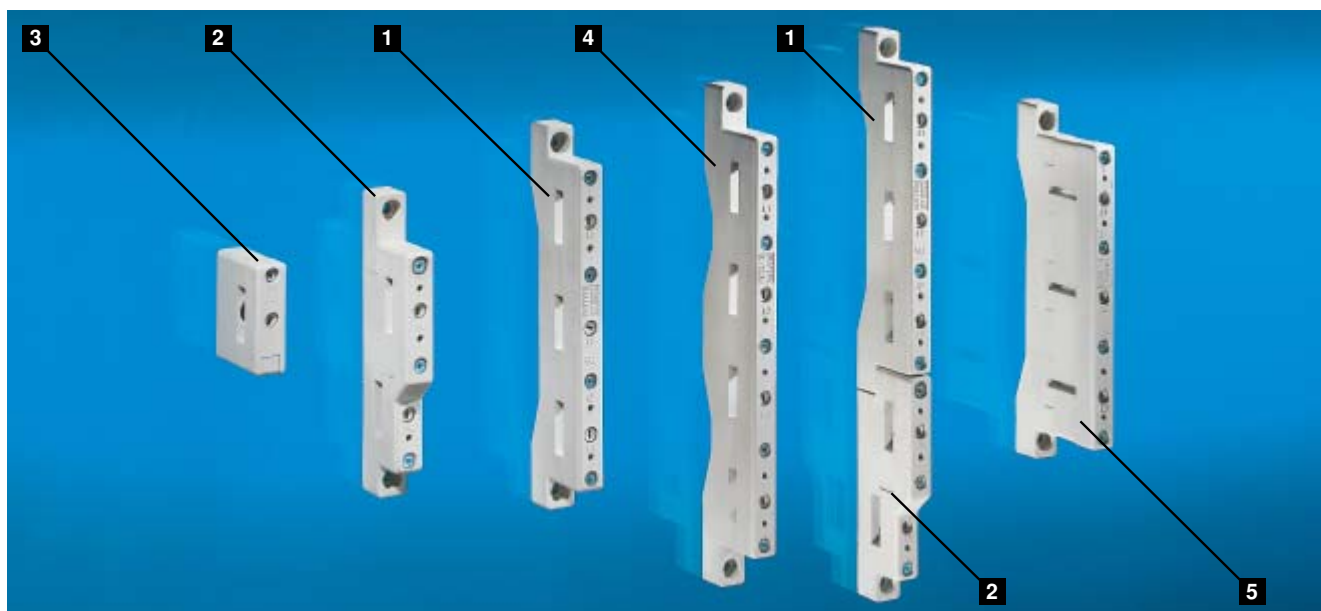
fri020125800-1.EPS

NH fused isolator size 00

For direct mounting on 60 mm bar systems.

Page 64

Busbar systems up to 800 A



Busbar supports

	1	2	3	4	5
Rated current up to	800 A	800 A	800 A	800 A	450 A
Rated operating voltage up to	1000 V ~, 50/60 Hz to VDE 0660				
Number of poles	3-pole	2-pole	1-pole	4-pole	3-pole
Bar centre distance	60 mm	60 mm	–	60 mm	60 mm
Max. bar accommodation without inserts	30 x 10 mm	30 x 10 mm	30 x 10 mm	30 x 10 mm	30 x 5 mm
Tightening torque					
● Assembly screw	3 – 5 Nm	3 – 5 Nm	5 – 8 Nm	3 – 5 Nm	3 – 5 Nm
● Cover fastening	1 – 3 Nm	1 – 3 Nm	1 – 3 Nm	1 – 3 Nm	1 – 3 Nm
Packs of	4	4	4	3	4
Model No. SV	3000.000	3050.000*	3078.000	3064.000	3066.000

* N/PE support

Material:

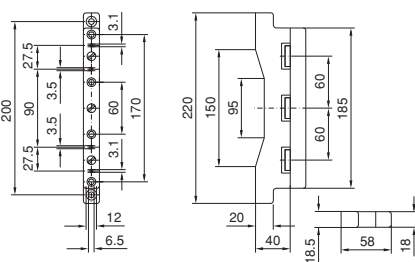
Fibreglass-reinforced, thermoplastic polyester (PBT).
Continuous operating temperature: max. 140°C.
Fire protection corresponding to UL 94-V0.



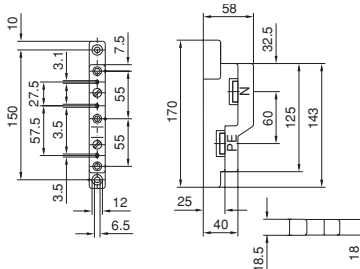
Also required:

Inserts for busbars smaller than 30 x 10 mm (except for **5**), see page 41.

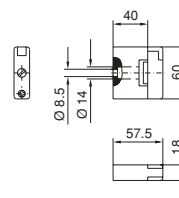
SV 3000.000



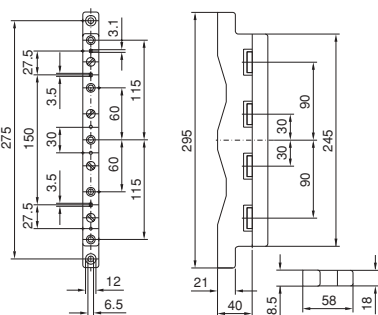
SV 3050.000



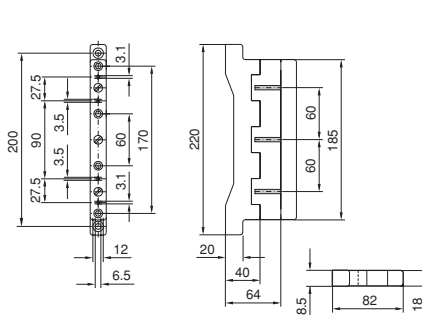
SV 3078.000



SV 3064.000



SV 3066.000



Short-circuit resistance diagrams
see page 108.

Technical information

For calculation of the rated current, refer to page 120.



Inserts for busbar supports

SV 3000.000, SV 3050.000, SV 3064.000, SV 3078.000

For busbar E-Cu mm	Rated current	Model No. SV
30 x 5	447 A	3001.000
25 x 5	384 A	3002.000
20 x 10	497 A	3003.000*
20 x 5	319 A	3004.000
16 x 8	397 A	3005.000
16 x 3/4/5	198/225/280 A	3006.000
15 x 3/4/5	187/210/260 A	3007.000
12 x 10	340 A	3008.000*
12 x 5	210 A	3009.000

For busbar E-Cu mm (inches)	Rated current	Model No. SV
9.53 x 25.40 ($\frac{3}{8}$ x 1")	599 A	3012.000*
6.35 x 25.40 ($\frac{1}{4}$ x 1")	449 A	3013.000
4.76 x 25.40 ($\frac{3}{16}$ x 1")	349 A	3014.000
3.18 x 25.40 ($\frac{1}{8}$ x 1")	299 A	3015.000
9.53 x 19.05 ($\frac{3}{8}$ x $\frac{3}{4}$ ")	449 A	3016.000*
6.35 x 12.70 ($\frac{1}{4}$ x $\frac{1}{2}$ ")	249 A	3017.000

Supply includes:

Packs of 12

* Packs of 24



End covers

For side contact hazard protection on the busbar support. Simple clip-on mounting.

For busbar supports	Packs of	Model No. SV
SV 3000.000	10	3080.000
SV 3064.000	10	3084.000

Support cover

The support cover ensures side contact hazard protection from the assembled bus-mounting fuse bases. The build height is the same as the bus-mounting fuse bases, including contact protection cover.

For busbar supports	Packs of	Model No. SV
SV 3000.000	4	3089.000



Busbars made from E-Cu 57

to DIN 1759, DIN 40 500.
Length: 2400 mm/bar.

Dimensions mm	Packs of	Model No. SV
30 x 10	6	3586.000
30 x 5	6	3584.000
25 x 5	6	3583.000
20 x 10	6	3585.000
20 x 5	6	3582.000
15 x 5	6	3581.000
12 x 10	6	3580.100
12 x 5	6	3580.000

Busbar connectors

For connecting busbars E-Cu; no drilling required.

For technical data and material specifications see page 104.

For busbars 12 x 5 mm up to 15 x 10 mm

Application	Packs of	Model No. SV
Single connection	3	9350.070

For busbars 20 x 5 mm up to 30 x 10 mm

Application	Packs of	Model No. SV
Single connection	3	9320.020
Baying connection*	3	9320.030

* From enclosure to enclosure



Busbar cover sections

Contact hazard protection, thanks to full encapsulation of the busbars.
May be cut to length as required.

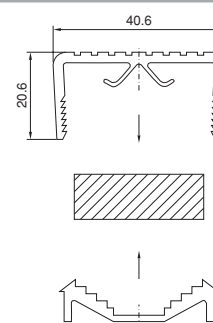
Material:

Thermally modified hard PVC.

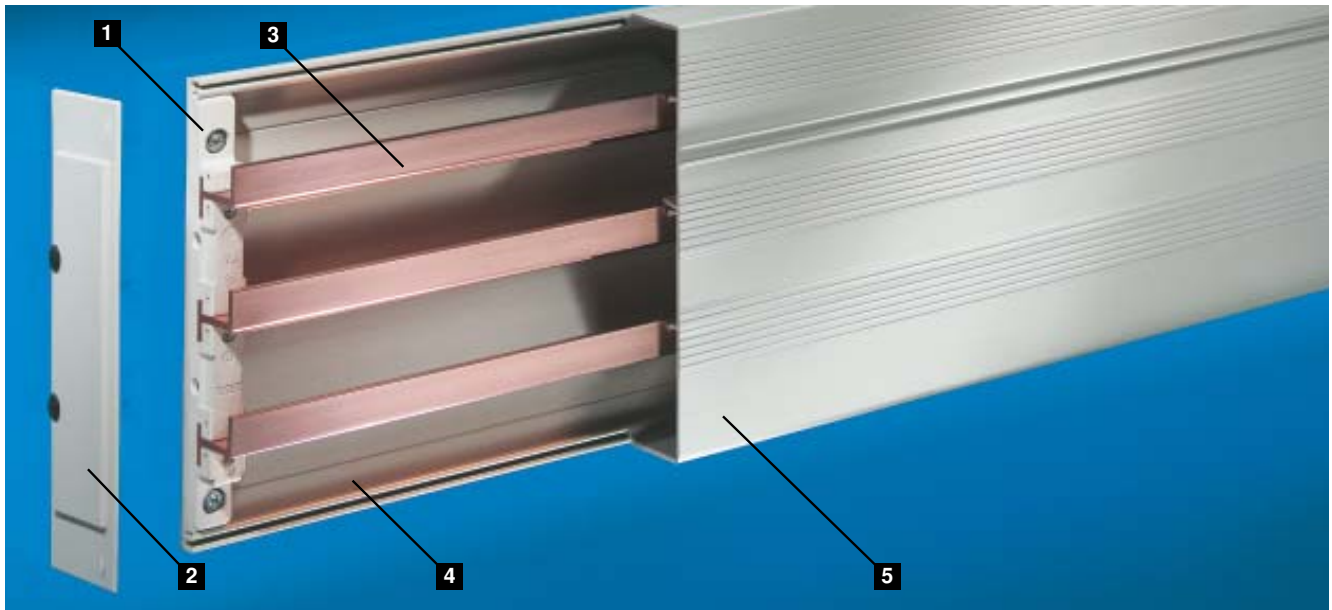
Continuous operating temperature:
max. 100°C.

Fire protection corresponding to UL 94-V0.

For busbars	Packs of	Model No. SV
12 x 5 to 30 x 10 mm	10 @ 1 m	3092.000



Rittal PLS up to 800 A



1 PLS busbar supports up to 800 A, 3-pin

60 mm bar centre distance.
Rated current up to 800 A.
Rated operating voltage up to 1000 V ~, 50/60 Hz to VDE 0660.

Material:

Fibreglass-reinforced, thermoplastic polyester (PBT). Continuous operating temperature: max. 140°C. Fire protection corresponding to UL 94-V0.

Packs of	Model No. SV
4	3500.000

Short-circuit resistance diagram

see page 109.

Technical information

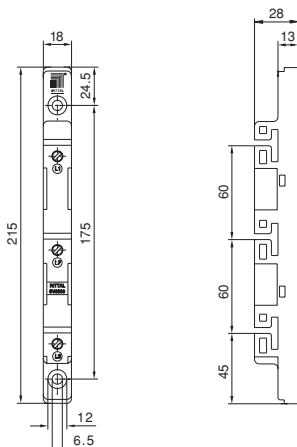
For calculation of the rated current, see page 120.

2 PLS end cover

For side contact hazard protection of the PLS assembly up to 800 A, for simple clip-on mounting to SV 3500.000.

Packs of	Model No. SV
2	3501.000

SV 3500.000



3 PLS special busbars E-Cu 800 A, 300 mm²

5 mm bar thickness.

Length	For enclosure width	P. of	Model No. SV
E-Cu			
2,400 mm	variable	1	3509.000
495 mm	600 mm*	3	3524.000
695 mm	800 mm*	3	3525.000
1,095 mm	1,200 mm*	3	3526.000
E-Cu, tin-plated			
2,400 mm	variable	1	3024.000
495 mm	600 mm*	3	3026.000
695 mm	800 mm*	3	3027.000
1,095 mm	1,200 mm*	3	3028.000

* for Rittal TS 8/PS/ES enclosure systems

4 Base tray sections

for PLS assembly up to 800 A.

Length	Packs of	Model No. SV
500 mm	2	3502.000
700 mm	1	3503.000
1,100 mm	1	3518.000

5 PLS cover sections

May be cut to length as required; for clip-on mounting to the PLS base tray section.

Length	Packs of	Model No. SV
250 mm	2	3506.000
500 mm	2	3507.000
700 mm	1	3508.000

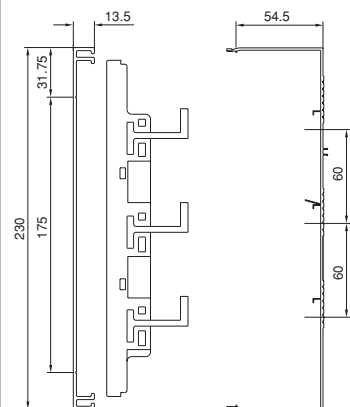
Material:

PLS base tray and cover sections

Thermally modified hard PVC.
Continuous operating temperature: max. 100°C. Fire protection corresponding to UL 94-V0.

SV 3502.000
SV 3503.000
SV 3518.000

SV 3506.000
SV 3507.000
SV 3508.000





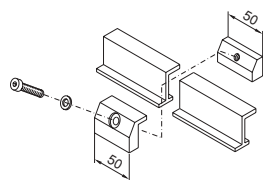
PLS busbar connector set up to 800 A

For connecting PLS special busbars up to 800 A; no drilling required.
Tightening torque: 10 – 15 Nm.

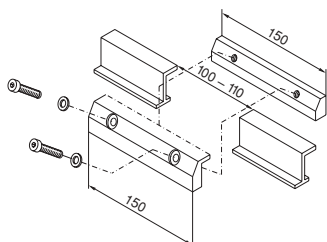
For	Packs of	Model No. SV
Single connection	3	3504.000
Baying connection*	3	3505.000

* from one enclosure to the next
(TS 8/PS 4000)

SV 3504.000



SV 3505.000

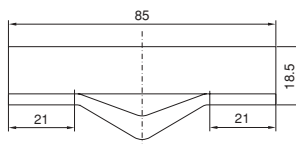


PLS expansion connectors

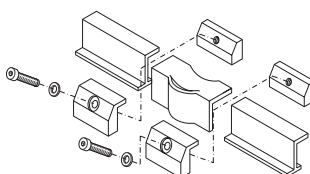
For thermal and mechanical compensation during connection of PLS special busbars up to 800 A from enclosure to enclosure (TS 8/PS 4000).
Two PLS rail connectors SV 3504.000 are required to fit one expansion connector.

Packs of	Model No. SV
3	9320.060

SV 9320.060



SV 9320.060 with SV 3504.000



PLS base tray section infill

For rear contact hazard protection when connecting PLS special busbars 800 A from enclosure to enclosure.
Width: 100 mm.

Material:

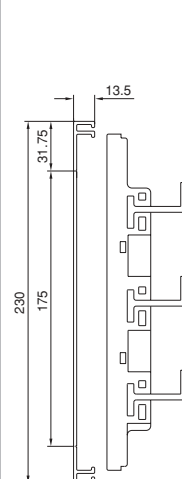
Thermally modified hard PVC.
Continuous operating temperature: max. 100°C.
Fire protection corresponding to UL 94-V0.

Packs of	Model No. SV
1	3523.000

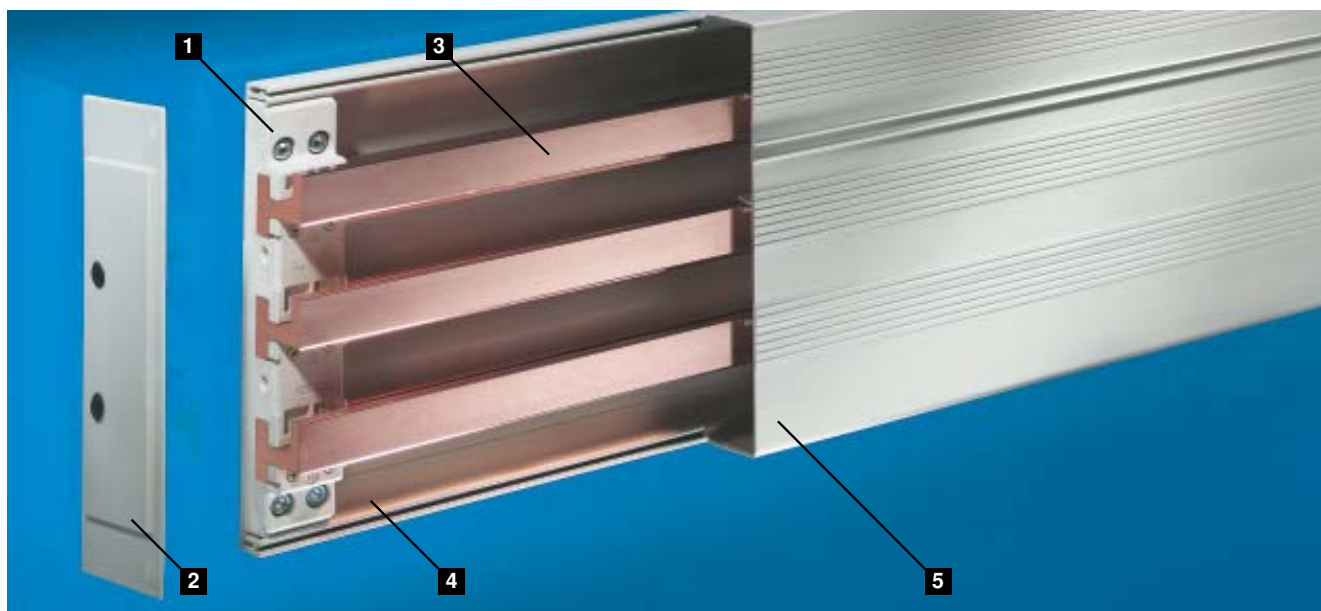
Supply includes:

Assembly parts.

SV 3502.000



Rittal PLS 800 A to 1600 A



1 PLS busbar supports up to 1600 A, 3-pin

60 mm bar centre distance.
Rated current up to 1600 A.
Rated operating voltage up to 1000 V ~,
50/60 Hz to VDE 0660.

Material:

Fibreglass-reinforced, thermoplastic polyester (PBT). Continuous operating temperature: max. 140°C. Fire protection corresponding to UL 94-V0.

Packs of	Model No. SV
4	3510.000

Short-circuit resistance diagram
see page 109.

Technical information

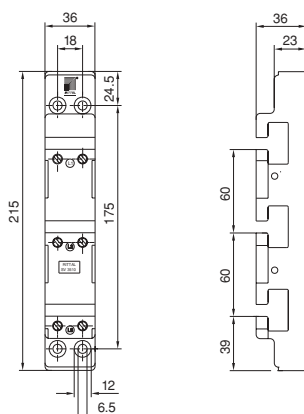
For calculation of the rated current, refer to page 120.

2 PLS end cover

For side contact hazard protection of the PLS assembly up to 1600 A, for simple clip-on mounting to SV 3510.000.

Packs of	Model No. SV
2	3511.000

SV 3510.000



3 PLS special busbars E-Cu 1600 A, 900 mm²

10 mm bar thickness.

Length	For enclosure width	P. of	Model No. SV
E-Cu			
2,400 mm	variable	1	3516.000
495 mm	600 mm*	3	3527.000
695 mm	800 mm*	3	3528.000
1,095 mm	1,200 mm*	3	3529.000
E-Cu tin-plated			
2,400 mm	variable	1	3025.000
495 mm	600 mm*	3	3033.000
695 mm	800 mm*	3	3034.000
1,095 mm	1,200 mm*	3	3035.000

* for Rittal TS 8/PS/ES enclosure systems

4 PLS base tray sections

for PLS assembly up to 1600 A.

Length	Packs of	Model No. SV
500 mm	2	3512.000
700 mm	1	3513.000
1,100 mm	1	3519.000

5 PLS cover sections

May be cut to length as required; for clip-on mounting to the PLS base tray section.

Length	Packs of	Model No. SV
250 mm	2	3506.000
500 mm	2	3507.000
700 mm	1	3508.000

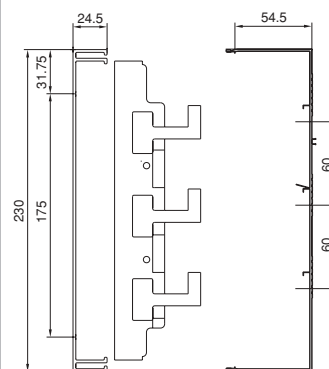
Material:

PLS base tray and cover sections

Thermally modified hard PVC.
Continuous operating temperature: max. 100°C.
Fire protection corresponding to UL 94-V0.

SV 3512.000
SV 3513.000
SV 3519.000

SV 3506.000
SV 3507.000
SV 3508.000





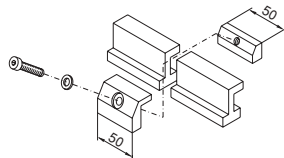
PLS busbar connector set up to 1600 A

For connecting PLS special busbars up to 1600 A; no drilling required.
Tightening torque: 15 – 20 Nm.

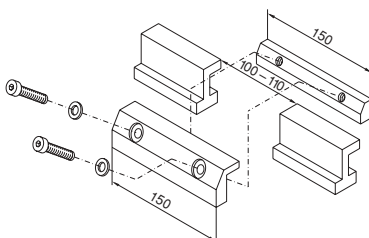
For	Packs of	Model No. SV
Single connection	3	3514.000
Baying connection*	3	3515.000

* from one enclosure to the next
(TS 8/PS 4000)

SV 3514.000



SV 3515.000

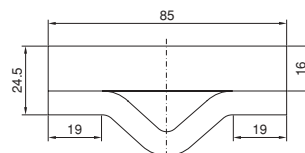


PLS expansion connectors

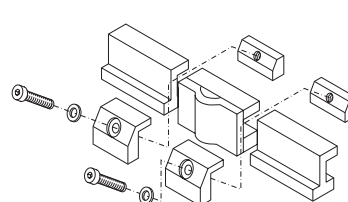
For thermal and mechanical compensation during connection of PLS special busbars up to 1600 A from enclosure to enclosure (TS 8/PS 4000). Two PLS rail connectors SV 3514.000 are required to fit one expansion connector.

Packs of	Model No. SV
3	9320.070

SV 9320.070



SV 9320.070 with SV 3514.000



PLS base tray section infill

For rear contact hazard protection when connecting PLS special busbars 1600 A from enclosure to enclosure.
Width: 100 mm.

Material:

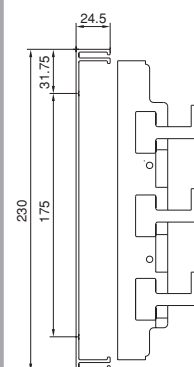
Thermally modified hard PVC.
Continuous operating temperature: max. 100°C.
Fire protection corresponding to UL 94-V0.

Packs of	Model No. SV
1	3533.000

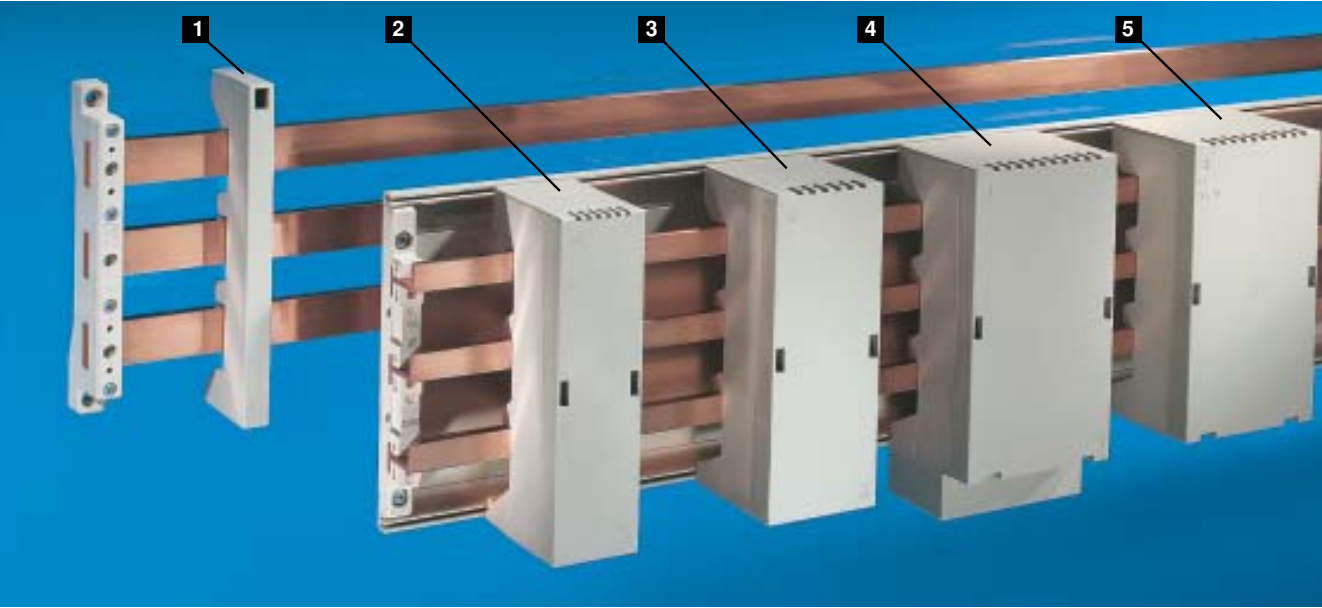
Supply includes:

Assembly parts.

SV 3533.000



Busbar connection adaptor



Busbar connection adaptor

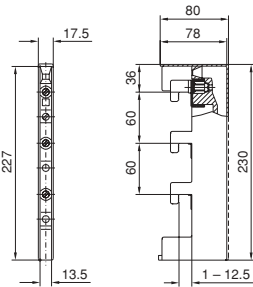
Including cover	1	2	3	4	5
Rated current up to	63 A	125 A	250 A	400 A	800 A
Rated operating voltage	690 V ~	690 V ~	690 V ~	690 V ~	690 V ~
Connection	bottom	bottom	bottom	bottom	bottom
Connection of round conductors up to	10 mm ² / 2 x 6 mm ²	35 mm ²	70 mm ²	150 mm ² *	185 mm ² **
Clamping area for laminated copper bars	–	11 x 14 mm	16 x 15 mm	–	30 x 25 mm
Tightening torque					
● Assembly screw	2 Nm	5 Nm	6 Nm	6 Nm	6 Nm
● Connection screw	2 Nm	6 Nm	10 Nm	15 Nm	12 Nm
Packs of	1	1	1	1	1
For 5 – 10 mm bar thickness Model No. SV	3443.000	3444.000	3442.000	3440.000	3441.000

* with ring terminal M10
 ** with neatly crimped wire end ferrule

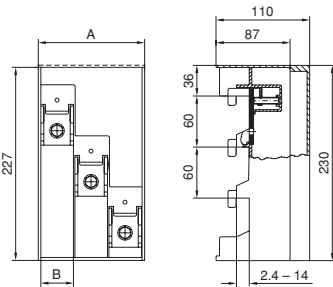
Material:
 Fibreglass-reinforced, thermoplastic polyester (PBT).
 Continuous operating temperature: max. 140°C.
 Fire protection corresponding to UL 94-V0.

Accessories:
 Laminated copper bars Rittal Flexibar "S",
 see page 105.

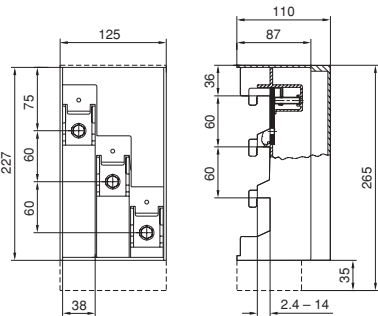
SV 3443.000



SV 3442.000
SV 3444.000

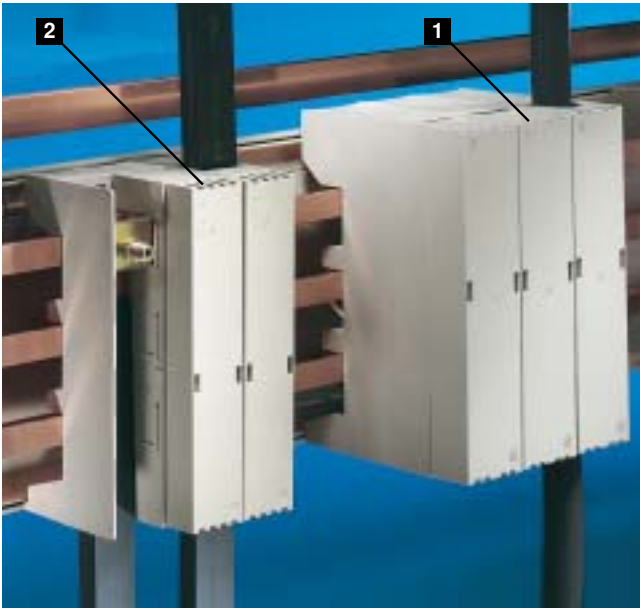
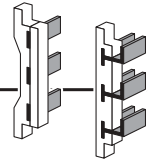


SV 3440.000
SV 3441.000



Model No. SV	A	B
3442.000	85	25
3444.000	61	17

60 mm



Busbar systems
60 mm

Busbar connection adaptor

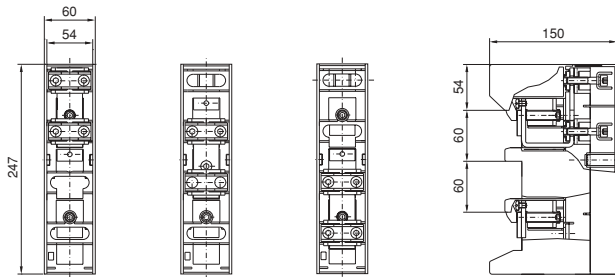
Including cover	1	2
Rated current up to	600 A	800 A
Rated operating voltage	690 V ~	690 V ~
Connection	top/bottom	
Connection of round conductors	10 to 240 mm ² *	—
Clamping area for laminated copper bars		
● For 5 mm bar thickness	24 x 21 mm	34 x 21 mm
● For 10 mm bar thickness	24 x 21 mm	34 x 16 mm
Tightening torque		
● Assembly screw	12 – 15 Nm	—
● Connection screw	15 Nm	10 – 12 Nm
Packs of	1 set (3)	1 set (3)
For 5 – 10 mm bar thickness	3439.010	3439.000

* Connection of round conductors up to 300 mm² with ring terminal available on request.

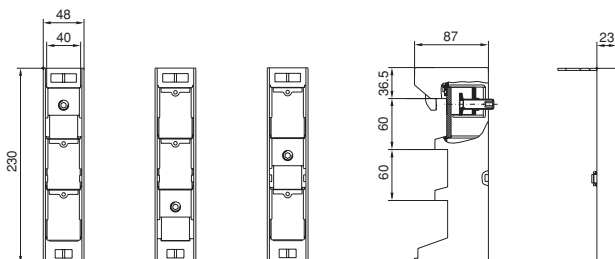
Material and accessories:

See right-hand column.

SV 3439.010



SV 3439.000



Busbar connection adaptor up to 1600 A

(Only suitable for Rittal PLS 1600 A).

Including cover	
Rated current up to	1600 A
Rated operating voltage	690 V ~
Connection	top/bottom
Clamping area for laminated copper bars	65 x 21 mm
Tightening torque	
● Connection screw	15 – 20 Nm
Packs of	1 set (3)
Model No. SV	3517.000

Material:

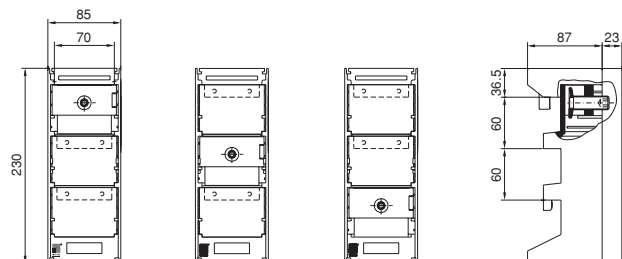
Fibreglass-reinforced, thermoplastic polyester (PBT).
Continuous operating temperature: max. 140°C.
Fire protection corresponding to UL 94-V0.



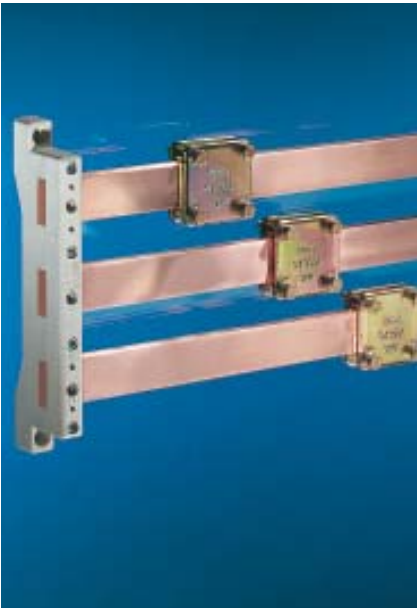
Accessories:

Laminated copper bars Rittal Flexibar "S",
see page 105.

SV 3517.000



Conductor connection clamps



Conductor connection clamps

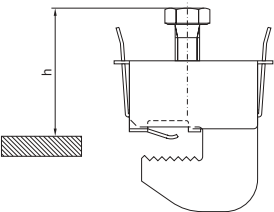
For bar thickness mm	Connection of round conductors* mm²	Clamping area for laminated copper bars mm	Tightening torque Nm	Packs of	Model No. SV
3 – 5	1 – 4	–	2	15	3550.000
5	1 – 4	–	2	15	3450.500
5	2.5 – 16	8 x 8	3	15	3451.500
5	16 – 50	10.5 x 11	6 – 8	15	3452.500
5	35 – 70	16.5 x 15	10 – 12	15	3453.500
5	70 – 185	22.5 x 20	12 – 15	15	3454.500
6 – 10	1 – 4	–	2	15	3555.000
10	1 – 4	–	2	15	3455.500
10	2.5 – 16	8 x 8	3	15	3456.500
10	16 – 50	10.5 x 11	6 – 8	15	3457.500
10	35 – 70	16.5 x 15	10 – 12	15	3458.500
10	70 – 185	22.5 x 20	12 – 15	15	3459.500

* Wire end ferrules should be used with fine wire conductors.

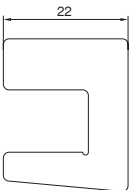
Material:
Sheet steel, zinc plated, passivated (SV 3450.500 – SV 3459.500), brass (SV 3550.000 / SV 3555.000).

Accessories:
Laminated copper bars Rittal Flexibar “S”, see page 105.

SV 3450.500 – SV 3459.500



SV 3550.000 SV 3555.000



Width mm	h _{min.} mm	h _{max.} mm	Model No. SV
11.0	17	23	3450.500 3455.500
14.0	22	29	3451.500 3456.500
18.5	26	39	3452.500 3457.500
24.5	39	57	3453.500 3458.500
30.5	44	66	3454.500 3459.500
8.0	–	–	3550.000 3555.000

Plate clamp

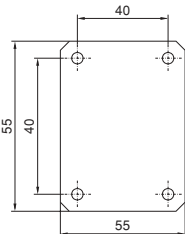
For E-Cu busbars 12 x 5 mm to 30 x 10 mm.
Clamping area for laminated copper bars: 34 x 10 mm.
Tightening torque: 6 – 8 Nm.

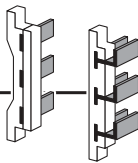
Material:
Sheet steel, zinc plated, passivated.

Packs of	Model No. SV
3	3554.000

Other plate clamps, see page 81 and 95.

Accessories:
Laminated copper bars Rittal Flexibar “S”, see page 105.





System covers

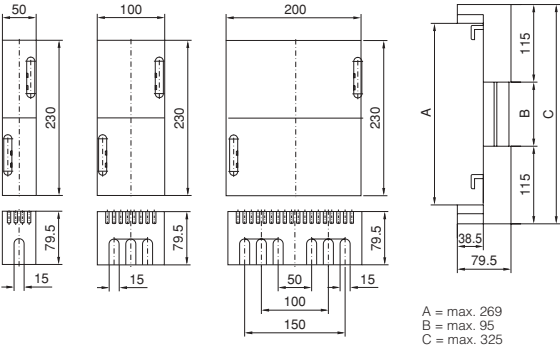
for conductor connection clamps and plate clamps.

Material:

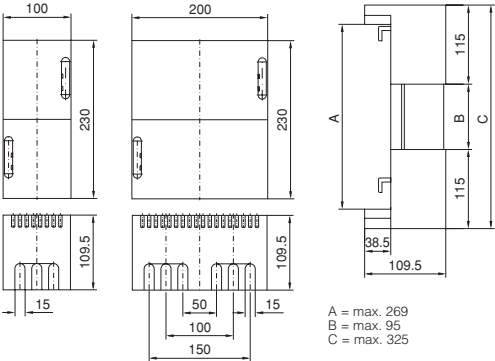
ABS.
Continuous operating temperature max. 100°C.
Fire protection corresponding to UL 94-V0.

Width mm	Height mm	Packs of	Model No. SV
50	80	4	3086.000
100	80	4	3087.000
100	110	4	3090.000
200	80	4	3088.000
200	110	4	3091.000

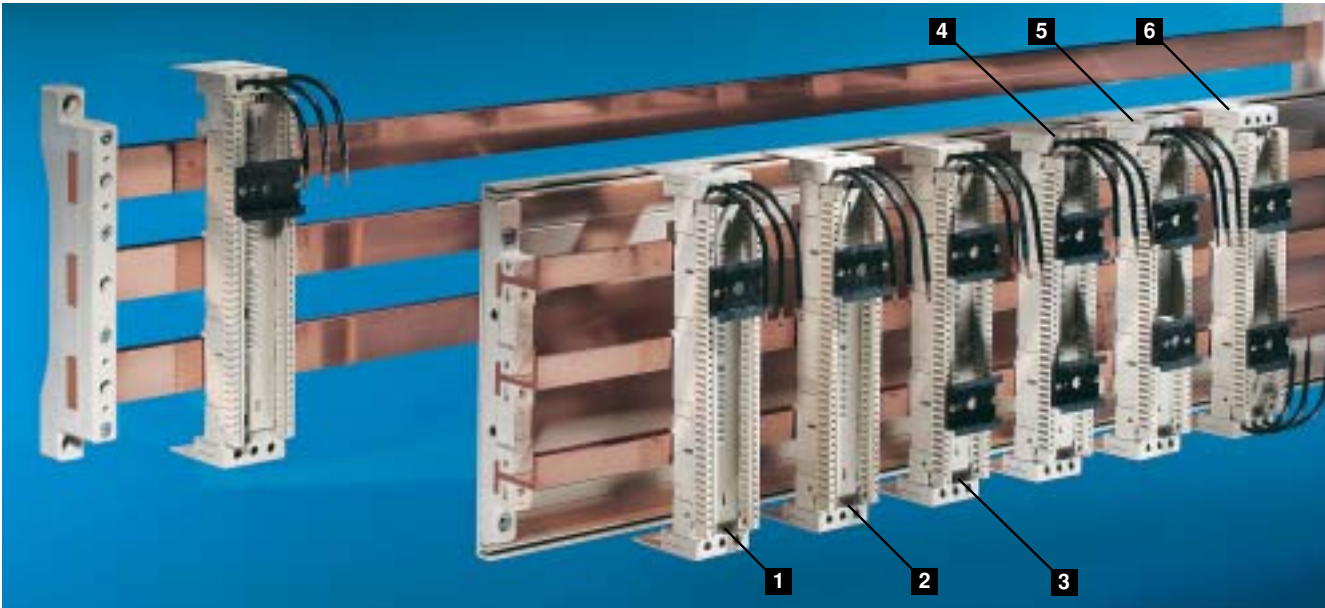
SV 3086.000 / SV 3087.000 / SV 3088.000



SV 3090.000 / SV 3091.000



Multi-functional component adaptor 12 A/25 A



Multi-functional component adaptor 12 A/25 A
For snap-on mounting.

Construction width	1 45 mm	2 45 mm	3 45 mm	4 45 mm	5 45 mm	6 45 mm
Rated current up to	12 A	25 A	25 A	25 A	25 A	25 A
Rated operating voltage	690 V ~	690 V ~	690 V ~	690 V ~	690 V ~	690 V ~
Cable outlet	top	top	top	top	top	bottom
Connection cables*	AWG 14	AWG 12	AWG 12	AWG 12	AWG 12	AWG 12
Support rails	Quantity 1	1	2	2	2 (1 variable)	2
	Height 10 mm	10 mm	10 mm	10 mm	10 mm	10 mm
Packs of	1	1	1	1	1	1
For 5 mm bar thickness Model No. SV	9320.160	9320.180	9320.200	9320.440	9320.220	9320.240
For 10 mm bar thickness Model No. SV	9320.170	9320.190	9320.210	9320.450	9320.230	9320.250

For power circuit-breakers
Make (equipment models see page 112)

Moeller		•				
Siemens	•	•				
AEG		•				
ABB		•				
Allen Bradley		•		•		
Telemecanique		•		•		
Universal application	•	•	•	•	•	•

* AWG = American Wire Gauges
AWG 14 = 2.08 mm² ± 2.5 mm²
AWG 12 = 3.31 mm² ± 4 mm²

Note:
The current carrying capacity of the supply cables fitted as standard can be found on page 113.

Material:
Polyamide (PA 6.6),
30 % fibreglass-reinforced. Continuous operating temperature: max. 140°C. Fire protection corresponding to UL 94-V0.

SV 9320.160 / .170
SV 9320.180 / .190

SV 9320.200 / .210
SV 9320.220 / .230
SV 9320.440 / .450

SV 9320.240 / .250

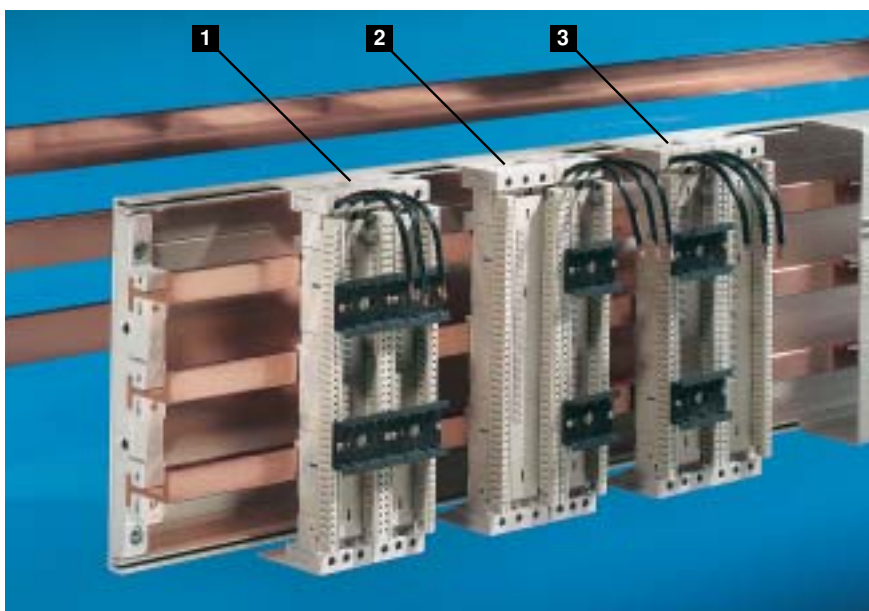
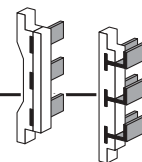
Model No. SV	A	B
9320.200 9320.210	68.5	100
9320.220 9320.230	variable	
9320.440 9320.450	55.0	125

50

Rittal Power distribution

Courtesy of Steven Engineering, Inc.-230 Ryan Way, South San Francisco, CA 94080-6370-Main Office: (650) 588-9200-Outside Local Area: (800) 258-9200-www.stevenengineering.com

60 mm



Multi-functional component adaptor 25 A

For snap-on mounting.

	1 90 mm	2 99 mm	3 108 mm
Construction width	1 90 mm	2 99 mm	3 108 mm
Rated current up to	25 A	25 A	25 A
Rated operating voltage	690 V ~	690 V ~	690 V ~
Cable outlet	top	top	top
Connection cables*	AWG 12	AWG 12	AWG 12
Support rails	Quantity 2	2	2
	Height 10 mm	10 mm	10 mm
Packs of	1	1	1
For 5 mm bar thickness Model No. SV	9320.380	9320.400	9320.420
For 10 mm bar thickness Model No. SV	9320.390	9320.410	9320.430

For power circuit-breakers

Make (equipment models see page 112)

Moeller	•		•
Siemens	•	•	
Allen Bradley	•		
Telemecanique	•		•
Universal application	•	•	•

* AWG = American Wire Gauges
AWG 12 = 3.31 mm² ± 4 mm²

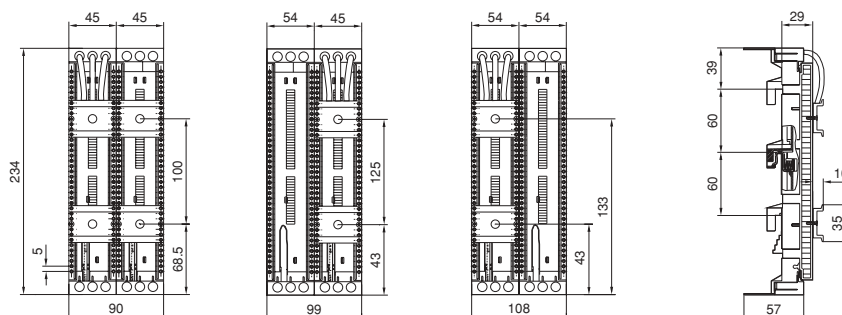
The current carrying capacity of the supply cables fitted as standard can be found on page 113.

Material:

Polyamide (PA 6.6),
30 % fibreglass-reinforced.
Continuous operating temperature:
max. 140°C.
Fire protection corresponding to
UL 94-V0.

SV 9320.380 / .390

SV 9320.400 / .410 SV 9320.420 / .430



Accessories:

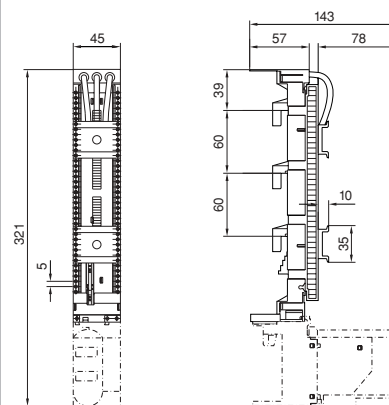


Plug-in connector

For fitting the AS-interface load feeder module with matching support 3RK1 901-3CA00 (Siemens) to the SV multi-functional component adaptor with 45 mm construction width.

Packs of	Model No. SV
1	9320.110

**SV 9320.160 – SV 9320.250
with SV 9320.110**



Mounting clip

Including support rail, 45 mm wide, for additional locking of motor starter combinations.

Packs of	Model No. SV
5	9320.140

Support rails

Including assembly screws.

Width mm	Height mm	Packs of	Model No. SV
45	7.5	10	9320.150*
45	10.0	5	9320.090
54	10.0	5	9320.100

* Metal bar

Busbar systems
60 mm

Multi-functional component adaptor 25 A/40 A



Multi-functional component adaptor 25 A
For snap-on mounting.

Construction width	45 mm	45 mm
Rated current up to	25 A	25 A
Rated operating voltage up to	690 V ~	690 V ~
Cable outlet	top	top/bottom
Connection of round conductors up to	16 mm ²	16 mm ²
Support rails	Quantity 2 (1 variable)	2
	Height 10 mm	10 mm
Packs of	1	1
For 5 mm bar thickness Model No. SV	9320.260	9320.280
For 10 mm bar thickness Model No. SV	9320.270	9320.290

Material:
Polyamide (PA 6.6), 30 % fibreglass-reinforced.
Continuous operating temperature: max. 140°C.
Fire protection corresponding to UL 94-V0.

SV 9320.260
SV 9320.270

SV 9320.280
SV 9320.290

Model No. SV	A	B
9320.260 9320.270	variable	
9320.280 9320.290	68.5	100

Accessories:

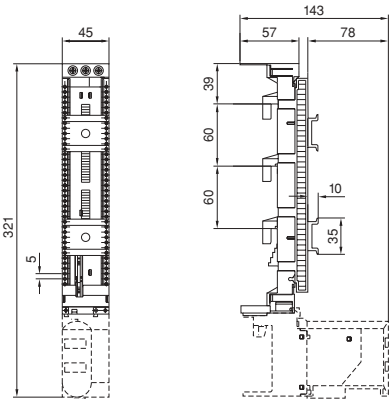


Plug-in connector

For fitting the AS-interface load feeder module with matching support 3RK1 901-3CA00 (Siemens) to the SV multi-functional component adaptor with 45 mm construction width.

Packs of	Model No. SV
1	9320.110

SV 9320.260 / SV 9320.270 with SV 9320.110



Mounting clip

Including support rail, 45 mm wide, for additional locking of motor starter combinations.

Packs of	Model No. SV
5	9320.140

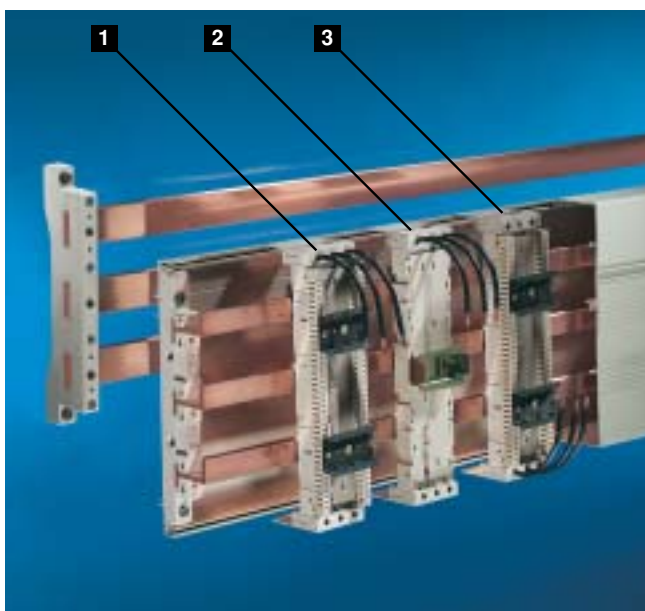
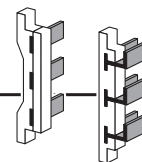
Support rails

Including assembly screws.

Width mm	Height mm	Packs of	Model No. SV
45	7.5	10	9320.150*
45	10.0	5	9320.090

* Metal bar

60 mm

Busbar systems
60 mm**Multi-functional component adaptor 40 A**

For snap-on mounting.

Construction width	1 54 mm	2 54 mm	3 54 mm
Rated current up to	40 A	40 A	40 A
Rated operating voltage up to	690 V ~	690 V ~	690 V ~
Cable outlet	top	top	bottom
Connection cables*	AWG 10	AWG 10	AWG 10
Support rails	Quantity 2 Height 10 mm	1 15 mm	2 10 mm
Packs of	1	1	1
For 5 mm bar thickness Model No. SV	9320.300	9320.460	9320.320
For 10 mm bar thickness Model No. SV	9320.310	9320.470	9320.330

For power circuit-breakers

Make (equipment models see page 112)

Moeller		•	
Siemens		•	
ABB	•	•	
AEG	•		
Allen Bradley	•		
Universal application	•	•	•

* AWG = American Wire Gauges
 AWG 10 = 5.26 mm² ± 6 mm²

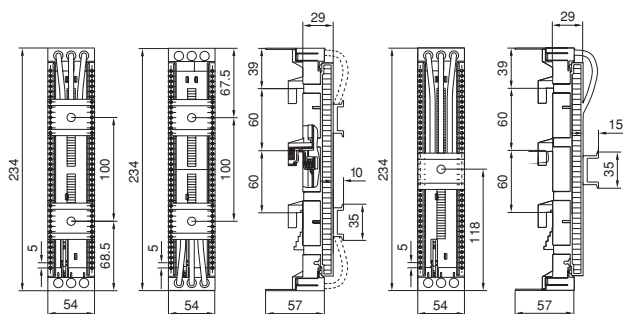
Note: The current carrying capacity of the supply cables fitted as standard can be found on page 113.

Material: See opposite.

SV 9320.300
SV 9320.310

SV 9320.320
SV 9320.330

SV 9320.460
SV 9320.470

**Multi-functional component adaptor 40 A**

For snap-on mounting.

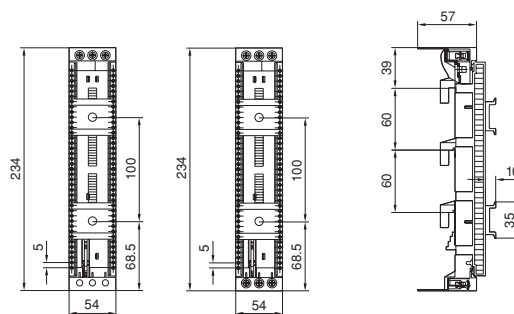
Construction width	54 mm	54 mm
Rated current up to	40 A	40 A
Rated operating voltage up to	690 V ~	690 V ~
Cable outlet	top	top/ bottom
Connection of round conductors up to	16 mm ²	16 mm ²
Support rails	Quantity 2 Height 10 mm	2 10 mm
Packs of	1	1
For 5 mm bar thickness Model No. SV	9320.340	9320.360
For 10 mm bar thickness Model No. SV	9320.350	9320.370

Material:

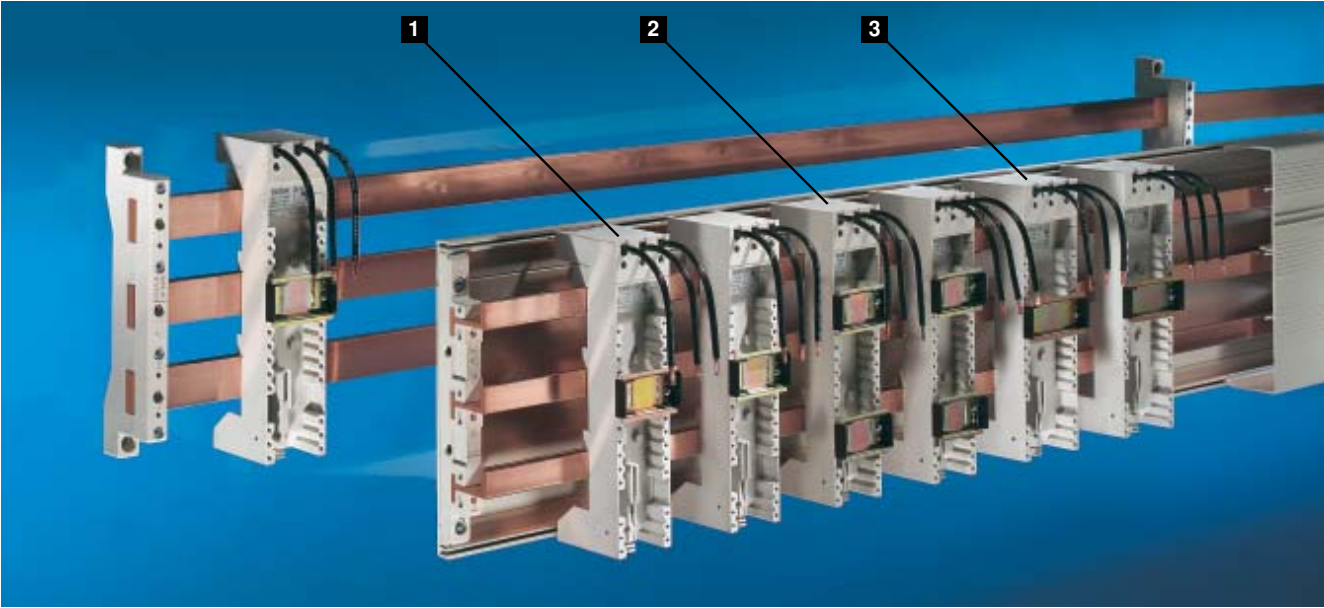
Polyamide (PA 6.6), 30 % fibreglass-reinforced.
 Continuous operating temperature: max. 140°C.
 Fire protection corresponding to UL 94-V0.

SV 9320.340
SV 9320.350

SV 9320.360
SV 9320.370



Component adaptor 50 A



Component adaptor 50 A

For snap-on mounting. With additional terminals up to 10 mm².

Construction width	1 54 mm	2 54 mm	3 72 mm
Rated current up to	50 A	50 A	50 A
Rated operating voltage	690 V ~	690 V ~	690 V ~
Cable outlet	top	top	top
Connection cables*	AWG 10 (32 A)	AWG 10 (32 A)	AWG 10 (32 A)
Support rails	Quantity 1	2	1
	Height 7.5 mm	7.5 mm	7.5 mm
Packs of	1	1	1
For 5 mm bar thickness Model No. SV	3540.000	3040.000	3544.000
For 10 mm bar thickness Model No. SV	3541.000	3041.000	3545.000

For power circuit-breakers

Make (equipment models see page 113)

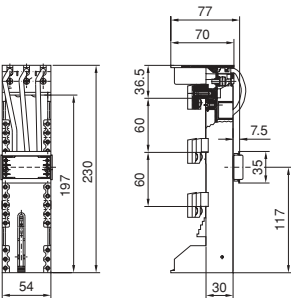
Moeller			•
Siemens		•	
ABB	•		
AEG	•		
Allen Bradley	•		
Universal application	•	•	•

* AWG = American Wire Gauges
AWG 10 = 5.26 mm² ± 6 mm²

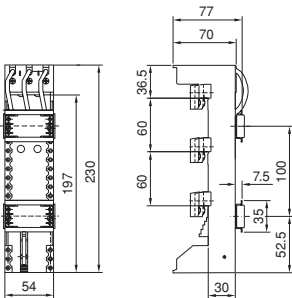
Note:
The current carrying capacity of the supply cables fitted as standard can be found on page 113.

Material:
Fibreglass-reinforced, thermoplastic polyester (PBT).
Continuous operating temperature: max. 140°C.
Fire protection corresponding to UL 94-V0.

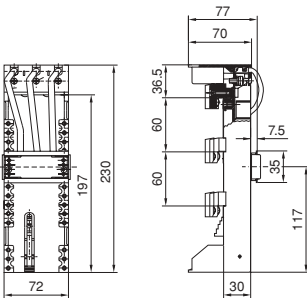
SV 3540.000
SV 3541.000

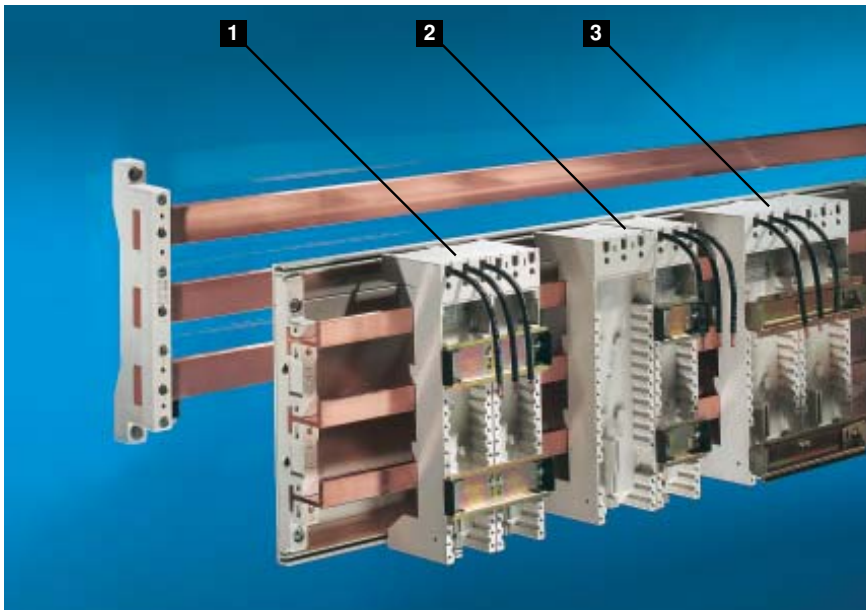
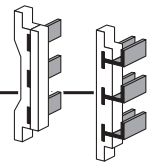


SV 3040.000
SV 3041.000



SV 3544.000
SV 3545.000





Component adaptor 50 A

For snap-on mounting. With additional terminals up to 10 mm².

Construction width	1	2	3
Rated current up to	108 mm	126 mm	144 mm
Rated operating voltage	50 A	50 A	50 A
Cable outlet	690 V ~	690 V ~	690 V ~
Connection cables*	top	top	top
Support rails	AWG 10 (32 A)		
Quantity	2	2	2
Height	7.5 mm	7.5 mm	15 mm
Packs of	1	1	1
For 5 mm bar thickness Model No. SV	3042.000	3069.000	3044.000
For 10 mm bar thickness Model No. SV	3043.000	3070.000	3045.000

For power circuit-breakers

Make (equipment models see page 113)

Moeller	•		
Siemens		•	
Telemecanique	•		
Universal application	•	•	•

* AWG = American Wire Gauges
AWG 10 = 5.26 mm² ± 6 mm²

Note:

The current carrying capacity of the supply cables fitted as standard can be found on page 113.

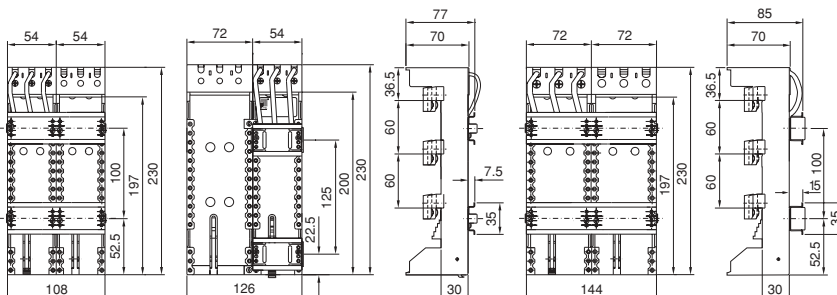
Material:

Fibreglass-reinforced, thermoplastic polyester (PBT).
Continuous operating temperature: max. 140°C.
Fire protection corresponding to UL 94-V0.

SV 3042.000
SV 3043.000

SV 3069.000
SV 3070.000

SV 3044.000
SV 3045.000



Accessories:



Insert strip

To extend the build width of the component adaptors.

Width	Packs of	Model No. SV
9 mm	1	3538.000

Cover strips

Width	Packs of	Model No. SV
54 mm	20	3536.000
72 mm	20	3537.000

Support rails

For Model No. SV	Width mm	Height mm	Model No. SV
3540.000	54	7.5	3548.000
3541.000			
3544.000	72	7.5	3549.000
3545.000			

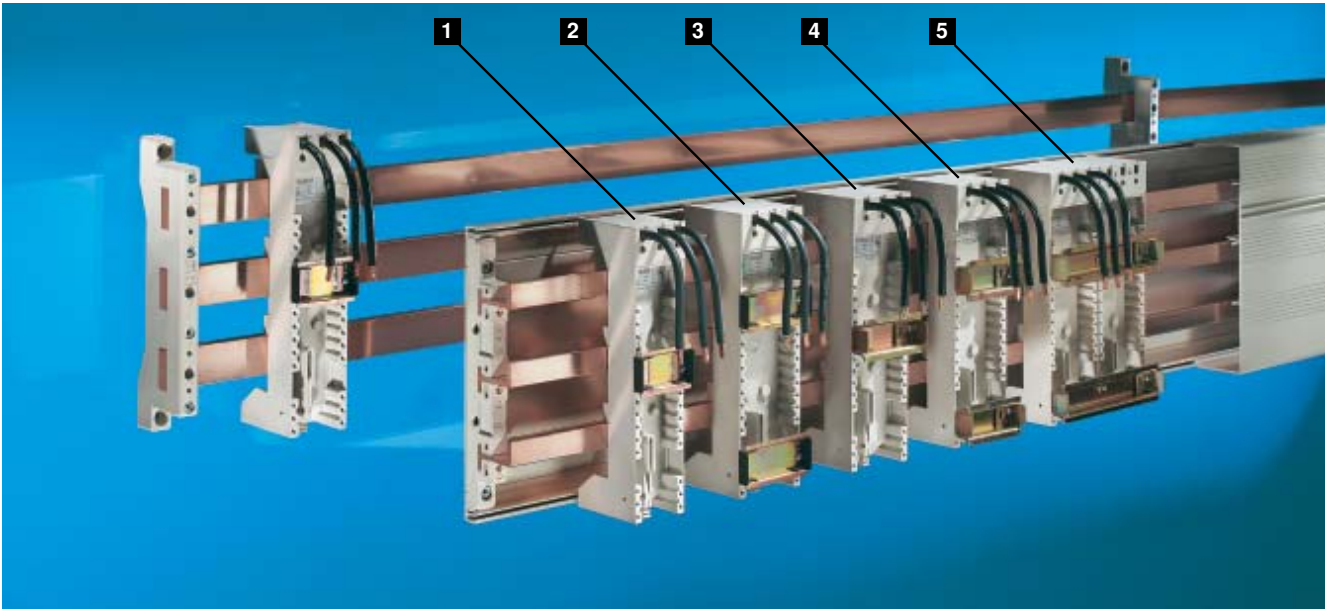
Supply includes:

Packs of 10, including assembly screws.



Component support (without contact system)
see page 61.

Component adaptor 63 A



Component adaptor 63 A

For snap-on mounting. With additional terminals up to 10 mm².

Construction width		1 54 mm	2 72 mm	3 72 mm	4 72 mm	5 144 mm
Rated current up to		63 A	63 A	63 A	63 A	63 A
Rated operating voltage		690 V ~	690 V ~	690 V ~	690 V ~	690 V ~
Cable outlet		top	top	top	top	top
Connection cables*		AWG 8	AWG 8	AWG 8	AWG 8	AWG 8
Support rails	Quantity	1	2	1	2	2
	Height	7.5 mm	7.5 mm	15 mm	15 mm	15 mm
Packs of		1	1	1	1	1
For 5 mm bar thickness						
Model No. SV		3036.000	3038.000	3067.000	3046.000	3048.000
For 10 mm bar thickness						
Model No. SV		3037.000	3039.000	3068.000	3047.000	3049.000

For power circuit-breakers

Make (equipment models see page 113)

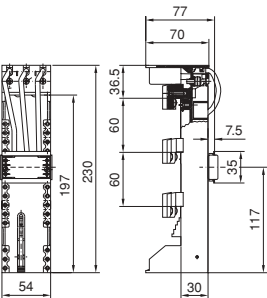
Moeller		•			•	•
Siemens		•		•		
ABB		•		•		
Telemecanique				•		
Universal application		•	•	•	•	•

* AWG = American Wire Gauges
AWG 8 = 8.37 mm² $\hat{=}$ 10 mm²

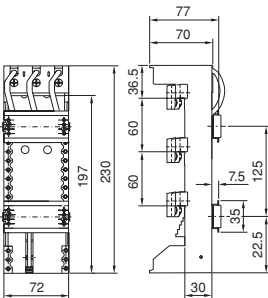
Note:
The current carrying capacity of the supply cables fitted as standard can be found on page 113.

Material:
Fibreglass-reinforced, thermoplastic polyester (PBT).
Continuous operating temperature: max. 140°C.
Fire protection corresponding to UL 94-V0.

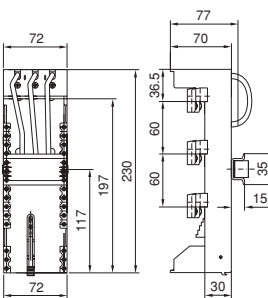
SV 3036.000
SV 3037.000



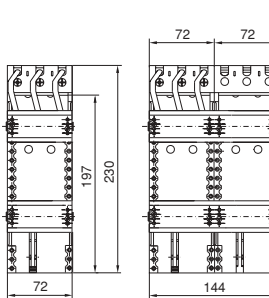
SV 3038.000
SV 3039.000



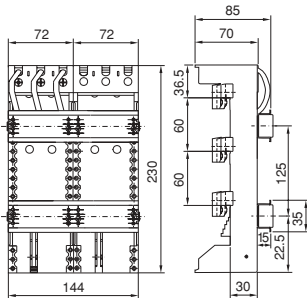
SV 3067.000
SV 3068.000

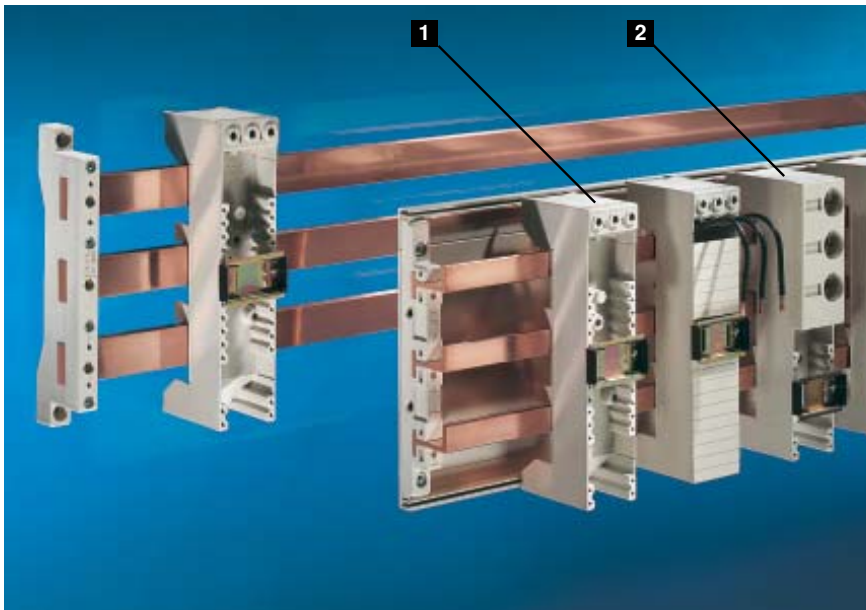
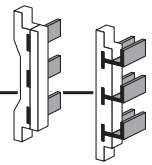


SV 3046.000
SV 3047.000



SV 3048.000
SV 3049.000





Component adaptor 63 A

For clamping screw fastening.

Construction width	1 54 mm	2 54 mm
With pre-fuse unit	–	D 02-E 18
Rated current up to	63 A	63 A
Rated operating voltage	690 V ~	400 V ~
Cable outlet	top	top
Connection of round conductors up to	1.5 – 10 mm ²	1.5 – 16 mm ²
Support rails	Quantity 1	1
	Height 7.5 mm	7.5 mm
Tightening torque		
● Assembly screw	2 Nm	2 Nm
● Terminal screw	2 Nm	2 Nm
Packs of	1	1
For 3 – 10 mm bar thickness	3445.000¹⁾	3446.000²⁾
Model No. SV		

For power circuit-breakers

Make (equipment models see page 113)

Moeller	●	
Siemens	●	
ABB	●	●
AEG	●	●
Allen Bradley	●	●
Universal application	●	●

Supply includes:

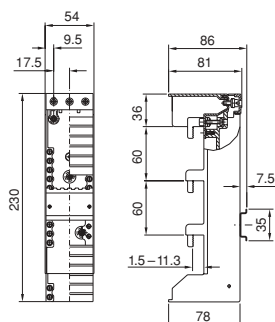
¹⁾ Including supplied connection cables (AWG 10 = 5.26 mm² ± 6 mm²) and cover strips.

²⁾ Including cover strips.

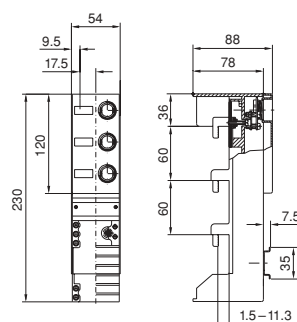
Material:

Fibreglass-reinforced, thermoplastic polyester (PBT). Continuous operating temperature max. 140°C. Fire protection corresponding to UL 94-V0.

SV 3445.000



SV 3446.000



Accessories:



Insert strips

To extend the build width of the component adaptors.

For Model No. SV	Width mm	Packs of	Model No. SV
3036.000 – 3049.000	9.0	1	3538.000
3445.000 – 3446.000	17.5	1	3448.000*

* Including extended support rail and cover strips.

Cover strips

Width	Packs of	Model No. SV
54 mm	20	3536.000
72 mm	20	3537.000

Support rails

For Model No. SV	Width mm	Height mm	Model No. SV
3445.000 – 3446.000	54	7.5	3447.000
3445.000 / 3446.000 with 3448.000	70	7.5	3496.000

Supply includes:

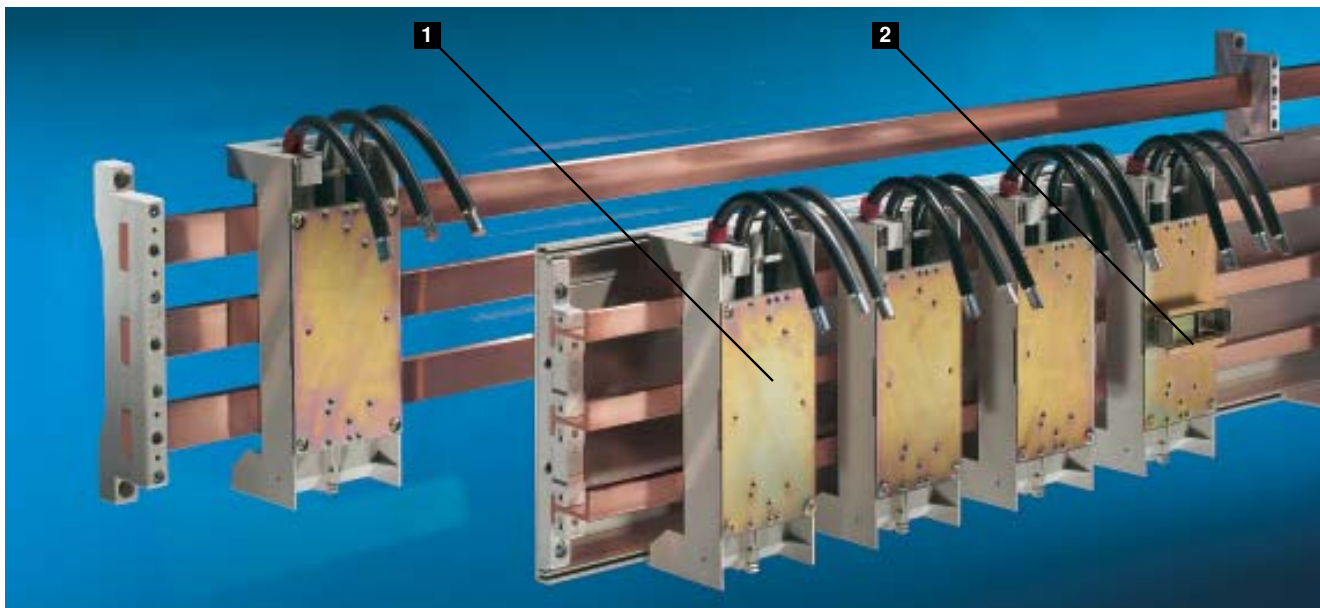
Packs of 10, including assembly screws.



Component support (without contact system)

see page 61.

Component adaptor 100 A



1 Component adaptor 100 A

For snap-on mounting.

Construction width	90 mm
Rated current up to	100 A
Rated operating voltage	690 V ~
Connection cables	35 mm ²
Packs of	1
For 5 mm bar thickness Model No. SV	9320.000
For 10 mm bar thickness Model No. SV	9320.010

For power circuit-breakers

Make	Type
ABB	Sace (LNA 32, LNA 63, LNA 100)* MS495-..**, MS496-..**, MS497-..** Tmax (T1, T2)
AEG	Mbs100**
Allen Bradley	140-CMN-....**
Merlin Gerin	Compact NS 80H-MA
Moeller	NZM 1, NZM 7
Siemens	S3 (3RV1. 4.-4..10, 3RW30 4.-1AB..)**
Telemecanique	GV3-M...** GK3-EF.**

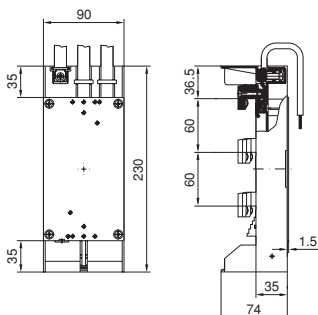
* Mounting of power circuit-breakers for static installation is only possible with ABB mounting bracket (Model No. UXAB 169264 R005).

** Mounting only possible with support rail – see opposite.

Material:

Material.
Fibreglass-reinforced, thermoplastic polyester (PBT).
Continuous operating temperature max. 140°C.
Fire protection corresponding to UL 94-V0.

SV 9320.000 / SV 9320.010

**Accessories:**

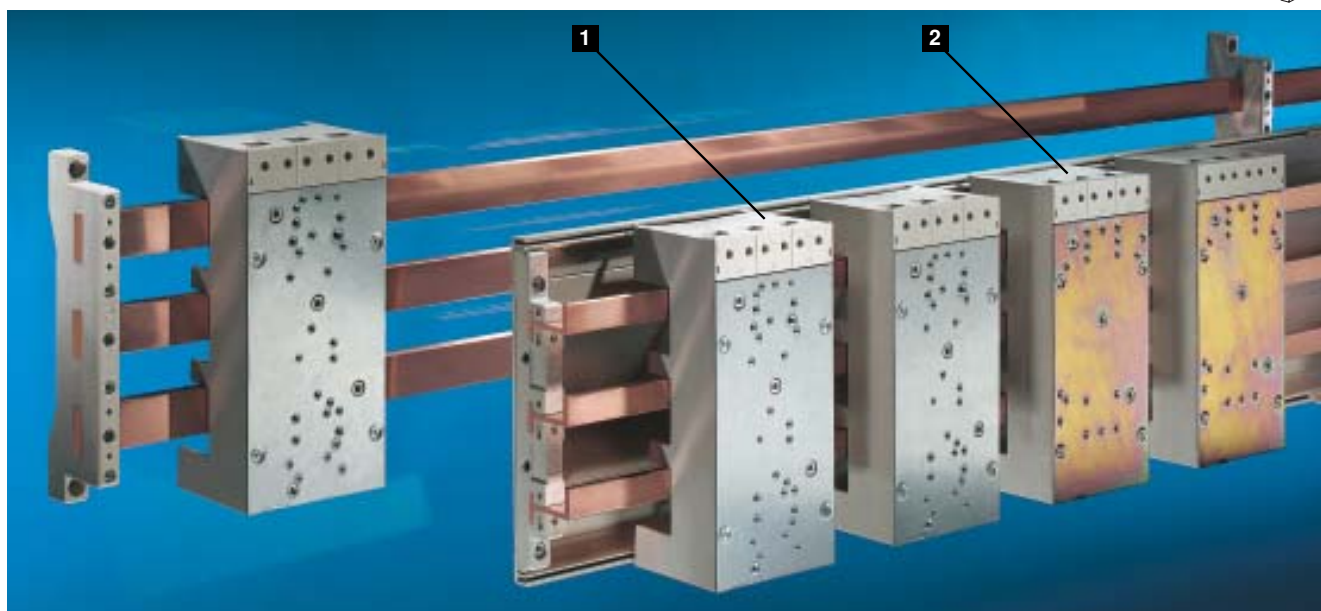
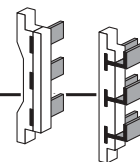
2 Support rails

Support rails
For mounting power circuit-breakers on
SV 9320.000 / SV 9320.010.
Width: 72 mm, height: 15 mm.

Packs of	Model No. SV
5	9320.120

Supply includes:

Assembly screws.



Component adaptor 160 A

For clamping screw fastening.

Construction width	1 110 mm	2 110 mm
Rated current up to	160 A	160 A
Rated operating voltage	690 V ~	690 V ~
Connection of round conductors up to	6 – 70 mm ²	6 – 70 mm ²
Clamping area for laminated copper bars	13 x 10 mm	13 x 10 mm
Tightening torque		
• Assembly screw	4 – 6 Nm	4 – 6 Nm
• Terminal screw	2 – 3 Nm	2 – 3 Nm
Packs of	1	1
For 5 – 10 mm bar thickness	3438.000	3539.000
Model No. SV		

For power circuit-breakers

Make	Type
ABB	1 Sace (S1, S2, S3, LNA32, LNA63, LNA100)
	2 Tmax (T1, T2, T3)
AEG	1 MC 128, MC 128MM, MC 167N, MC 167S, MC 168, MCL 128H, MCL 167N
Delta	1 Sizes E and F
Merlin Gerin	1 Compact NS 80H-MA, Compact NS 100, Compact NS 160
Moeller	1 NZM 2
	2 NZM 1, NZM 6, NZM 7, ZM 6
Siemens	2 3VE4, 3VE5, 3VF3, 3VN4, 3VN5, 3VT4, 3VT5, 3VP5 Sentron VL 160 (3VL17...)
Vynckier	1 JF1, JF2, JS1, JS2, JS3, XF1, XF2, XH3, XS1, XS2, XS3

Material:

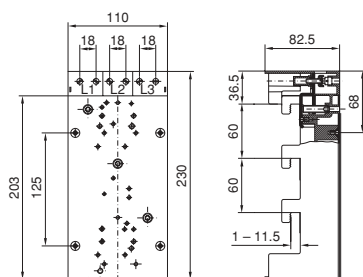
Fibreglass-reinforced, thermoplastic polyester (PBT).
Continuous operating temperature: max. 140°C.
Fire protection corresponding to UL 94-V0.



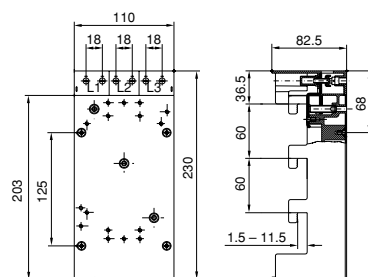
Accessories:

Laminated copper bars
Rittal Flexibar "S",
see page 105.

SV 3438.000



SV 3539.000



Component adaptor 250 A



Component adaptor 250 A

For clamping screw fastening.

Construction width	110 mm
Rated current up to	250 A
Rated operating voltage	690 V ~
Connection of round conductors up to	50 – 120 mm ²
Clamping area for laminated copper bars	16 x 12 mm
Tightening torque	
• Assembly screw	4 – 6 Nm
• Terminal screw	8 – 10 Nm
Packs of	1
For 5 – 10 mm bar thickness	
Model No. SV	3437.000

For power circuit-breakers

Make	Typ
ABB	Sace (S3, S4)
AEG	MC 168M, MC 257, MC 258, MCL 168H
Delta	Size J
Merlin Gerin	Compact NS 250, Vigicompact NS 250
Moeller	NZM 6, NZM 7, NZM H6, NZM S6
Siemens	3VF3, 3VF4
Sprecher & Schuh	KTA 3-250S

Material:

Fibreglass-reinforced, thermoplastic polyester (PBT).
Continuous operating temperature: max. 140°C.
Fire protection corresponding to UL 94-V0.



Accessories:

Laminated copper bars
Rittal Flexibar "S",
see page 105.

Accessories:

Assembly kit

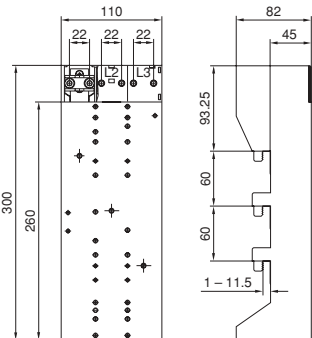
For mounting power circuit-breakers on
SV 3437.000.

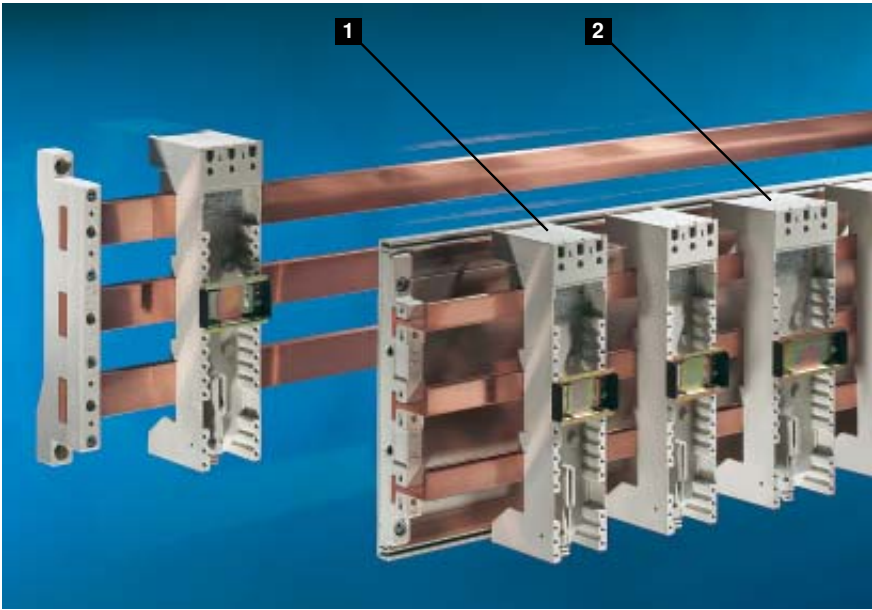
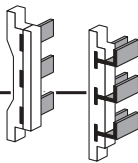
For power circuit-breakers	Model No. SV
• Moeller • Siemens (3VF3)	3018.000
• AEG • Delta • Sprecher & Schuh	3019.000
• ABB • Merlin Gerin • Siemens (3VF4)	3063.000

Supply includes:

Packs of 1 set

SV 3437.000





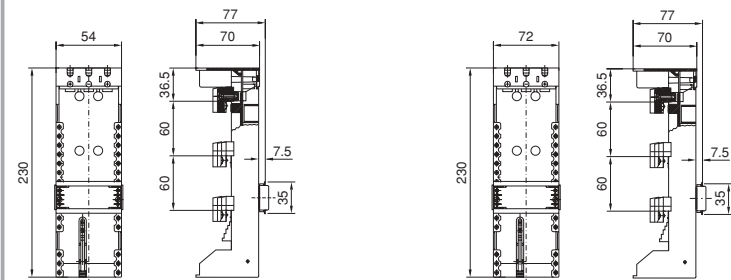
**Component support
(without contact system)**
For snap-on mounting.

Construction width		1 54 mm	2 72 mm
Support rails	Quantity	1	1
	Height	7.5 mm	7.5 mm
Packs of		1	1
For 5 mm bar thickness Model No. SV		3542.000	3546.000
For 10 mm bar thickness Model No. SV		3543.000	3547.000

Material:
Fibreglass-reinforced, thermoplastic polyester (PBT).
Continuous operating temperature: max. 140°C.
Fire protection corresponding to UL 94-V0.

SV 3542.000
SV 3543.000

SV 3546.000
SV 3547.000



Accessories:



Insert strip
To extend the build width of the component supports.

Width	Packs of	Model No. SV
9 mm	1	3538.000

Cover strips
For component supports.

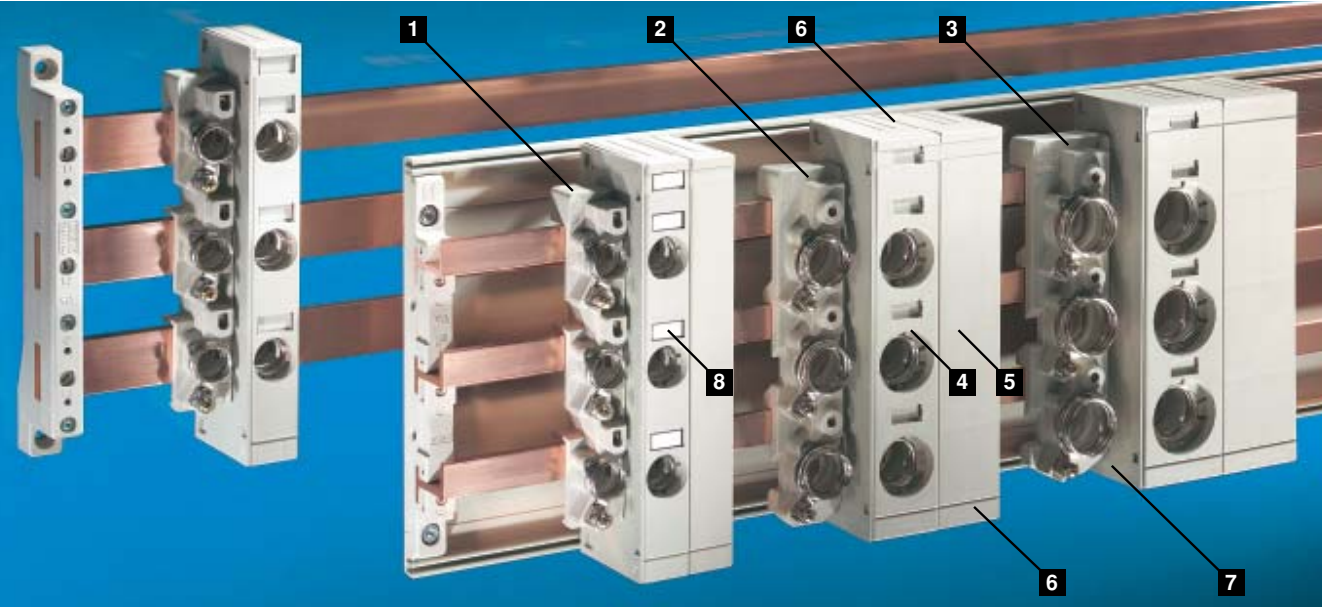
Width	Packs of	Model No. SV
54 mm	20	3536.000
72 mm	20	3537.000

Support rails

For Model No. SV	Width mm	Height mm	Model No. SV
3542.000 3543.000	54	7.5	3548.000
3546.000 3547.000	72	7.5	3549.000

Supply includes:
Packs of 10,
including assembly screws.

Bus-mounting fuse bases



Bus-mounting fuse bases

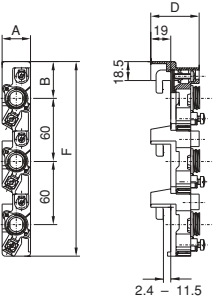
For clamping screw fastening.

Type	1 D 02-E 18 (adaptor sleeve)	2 D II-E 27 (gauge ring)	3 D III-E 33 (gauge ring)
Rated current	63 A	25 A	63 A
Rated operating voltage	400 V ~	500 V ~	690 V ~
Terminal for round conductors	1.5 – 16 mm ²	1.5 – 16 mm ²	1.5 – 16 mm ²
Tightening torque			
• Assembly screw	2 Nm	2 Nm	2 Nm
• Terminal screw	2 Nm	2.5 Nm	2.5 Nm
Packs of	10	10	10
For 3 – 10 mm bar thickness			
Model No. SV	3418.000	3427.000	3433.000

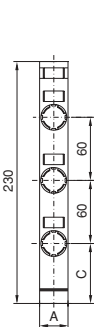
 Accessories	Packs of	Model No. SV	Model No. SV	Model No. SV
4 Contact hazard protection cover	10	3419.000	3428.000	3434.000
5 Extension cover	10	3421.000	3430.000	3436.000
6 End caps	10	3420.000	3429.000	3435.000
7 Side cover	10	3093.000	3093.000	3093.000
8 Identification labels	100	9320.080	9320.080	9320.080

Material properties see page 118.

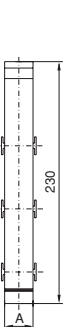
SV 3418.000
SV 3427.000
SV 3433.000



SV 3419.000
SV 3428.000
SV 3434.000



SV 3421.000
SV 3430.000
SV 3436.000

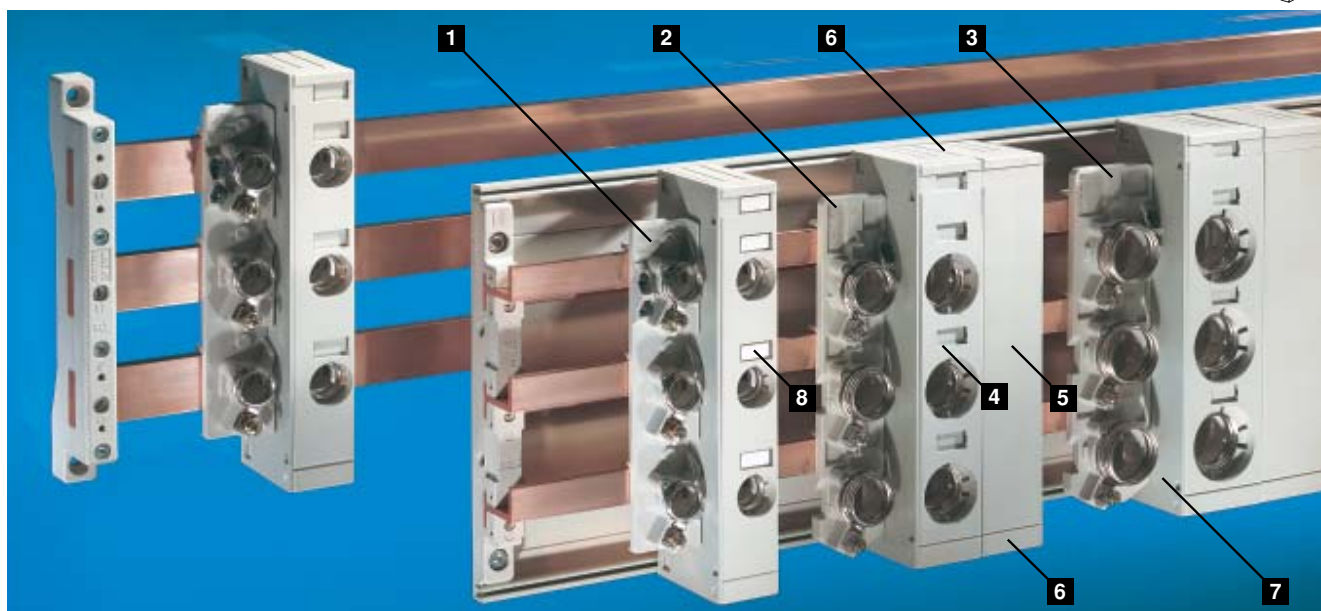
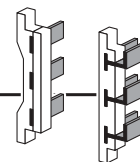


SV 3420.000
SV 3429.000
SV 3435.000



Model No. SV	A	B	C	D	E	F
3418.000	27	35	–	46	–	185
3419.000	27	–	57	–	–	–
3421.000	27	–	–	–	67	–
3420.000	42	42.5	–	51	–	205
3427.000	42	–	40	–	–	–
3428.000	42	–	–	–	71.5	–
3430.000	57	42.5	–	51	–	205
3429.000	57	–	40	–	–	–
3433.000	57	–	–	–	71.5	–
3434.000	57	–	–	–	–	–
3435.000	57	–	–	–	–	–

60 mm

Busbar systems
60 mm**Bus-mounting fuse bases**

For snap-on mounting.

Type	1 D 02-E 18 (adaptor sleeve)	2 D II-E 27 (gauge ring)	3 D III-E 33 (gauge ring)
Rated current	63 A	25 A	63 A
Rated operating voltage	400 V ~	500 V ~	690 V ~
Terminal for round conductors	1.5 – 16 mm ²	1.5 – 16 mm ²	1.5 – 16 mm ²
Tightening torque ● Terminal screw	2.5 Nm	2.5 Nm	2.5 Nm
Packs of	10	10	10
For 5 mm bar thickness Model No. SV	3422.000	3520.000	3530.000
For 10 mm bar thickness Model No. SV	3423.000	3521.000	3531.000

Accessories	Packs of	Model No. SV	Model No. SV	Model No. SV
4 Contact hazard protection cover	10	3424.000	3522.000	3532.000
5 Extension cover	10	–	3430.000	3436.000
6 End caps	10	3425.000	3429.000	3435.000
7 Side cover	10	3093.000	3093.000	3093.000
8 Identification labels	100	9320.080	9320.080	9320.080

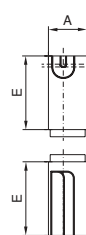
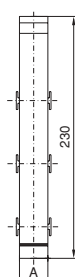
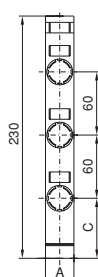
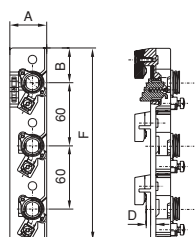
Material properties see page 118.

SV 3422.000 / SV 3423.000
SV 3520.000 / SV 3521.000
SV 3530.000 / SV 3531.000

SV 3424.000
SV 3522.000
SV 3532.000

SV 3430.000
SV 3436.000

SV 3425.000
SV 3429.000
SV 3435.000



Model No. SV	A	B	C	D	E	F
3422.000 3423.000	36	35	–	5/10	–	183
3424.000	36	–	57	–	–	–
3425.000	36	–	–	–	67	–
3520.000 3521.000	42	51	–	5/10	–	205
3522.000 3430.000	42	–	40	–	–	–
3429.000	42	–	–	–	71.5	–
3530.000 3531.000	57	51	–	5/10	–	205
3532.000 3436.000	57	–	40	–	–	–
3435.000	57	–	–	–	71.5	–

NH fused isolators size 00

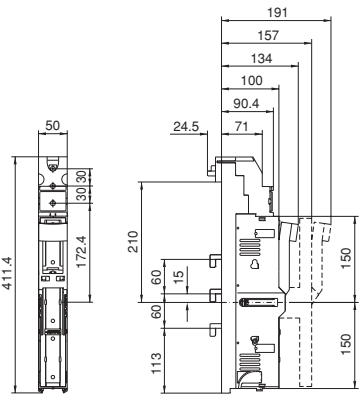


NH fused isolators, size 00

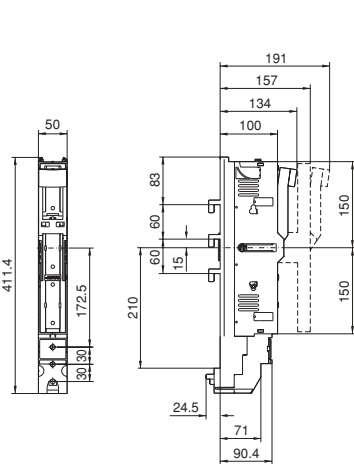
Size	00	
Rated current	160 A	
Rated operating voltage	690 V ~	
Cable outlet	top	bottom
Type of connection	Screw M8	Screw M8
Tightening torque		
● Assembly screw	6 Nm	6 Nm
● Terminal screw	14 Nm	14 Nm
Packs of	1	1
Model No. SV	3591.020	3591.030

Technical specifications and material properties see page 114/115.
 When using gR fuse inserts (VDE 0636/23) in NH equipment, please refer to the information on page 116.

SV 3591.020



SV 3591.030



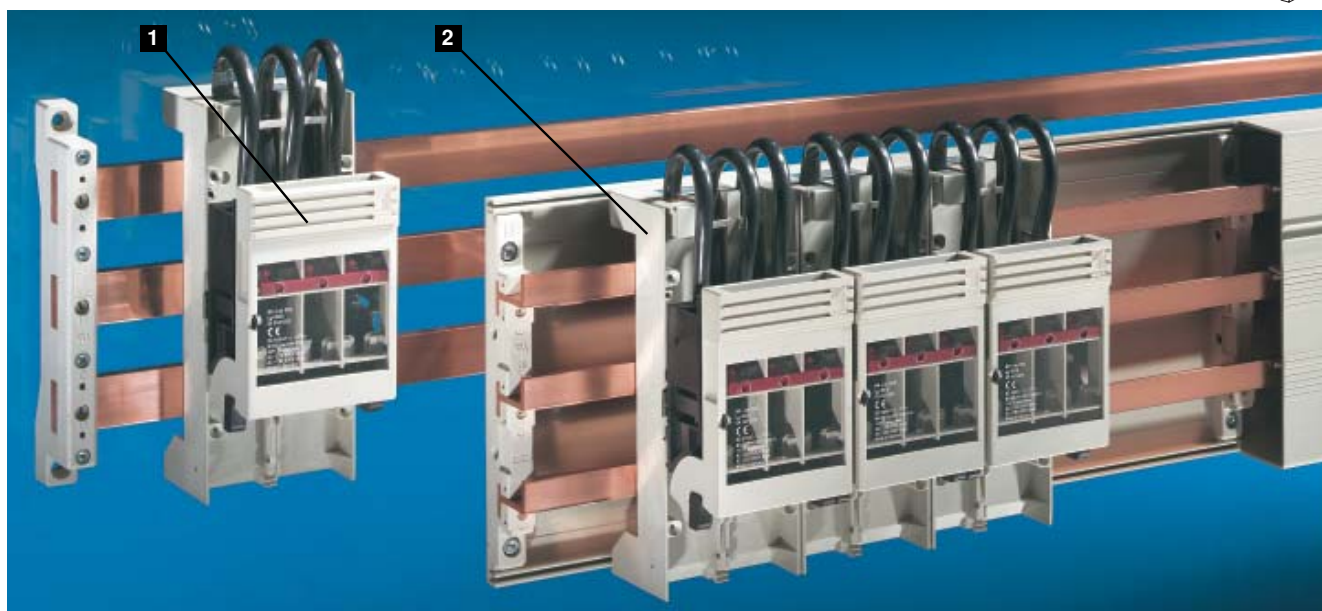
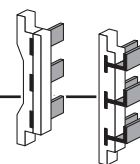
Identification label support

For clip-on mounting on the fused isolator housing.

Packs of	Model No. SV
6	3595.010

+ Accessories:

- Micro-switch
- PLS cover
- Clamp-type terminal connection parts
- Clamp-type terminal connection see page 74/75.



1 NH on-load isolators size 000

Size	000
Rated current	100 A 160 A (for 95 mm ² connection cross-section)*
Rated operating voltage	690 V ~
Cable outlet	top/bottom
Type of connection	Terminal up to 50 mm ²
Tightening torque • Terminal screw	3 Nm
Packs of	1
Model No. SV	3431.000

* 95 mm² connector pieces available on request.

For technical data and material specifications see page 114/115.



Also required:

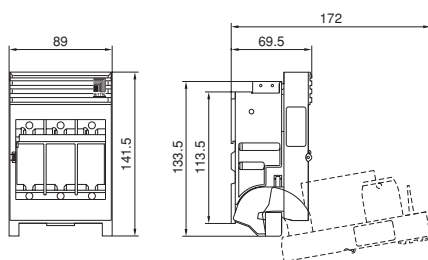
Busbar adaptor,
see opposite.



Accessories:

- Micro-switch
- Mounting kit
see page 74/75.

SV 3431.000



2 Busbar adaptor

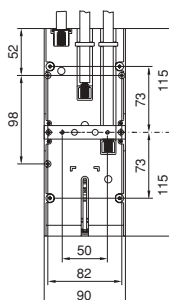
For mounting SV 3431.000 on 60 mm busbar systems.
Includes 35 mm² connection cables fitted as standard.

Material:

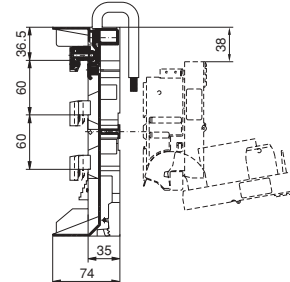
Fibreglass-reinforced, thermoplastic polyester (PBT).
Continuous operating temperature: max. 140°C.
Fire protection corresponding to UL 94-V0.

For bar thickness	Packs of	Model No. SV
5 mm	1	9320.040
10 mm	1	9320.050

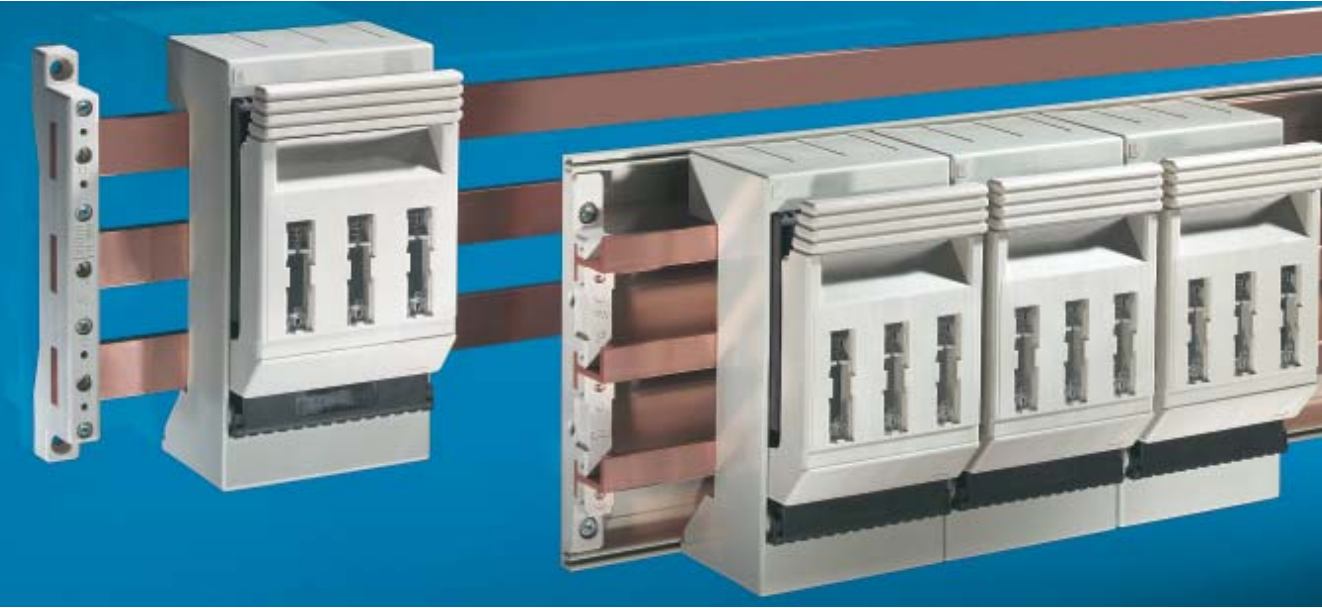
SV 9320.040 SV 9320.050



SV 3431.000 with SV 9320.040 / SV 9320.050



NH bus-mounting on-load isolator, size 00



NH bus-mounting on-load isolator, size 00

Size	00		00	
Rated current	160 A		160 A	
Rated operating voltage	690 V ~		690 V ~	
Cable outlet	top	bottom	top	bottom
Type of connection	Screw terminal M8 up to 95 mm ²		Clamp-type terminal connection up to 70 mm ²	
Tightening torque				
● Assembly screw	5 – 6 Nm	5 – 6 Nm	5 – 6 Nm	5 – 6 Nm
● Terminal screw	10 – 15 Nm	10 – 15 Nm	2 – 3 Nm	2 – 3 Nm
For bar thickness	5 – 10 mm	5 – 10 mm	5 – 10 mm	5 – 10 mm
Packs of	1	1	1	1
Model No. SV	3400.000	3401.000	3402.000	3403.000

Technical specifications and material properties see page 114/115.
When using gR fuse inserts (VDE 0636/23) in the NH equipment, please observe the information on page 116.



Accessories:

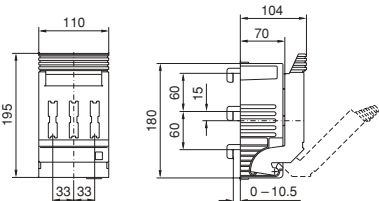
- Contact hazard protection frame
- Micro-switch see page 74/75.

NH bus-mounting fuse base

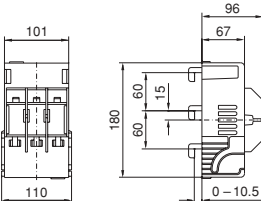
Note: Component mounting with an isolator lid is not possible.

Size	00		00	
Rated current	160 A		160 A	
Rated operating voltage	690 V ~		690 V ~	
Cable outlet	top	bottom	top	bottom
Type of connection	Screw terminal M8 up to 95 mm ²		Clamp-type terminal connection up to 70 mm ²	
Tightening torque				
● Assembly screw	5 – 6 Nm	5 – 6 Nm	5 – 6 Nm	5 – 6 Nm
● Terminal screw	10 – 15 Nm	10 – 15 Nm	2 – 3 Nm	2 – 3 Nm
For bar thickness	5 – 10 mm	5 – 10 mm	5 – 10 mm	5 – 10 mm
Packs of	1	1	1	1
Model No. SV	3406.000	3407.000	3404.000	3405.000

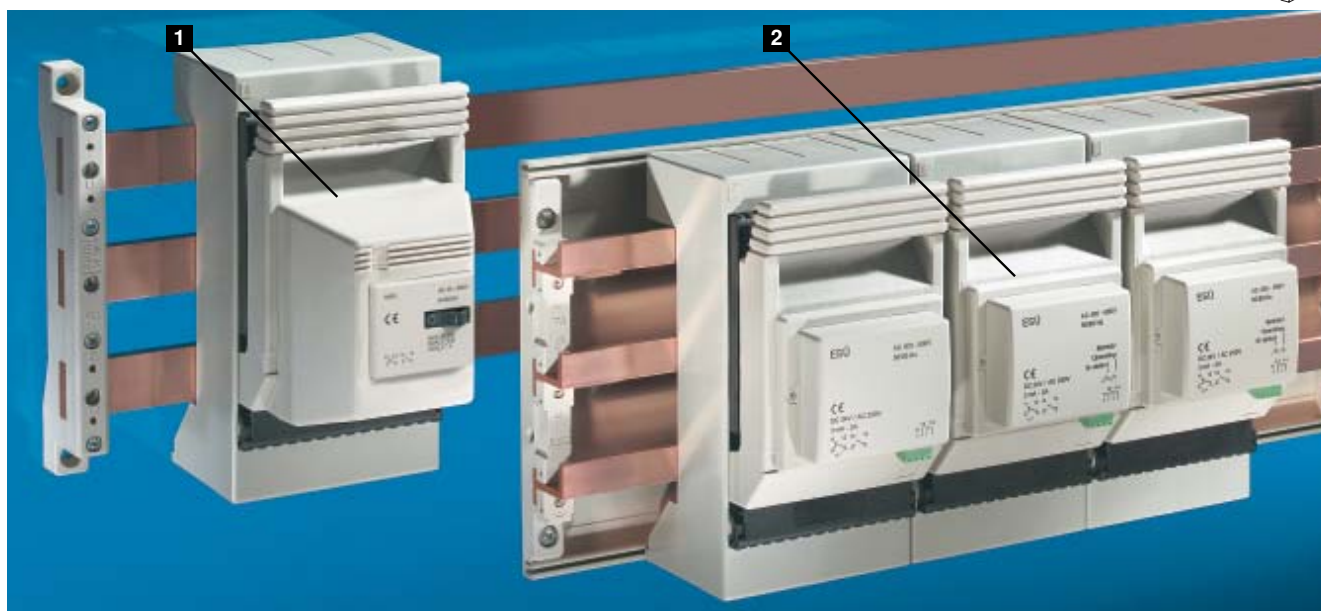
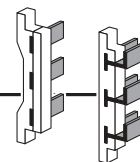
SV 3400.000 – SV 3403.000



SV 3404.000 – SV 3407.000



60 mm

Busbar systems
60 mm**NH bus-mounting on-load isolator, size 00, with fuse monitoring**

Size	00	00	00	00
Rated current	160 A	160 A	160 A	160 A
Rated operating voltage	690 V ~	690 V ~	690 V ~	690 V ~
Cable outlet	top	bottom	top	bottom
Type of connection	Screw terminal M8 up to 95 mm ²		Clamp-type terminal connection up to 70 mm ²	
Tightening torque	5 – 6 Nm		5 – 6 Nm	
• Assembly screw	10 – 15 Nm		2 – 3 Nm	
• Terminal screw	10 – 15 Nm		2 – 3 Nm	
For bar thickness	5 – 10 mm		5 – 10 mm	
Packs of	1		1	

1 with electromechanical fuse monitoring

Model No. SV	3490.000	3491.000	3492.000	3493.000
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2 with electronic fuse monitoring and LED display

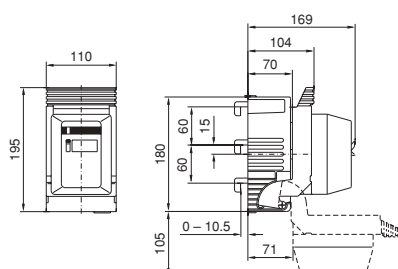
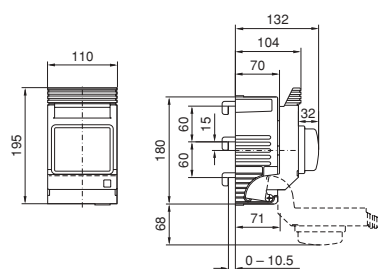
Model No. SV	3490.210	3491.210	3492.210	3493.210
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Technical specifications and material properties see page 114/115.

When using gR fuse inserts (VDE 0636/23) in the NH equipment, please observe the information on page 116.

**Accessories:**

- Contact hazard protection frame
- Micro-switch
see page 74/75.

SV 3490.000 – SV 3493.000**SV 3490.210 – SV 3493.210**

NH bus-mounting on-load isolator, size 1



NH bus-mounting on-load isolator, size 1

Size	1	1
Rated current	250 A	250 A
Rated operating voltage	690 V ~	690 V ~
Cable outlet	top	bottom
Type of connection	Screw terminal M10 up to 150 mm²	Screw terminal M10 up to 150 mm²
Tightening torque ● Assembly screw ● Terminal screw	8 – 10 Nm 15 – 20 Nm	8 – 10 Nm 15 – 20 Nm
For bar thickness	5 – 10 mm	5 – 10 mm
Packs of	1	1
Model No. SV	3411.000	3410.000

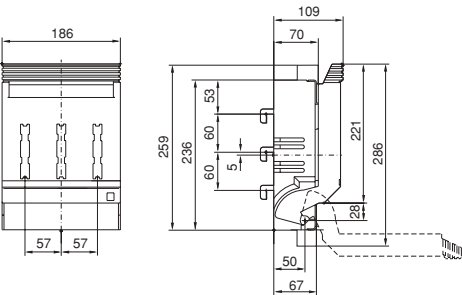
Technical specifications and material properties see page 114/115.
 When using gR fuse inserts (VDE 0636/23) in the NH equipment, please observe the information on page 116.



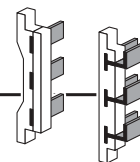
Accessories:

- Clamp-type terminal connection parts
 - Micro-switch
 - PLS cover
- see page 74/75.

SV 3410.000 / SV 3411.000



60 mm

Busbar systems
60 mm**NH bus-mounting on-load isolator, size 1, with fuse monitoring**

Size	1	1
Rated current	250 A	250 A
Rated operating voltage	690 V ~	690 V ~
Cable outlet	top	bottom
Type of connection	Screw terminal M10 up to 150 mm ²	Screw terminal M10 up to 150 mm ²
Tightening torque		
• Assembly screw	8 – 10 Nm	8 – 10 Nm
• Terminal screw	15 – 20 Nm	15 – 20 Nm
For bar thickness	5 – 10 mm	5 – 10 mm
Packs of	1	1

1 with electromechanical fuse monitoring

Model No. SV	3495.000	3494.000
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2 with electronic fuse monitoring and LED display

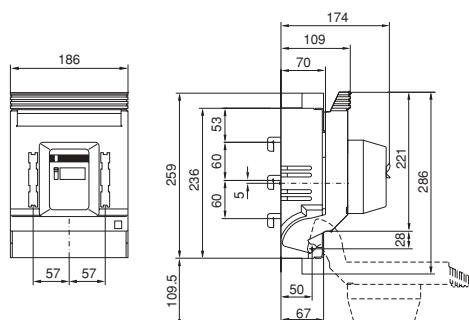
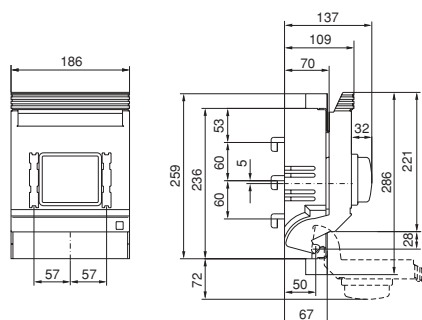
Model No. SV	3495.210	3494.210
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Technical specifications and material properties see page 114/115.

When using gR fuse inserts (VDE 0636/23) in the NH equipment, please observe the information on page 116.

**Accessories:**

- Clamp-type terminal connection parts
- Micro-switch
- PLS cover
see page 74/75.

SV 3494.000 / SV 3495.000**SV 3494.210 / SV 3495.210**

NH bus-mounting on-load isolator, size 2



NH bus-mounting on-load isolator, size 2

Size	2	2
Rated current	400 A	400 A
Rated operating voltage	690 V ~	690 V ~
Cable outlet	top	bottom
Type of connection	Screw terminal M10 up to 240 mm²	Screw terminal M10 up to 240 mm²
Tightening torque ● Assembly screw ● Terminal screw	14 Nm 32 Nm	14 Nm 32 Nm
For bar thickness	5 – 10 mm	5 – 10 mm
Packs of	1	1
Model No. SV	3415.020	3415.030

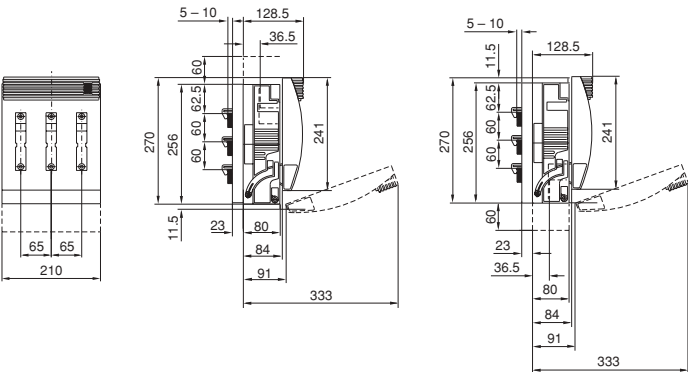
Technical specifications and material properties see page 114/115.
 When using gR fuse inserts (VDE 0636/23) in the NH equipment, please observe the information on page 116.

+ Accessories:

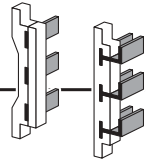
- Clamp-type terminal connection parts
 - Clamp-type terminal connection
 - Micro-switch
 - PLS cover
- see page 74/75.

SV 3415.020

SV 3415.030



60 mm

Busbar systems
60 mm**NH bus-mounting on-load isolator, size 2, with fuse monitoring**

Size	2	2
Rated current	400 A	400 A
Rated operating voltage	690 V ~	690 V ~
Cable outlet	top	bottom
Type of connection	Screw terminal M10 up to 240 mm ²	Screw terminal M10 up to 240 mm ²
Tightening torque		
• Assembly screw	14 Nm	14 Nm
• Terminal screw	32 Nm	32 Nm
For bar thickness	5 – 10 mm	5 – 10 mm
Packs of	1	1

1 with electromechanical fuse monitoring

Model No. SV	3415.120	3415.130
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2 with electronic fuse monitoring and LED display

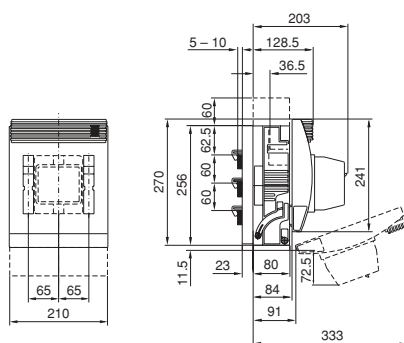
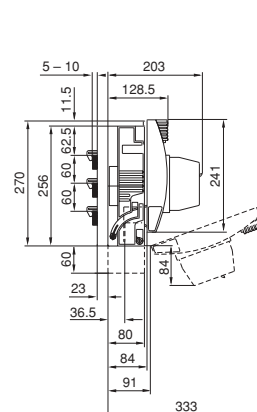
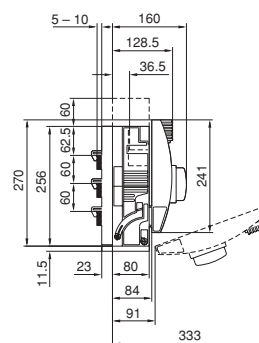
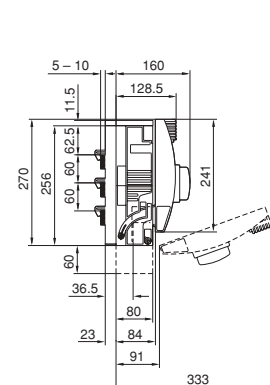
Model No. SV	3415.210	3415.230
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Technical specifications and material properties see page 114/115.

When using gR fuse inserts (VDE 0636/23) in the NH equipment, please observe the information on page 116.

**Accessories:**

- Clamp-type terminal connection parts
- Clamp-type terminal connection
- Micro-switch
- PLS cover
see page 74/75.

SV 3415.120**SV 3415.130****SV 3415.210****SV 3415.230**

NH bus-mounting on-load isolator, size 3



NH bus-mounting on-load isolator, size 3

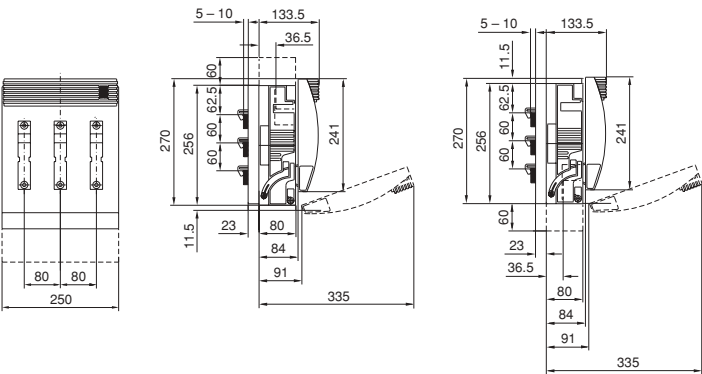
Size	3	3
Rated current	630 A	630 A
Rated operating voltage	690 V ~	690 V ~
Cable outlet	top	bottom
Type of connection	Screw terminal M10 up to 240 mm ²	Screw terminal M10 up to 240 mm ²
Tightening torque ● Assembly screw ● Terminal screw	14 Nm 32 Nm	14 Nm 32 Nm
For bar thickness	5 – 10 mm	5 – 10 mm
Packs of	1	1
Model No. SV	3095.020	3095.030

Technical specifications and material properties see page e 114/115.
 When using gR fuse inserts (VDE 0636/23) in the NH equipment, please observe the information on page 116.

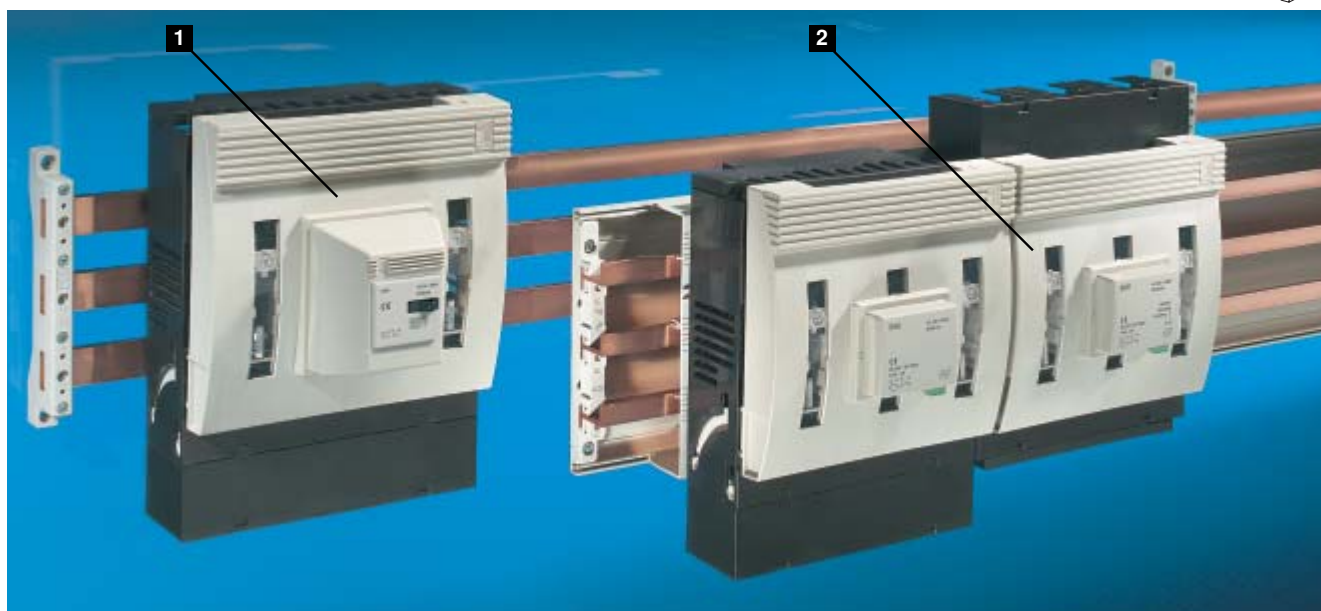
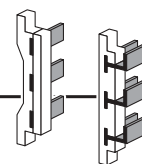
- +
- Accessories:**
- Clamp-type terminal connection parts
 - Clamp-type terminal connection
 - Micro-switch
 - PLS cover
see page 74/75.

SV 3095.020

SV 3095.030



60 mm

Busbar systems
60 mm**NH bus-mounting on-load isolator, size 3, with fuse monitoring**

Size	3	3
Rated current	630 A	630 A
Rated operating voltage	690 V ~	690 V ~
Cable outlet	top	bottom
Type of connection	Screw terminal M10 up to 240 mm ²	Screw terminal M10 up to 240 mm ²
Tightening torque		
• Assembly screw	14 Nm	14 Nm
• Terminal screw	32 Nm	32 Nm
For bar thickness	5 – 10 mm	5 – 10 mm
Packs of	1	1

1 with electromechanical fuse monitoring

Model No. SV	3095.120	3095.130
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2 with electronic fuse monitoring and LED display

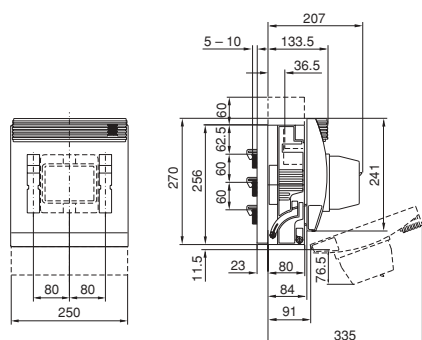
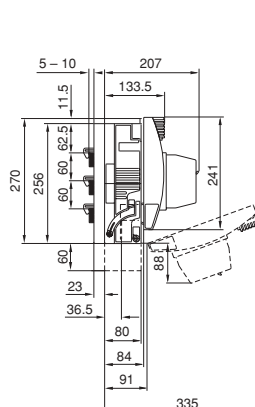
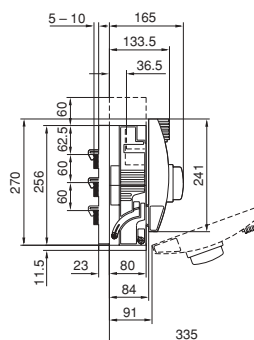
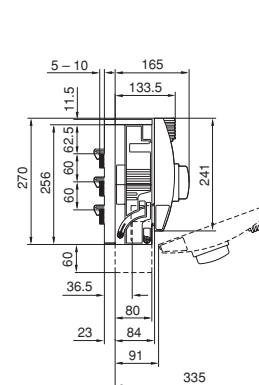
Model No. SV	3095.210	3095.230
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Technical specifications and material properties see page 114/115.

When using gR fuse inserts (VDE 0636/23) in the NH equipment, please observe the information on page 116.

**Accessories:**

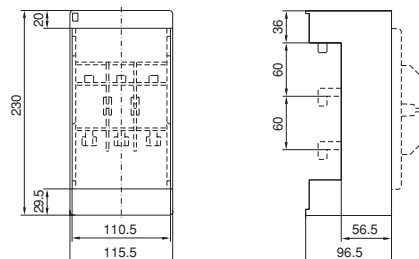
- Clamp-type terminal connection parts
- Clamp-type terminal connection
- Micro-switch
- PLS cover
see page 74/75.

SV 3095.120**SV 3095.130****SV 3095.210****SV 3095.230**



Contact hazard protection frame

For NH bus-mounting on-load isolators, size 00.



Packs of	Model No. SV
1	3408.000

Material:

ABS.

Continuous operating temperature:
max. 100°C.

Fire protection corresponding to UL 94-V0.



PLS cover

For NH bus-mounting on-load isolator sizes 1 to 3/NH fused isolator size 00.

The PLS cover guarantees additional contact hazard protection for special busbars when using NH equipment on Rittal PLS 800 A/1600 A.

Attached by simply clipping onto the PLS base tray section.

Material:

Thermally modified hard PVC.

Continuous operating temperature:
max. 100°C.

Fire protection corresponding to UL 94-V0.

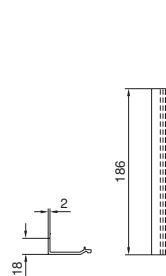
For NH bus-mounting on-load isolator

Size	Packs of	Model No. SV
1	2	3099.000
2	1	3499.040
3	1	3499.050

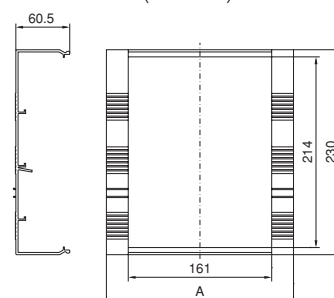
For NH fused isolator

Size	Packs of	Model No. SV
00	2	3499.070

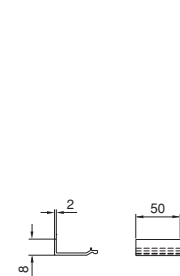
SV 3099.000



SV 3499.040 (A = 210) SV 3499.050 (A = 250)



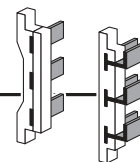
SV 3499.070



Mounting kit for NH isolators, size 000

For mounting NH isolators, size 000 on 35 mm support rails to EN 50 022 (7.5 mm/15 mm high).

Packs of	Model No. SV
1	3432.000



Micro-switch for NH isolators / NH fused isolators

To indicate the switching position of the NH unit (lid unit).

Packs of	Model No. SV
5	3071.000



Clamp-type terminal connection parts for NH isolators, sizes 1 to 3

For connecting laminated copper bars and round conductors up to 70 mm².

Tightening torque:

Terminal screw

1) 8 Nm

2) 15 Nm

For NH isolators	Clamping area	Model No. SV
Size 1	16 x 12 mm	3414.000 ¹⁾
Sizes 2, 3	21 x 11 mm	3499.000 ²⁾

Supply includes:

Packs of 1 set



Clamp-type terminal connection for NH isolators, sizes 2 and 3

For the connection of round conductors up to 240 mm².

Tightening torque:

Terminal screw 15 Nm.

Packs of	Model No. SV
1 set	3499.010



Clamp-type terminal connection parts for NH fused isolators size 00

For the connection of laminated copper bars and round conductors 1.5 to 25 mm².
Clamping area: 16 x 10 mm.

Tightening torque:

Terminal screw 4 Nm.

Packs of	Model No. SV
1 set	3592.020



Clamp-type terminal connection for NH fused isolators size 00

For the connection of laminated copper bars and round conductors 1.5 to 95 mm².

Tightening torque:

Terminal screw 4 Nm.

Packs of	Model No. SV
1 set	3592.010

Busbar systems

These systems are designed for mounting NH on-load isolators and NH fused isolators, and for safe

power transmission and distribution.



Busbar systems up to 1250 A

The busbar support is designed to accommodate bars 60 x 10 mm. By using inserts, the cross-section can be reduced to 50/40/30 x 10 mm.

From page 78

Busbar systems up to 1600 A

The busbar support is designed to accommodate bars 80 x 10 mm. By using inserts, the cross-section can be reduced to 60/50 x 10 mm.

From page 92

Busbar systems up to 2500 A/3000 A

These busbar systems are suitable for power transmission and distribution. Maximum bar accommodation of busbar supports is 60/80 x 10 mm or 100 x 10 mm.

From page 98

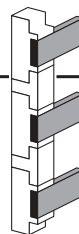
100 mm

bar centre
distance,
up to 1250 A



185 mm

bar centre
distance,
up to 1600 A



150 mm

bar centre
distance,
up to 2500 A/3000 A



Busbar systems
100/185 mm



Busbar systems
150 mm



Components for mounting plate assembly

Busbar-independent NH on-load isolator
sizes 000, 00, 1, 2 and 3. For direct
mounting on mounting plates or other
supporting surfaces.

From page 100

Busbars

and accessories

Page 104

Laminated copper bars

and accessories

Page 105

Busbar systems up to 1250 A

Busbar system components and connection technology

The busbar system with 100 mm bar centre distance is used for mounting NH isolators, sizes 00, 1, 2 and 3, as well as NH fused isolators, size 00.

Without the use of inserts, the busbar support is designed for a bar cross-section of 60 x 10 mm. When using inserts, this can be reduced to 50 x 10 mm, 40 x 10 mm or 30 x 10 mm.



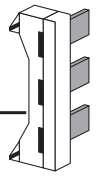
End cover
For side contact hazard protection of the busbar assembly.
Page 80

Busbar support up to 1250 A, 3-pole
100 mm bar centre distance.
Max. busbar accommodation without inserts 60 x 10 mm.
Page 80

Busbars of E-Cu 57
Dimensions: 30 – 60 x 10 mm.
Page 80
Inserts for busbar supports
To reduce the bar cross-section.
Page 80

System covers
Telescopic.
To cover the conductor terminals.
Page 81

Busbar covers sections
Contact hazard protection, thanks to full encapsulation of the busbars.
Page 80
Connection clamps
Page 81



NH bus-mounting on-load isolator sizes 00/1/2/3

NH fused isolators size 00



Busbar systems
100 mm

Busbar adaptor for NH bus-mounting on-load isolator, sizes 00 and 1
For mounting NH equipment on 100 mm bar systems.

Page 82 – 85

NH bus-mounting on-load isolator, sizes 00 and 1
Versions with or without fuse monitoring.

Page 82 – 85

Busbar adaptor for NH on-load isolator, sizes 2 and 3
For mounting NH equipment on 100 mm bar systems.

Page 86 – 89

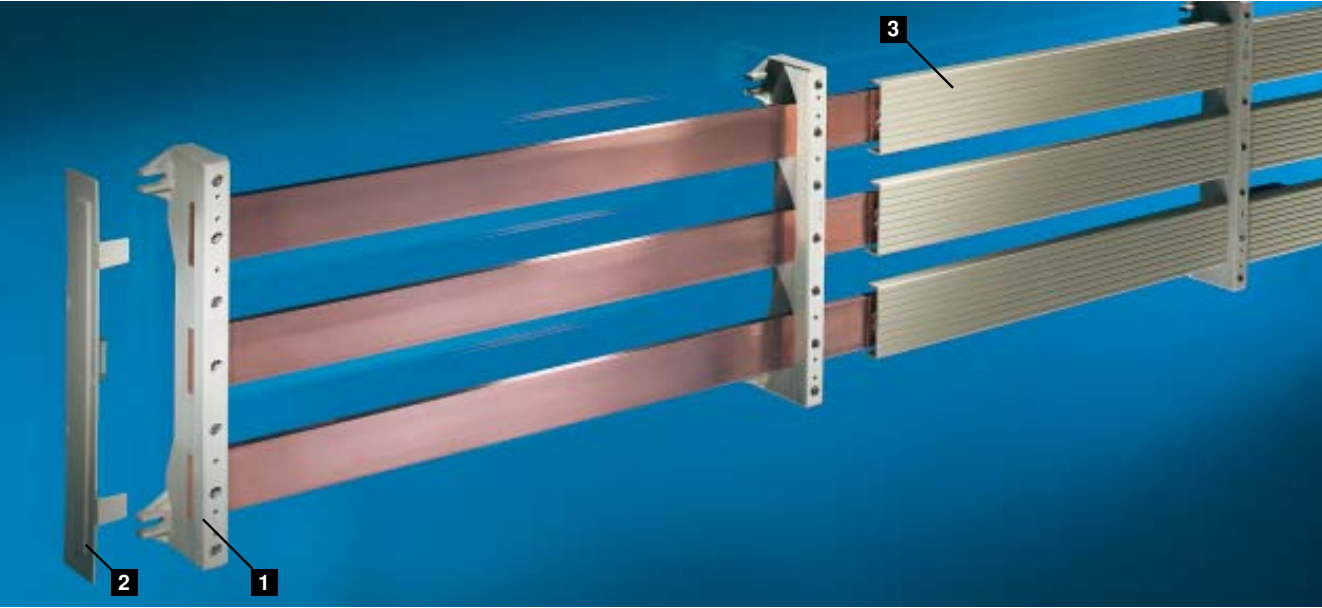
NH on-load isolator, sizes 2 and 3
Versions with or without fuse monitoring.

Page 86 – 89

NH fused isolator, size 00
For direct mounting on 100 mm bar systems.

Page 90

Busbar systems up to 1250 A



1 Busbar support up to 1250 A, 3-pole

100 mm bar centre distance.
Rated current up to 1250 A, rated operating voltage up to 1000 V AC, 50/60 Hz to VDE 0660.
Max. busbar accommodation without inserts 60 x 10 mm.

Tightening torque:

- Assembly screw 8 – 10 Nm
- Lid attachment 1 – 3 Nm

Material:

Fibreglass-reinforced, thermoplastic polyester (PBT).
Continuous operating temperature: max. 140°C.
Fire protection corresponding to UL 94-V0.

Packs of	Model No. SV
4	3073.000

Short-circuit resistance diagram
see page 109.

Technical information

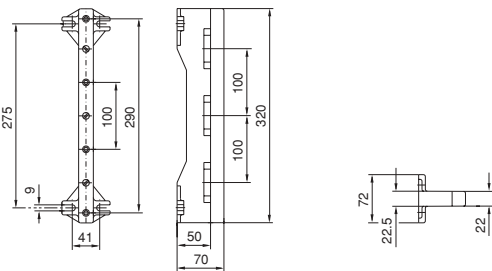
For calculation of the rated current, see page 120.

2 End cover

For side contact hazard protection of the busbar assembly.
Simple clip-on mounting on SV 3073.000.

Packs of	Model No. SV
10	3083.000

SV 3073.000



Inserts for busbar supports for SV 3073.000 Busbars made from E-Cu 57

to DIN 1759, DIN 40 500.
Length: 2400 mm/bar.

Rated current	Busbar dimensions	Inserts ¹⁾	Busbars ²⁾
		Model No. SV	Model No. SV
800 A	30 x 10 mm	3074.000	3586.000*
850 A	40 x 10 mm	3075.000	3587.000
1000 A	50 x 10 mm	3076.000	3588.000
1250 A	60 x 10 mm	–	3589.000

Supply includes:

- ¹⁾ Packs of 24
- ²⁾ Packs of 3
- * Packs of 6

3 Busbar cover sections

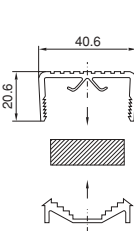
Contact hazard protection, thanks to all-round encapsulation of the busbars. May be cut to the required length.

Material:

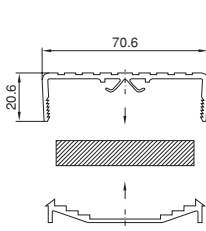
Thermally modified hard PVC.
Continuous operating temperature: max. 100°C.
Fire protection corresponding to UL 94-V0.

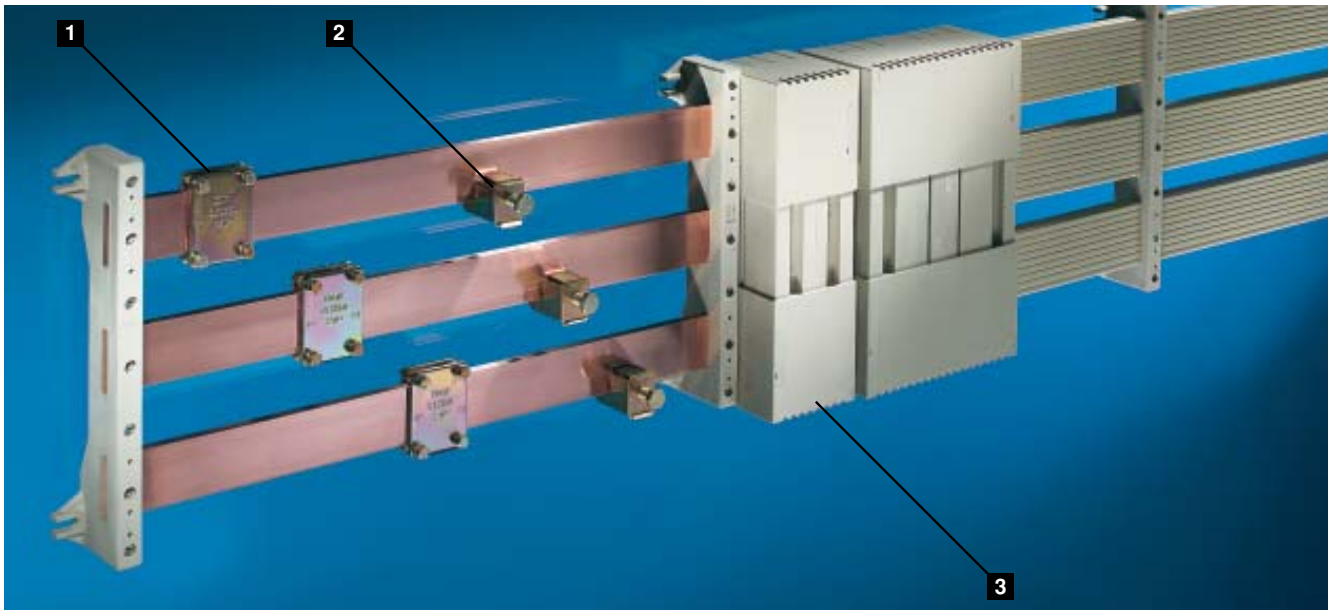
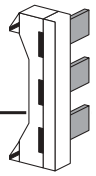
For busbars	Packs of	Model No. SV
30 x 10 mm	10 @ 1 m	3092.000
40 – 60 x 10 mm	10 @ 1 m	3085.000

SV 3092.000



SV 3085.000





1 Plate clamps

For connecting laminated copper bars; no drilling required.

Material:

Sheet steel, zinc plated, passivated.

For busbars	Clamping area for laminated copper bars	Tightening torque	Packs of	Model No. SV
30 x 10 mm	34 x 10 mm	6 – 8 Nm	3	3554.000
40 x 10 mm	34 x 10 mm	6 – 8 Nm	3	3559.000
50 x 10 mm	34 x 10 mm	6 – 8 Nm	3	3560.000
50 x 10 mm	54 x 10 mm	6 – 8 Nm	3	3562.000
60 x 10 mm	34 x 10 mm	6 – 8 Nm	3	3561.000
60 x 10 mm	54 x 10 mm	6 – 8 Nm	3	3563.000

Other plate clamps, see page 95.



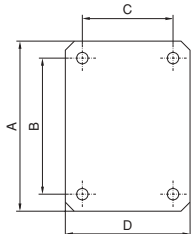
Accessories:

Laminated copper bars
Rittal Flexibar "S",
see page 105.

2 Conductor connection clamps

For 10 mm bar thickness,
see page 48.

SV 3554.000
SV 3559.000 – SV 3563.000



Model No. SV	A	B	C	D
3554.000	55	40	40	55
3559.000	65	50	40	55
3560.000	75	60	40	55
3561.000	85	70	40	55
3562.000	75	60	60	75
3563.000	85	70	60	75

3 System covers

For conductor connection clamps and plate clamps.

Material:

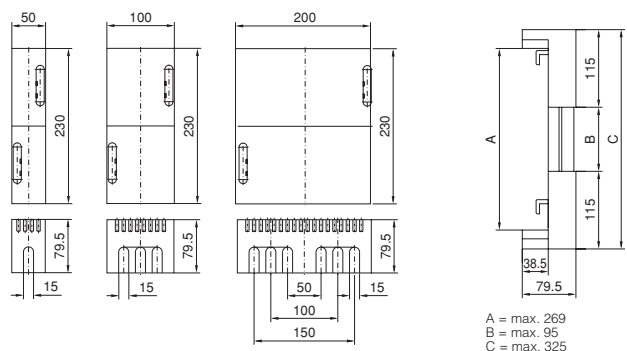
ABS.

Continuous operating temperature: max. 100°C.

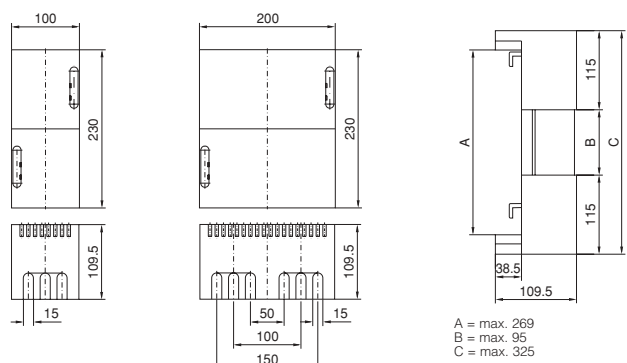
Fire protection corresponding to UL 94-V0.

Width	Height	Packs of	Model No. SV
50 mm	80 mm	4	3086.000
100 mm	80 mm	4	3087.000
100 mm	110 mm	4	3090.000
200 mm	80 mm	4	3088.000
200 mm	110 mm	4	3091.000

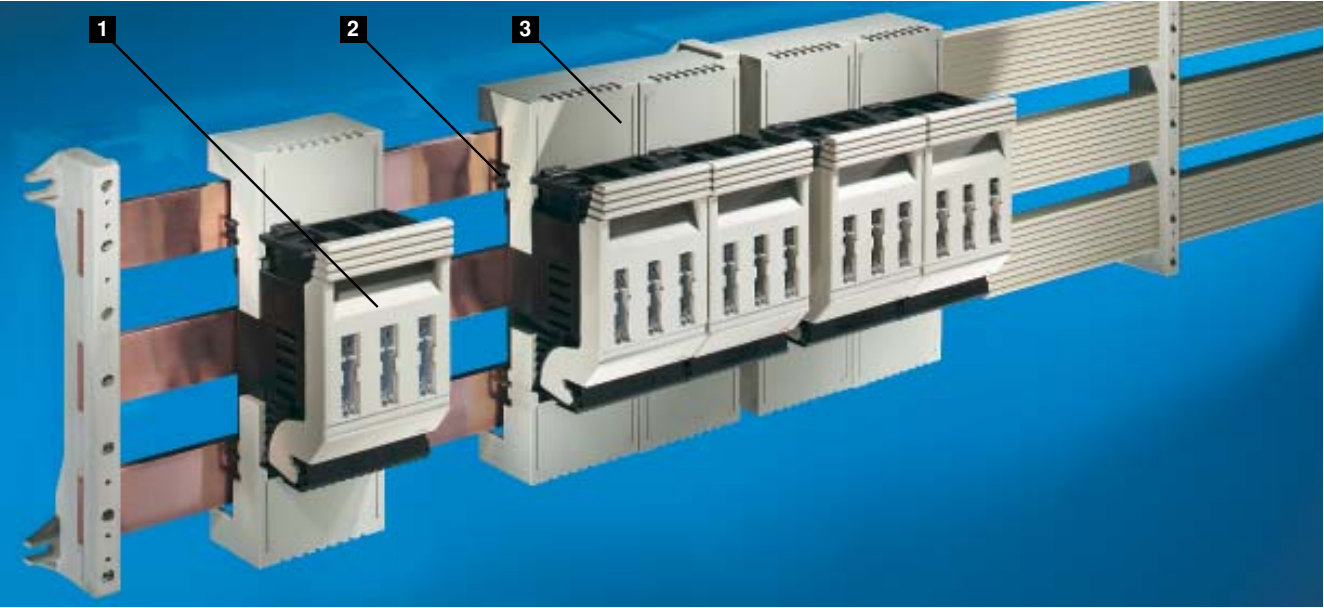
SV 3086.000 / SV 3087.000 / SV 3088.000



SV 3090.000 / SV 3091.000



NH bus-mounting on-load isolator, size 00



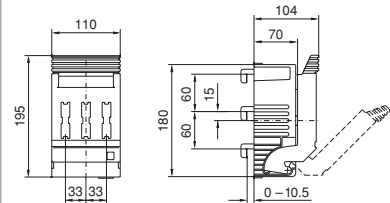
1 NH bus-mounting on-load isolator, size 00				
Size	00		00	
Rated current	160 A		160 A	
Rated operating voltage	690 V ~		690 V ~	
Cable outlet	top	bottom	top	bottom
Type of connection	Screw terminal M8 up to 95 mm ²		Clamp-type terminal connection up to 70 mm ²	
Tightening torque	5 – 6 Nm		5 – 6 Nm	
	10 – 15 Nm		2 – 3 Nm	
Packs of	1	1	1	1
Model No. SV	3400.000	3401.000	3402.000	3403.000

Technical specifications and material properties see page 114/115.
When using gR fuse inserts (VDE 0636/23) in NH equipment, please observe the information on page 116.

! Also required:
Busbar adaptor,
see right-hand column.

+ Accessories:
Micro-switch,
see page 91.

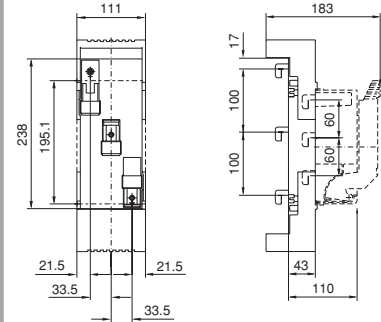
SV 3400.000 – SV 3403.000

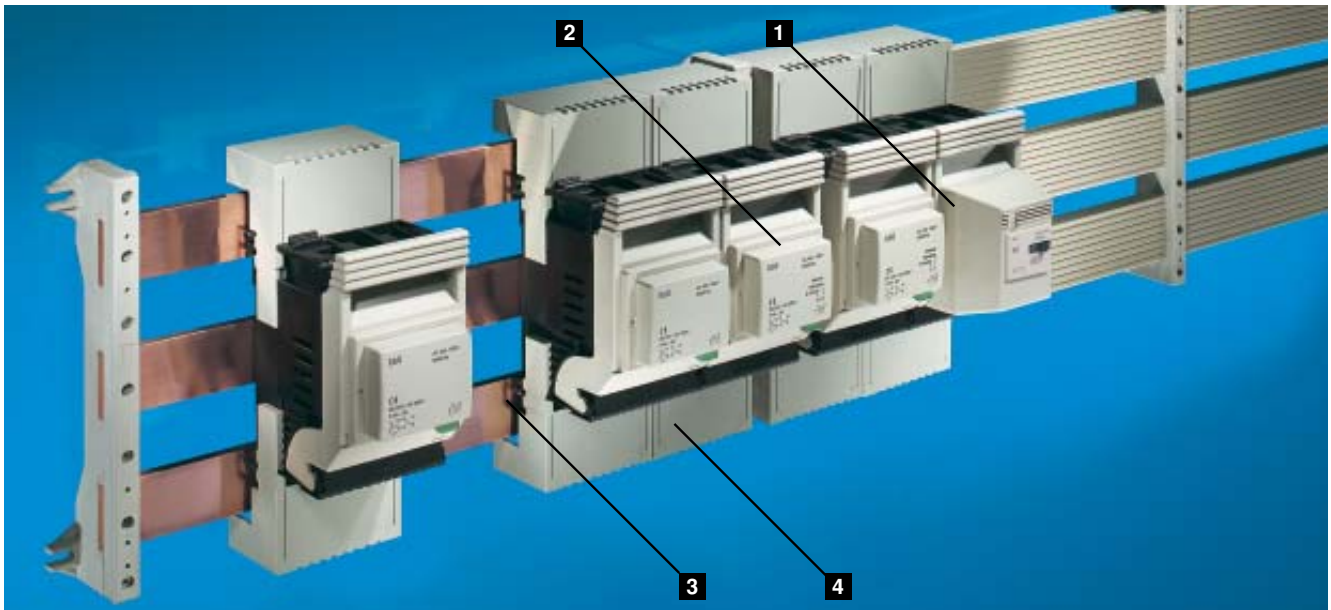
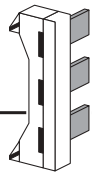


2 Busbar adaptor	
For mounting SV 3400.000 – SV 3403.000 on 100 mm busbar systems.	
Packs of	Model No. SV
1	3412.000

3 Cover for SV 3412.000	
To comply with contact hazard protection, plug-type.	
Packs of	Model No. SV
1 set	3413.000

SV 3412.000 with SV 3413.000





NH bus-mounting on-load isolator, size 00, with fuse monitoring

Size	00		00	
Rated current	160 A		160 A	
Rated operating voltage	690 V ~		690 V ~	
Cable outlet	top	bottom	top	bottom
Type of connection	Screw terminal M8 up to 95 mm ²		Clamp-type terminal connection up to 70 mm ²	
Tightening torque	5 – 6 Nm		5 – 6 Nm	
• Assembly screw	10 – 15 Nm		10 – 15 Nm	
• Terminal screw			2 – 3 Nm	
Packs of	1	1	1	1

1 with electromechanical fuse monitoring

Model No. SV	3490.000	3491.000	3492.000	3493.000
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2 with electronic fuse monitoring and LED display

Model No. SV	3490.210	3491.210	3492.210	3493.210
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Technical specifications and material properties see page 114/115.
When using gR fuse inserts (VDE 0636/23) in NH equipment, please observe the information on page 116.

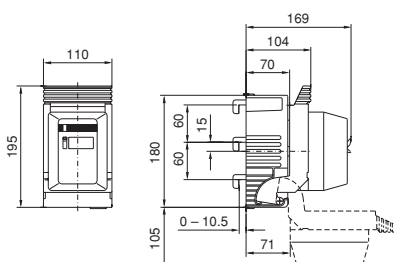
! Also required:

Busbar adaptor,
see right-hand column.

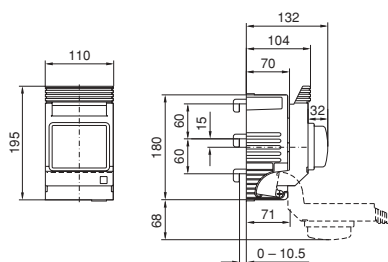
+ Accessories:

Micro-switch,
see page 91.

SV 3490.000 – SV 3493.000



SV 3490.210 – SV 3493.210



3 Busbar adaptor

For mounting SV 3490.000 – SV 3493.210 on 100 mm busbar systems.

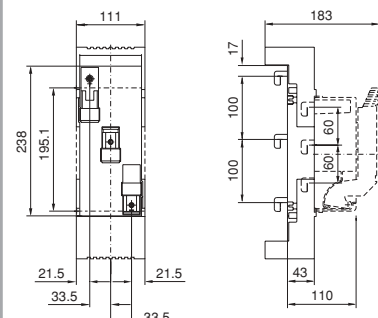
Packs of	Model No. SV
1	3412.000

4 Cover for SV 3412.000

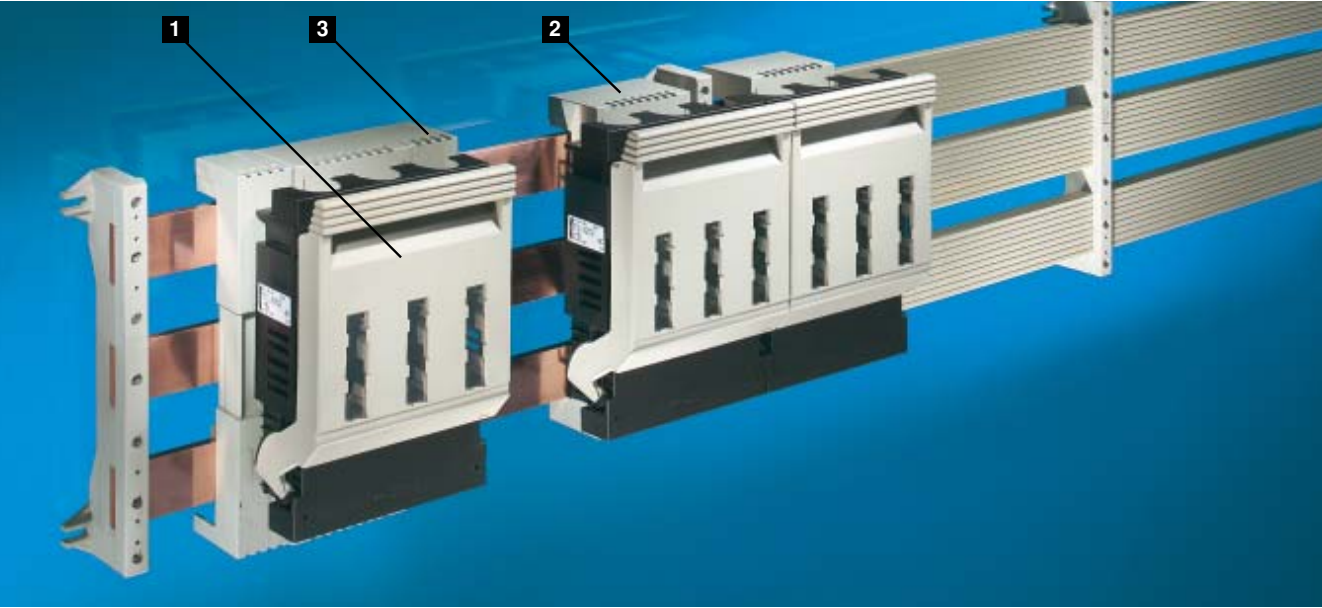
To comply with contact hazard protection, plug-type.

Packs of	Model No. SV
1 set	3413.000

SV 3412.000 with SV 3413.000



NH bus-mounting on-load isolator, size 1



1 NH bus-mounting on-load isolator, size 1

Size	1	1
Rated current	250 A	250 A
Rated operating voltage	690 V ~	690 V ~
Cable outlet	top	bottom
Type of connection	Screw terminal M10 up to 150 mm ²	
Tightening torque		
● Assembly screw	8 – 10 Nm	8 – 10 Nm
● Terminal screw	15 – 20 Nm	15 – 20 Nm
Packs of	1	1
Model No. SV	3411.000	3410.000

Technical specifications and material properties see page 114/115.
When using gR fuse inserts (VDE 0636/23) in NH equipment, please observe the information on page 116.



Also required:

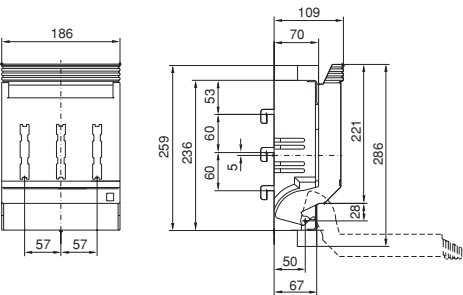
Busbar adaptor,
see right-hand column.



Accessories:

- Clamp-type terminal connection parts
- Micro-switch
see page 91.

SV 3410.000 / SV 3411.000



Busbar adaptor

For mounting SV 3410.000 / SV 3411.000
on 100 mm busbar systems.

Packs of	Model No. SV
1	3412.000

2 Cover for SV 3412.000

To comply with contact hazard protection,
plug-type.

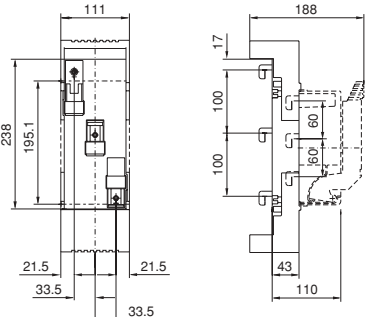
Packs of	Model No. SV
1 set	3413.000

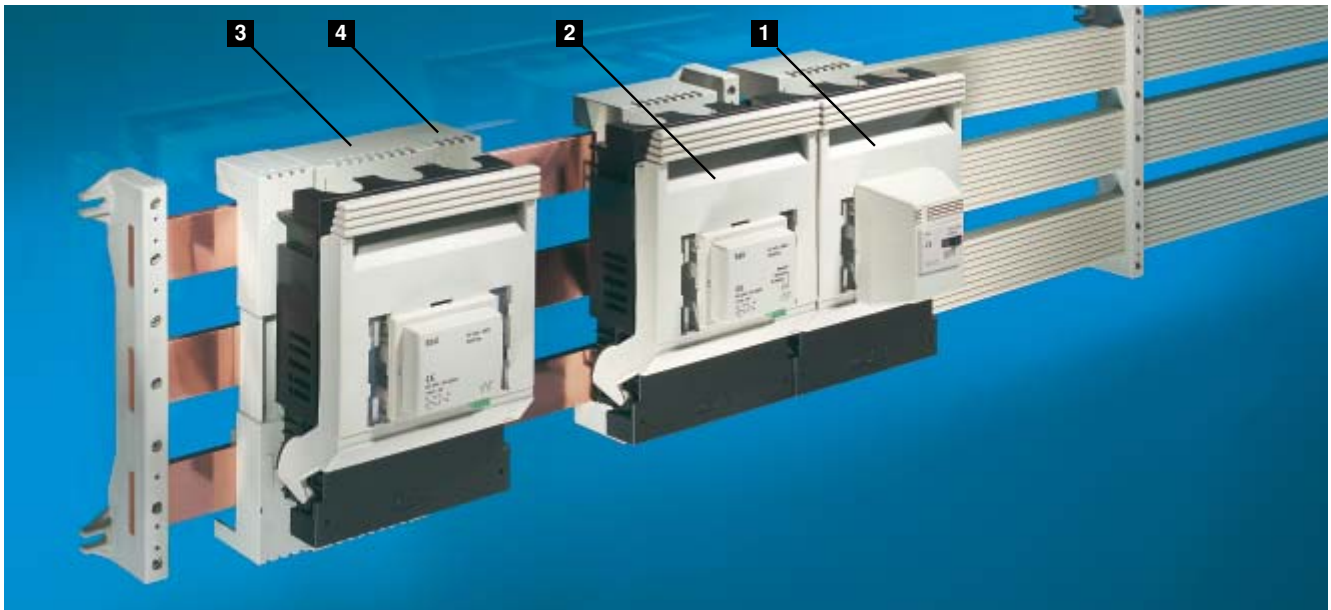
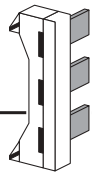
3 System cover

Width: 50 mm.
Technical information
see page 81.

Packs of	Model No. SV
4	3086.000

SV 3412.000 with SV 3413.000





NH bus-mounting on-load isolator, size 1, with fuse monitoring

Size	1	1
Rated current	250 A	250 A
Rated operating voltage	690 V ~	690 V ~
Cable outlet	top	bottom
Type of connection	Screw terminal M10 up to 150 mm ²	
Tightening torque		
• Assembly screw	8 – 10 Nm	8 – 10 Nm
• Terminal screw	15 – 20 Nm	15 – 20 Nm
Packs of	1	1

1 with electromechanical fuse monitoring

Model No. SV	3495.000	3494.000
--------------	----------	----------

2 with electronic fuse monitoring and LED display

Model No. SV	3495.210	3494.210
--------------	----------	----------

Technical specifications and material properties see page 114/115.
When using gR fuse inserts (VDE 0636/23) in NH equipment, please observe the information on page 116.

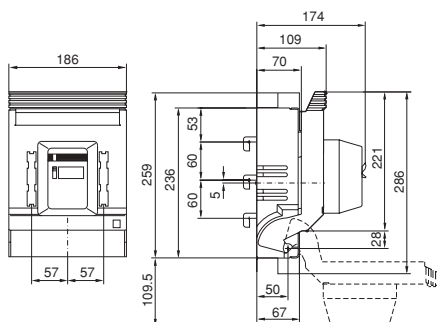
! Also required:

Busbar adaptor,
see right-hand column.

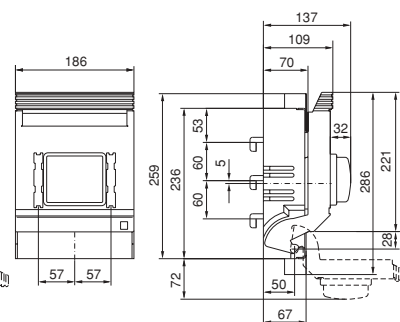
+ Accessories:

- Clamp-type terminal connection parts
- Micro-switch
see page 91.

SV 3494.000 / SV 3495.000



SV 3494.210 / SV 3495.210



Busbar adaptor

For mounting SV 3494.000 – SV 3495.210 on 100 mm busbar systems.

Packs of	Model No. SV
1	3412.000

3 Cover for SV 3412.000

To comply with contact hazard protection, plug-type.

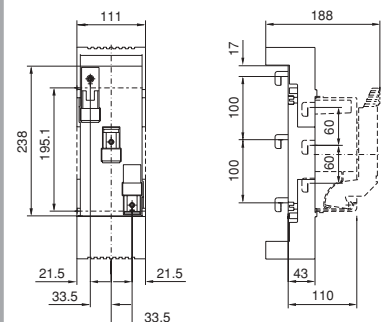
Packs of	Model No. SV
1 set	3413.000

4 System cover

Width: 50 mm.
Technical information
see page 81.

Packs of	Model No. SV
4	3086.000

SV 3412.000 with SV 3413.000



NH bus-mounting on-load isolator, size 2



NH on-load isolator, size 2

Size	2
Rated current	400 A
Rated operating voltage	690 V ~
Cable outlet	top/bottom
Type of connection	Screw terminal M10 up to 240 mm²
Tightening torque	
● Assembly screw	14 Nm
● Terminal screw	32 Nm
Packs of	1
Model No. SV	3415.010

Technical specifications and material properties see page 114/115.
When using gR fuse inserts (VDE 0636/23) in NH equipment, please observe the information on page 116.

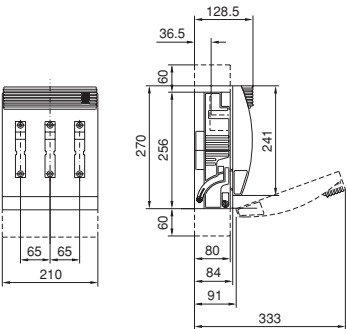
! Also required:

Busbar adaptor,
see right-hand column.

+ Accessories:

- Clamp-type terminal connection parts
- Clamp-type terminal connection
- Micro-switch
see page 91.

SV 3415.010

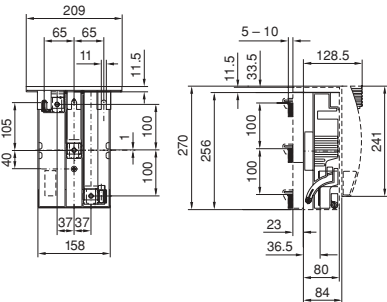


Busbar adaptor

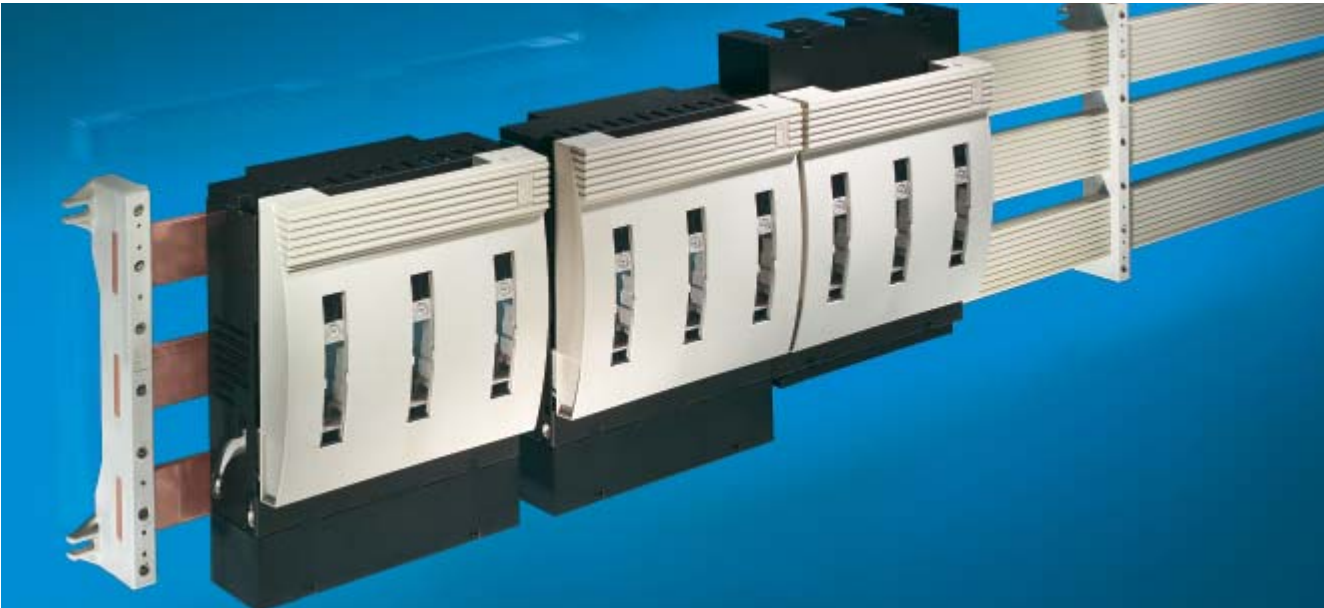
For mounting SV 3415.010 on 100 mm
bar systems.
Outlet at top/bottom.

Packs of	Model No. SV
1	3499.020

SV 3499.020



NH bus-mounting on-load isolator, size 3



NH on-load isolator, size 3

Size	3
Rated current	630 A
Rated operating voltage	690 V ~
Cable outlet	top/bottom
Type of connection	Screw terminal M10 up to 240 mm²
Tightening torque	
● Assembly screw	14 Nm
● Terminal screw	32 Nm
Packs of	1
Model No. SV	3095.010

Technical specifications and material properties see page 114/115.
When using gR fuse inserts (VDE 0636/23) in NH equipment, please observe the information on page 116.



Also required:

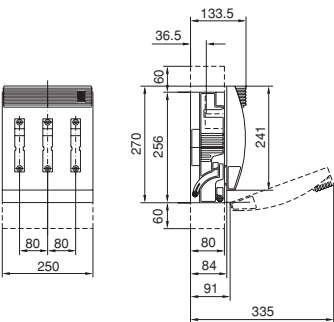
Busbar adaptor,
see right-hand column.



Accessories:

- Clamp-type terminal connection parts
- Clamp-type terminal connection
- Micro-switch
see page 91.

SV 3095.010

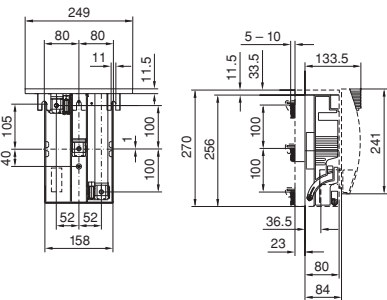


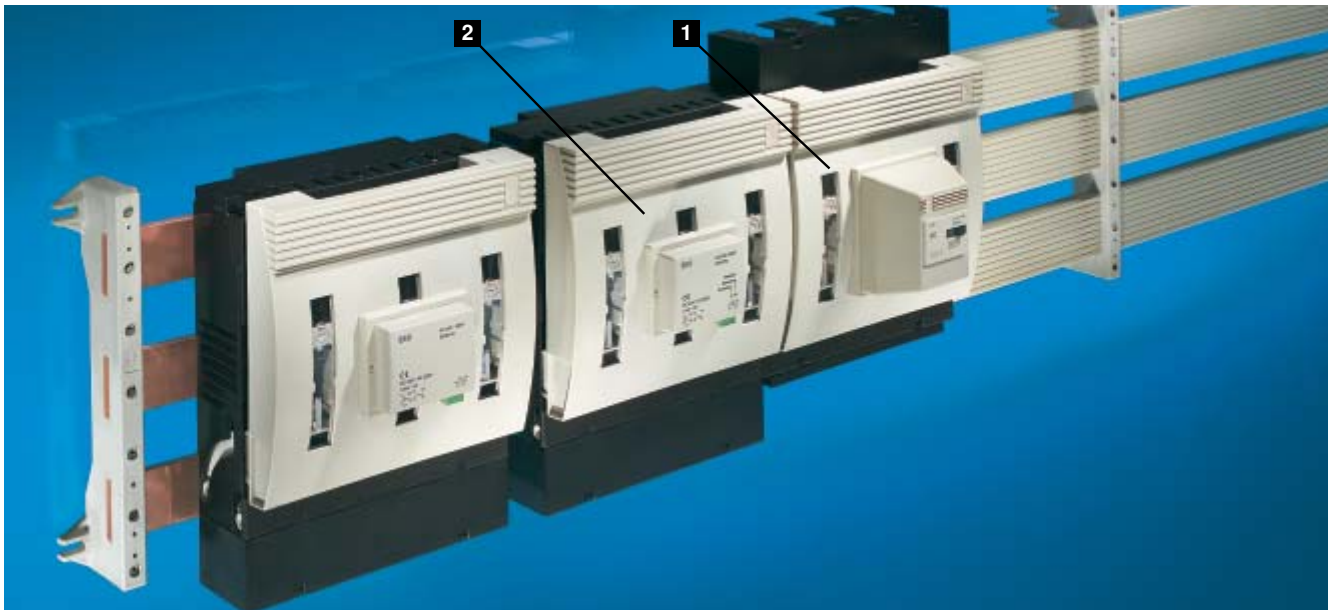
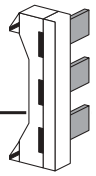
Busbar adaptor

For mounting SV 3095.010 on 100 mm
bar systems.
Outlet at top/bottom.

Packs of	Model No. SV
1	3499.030

SV 3499.030





NH on-load isolator, size 3, with fuse monitoring

Size	3
Rated current	630 A
Rated operating voltage	690 V ~
Cable outlet	top/bottom
Type of connection	Screw terminal M10 up to 240 mm ²
Tightening torque	
• Assembly screw	14 Nm
• Terminal screw	32 Nm
Packs of	1

1 with electromechanical fuse monitoring

Model No. SV	3095.110
--------------	----------

2 with electronic fuse monitoring and LED display

Model No. SV	3095.310
--------------	----------

Technical specifications and material properties see page 114/115.
When using gR fuse inserts (VDE 0636/23) in NH equipment, please observe the information on page 116.



Also required:

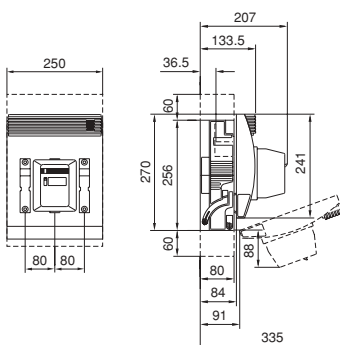
Busbar adaptor,
see right-hand column..



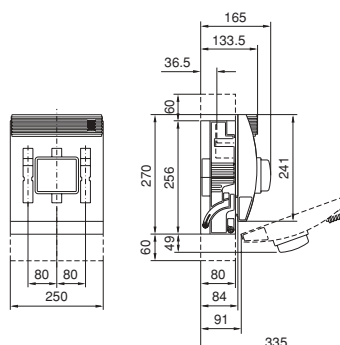
Accessories:

- Clamp-type terminal connection parts
- Clamp-type terminal connection
- Micro-switch
see page 91.

SV 3095.110



SV 3095.310

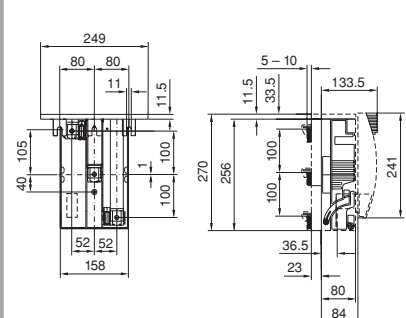


Busbar adaptor

For mounting SV 3095.110 / SV 3095.310
on 100 mm bar systems.
Outlet at top/bottom.

Packs of	Model No. SV
1	3499.030

SV 3499.030



Size	00
Rated current	160 A
Rated operating voltage	690 V ~
Cable outlet	top/bottom
Type of connection	Screw M8
Tightening torque ● Assembly screw ● Terminal screw	6 Nm 14 Nm
Packs of	1
Model No. SV	3591.010

For clip-on mounting on the fused isolator housing.



Micro-switch for NH isolators / NH fused isolators

To indicate the switching position of the NH unit (lid unit).

Packs of	Model No. SV
5	3071.000



Clamp-type terminal connection parts for NH isolators, sizes 1 to 3

For connecting laminated copper bars and round conductors up to 70 mm².

Tightening torque:

Terminal screw

1) 8 Nm

2) 15 Nm

For NH isolators	Clamping area	Model No. SV
Size 1	16 x 12 mm	3414.000 ¹⁾
Sizes 2, 3	21 x 11 mm	3499.000 ²⁾

Supply includes:

Packs of 1 set



Clamp-type terminal connection for NH isolators, sizes 2 and 3

For the connection of round conductors up to 240 mm².

Tightening torque:

Terminal screw 15 Nm.

Packs of	Model No. SV
1 set	3499.010



Clamp-type terminal connection parts for NH fused isolators size 00

For the connection of laminated copper bars and round conductors 1.5 to 25 mm².

Clamping area: 16 x 10 mm.

Tightening torque:

Terminal screw 4 Nm.

Packs of	Model No. SV
1 set	3592.020



Clamp-type terminal connection for NH fused isolators size 00

For the connection of round conductors 1.5 to 95 mm².

Tightening torque:

Terminal screw 4 Nm.

Packs of	Model No. SV
1 set	3592.010

Busbar systems up to 1600 A

The busbar system with 185 mm bar centre distance is used for mounting NH fused isolators, sizes 00, 1, 2 and 3. A bar cross-section 80 x 10 mm may be installed in the busbar support as standard. Inserts enable reduction to 60 x 10 mm or 50 x 10 mm. The special design of the busbar support facilitates seamless top mounting in the vicinity of the support. For this purpose, the isolator, bar and support are screwed together with a single screw. In addition, the individual modules of the busbar support can also be used as single-pole supports.

Busbar system components



Busbar support up to 1600 A, 3-pole
185 mm bar centre distance. Max. bar accommodation without using inserts 80 x 10 mm. Individual modules may also be used as PE/PEN supports.

Page 94

Inserts for busbar supports

To reduce the bar cross-section.

Page 94

Busbars of E-Cu 57

Dimensions:
50 – 80 x 10 mm.

Page 94

Busbar covers sections

Contact hazard protection by covering the full surface of the busbars.

Page 94

Connection technology

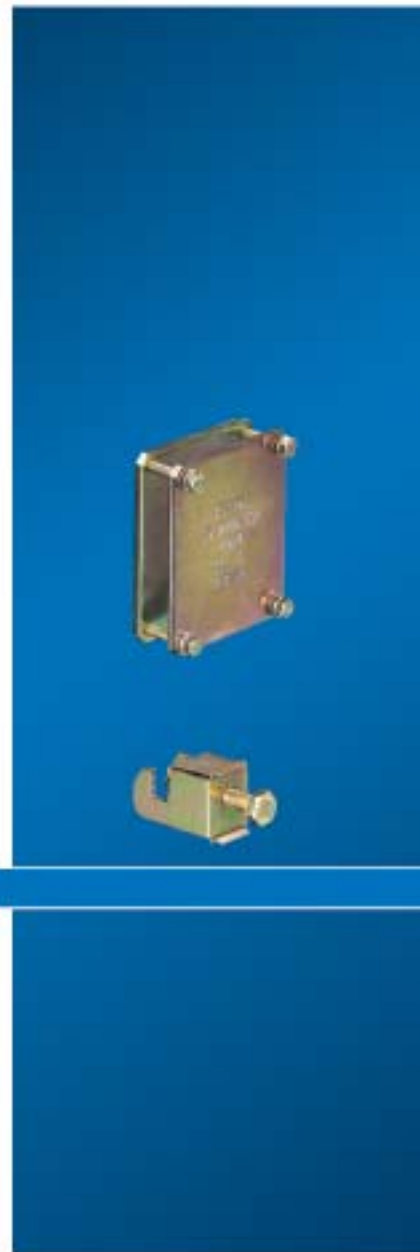


Plate clamps

For connecting laminated copper busbars.

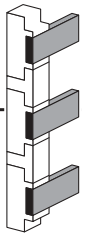
Page 95

Conductor connection clamps

For connecting round conductors and laminated copper bars.

Page 95 (48)

185 mm



NH fused isolators, sizes 00/1/2/3



Busbar systems
185 mm

NH fused isolator, size 00

Supply includes:
One-way or two-way
adaptors for mounting
NH equipment on
185 mm busbar
systems.

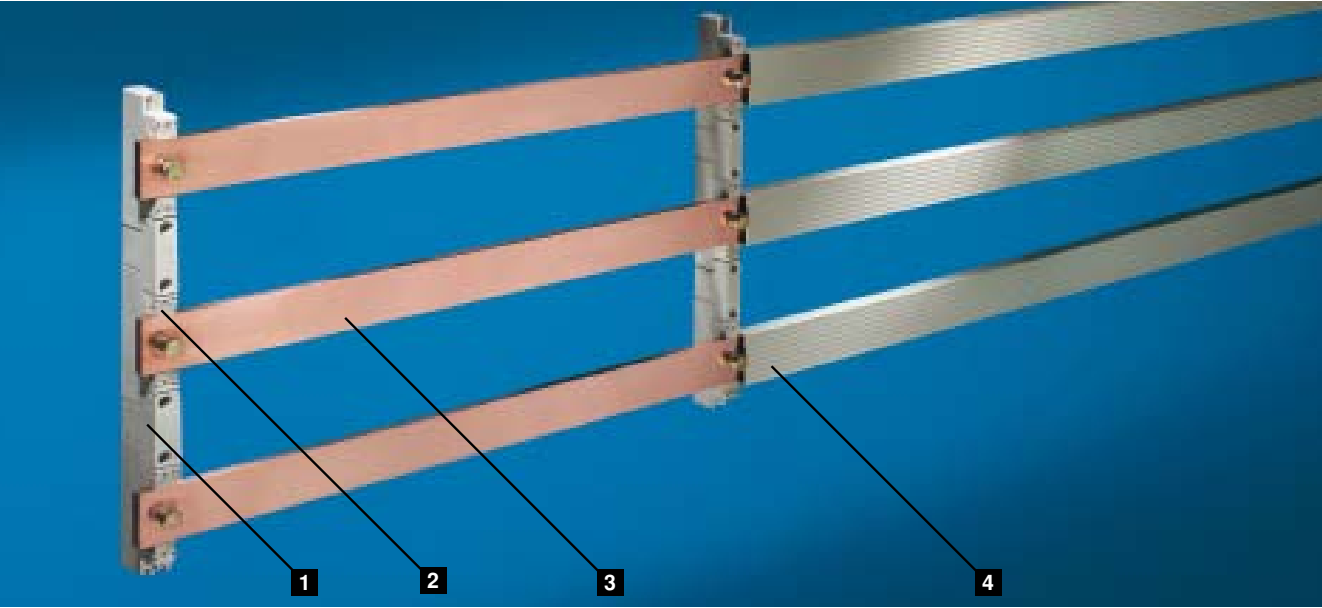
Page 97

NH fused isolators, sizes 1 – 3

For direct mounting on
185 mm bar systems.

Page 97

Busbar systems up to 1600 A



1 Busbar support up to 1600 A, 3-pole
185 mm bar centre distance.
Rated current up to 1600 A, rated operating voltage up to 1000 V AC, 50/60 Hz to VDE 0660.
Max. busbar accommodation without inserts 80 x 10 mm.

Tightening torque:
● Assembly screw 3 – 5 Nm
● Bar fastening screw 40 Nm

Material:
Fibreglass-reinforced, thermoplastic polyester (PBT).
Continuous operating temperature: max. 140°C.
Fire protection corresponding to UL 94-V0.

Packs of	Model No. SV
2	3052.000

Short-circuit resistance diagram
see page 109.

Technical information
For calculation of the rated current, see page 120.

Note:
The base component of the busbar support may also be used as a one-pole support.

SV 3052.000

2 Inserts for busbar supports for SV 3052.000
3 Busbars of E-Cu 57
to DIN 1759, DIN 40 500.
Length: 2400 mm/bar.

Rated current	Busbar dimensions	Inserts ¹⁾	Busbars ²⁾
		Model No. SV	Model No. SV
1000 A	50 x 10 mm	3074.000	3588.000
1250 A	60 x 10 mm	3075.000	3589.000
1600 A	80 x 10 mm	–	3590.000

Supply includes:
¹⁾ Packs of 24
²⁾ Packs of 3

4 Busbar cover sections
Contact hazard protection, thanks to full encapsulation of the busbars.
May be cut to length as required.

Material:
Thermally modified hard PVC.
Continuous operating temperature: max. 100°C.
Fire protection corresponding to UL 94-V0.

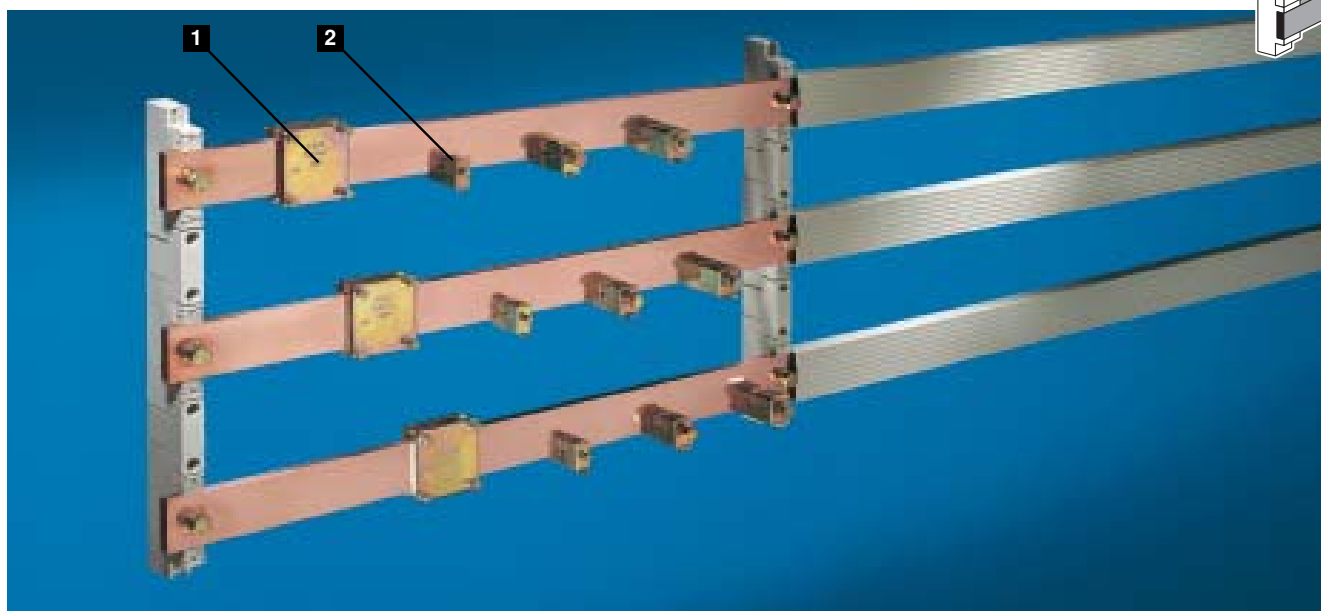
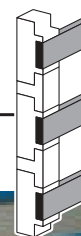
For busbars	Packs of	Model No. SV
50 – 60 x 10 mm	10 @ 1 m	3085.000

SV 3085.000

94

Rittal Power distribution

Courtesy of Steven Engineering, Inc.-230 Ryan Way, South San Francisco, CA 94080-6370-Main Office: (650) 588-9200-Outside Local Area: (800) 258-9200-www.stevenengineering.com



1 Plate clamps

For connecting laminated copper bars; no drilling required.

Material:

Sheet steel, zinc plated, passivated.

For busbars	Clamping area for laminated copper bars	Tightening torque	Packs of	Model No. SV
50 x 10 mm	34 x 10 mm	6 – 8 Nm	3	3560.000
50 x 10 mm	54 x 10 mm	6 – 8 Nm	3	3562.000
60 x 10 mm	34 x 10 mm	6 – 8 Nm	3	3561.000
60 x 10 mm	54 x 10 mm	6 – 8 Nm	3	3563.000
80 x 10 mm	65 x 10 mm	6 – 8 Nm	3	3460.500

Other plate clamps,
see page 81.

2 Conductor connection clamps

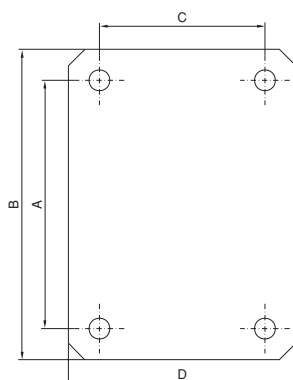
For 10 mm bar thickness,
see page 48.



Accessories:

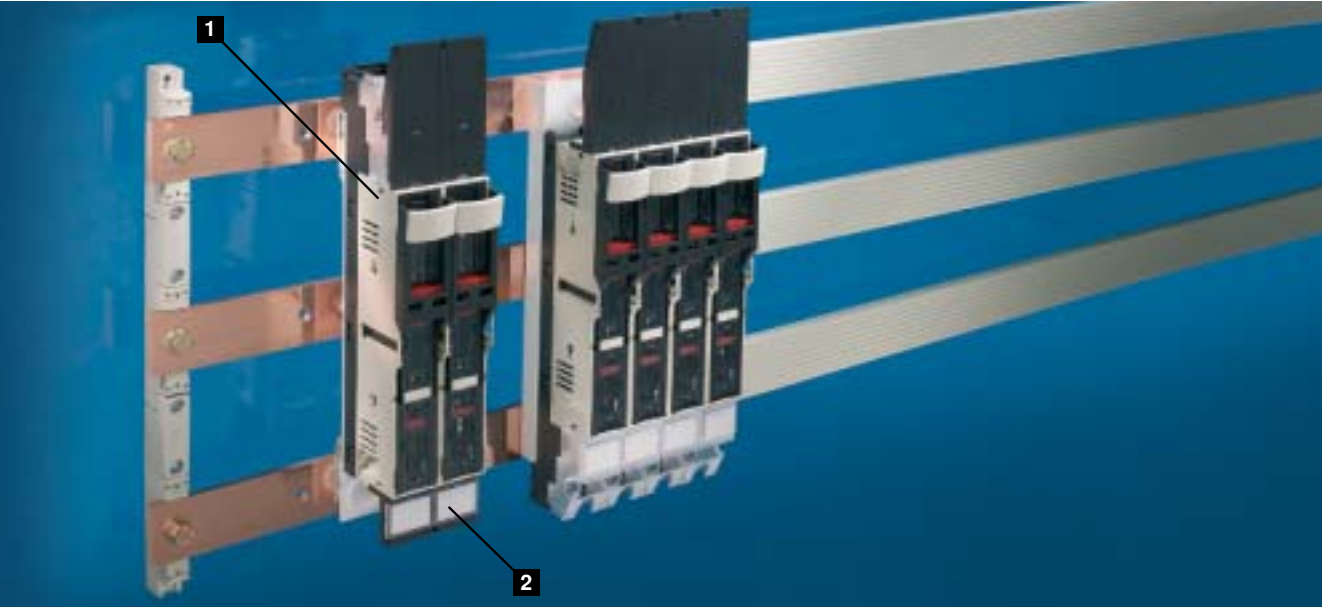
Laminated copper bars
Rittal Flexibar "S",
see page 105.

SV 3560.000 – 3563.000
SV 3460.500



Model No. SV	A	B	C	D
3560.000	60	75	40	55
3561.000	70	85	40	55
3562.000	60	75	60	75
3563.000	70	85	60	75
3460.500	90	105	71	86

NH fused isolators, sizes 00 – 3



1 NH fused isolator, size 00

Size	00	
Rated current	160 A	
Rated operating voltage	690 V ~	
Cable outlet	top/bottom	
Type of connection	Screw M8	
Tightening torque		
● Assembly screw	14 Nm	
● Terminal screw	14 Nm	
Packs of	1	2
Model No. SV	3591.040	3591.050

Supply includes

NH isolators	1	2
Busbar adaptor*	1	1 (Two-way adaptor)
Compensating trims	2	4

* Tightening torque 25 Nm (rail attachment)

Technical specifications and material properties see page 114/115.
When using gR fuse inserts (VDE 0636/23) in NH equipment, please observe the information on page 116.

2 Identification label support

For clip-on mounting on the fused isolator housing.

Packs of	Model No. SV
6	3595.010

Inserted screw nuts M12

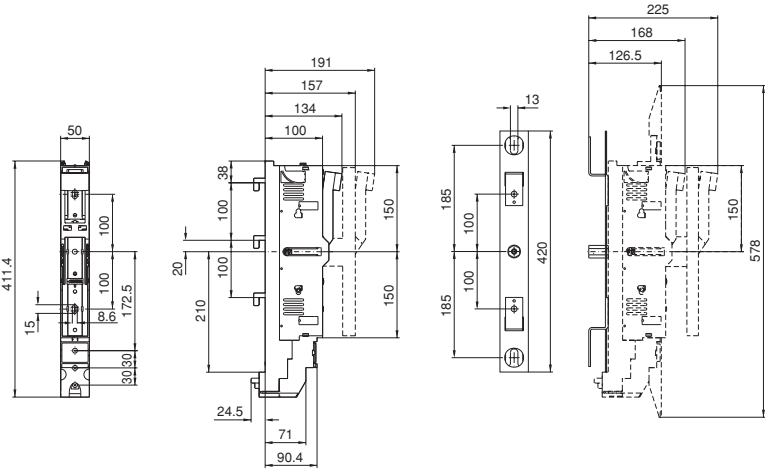
Self-holding nuts with knurled ring.
For drilled holes in busbars, 14.5 mm diameter.

Packs of	Model No. SV
30	3591.060

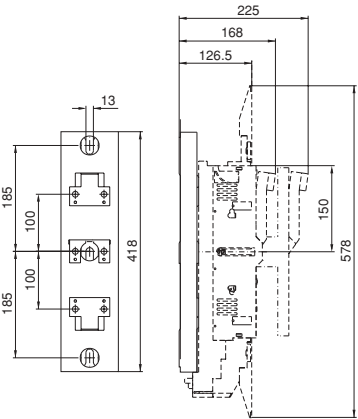
+ Accessories:

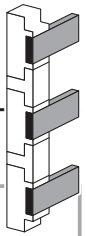
- Micro-switch
- Clamp-type terminal connection parts
- Clamp-type terminal connection see page 97.

SV 3591.040



SV 3591.050





NH fused isolators, sizes 1 – 3

Size	1	2	3
Rated current	250 A	400 A	630 A
Rated operating voltage	690 V ~	690 V ~	690 V ~
Cable outlet	top/bottom	top/bottom	top/bottom
Type of connection	Screw M12	Screw M12	Screw M12
Tightening torque			
● Assembly screw	40 Nm	40 Nm	40 Nm
● Terminal screw	40 Nm	40 Nm	40 Nm
Packs of	1	1	1
Model No. SV	3485.000	3486.000	3487.000

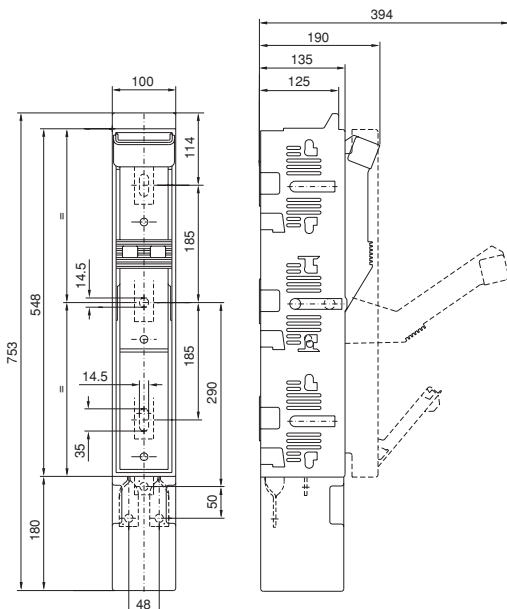
For technical data and material specifications see page 114/115. When using gR fuse inserts (VDE 0636/23) in NH equipment, please observe the information on page 116.



Accessories:

Micro-switch, see right-hand column.

SV 3485.000 / SV 3486.000 / SV 3487.000



Accessories:



Micro-switch for NH on-load isolators, sizes 00 to 3

To indicate the switching position of the NH unit (lid unit).

Packs of	Model No. SV
5	3071.000



Clamp-type terminal connection parts for NH fused isolators size 00

For the connection of laminated copper bars and round conductors 1.5 to 25 mm².

Clamping area: 16 x 10 mm.

Tightening torque: Terminal screw 4 Nm.

Packs of	Model No. SV
1 set	3592.020



Clamp-type terminal connection for NH fused isolators size 00

For the connection of round conductors 1.5 to 95 mm².

Tightening torque:

Terminal screw 4 Nm.

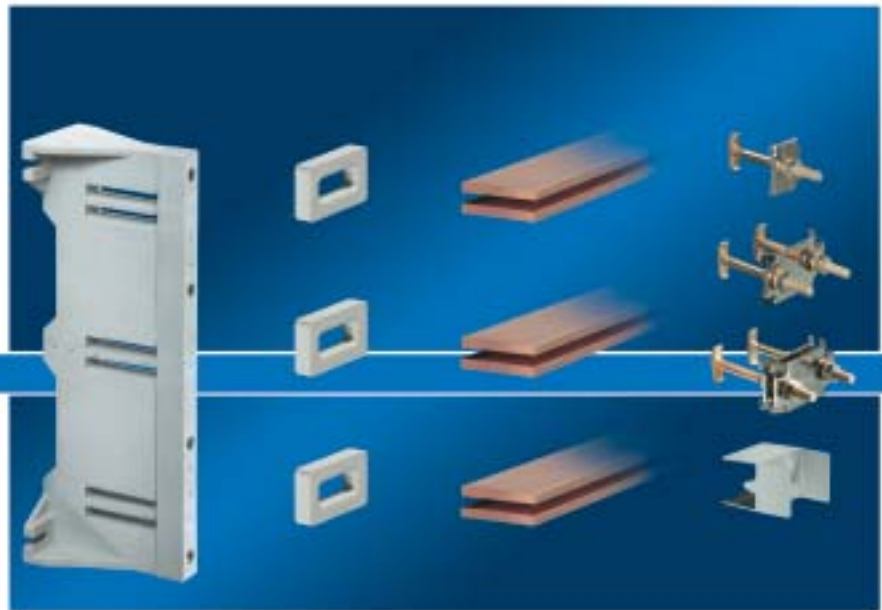
Packs of	Model No. SV
1 set	3592.010

Busbar systems up to 2500 A/3000 A

High currents distributed safely

For current transmission and distribution, there is a choice of two support variants with 150 mm bar centre distance:

- 2 x 3-pole up to 2500 A
- 2 x 3-pole up to 3000 A



Busbar support up to 2500 A

Maximum bar accommodation without using spacing pieces is 3 x 2 x 80 x 10 mm.

Spacing pieces

To reduce the bar cross-section (insert 60 x 10 mm), also suitable for stepped busbar assemblies.

Busbars made from E-Cu

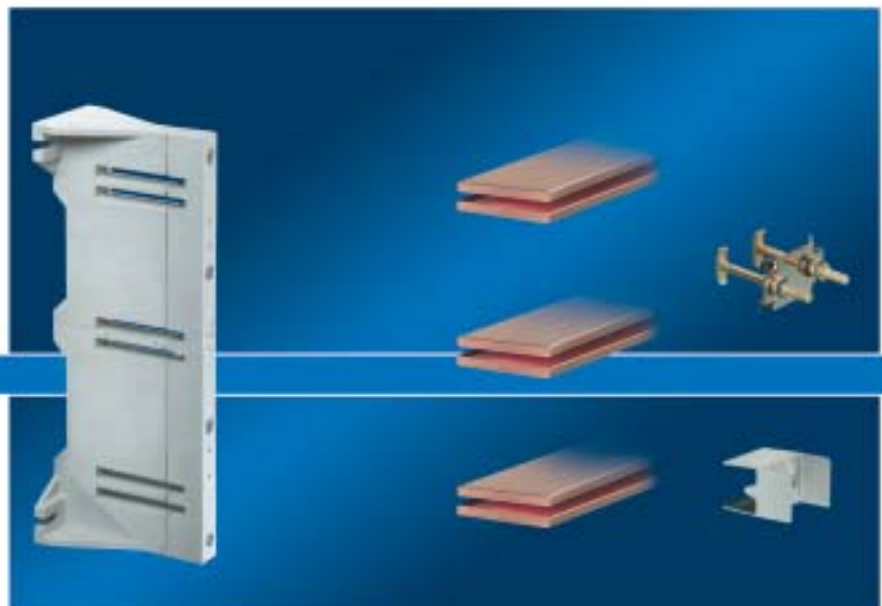
Cross-sections: 60 x 10 mm, 80 x 10 mm.

Connection plates

For connecting round conductors and laminated copper bars.

Bar insulation

For safe routing of the connection cables.



Busbar support up to 3000 A

Maximum bar accommodation: 3 x 2 x 100 x 10 mm.

Commercially available busbars of E-Cu

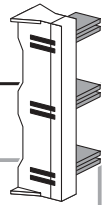
Cross-section: 100 x 10 mm.

Connection plates

For the connection of round conductors.

Bar insulation

For safe routing of the connection cables.



Busbar supports up to 2500 A

150 mm bar centre distance.
Rated current up to 2500 A.
Rated operating voltage
up to 1000 V ~, 50/60 Hz to VDE 0660.

Tightening torque:

- Assembly screw 8 – 10 Nm
- Lid attachment 5 – 10 Nm

Material:

Fibreglass-reinforced, thermoplastic polyester (PBT).
Continuous operating temperature:
max. 140°C.
Fire protection corresponding to UL 94-V0.

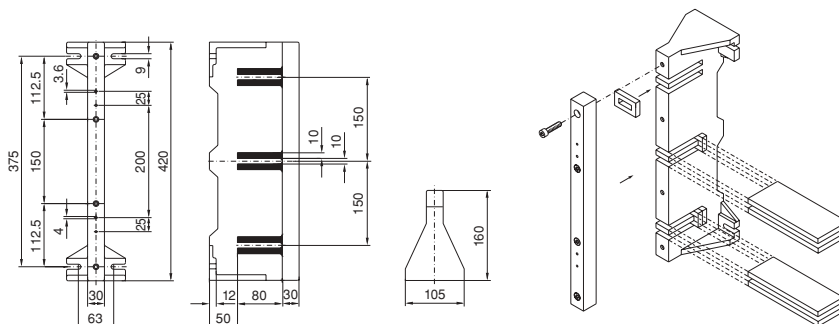
Bar accommodation	Packs of	Model No. SV
3 x 2 x 80 x 10 mm	2	3055.000

Short-circuit resistance diagram

see page 109.

Technical information

For calculation of the rated current,
refer to page 120.



Busbars of E-Cu 57

to DIN 1759, DIN 40 500.
Length: 2400 mm/bar.

Size	Packs of	Model No. SV
60 x 10 mm	3	3589.000
80 x 10 mm	3	3590.000

Spacing pieces

For installation of Cu bars 60 x 10 mm in
busbar support SV 3055.000.

Packs of	Model No. SV
12	3056.000

Accessories:

Connection plates for SV 3055.000

Tightening torque: 10 – 15 Nm.

Connection	Packs of	Model No. SV
Ring terminal M10 up to 240 mm ²	3 sets	3058.000¹⁾
2 x ring terminals M10 up to 240 mm ²	3 sets	3059.000¹⁾
Laminated flat copper up to 40 x 10 mm	3 sets	3061.000²⁾

T-head screws:

- 1) M10 x 100 mm
- 2) M10 x 120 mm

Connection plates for SV 3057.000

Tightening torque: 10 – 15 Nm.

Note:

One of the connection plates is not required (cf. SV 3059.000).

Connection	Packs of	Model No. SV
2 x ring terminals M10 up to 240 mm ²	3 sets	3061.000¹⁾

T-head screws:

- 1) M10 x 120 mm

Bar insulation for SV 3055.000 and SV 3057.000

For connection conductor routing,
plug-type.

Packs of	Model No. SV
9	3060.000

Busbar support up to 3000 A

150 mm bar centre distance.
Rated current up to 3000 A.
Rated operating voltage
up to 1000 V ~, 50/60 Hz to VDE 0660.

Tightening torque:

- Assembly screw 8 – 10 Nm
- Lid attachment 5 – 10 Nm

Material:

Fibreglass-reinforced, thermoplastic polyester (PBT).
Continuous operating temperature:
max. 140°C.
Fire protection corresponding to UL 94-V0.

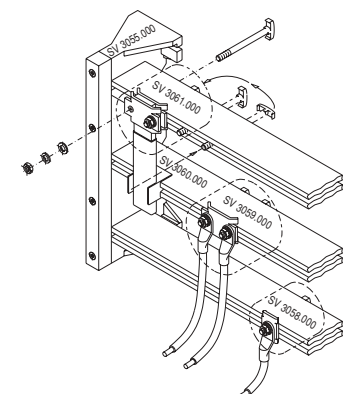
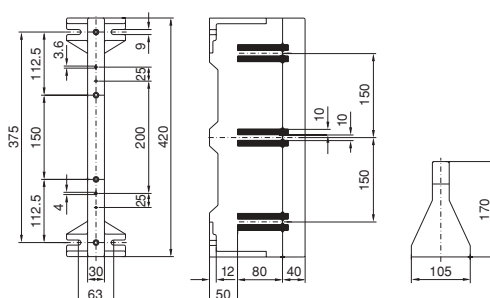
Bar accommodation	Packs of	Model No. SV
3 x 2 x 100 x 10 mm	2	3057.000

Short-circuit resistance diagram

see page 109.

Technical information

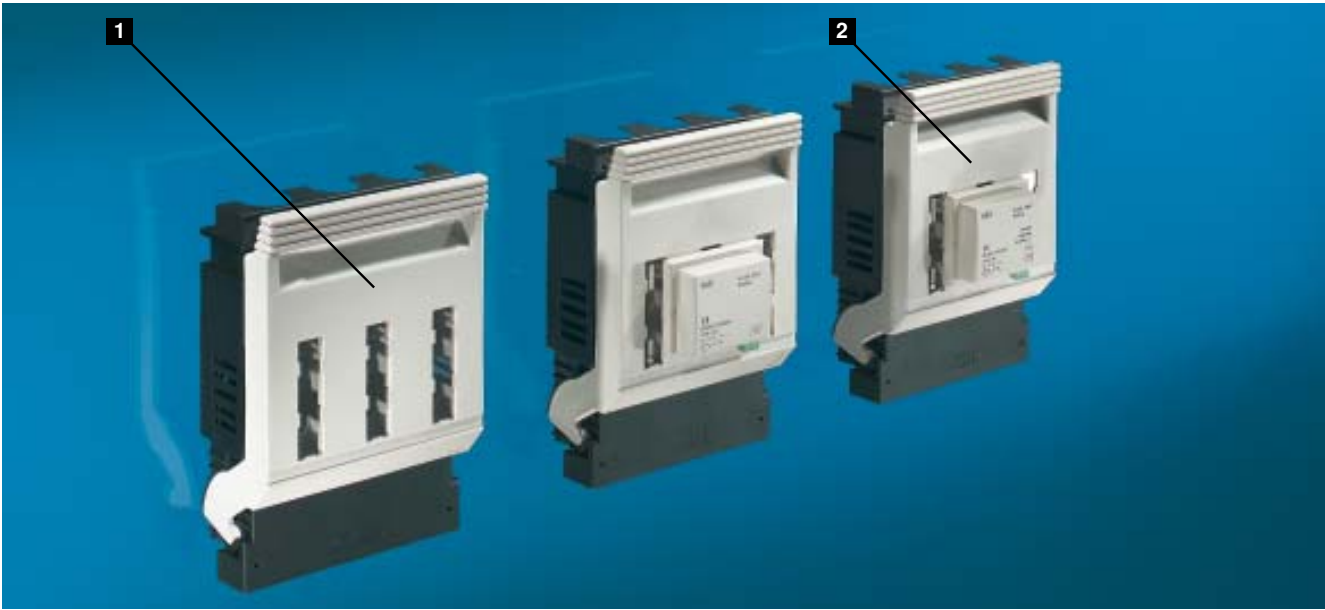
For calculation of the rated current,
refer to page 120.



NH on-load isolator, sizes 000/00/1



NH on-load isolator, sizes 000/00						
Size		000	00	00		00
Rated current		100 A (160 A*)	160 A	160 A		160 A
Rated operating voltage		690 V ~	690 V ~	690 V ~		690 V ~
Cable outlet		top/bottom	top/bottom	bottom	top/bottom	bottom
Type of connection	Terminal up to	50 mm²	–	–		–
	Screw terminal	–	M8 up to 95 mm²	–		–
	Clamp-type terminal connection up to	–	–	70 mm²		–
Tightening torque		–	3 – 5 Nm	3 – 5 Nm		3 – 5 Nm
• Assembly screw		3 Nm	10 – 15 Nm	2 – 3 Nm		–
• Terminal screw		–	–	–		–
Packs of		1	1	1		1
Model No. SV		1 3431.000	2 3488.000	–	2 3489.000	–
3 with electronic fuse monitoring and LED display						
Model No. SV		–	–	3488.310	–	3489.310
* 160 A with 95 mm² connection cross-section (95 mm² connection pieces available on request)						
Technical specifications and material properties see page 114/115. When using gR fuse inserts (VDE 0636/23) in the NH equipment, please observe the information on page 116.						
+ Accessories: Micro-switch, see page 91.						
SV 3431.000						
SV 3488.000 SV 3489.000						
SV 3488.310 SV 3489.310						



1 NH on-load isolator, size 1

Size	1	
Rated current	250 A	
Rated operating voltage	690 V ~	
Cable outlet	top/bottom	bottom
Type of connection	Screw terminal M10 up to 150 mm ²	
Tightening torque	3 – 5 Nm 15 – 20 Nm	
● Assembly screw		
● Terminal screw		
Packs of	1	
Model No. SV	3409.000	—

2 with electronic fuse monitoring and LED display

Model No. SV	–	3409.310
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Technical specifications and material properties see page 114/115.

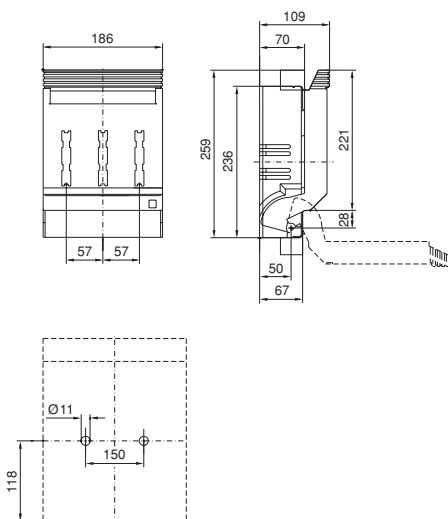
When using gR fuse inserts (VDE 0636/23) in the NH equipment, please observe the information on page 116.



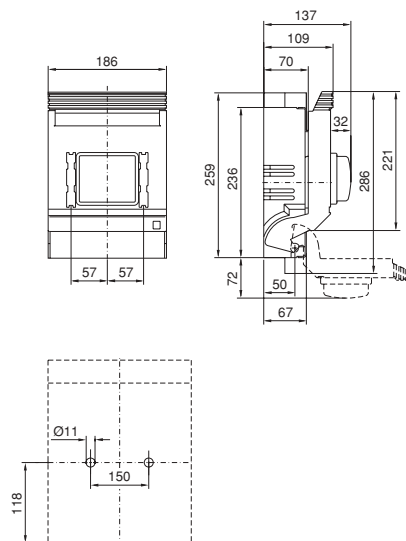
Accessories:

- Clamp-type terminal connection parts
- Micro-switch
see page 91.

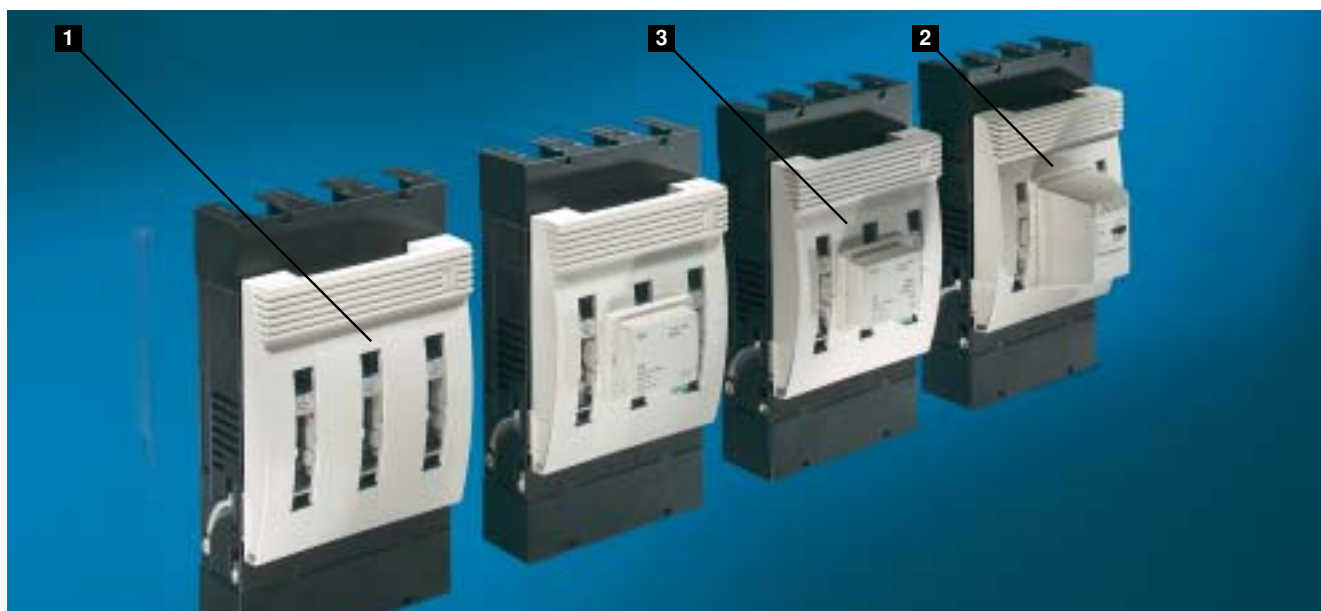
SV 3409.000



SV 3409.310



NH on-load isolator, sizes 2/3



1 NH on-load isolator, size 2

Size	2	
Rated current	400 A	
Rated operating voltage	690 V ~	
Cable outlet	top/bottom	bottom
Type of connection	Screw terminal M10 up to 240 mm ²	
Tightening torque	14 Nm	
• Assembly screw	32 Nm	
• Terminal screw		
Packs of	1	
Model No. SV	3415.010	—
2 with electromechanical fuse monitoring		
Model No. SV	3415.110	—
3 with electronic fuse monitoring and LED display		
Model No. SV	—	3415.310

Technical specifications and material properties see page 114/115.

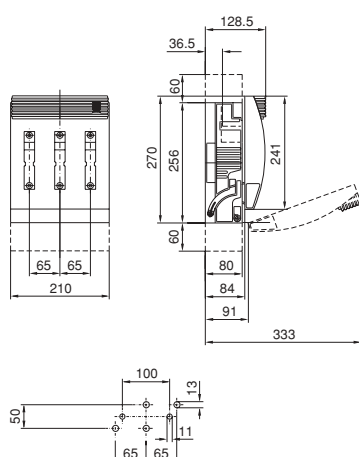
When using gR fuse inserts (VDE 0636/23) in the NH equipment, please observe the information on page 116.



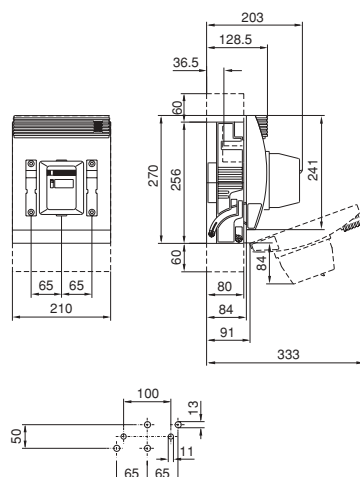
Accessories:

- Clamp-type terminal connection parts
 - Clamp-type terminal connection
 - Micro-switch
- see page 91.

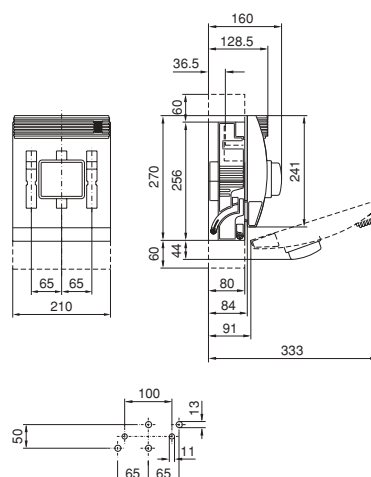
SV 3415.010

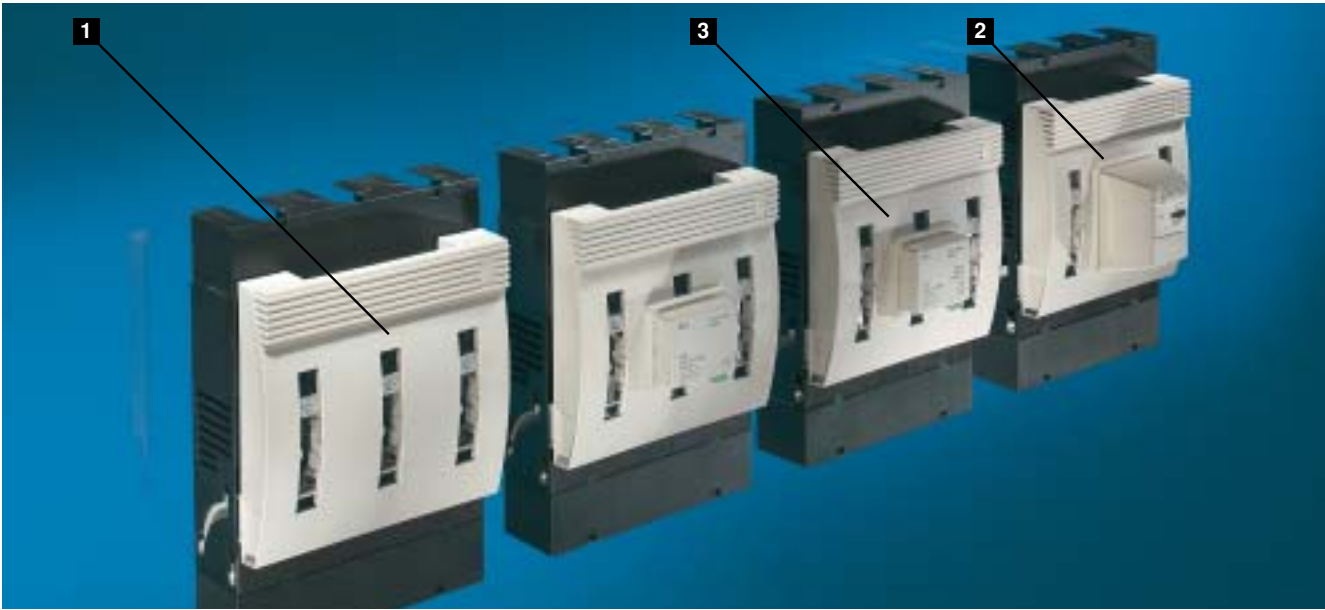


SV 3415.110



SV 3415.310





1 NH on-load isolator, size 3

Size	3	
Rated current	630 A	
Rated operating voltage	690 V ~	
Cable outlet	top/bottom	bottom
Type of connection	Screw terminal M10 up to 240 mm ²	
Tightening torque	14 Nm	
• Assembly screw	32 Nm	
• Terminal screw		
Packs of	1	
Model No. SV	3095.010	—
2 with electromechanical fuse monitoring		
Model No. SV	3095.110	—
3 with electronic fuse monitoring and LED display		
Model No. SV	—	3095.310

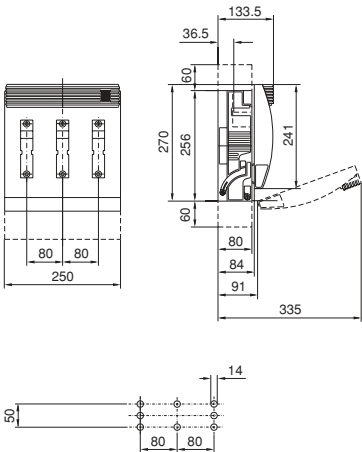
Technical specifications and material properties see page 114/115.
When using gR fuse inserts (VDE 0636/23) in the NH equipment, please observe the information on page 116.



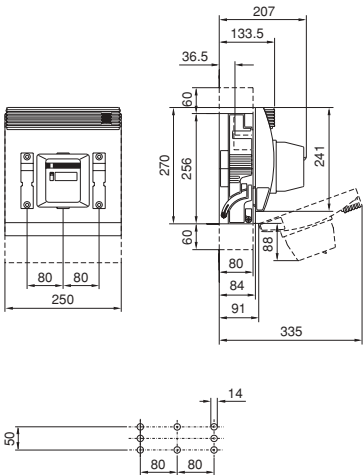
Accessories:

- Clamp-type terminal connection parts
- Clamp-type terminal connection
- Micro-switch
see page 91.

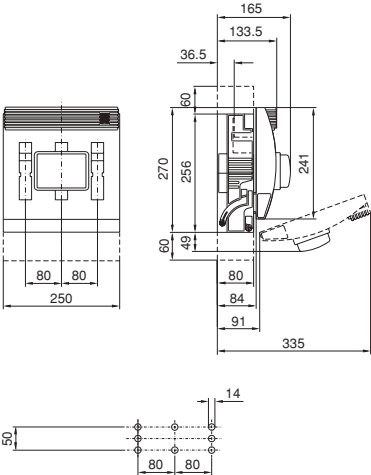
SV 3095.010



SV 3095.110

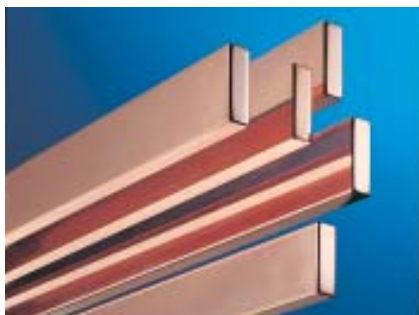


SV 3095.310



Busbars

and accessories



Busbars of E-Cu 57

to DIN 1759, DIN 40 500. Length: 2400 mm/bar.

Size mm	Weight/bar kg	Packs of	Model No. SV
12 x 5	1.28	6	3580.000
15 x 5	1.60	6	3581.000
20 x 5	2.14	6	3582.000
25 x 5	2.67	6	3583.000
30 x 5	3.20	6	3584.000
12 x 10	2.56	6	3580.100
15 x 10	3.20	6	3581.100
20 x 10	4.27	6	3585.000
30 x 10	6.41	6	3586.000
40 x 10	8.55	3	3587.000
50 x 10	10.68	3	3588.000
60 x 10	12.82	3	3589.000
80 x 10	17.09	3	3590.000



Busbar connectors

For connecting busbars E-Cu; no drilling required.

For busbars

12 x 5 to 15 x 10 mm.

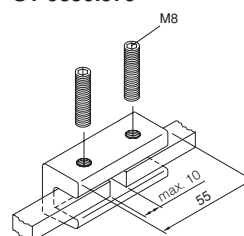
Tightening torque: 10 Nm.

Material:

Brass. Nickel-plated surface finish.

Application	Packs of	Model No. SV
Single connection	3	9350.070

SV 9350.070



For busbars

20 x 5 to 30 x 10 mm.

Tightening torque: 20 Nm.

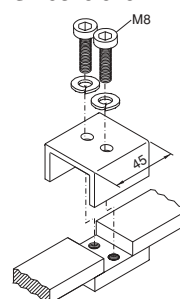
Material:

Sheet steel, yellow passivated (top).
E-Cu silver plated (contact plate).

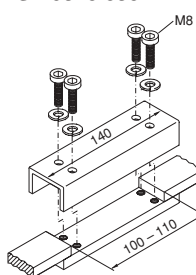
Application	Packs of	Model No. SV
Single connection	3	9320.020
Baying connection*	3	9320.030

* From enclosure to enclosure

SV 9320.020



SV 9320.030



Base isolators

For configuring busbar systems with any given bar centre distances and for assembling PE or PEN bars.

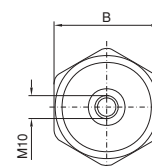
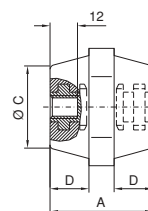
Material:

Duroplastic polyester (UP resin).
Continuous operating temperature:
max. 135°C.

Technical specifications		
Rated operating voltage	1 kV	1 kV
Tensile strength	12 kN	13 kN
Torsional strength	75 Nm	90 Nm
Bending strength	6 kN	6 kN
Tightening torque	40 Nm	40 Nm
Model No. SV	3031.000	3032.000

Supply includes:

Packs of 6



Model No. SV	A	B	Ø C	D
3031.000	40	SW 36	32	15
3032.000	50	SW 50	42	19



Material:

Cu lamina

- High-purity electrolyte copper F20

Insulation

- High-strength vinyl compound
- Expansion 370 %
- Temperature range: -30°C to +105°C
- Flame retardant version to UL 94-V0
- Dielectric strength: 20 kV/mm

Short-circuit resistance diagram
see page 119.

Laminated copper bars Rittal Flexibar "S"

Length: 2000 mm/bar.

Configuration ¹⁾ mm	I _n at 50 K ²⁾	I _n at 30 K ²⁾	I _n at 10 K ²⁾	Characteristic curve (short-circuit resistance)	Installation type	Model No. SV
6 x 9.0 x 0.8	250 A	220 A	120 A	–	–	3565.000
6 x 13.0 x 0.5	200 A	150 A	110 A	–	–	3566.000
4 x 15.5 x 0.8	300 A	210 A	140 A	–	–	3567.000
6 x 15.5 x 0.8	350 A	290 A	170 A	a	1	3568.000
10 x 15.5 x 0.8	450 A	350 A	190 A	a	1	3569.000
5 x 20.0 x 1.0	400 A	300 A	180 A	a	1	3570.000
5 x 24.0 x 1.0	450 A	370 A	230 A	a	1	3571.000
10 x 24.0 x 1.0	800 A	600 A	340 A	b	1	3572.000
5 x 32.0 x 1.0	550 A	470 A	280 A	b	2/3	3573.000
10 x 32.0 x 1.0	1000 A	800 A	460 A	c	2/3	3574.000
5 x 40.0 x 1.0	800 A	600 A	340 A	b	2/3	3575.000
10 x 40.0 x 1.0	1200 A	950 A	500 A	c	2/3	3576.000
5 x 50.0 x 1.0	900 A	700 A	400 A	b	2/3	3577.000
10 x 50.0 x 1.0	1400 A	1000 A	600 A	c	2/3	3578.000
10 x 63.0 x 1.0	1600 A	1240 A	715 A	d	2/3	3579.000

¹⁾Number of lamina x lamina width x lamina thickness

²⁾The conductor temperature of the laminated copper bar is derived from the sum total of the ambient temperature and the temperature increase.

Example: SV 3565.000 loaded with 220 A, i.e. the temperature increases by 30 K.

At an ambient temperature of 35°C, this produces a resultant conductor temperature of 35°C + 30 K = 65°C.

Supply includes:

Packs of 1



Universal support

For the attachment of laminated copper bars from 20 x 5 to 63 x 10 mm.

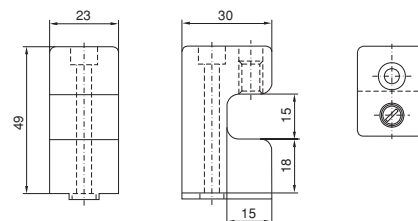
Material:

Fibreglass-reinforced, thermoplastic polyester (PBT).
Fire protection corresponding to UL 94-V0.

Supply includes:

Including screws and "U" nuts for mounting on PS/TS mounting rails.

Packs of	Model No. SV
3	3079.000



Universal holder

For attaching laminated copper bars from 40 x 5 to 100 x 10 mm.

Material:

Fibreglass-reinforced, thermoplastic polyester (PBT).
Fire protection corresponding to UL 94-V0.

Supply includes:

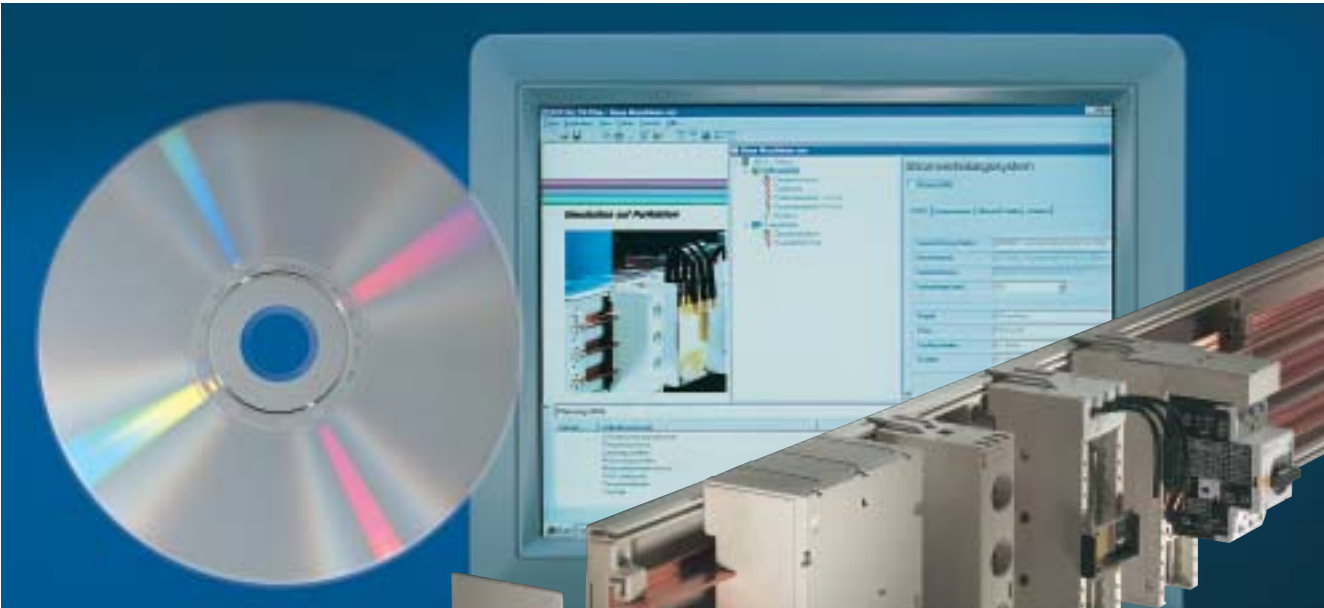
Including screws and sliding nuts for attaching to C rails.

Packs of	Model No. SV
3 sets	3079.010



Accessories:

C rails 30/15 to EN 50 024 – see Cat. 30, page 980.



Rittal SV-Plan

Rittal SV-Plan is an innovative tool for simple, time-saving project planning of Rittal SV busbar systems. The network-compatible, multi-lingual software package includes the following functions:

- Simple, menu-assisted dialogues for system and product selection with planning aid.
- Planning certainty, thanks to logical allocation e.g. of standard commercially available power circuit-breakers to Rittal component adaptors.
- Detailed system and product information in the form of tender texts, product information, assembly instructions, CAD drawings etc.
- Integration of Rittal Power-Plan.
- Integration of a CAD interface based on Eplan View.
- Project documentation with calculations, parts lists and CAD system assembly drawing.
- Interfaces to all standard Windows applications such as WinWord.
- Compatible with Eplan 5.

System requirements

Operating system: Windows 95/98, NT, 2000 or XP
RAM: 128 MB
Hard disk capacity: at least 125 MB

Supply includes
CD-ROM
Operating manual
Catalogue on CD-ROM
Language: German/English
Model No. SV 3020.100





Rittal Power-Plan

Rittal Power-Plan permits the calculation and documentation of busbar system assemblies with reference to the valid international test requirements. Moreover, the network-compatible, multi-lingual software package includes extensive databases for D/NH fuse inserts to VDE 0636 and standard commercially available power circuit-breakers (freely editable).

The following calculations can be performed with Rittal Power-Plan:

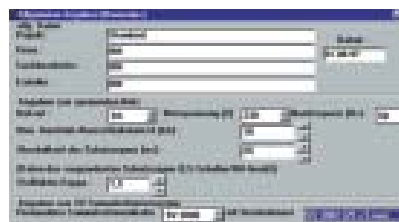
- Testing the short-circuit resistance of the entire system assembly to IEC 60 865-1 or DIN VDE 0103.
- Testing the rated current load limit of the busbar system to DIN 43 671.
- Testing the heat loss of the entire system assembly, for D/NH fuse inserts to VDE 0636.
- Testing all data inputs for plausibility with corresponding, clear error messages.
- Calculations/documentation in accordance with IEC 60 439-1 or EN 60 439 and DIN VDE 0660 part 500.

System requirements

Operating system: Windows 95/98 or NT
RAM: 8 MB
Memory space required: 20 MB

Supply includes

CD-ROM
Operating manual
Language: German/English
Model No. SV 3020.000



Rittal textbook:

Busbar power distribution with Rittal

This textbook covers all applications of busbar systems in low-voltage installations. It refers to specific Rittal products and includes appropriate provisions, regulations and standards, including selected excerpts. For the expert, it also contains suggestions for new approaches in project planning and applications.

Packs of	Model No. SV
1	3023.000

Short-circuit resistance diagrams

Mini-PLS busbar support up to 250 A, 3-pole

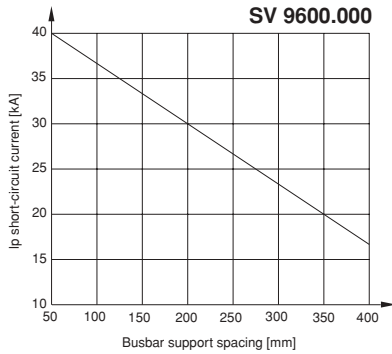
40 mm bar centre distance.
Rated current up to 250 A, rated operating voltage up to 690 V AC, 50/60 Hz to VDE 0660.

Basis of test:

VDE 0660, part 500/IEC 60 439.

Test implemented:

Dynamic short-circuit resistance to IEC 60 439.

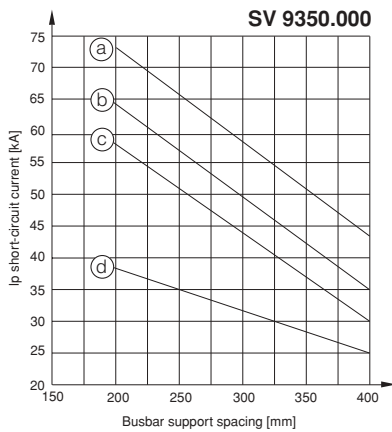


Busbar support up to 360 A, 3-pole

40 mm bar centre distance.
Rated current up to 360 A, rated operating voltage up to 1000 V AC, 50/60 Hz to VDE 0660.

Calculation basis:

VDE 0103/IEC 60 865.



Busbar E-Cu (mm)	Rated current up to (A)	Curve
12 x 5	210	(d)
12 x 10	340	(b)
15 x 5	260	(c)
15 x 10	360	(a)

Busbar support up to 450 A, 3-pole

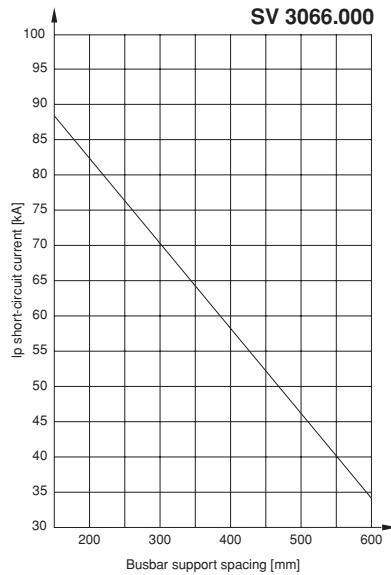
60 mm bar centre distance.
Rated current up to 450 A, rated operating voltage up to 1000 V AC, 50/60 Hz to VDE 0660.
Bar accommodation 30 x 5 mm.

Basis of test:

VDE 0660, part 500/IEC 60 439.

Test implemented:

Dynamic short-circuit resistance to IEC 60 439.



Busbar support up to 800 A

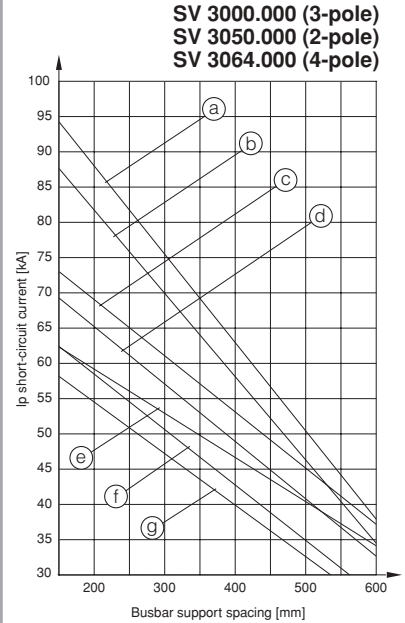
60 mm bar centre distance.
Rated current up to 800 A, rated operating voltage up to 1000 V AC, 50/60 Hz to VDE 0660.

Basis of test:

VDE 0660, part 500/IEC 60 439.

Test implemented:

Dynamic short-circuit resistance to IEC 60 439.



Busbar E-Cu (mm)	Rated current (A)	Curve
12 x 5	210	(g)
12 x 10	340	(f)
15 x 3	187	(f)
15 x 4	210	(f)
15 x 5	260	(f)
16 x 3	198	(f)
16 x 4	225	(f)
16 x 5	280	(f)
16 x 8	397	(e)
20 x 5	319	(e)
20 x 10	497	(c)
25 x 5	384	(d)
30 x 5	447	(b)
30 x 10	800	(a)

Busbar E-Cu mm (inches)	Rated current (A)	Curve
9.53 x 25.40 ($\frac{3}{8}$ x 1")	599	(a)
6.35 x 25.40 ($\frac{1}{4}$ x 1")	449	(d)
4.76 x 25.40 ($\frac{3}{16}$ x 1")	349	(d)
3.18 x 25.40 ($\frac{1}{8}$ x 1")	299	(d)
9.53 x 19.05 ($\frac{3}{8}$ x $\frac{3}{4}$ ")	449	(a)
6.35 x 12.70 ($\frac{1}{4}$ x $\frac{1}{2}$ ")	249	(f)

PLS busbar supports up to 800 A, 3-pole

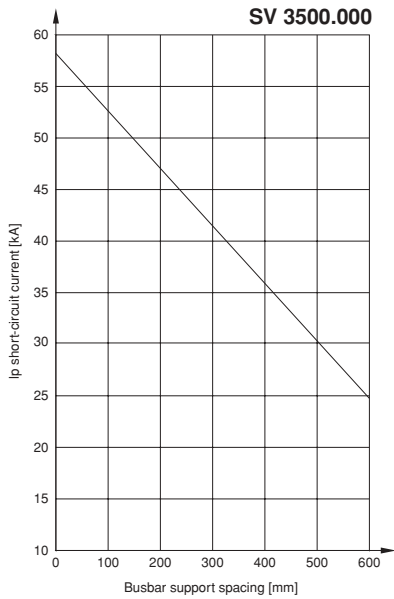
60 mm bar centre distance.
Rated current up to 800 A, rated
operating voltage up to 1000 V AC,
50/60 Hz to VDE 0660.

Basis of test:

VDE 0660, part 500/IEC 60 439.

Test implemented:

Dynamic short-circuit resistance to
IEC 60 439.



Busbar support up to 1250 A, 3-pole

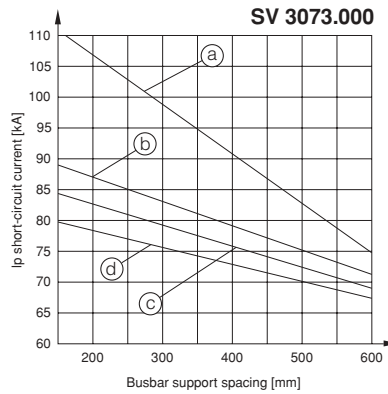
100 mm bar centre distance.
Rated current up to 1250 A, rated
operating voltage up to 1000 V AC,
50/60 Hz to VDE 0660.

Basis of test:

VDE 0660, part 500/IEC 60 439.

Test implemented:

Dynamic short-circuit resistance to
IEC 60 439.



Busbar E-Cu (mm)	Rated current up to (A)	Curve
30 x 10	800	(d)
40 x 10	850	(c)
50 x 10	1000	(b)
60 x 10	1250	(a)

Busbar support up to 2500 A, 3-pole

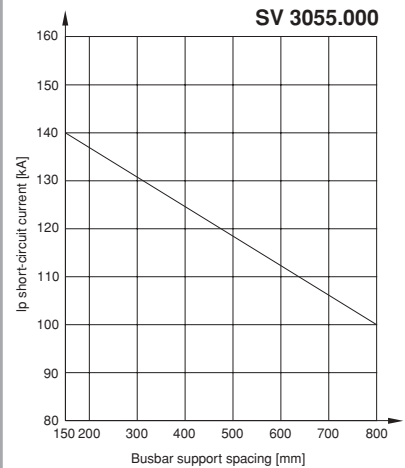
150 mm bar centre distance.
Rated current up to 2500 A, rated
operating voltage up to 1000 V AC,
50/60 Hz to VDE 0660.
Bar accommodation 3 x 2 x 80 x 10 mm.

Basis of test:

VDE 0660, part 500/IEC 60 439.

Test implemented:

Dynamic short-circuit resistance to
IEC 60 439.



PLS busbar support up to 1600 A, 3-pole

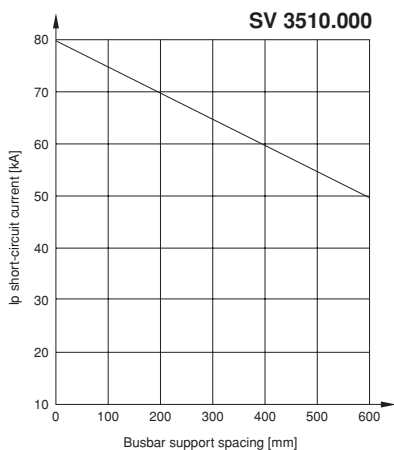
60 mm bar centre distance.
Rated current up to 1600 A, rated
operating voltage up to 1000 V AC,
50/60 Hz to VDE 0660.

Basis of test:

VDE 0660, part 500/IEC 60 439.

Test implemented:

Dynamic short-circuit resistance to
IEC 60 439.



Busbar support up to 1600 A, 3-pole

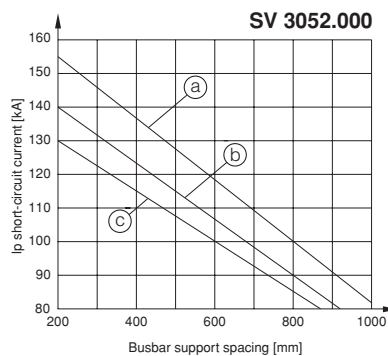
185 mm bar centre distance.
Rated current up to 1600 A, rated
operating voltage up to 1000 V AC,
50/60 Hz to VDE 0660.

Basis of test:

VDE 0660, part 500/IEC 60 439.

Test implemented:

Dynamic short-circuit resistance to
IEC 60 439.



Busbar E-Cu (mm)	Rated current up to (A)	Curve
50 x 10	1000	(c)
60 x 10	1250	(b)
80 x 10	1600	(a)

Busbar support up to 3000 A, 3-pole

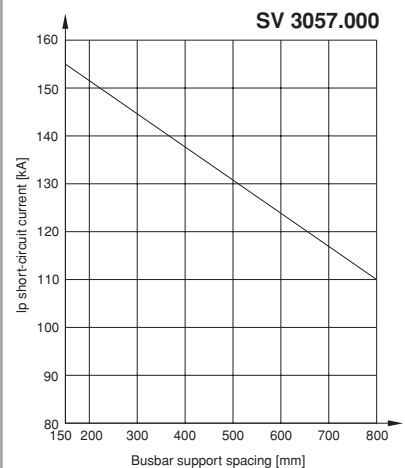
150 mm bar centre distance.
Rated current up to 3000 A, rated
operating voltage up to 1000 V AC,
50/60 Hz to VDE 0660.
Bar accommodation 3 x 2 x 100 x 10 mm.

Basis of test:

VDE 0660, part 500/IEC 60 439.

Test implemented:

Dynamic short-circuit resistance to
IEC 60 439.

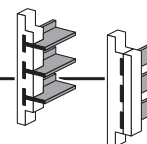


Power circuit-breakers / starter combinations

Mini-PLS component adaptors 12 A/25 A		40 mm	
Page 22			
Make/model	Model No. SV		
Moeller			
PKM0...	9614.100	9615.100	
PKZM0-...	9614.100	9615.100	
PKZM0-...T	9614.100	9615.100	
PKZM0-../E-10-D	9614.100	9615.100	
PKZM0-../0-..	9614.100	9615.100	
PKZM0-../S00-11	9614.100	9615.100	
PKZM0-../SE00-11	9614.100	9615.100	
PKZ2/ZM-...			
(max. 25 A)	9625.000	9626.000	
PKZ2/ZM-...-8			
(max. 25 A)	9625.000	9626.000	
PKZM0-../E01-G-W	9629.010	–	
PKZM0-.../-...-W	9629.010	–	
PKZM0-.../-...WMF	9629.030	–	
PKZM4-...			
(max. 25 A)	9615.000	–	
Siemens			
S0			
3RA11 20...2-0...	9614.100 ¹⁾	–	
3RA12 20-...-...	9629.020	–	
3RV1. 21-...1.	9614.100	9615.100	
3RW30 2-1AB..	9614.100	9615.100	
S00			
3RA11 10...1-1...	9614.100 ¹⁾	–	
3RA12 10-...-...	9629.010	–	
3RV10 11-...A1.	9614.100	9615.100	
3RW30 1-1CB.4	9614.100	9615.100	
S00 Cage Clamp			
RV10 11-...A20	9614.110	–	
S2			
3RV1. 31-4...10			
(max. 25 A)	9615.000	–	
3RW30 3-1AB..			
(max. 25 A)	9615.000	–	
ABB			
MS25-TM-..	9614.000	9615.000	
MS116-..	9614.100	9615.100	
MS225-..	9614.000	9615.000	
MS325-..	9614.000	9615.000	
MS450-..			
(max. 25 A)	9615.000	–	
MS451-..			
(max. 25 A)	9615.000	–	
AEG			
Mbs25	9614.100	9615.100	
Mbs28	9614.000	9615.000	
Allen Bradley			
103-...R	9614.100	9615.100	
107-...R	9629.010	–	
140M-...-...	9614.100	9615.100	
140-MN-...	9614.100	9615.100	
190-M1-...	9615.100 ¹⁾	–	
190-M2-...	9615.100 ¹⁾	–	
Telemecanique			
GK3-EF..			
(max. 25 A)	9626.000	–	
GV2-....	9614.100	9615.100	
GV2-M...K1..	9614.100	9615.100	
GV2-M...K2..	9629.010	–	
GV2-P...D2..	9629.030	–	
GV2-P...D1..	9615.100 ¹⁾	–	
GV3-M...	9626.000	–	
LD1-L.030			
(max. 25 A)	9615.100	–	
LH4-N1....7	9614.100	9615.100	
LH4-N2....7	9629.010	–	

1) Support rail must be offset

Mini-PLS component adaptors 40 A/100 A		40 mm	
Page 24			
Make/model	Model No. SV		Accessories
			Model No. SV
Moeller			
NZM 1	9629.000	–	–
PKZ2/ZM-...	9627.000	9628.000	–
PKZ2/ZM-...-8	9627.000	9628.000	–
PKZ2/ZM-.../SE1A/11	9628.000	–	–
PKZ2/ZM-.../S	9628.000	–	–
PKZ2/SE1A/11	9628.000	–	–
PKZ2/S	9628.000	–	–
PKZM4-...			
(max. 40 A)	9617.000	–	–
PKZM4-...	9629.000	–	9320.120
Siemens			
S2			
3RV1. 31-4...10			
(max. 40 A)	9617.000	–	–
3RV1. 31-4...10	9629.000	–	9320.120
3RW30 3-1AB..			
(max. 40 A)	9617.000	–	–
3RW30 3-1AB..	9629.000	–	9320.120
S3			
3RV1. 4-4...10	9629.000	–	9320.120
3RW30 4-1AB..	9629.000	–	9320.120
ABB			
MS450-..			
(max. 40 A)	9617.000	–	–
MS450-..	9629.000	–	9320.120
MS451-..			
(max. 40 A)	9617.000	–	–
MS451-..	9629.000	–	9320.120
MS495-..	9629.000	–	9320.120
MS496-..	9629.000	–	9320.120
MS497-..	9629.000	–	9320.120
Sace			
LNA 32	9629.000	–	–
LNA 63	9629.000	–	–
LNA 100	9629.000	–	–
Tmax			
T1	9629.000	–	–
T2	9629.000	–	–
AEG			
Mbs100	9629.000	–	9320.120
Allen Bradley			
140M-F8-...			
(max. 40 A)	9616.000	9617.000	–
140-CMN-....	9629.000	–	9320.120
Merlin Gerin			
Compact NS 80H-MA	9629.000	–	–
Telemecanique			
GK3-EF..			
(max. 40 A)	9628.000	–	–
GK3-EF..	9629.000	–	9320.120
GV3-M...			
(max. 40 A)	9628.000	–	–
GV3-M...	9629.000	–	9320.120



Mini-PLS quick-fit component adaptors 25 A 40 mm (32 A)	
Page 23	
Make/model	Model No. SV
Moeller	
PKM0...	9619.000
PKZM0-...	9619.000
PKZM0-...T	9619.000
PKZM0-.../S00-11	9620.000
PKZM0-.../SE00-11	9620.000
Siemens	
S0	
3RA11 20...2.-0...	9622.000
3RV1. 21-...1.	9622.000
ABB	
MS25-TM-...	9622.000
AEG	
Mbs25	9618.000
Allen Bradley	
140M-...-...	9620.000
General Electric	
SFKO1	9618.000
Schiele	
MSU-K	9618.000
Telemecanique	
GV2-LE	9621.000
GV2-M	9621.000
GV2-P	9622.000

Multi-functional component adaptor 40 A 40 mm Component adaptor 100 A		
Page 31		
Make/model	For bar thickness	
	5 mm Model No. SV	10 mm Model No. SV
Moeller		
NZM 1	9350.420	9350.430
PKZM4-... (max. 40 A)	9350.340	9350.350
PKZM4-...	9350.420	9350.430
Siemens		
S2		
3RV1. 31-4..10 (max. 40 A)	9350.340	9350.350
3RV1. 31-4..10	9350.420	9350.430
3RW30 3.-1AB.. (max. 40 A)	9350.340	9350.350
3RW30 3.-1AB..	9350.420	9350.430
S3		
3RV1. 4.-4..10	9350.420	9350.430
3RW30 4.-1AB..	9350.420	9350.430
ABB		
DLA...-30	9350.200 ²⁾	9350.210 ²⁾
MS25-TM-...	9350.200 ¹⁾	9350.210 ¹⁾
MS225-...	9350.200 ¹⁾	9350.210 ¹⁾
MS325-...	9350.200 ¹⁾	9350.210 ¹⁾
MS450-... (max. 40 A)	9350.340	9350.350
MS450-...	9350.420	9350.430
MS451-... (max. 40 A)	9350.340	9350.350
MS451-...	9350.420	9350.430
MS495-...	9350.420	9350.430
MS496-...	9350.420	9350.430
MS497-...	9350.420	9350.430
Sace		
LNA 32/63/100	9350.420	9350.430
AEG		
Mbs28	9350.200 ¹⁾	9350.210 ¹⁾
Mbs100	9350.420	9350.430

¹⁾ The bottom support rails is eliminated

²⁾ The top support rails is eliminated

For additional component types, please refer to the column opposite (top of page)

Multi-functional component adaptor 40 A 40 mm Component adaptor 100 A		
Page 31		
Make/model	For bar thickness	
	5 mm Model No. SV	10 mm Model No. SV
Allen Bradley		
140M-F8-... (max. 40 A)	9350.200 ¹⁾	9350.210 ¹⁾
140-CMN-...	9350.420	9350.430
Merlin Gerin		
Compact NS 80H-MA	9350.420	9350.430
Telemecanique		
GK3-EF..	9350.420	9350.430
GV3-M...	9350.420	9350.430

¹⁾ The bottom support rails is eliminated

Multi-functional component adaptor 12 A/25 A 40 mm			
Page 28/29			
Make/model	For bar thickness		Accessories
	5 mm Model No. SV	10 mm Model No. SV	Model No. SV
Moeller			
PKM0...	9350.100	9350.110	—
PKZM0-...	9350.100	9350.110	—
PKZM0-...T	9350.100	9350.110	—
PKZM0-.../O-...	9350.100	9350.110	—
PKM0.../E01-G-W	9350.280	9350.290	—
PKZM0-.../E-10-D	9350.100	9350.110	—
PKZM0-.../S00-11	9350.100	9350.110	9320.140
PKZM0-.../SE00-11	9350.100	9350.110	9320.140
PKZM0-.../...-W	9350.280	9350.290	—
PKZM0-.../...-WMF	9350.320 ¹⁾	9350.330 ¹⁾	—
Siemens			
S0			
3RA11 20-...2.-0...	9350.100	9350.110	9320.140
3RA12 20-...-...	9350.300	9350.310	—
3RV1. 21-...1.	9350.100	9350.110	—
3RW30 2.-1AB..	9350.100	9350.110	—
S00			
3RA11 10...1.-1...	9350.100	9350.110	9320.140
3RA12 10-...-...	9350.280 ²⁾	9350.290 ²⁾	9320.140
3RV10 11-...A1.	9350.100	9350.110	—
3RW30 1.-1CB.4	9350.100	9350.110	—
S00 Cage Clamp			
3RV10 11-...A20	9350.080	9350.090	—
ABB			
MS116-...	9350.100	9350.110	—
AEG			
Mbs25	9350.100	9350.110	—
Allen Bradley			
103-...R	9350.100	9350.110	—
107-...R	9350.280	9350.290	—
140M-...-...	9350.100	9350.110	—
140-MN-...	9350.100	9350.110	—
190-M1-...	9350.260	9350.270	—
190-M2-...	9350.260	9350.270	—
Telemecanique			
GV2-...	9350.100	9350.110	—
GV2-M..K1..	9350.100	9350.110	—
GV2-M..K2..	9350.280	9350.290	—
GV2-P..D1..	9350.260	9350.270	—
GV2-P..D2..	9350.320 ¹⁾	9350.330 ¹⁾	—
LD1-L.030 (max. 25 A)	9350.100	9350.110	—
LH4-N1....7	9350.100	9350.110	—
LH4-N2....7	9350.280	9350.290	—

¹⁾ Moeller: The bottom support rails is eliminated

Telemecanique: The upper support rail is offset at a distance of 125 mm from the lower supp. rail (supp. rail centre-to-centre spac.)

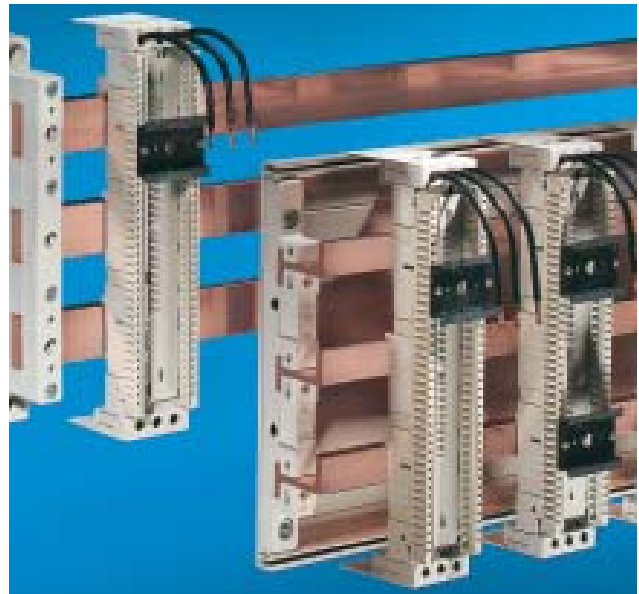
²⁾ Support rail must be offset

Power circuit-breakers / starter combinations

Multi-functional component adaptor 12 A/25 A			60 mm
Page 50/51			
Make/model	For bar thickness		Accessories
	5 mm Model No. SV	10 mm Model No. SV	
Moeller			
PKM0...	9320.180	9320.190	—
PKZM0-...	9320.180	9320.190	—
PKZM0-...T	9320.180	9320.190	—
PKZM0-.../0-.	9320.180	9320.190	—
PKZM0-.../E01-G-W	9320.380	9320.390	—
PKZM0-.../E-10-D	9320.180	9320.190	—
PKZM0-.../S00-11	9320.180	9320.190	9320.140
PKZM0-.../SE00-11	9320.200	9320.210	—
PKZM0-.../.-.-W	9320.380	9320.390	—
PKZM0-.../.-..WMF	9320.420 ¹⁾	9320.430 ¹⁾	—
Siemens			
S0			
3RA11 20-...2-0...	9320.180	9320.190	9320.140
3RA12 20-....-...	9320.400	9320.410	—
3RV1. 21-...1.	9320.180	9320.190	—
3RW30 2-1AB..	9320.180	9320.190	—
S00			
3RA11 10...1-1...	9320.180	9320.190	9320.140
3RA12 10-....-...	9320.380 ¹⁾	9320.390 ¹⁾	9320.140
3RV10 11-...A1.	9320.180	9320.190	—
3RW30 1-1CB.4	9320.180	9320.190	—
S00 Cage Clamp			
3RV10 11-...A20	9320.160	9320.170	—
ABB			
MS116-..	9320.180	9320.190	—
AEG			
Mbs25	9320.180	9320.190	—
Allen Bradley			
103-...R	9320.180	9320.190	—
107-...R	9320.380	9320.390	—
140M-...-...	9320.180	9320.190	—
140-MN-...	9320.180	9320.190	—
190-M1-...	9320.440	9320.450	—
190-M2-...	9320.440	9320.450	—
Telemecanique			
GV2-....	9320.180	9320.190	—
GV2-M...K1..	9320.180	9320.190	—
GV2-M...K2..	9320.380	9320.390	—
GV2-P...D1..	9320.440	9320.450	—
GV2-P...D2..	9320.420 ²⁾	9320.430 ²⁾	—
LD1-L.030			
(max. 25 A)	9320.180	9320.190	—
LH4-N1....7	9320.180	9320.190	—
LH4-N2....7	9320.380	9320.390	—

¹⁾ The bottom support rails is eliminated

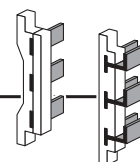
²⁾ The upper support rail is offset at a distance of 125 mm from the lower support rail (support rail centre-to-centre spacing)



Multi-functional component adaptor 40 A			60 mm
Page 53			
Make/model	For bar thickness		
	5 mm Model No. SV	10 mm Model No. SV	
Moeller			
PKZM4-... (max. 40 A)	9320.460	9320.470	
Siemens			
S2			
3RV1. 31-4..10 (max. 40 A)	9320.460	9320.470	
3RW30 3.-1AB.. (max. 40 A)	9320.460	9320.470	
ABB			
MS25-TM-..	9320.300 ¹⁾	9320.310 ¹⁾	
MS225-..	9320.300 ¹⁾	9320.310 ¹⁾	
MS325-..	9320.300 ¹⁾	9320.310 ¹⁾	
MS450-.. (max. 40 A)	9320.460	9320.470	
MS451-.. (max. 40 A)	9320.460	9320.470	
DLA...-30	9320.300 ²⁾	9320.310 ²⁾	
AEG			
Mbs28	9320.300 ¹⁾	9320.310 ¹⁾	
Allen Bradley			
140M-F8-... (max. 40 A)	9320.300 ¹⁾	9320.310 ¹⁾	

¹⁾ The bottom support rails is eliminated

²⁾ The top support rails is eliminated



Component adaptor 50 A			60 mm
			Page 54/55
Make/model	For bar thickness		
	5 mm	10 mm	
	Model No. SV	Model No. SV	
Moeller			
PKZ2/ZM-...	3544.000	3545.000	
PKZ2/ZM-...-8	3544.000	3545.000	
PKZM0-.../...WMF	3042.000 ¹⁾	3043.000 ¹⁾	
Siemens			
S2			
3RA11 30-...3.-0...	3040.000 ²⁾	3041.000 ²⁾	
3RV10 31-...	3069.000	3070.000	
ABB			
MS25-TM-...	3540.000	3541.000	
MS225-...	3540.000	3541.000	
MS325-...	3540.000	3541.000	
AEG			
Mbs28	3540.000	3541.000	
Allen Bradley			
140M-F8-...	3540.000	3541.000	
Telemecanique			
GV2-P..D2..	3042.000 ²⁾	3043.000 ²⁾	

¹⁾ The bottom support rails must be offset

²⁾ One support rail must be offset

Component adaptor 63 A			60 mm
			Page 56/57
Make/model	For bar thickness		
	5 mm	10 mm	
	Model No. SV	Model No. SV	
Moeller			
PKZ2/S	3046.000	3047.000	
PKZ2/SE1A/11	3046.000	3047.000	
PKZ2/ZM-.../S	3046.000	3047.000	
PKZ2/ZM-.../SE1A/11	3046.000	3047.000	
PKZM0-.../0-SD	3048.000 ¹⁾	3049.000 ¹⁾	
PKZM0-.../00(A)-SD	3048.000 ¹⁾	3049.000 ¹⁾	
PKZM0-.../E-10-SD	3048.000 ¹⁾	3049.000 ¹⁾	
PKZM0-.../E-10-G-SD	3048.000 ¹⁾	3049.000 ¹⁾	
PKZM4-...	3036.000	3037.000	
PKZM4-...	3445.000	3445.000	
Siemens			
S2			
3RV1. 31-4..10	3036.000	3037.000	
3RV1. 31-4..10	3445.000	3445.000	
3RW30 3.-1AB..	3036.000	3037.000	
3RW30 3.-1AB..	3445.000	3445.000	
S3			
3RV1. 4.-4..10 (max. 63 A)	3067.000	3068.000	
3RW30 4.-1AB.. (max. 63 A)	3067.000	3068.000	
ABB			
MS25-TM-...	3445.000	3445.000	
MS25-TM-...	3446.000	3446.000	
MS225-...	3445.000	3445.000	
MS225-...	3446.000	3446.000	
MS325-...	3445.000	3445.000	
MS325-...	3446.000	3446.000	
MS450-...	3036.000	3037.000	
MS450-...	3445.000	3445.000	
MS451-...	3036.000	3037.000	
MS451-...	3445.000	3445.000	
MS495-... (max. 63 A)	3067.000	3068.000	
MS496-... (max. 63 A)	3067.000	3068.000	
MS497-... (max. 63 A)	3067.000	3068.000	
AEG			
Mbs28	3445.000	3445.000	
Mbs28	3446.000	3446.000	
Allen Bradley			
140M-F8-...	3445.000	3445.000	
140M-F8-...	3446.000	3446.000	
Telemecanique			
GK3-EF.. (max. 63 A)	3067.000	3068.000	
GV3-M... (max. 63 A)	3067.000	3068.000	
LD1-L..030	3067.000	3068.000	
LD4-L..30	3067.000	3068.000	

¹⁾ One support rail is eliminated

Current carrying capacity	
of insulated PVC cables at an ambient temperature of +40°C, installation type E (DIN EN 60 204-1:1998-11)	
Nominal cross-section (mm²)	Current capacity (A)
1.5	16
2.5	22
4	30
6	37
10	52
16	70
25	88
35	114

Conversion factors	
for the load capacity of cables (DIN EN 60 204-1:1998-11)	
Ambient temperature (°C)	Factor
30	1.15
35	1.08
40	1.00
45	0.91
50	0.82
55	0.71
60	0.58

NH isolators, size 000

- Thanks to a specially developed locking mechanism, the fuse inserts are easily and quickly installed and rewired.
- A special switching aid pre-stresses the lyre contact when the isolator lid is closed. This means that the fuse insert slides reliably into its final position without damaging the contact.
- Micro-switches for monitoring the lid position are readily integrated on the right and left.
- The unit can be protected from unauthorised switching via the readily accessible sealing device on the front of the unit.
- The spaciouly designed viewing window of the isolator lid allows easy monitoring of the fuse insert indicators.
- Test holes drilled in the viewing window allow direct measurement access to the contact parts of the fuse inserts.

NH isolator, sizes 00 to 3

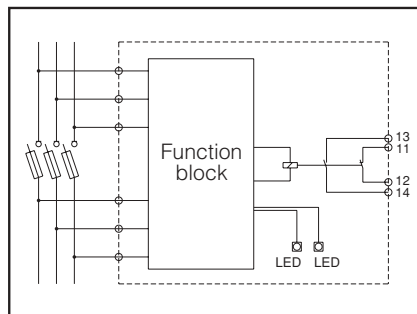
- Easy assembly with removable push-in isolator lid and top mounted contact hazard protection cover.
- Two-part contact hazard protection cover plate with service-friendly central unlocking facility allows connection in accordance with BGV-A2 (VBG 4), even whilst the supply end is live.
- Apart from its protective function, the design of the NH on-load isolator facilitates the activation and deactivation of electrical equipment and system components.
- The units may be actuated whilst live (see table, "Technical specifications" page 115).
- Micro-switches to indicate the switching position of the isolator lid are easily installed via snap-mounting on the left and right.
- The viewing window integrated into the lid unit has test holes which can be opened by sliding the viewing window, for direct measurement access to the contact parts of the fuse inserts (see photograph).



Electronic fuse monitoring

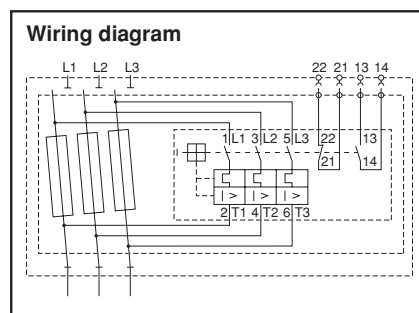
- No separate auxiliary voltage required.
- Automatic activation following fault rectification.
- Reliable functioning, thanks to surge-proof microelectronics.
- Readily accessible connector facilitates service-friendly connection of the signal tracks.
- Rapid response behaviour in the event of a fault.

Electronic fuse monitoring may be used in 50/60 Hz three-phase circuits ranging from 400 V AC to 690 V AC. The auxiliary voltage required for operation is obtained from the mains voltage (supply end) via live puller lugs. Consequently, this function is only available with the mains voltage connected and the isolator lid closed. If one or more of the NH fuse inserts is switched due to a malfunction, an error signal is generated. Evaluation is achieved by comparing the voltage on the puller lugs with the NH fuse inserts used (differential voltage ≥ 75 V). In the event of a fault, a corresponding signal message for further processing is provided via the separate relay contacts. Additionally, malfunctions are visually indicated by a red LED display, whilst a green LED indicates that the system is operational.



Electromechanical fuse monitoring

The connection clamps of the floating switch contacts which serve as indicators are arranged on the top of the isolator base. This arrangement guarantees extremely simple installation. The isolator lids can be removed without disconnecting any pilot wires, in the same way as NH isolators without fuse monitoring. Unlike an electronic monitor, this system operates without auxiliary power, yet still performs the same functions.



NH fused isolators, sizes 00 to 3

- The cable outlet – top or bottom – is selected directly during assembly on the same device. The switch cover unit is simply rotated through 180° (sizes 1 to 3).
- Reliable isolated or off-load position of the switch cover unit, thanks to the integral multi-function key.
- Switch locking can be achieved via the installation of padlocks in the closed and isolated position.
- For inspection purposes, there are viewing windows with integral holes in the switch cover unit or sliding viewing windows.
- Simple external/internal mounting of microswitches to indicate the switch position of the NH unit (lid unit).



Material:

NH isolators

Size	Sizes 000/00/1/2/3
Isolator lid	Fibreglass-reinforced polyamide
Contact hazard protection	Fibreglass-reinforced polyamide
Isolator chassis	Fibreglass-reinforced polyamide
Contact tracks	Silver-plated hard copper

NH fused isolators

Size	Sizes 00/1/2/3
Cover	Fibreglass-reinforced polyamide
Strip chassis	Duroplastic polyester
Contact tracks	Silver-plated hard copper

NH isolators

Technical specifications to VDE 0660, part 107/IEC 60 947-3

Size (NH fuse inserts to DIN 43 620)	000	000/00	1	2	3
Rated operating current I_e Conventional thermal current I_{th}	100 A 160 A ¹⁾	160 A 160 A	250 A 250 A	400 A 400 A	630 A 630 A
Rated operating voltage U_e	AC 690 V				
Rated insulation voltage U_i	800 V				
Rated surge voltage resistance U_{imp}	8 kV				
Conditional rated short-circuit current when protected with fuses	80 kA	50 kA	50 kA	50 kA	50 kA
Rated breaking capacity to VDE 0660, part 107/ IEC 60 947-3 (utilisation category)	400 V	AC-22B $I_e = 100$ A	AC-22B $I_e = 160$ A	AC-22B $I_e = 250$ A	AC-22B $I_e = 400$ A
	690 V	AC-21B $I_e = 100$ A	AC-22B $I_e = 160$ A	AC-21B $I_e = 250$ A	AC-21B $I_e = 400$ A
	440 V ²⁾	DC-21B $I_e = 100$ A	DC-21B $I_e = 160$ A	DC-21B $I_e = 250$ A	DC-21B $I_e = 400$ A
Mechanical life (switching cycles)	2000	1600	1000	600	600
Permissible ambient temperature	-25°C to +55°C				
Fire protection corresponding to	UL 94-V0				
$P_{Vmax}/$ fuse insert	7.5 W (9 W ¹⁾)	12 W	23 W	34 W	48 W

¹⁾ For 95 mm² connection cross-section (95 mm² connection pieces available on request).

²⁾ With population of phases L₁ and L₃.

Fuse monitoring

Technical specifications	Electromechanical fuse monitoring	Electronic fuse monitoring
Rated operating voltage U_e	AC 24 V to AC 690 V (50/60 Hz) DC 24 V to DC 250 V	AC 400 V to AC 690 V (50/60 Hz)
Rated surge voltage resistance U_{imp}	6 kV	6 kV
Response time	< 2 s	< 0.5 s
Auxiliary contacts	1 normally closed contact, 1 normally open contact	1 normally closed contact, 1 normally open contact, bounce-free
Load capacity of auxiliary contacts	1.5 A	2 A
Permissible ambient temperature	-25°C to +55°C	-25°C to +55°C
Displays	"I" switch dial position (operational) "O" switch dial position (error message)	1 green LED (operational) 1 red LED (error message)
Connection of auxiliary contacts	Terminal up to 1.5 mm ²	4-pole connector up to 1.5 mm ²
NH fuse inserts	with contacted, live puller lugs	

NH fused isolators

Technical specifications to VDE 0660, part 107/IEC 60 947-3

Size (NH fuse inserts to DIN 43 620)	00	1	2	3
Rated operating current I_e Conventional thermal current I_{th}	160 A 160 A	250 A 250 A	400 A 400 A	630 A 630 A
Rated operating voltage U_e	AC 690 V			
Rated insulation voltage U_i	800 V			
Rated surge voltage resistance U_{imp}	8 kV			
Conditional rated short-circuit current when protected with fuses	50 kA	50 kA	50 kA	50 kA
Rated breaking capacity to VDE 0660, part 107/ IEC 60 947-3 (utilisation category)	400 V	AC-22B $I_e = 160$ A	AC-22B $I_e = 250$ A	AC-22B $I_e = 400$ A
	690 V	AC-21B $I_e = 160$ A	AC-21B $I_e = 250$ A	AC-21B $I_e = 400$ A
Mechanical life (switching cycles)	1600	1000	1000	1000
Permissible ambient temperature	-25°C to +55°C			
Fire protection corresponding to	UL 94-V0			
$P_{Vmax}/$ fuse insert	12 W	23 W	34 W	48 W



Use of semi-conductor fuses in Rittal NH switchgear

The overload and short-circuit protection of semi-conductor components places very high demands on the fuse inserts, due to the time pattern for effective protection of the defective or damaged sub-circuit. Because semi-conductor components have a low thermal capacity, the integral disconnect value (I^2t value) of the semi-conductor fuse inserts type aR, gR or gRL must match the integral limit value of the semi-conductor cell being protected. Consequently, the tripping characteristic of the fuse inserts must be very fast, and overvoltage during the disconnection process (switching or arc voltage) must be as minimal as possible. Compared with fuse inserts for cable and line protection and transformer protection, the particular features of semi-conductor fuse inserts produce a comparatively high heat loss. The high heat loss is dissipated to the environment in the form of thermal energy. Because NH switchgear only has a limited capacity to dissipate thermal energy to the environment, the maximum heat loss ($P_{V \max}$ /fuse insert) is listed in the technical specifications of the NH switchgear. If the values exceed the heat loss specified by the manufacturer, the rated current should be reduced in accordance with the table opposite, or the minimum connection cross-section increased accordingly to encourage heat dissipation.

Semi-conductor fuses type aR/gR/gRL				Minimum connection cross-section (Cu) [mm ²]	Reduction factor for rated current
Size	I_N [A]	Operating category	Heat loss [W]		
00	25	gR	6	4	1.00
00	35	gR	9	6	1.00
00	50	gR	12	10	0.87
00	63	gR	15	16	0.87
00	80	aR	19	25	0.85
00	100	aR	21	35	0.85
00	125	aR	26	50	0.80
00	160	aR	34	70	0.75
1	160	gR	24	70	1.00
1	200	gR	27	95	1.00
1	250	gR	30	120	1.00
2	250	aR	105	120	0.77
2	315	aR	120	185	0.75
2	450	aR	140	2 x (30 x 5)	0.75
3	150	gR	40	70	0.90
3	200	gR	55	95	0.90
3	250	gR	72	120	0.88
3	350	gR	95	240	0.81
3	500	gR	130	2 x 150	0.76



Rittal NH bus-mounting on-load isolators – UL-approved

Product certifications and approvals are key pre-requisites for the global acceptance of industrial products. For this reason, Rittal consistently promotes international product approvals. The benefit to customers of UL recognition of NH bus-mounting on-load isolators, sizes 000 to 3, is impressively demonstrated by the safety of Rittal SV system components. Approval involves testing a variety of factors, including response under short-circuit conditions, temperature rise at rated current, dielectric strength, and general mechanical strength of the devices. Under the UL approvals, Rittal NH bus-mounting on-load isolators are classified strictly as fuse-carriers for NH fuse inserts without a load switching function. UL-approved NH fuse inserts with fusing recommendations, as shown in the table opposite, are likewise available on the market. These are combined semi-conductor and line protection fuses. Thanks to the gRL combination, these NH fuse inserts boast lower heat losses than conventional gR semi-conductor fuses.

Size NH	SIBA Part no.	I_N [A]	P_v [W]	$P_{vperm.}$ [W]	Operating category	Reduction factor
000	20 477 34.	16	3.2	7.5	gRL	1.00
000	20 477 34.	20	3.6	7.5	gRL	1.00
000	20 477 34.	25	4.2	7.5	gRL	1.00
000	20 477 34.	35	5.2	7.5	gRL	1.00
000	20 477 34.	40	5.6	7.5	gRL	1.00
000	20 477 34.	50	6.5	7.5	gRL	1.00
000	20 477 34.	63	7.6	7.5	gRL	1.00
000	20 477 34.	80	8.8	7.5	gRL	0.95
00	20 477 34.	16	3.2	10	gRL	1
00	20 477 34.	20	3.6	10	gRL	1
00	20 477 34.	25	4.2	10	gRL	1
00	20 477 34.	35	5.2	10	gRL	1
00	20 477 34.	40	5.6	10	gRL	1
00	20 477 34.	50	6.5	10	gRL	1
00	20 477 34.	63	7.6	10	gRL	1
00	20 477 34.	80	8.8	10	gRL	1
00	20 477 34.	100	10.5	10	gRL	0.98
00	20 477 34.	125	12	10	gRL	0.94
1	20 211 34.	63	8	22	gRL	1
1	20 211 34.	80	9.5	22	gRL	1
1	20 211 34.	100	12	22	gRL	1
1	20 211 34.	125	12.6	22	gRL	1
1	20 211 34.	160	23	22	gRL	0.98
1	20 211 34.	200	27	22	gRL	0.93
1	20 211 34.	250	33	22	gRL	0.86
1	20 211 34.	315	44	22	gRL	0.78
2	20 212 34.	160	23	33	gRL	1
2	20 212 34.	200	27	33	gRL	1
2	20 212 34.	250	30	33	gRL	1
2	20 212 34.	315	40	33	gRL	0.94
2	20 212 34.	350	43	33	gRL	0.92
2	20 212 34.	400	48	33	gRL	0.88
2	20 212 34.	450	50	33	gRL	0.86
2	20 212 34.	500	63	33	gRL	0.81

Assembly and function of bus-mounting fuse bases



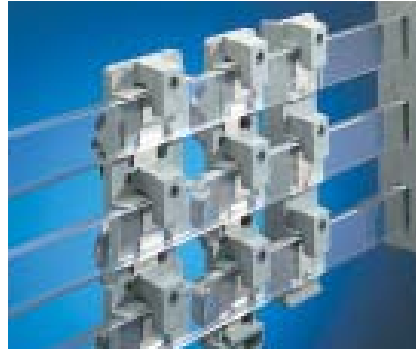
For clamping screw fastening

Support part:

Electrical threaded base with integral cable outlet terminals. On the bottom are the contact plates with integral screw terminals which are used to supply the component with power. Components D II and D III are fitted with D screw fitting inserts to DIN 49 516. The D 02 bus-mounting fuse base is prepared for D socket fitting inserts to DIN 49 523. The contact hazard protection covers are attached using the plug-type system.

Benefits:

- Reliable-contact, shake-proof connection or fastening to the busbars with infinitely adjustable screw terminals.
- Assembly benefits and service friendliness thanks to direct screw fastening of the components onto pre-assembled or existing busbar systems. This eliminates the time consuming work of adjustment and alignment.
- Time-saving dismantling of the bus-mounting fuse bases, even whilst the busbar system is live.
- Optimum cable routing on the outlet side, thanks to adequate recesses on the body of the base.
- A high level of contact reliability and prevention of contact heat and scorch points, thanks to the use of contact plates. The fuse inserts do not make direct contact with the busbars. This prevents the possibility of the busbars being destroyed by contact arc, should the fuse screw cap be inadequately tightened or loosened as a result of vibration.
- Special contact plate technology permits direct, final contact of the components on the busbars during assembly. Consequently, with the Rittal system, final attachment and contact is not determined by screw-fastening of the fuse inserts.



For snap-on mounting

Support part:

Electrical threaded base with integral cable outlet terminals. The contact plates which supply the infeed to the base are arranged on the underside, with integral spring-loaded foot pieces for snap-on mounting with a bar thickness of 5 or 10 mm. The D bus-mounting fuse bases are fitted with gauge rings to DIN 49 362. The D 02 bus-mounting fuse base is prepared for D socket fitting inserts to DIN 49 523. The contact hazard protection covers are attached using the plug-type system.

Benefits:

- Reliable-contact connection or attachment to the busbars, thanks to special spring-loaded foot pieces.
- Secure positioning on the busbar, thanks to a special functional element for automatic latching and manual unlocking.
- Safety is ensured by the Rittal Contact-Plus system. The contact plate system effectively separates electrical contacting from mechanical connection.
- Time-saving dismantling of the bus-mounting fuse base by simply unlocking the latching component, even with live busbar systems.
- Optimum cable routing on the outlet side, thanks to adequate recesses on the body of the base.
- The contact plate system with surface contact ensures a high level of contact stability for the fuse inserts and prevents contact heat and scorch points. The fuse inserts do not make direct contact with the busbars. This prevents the possibility of the busbars being destroyed by contact arc, should the fuse screw cap be inadequately tightened or loosened as a result of vibration.
- The Rittal contact plate system ensures final fastening and secure contact of the 3-pin base on the supply busbar, even without the fuse inserts in place.



Material:

- **Bus-mounting fuse base**
Fibreglass-reinforced, thermoplastic polyester (PBT).
Continuous operating temperature: max. 140°C.
Fire protection corresponding to UL 94-V0.
- **Contact hazard protection cover**
Talcum-reinforced polypropylene.
Continuous operating temperature: max. 100°C.
Fire protection corresponding to UL 94-V0.

Specifications:

D 02 – DIN 49 524
D II – DIN 49 510/49 326
D III – DIN 49 510/49 327



Laminated copper bars Rittal Flexibar "S"

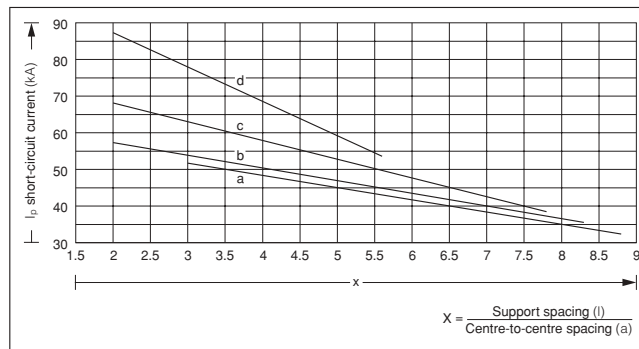
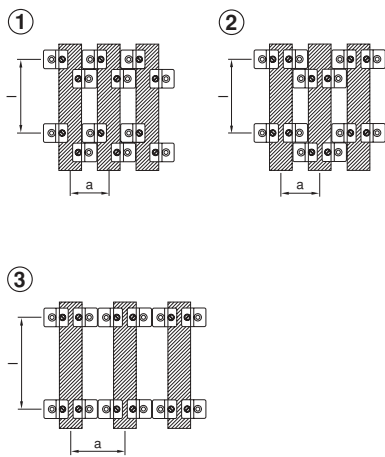
Short-circuit resistance diagram

Basis of test:
VDE 0660 part 500/IEC 60 439-1.
Test implemented:
Dynamic short-circuit resistance to
IEC 60 439-1.

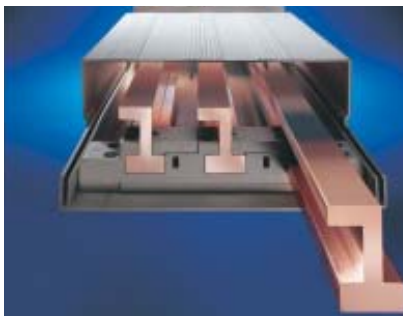
The dimensions for the support spacing (l)
and for the centre-to-centre spacing (a)
must be within the specified min./max.
limits.

The quotients of l/a can be used to
determine the permissible short-circuit
current I_p by using curves a to d. The
prescribed installation type must be taken
into account.

Type of assembly with universal support SV 3079.000

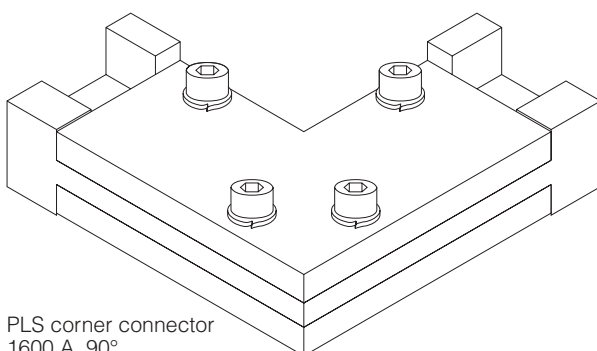


Curve	Support spacing (l) mm		Centre-to-centre spacing (a) mm	
	min.	max.	min.	max.
a	150	300	34	60
b	150	350	42	85
c	200	400	51	85
d	200	450	81	100

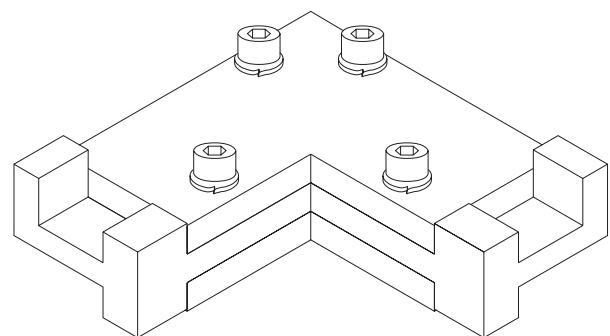


Angular connectors for Rittal PLS 800 A/1600 A

The Rittal PLS busbar system provides the
optimum basis for busbar assemblies in a
horizontal or vertical direction. If the
enclosures in a switchgear system are to
be positioned at an angle to one another,
this can be achieved with special angular
connectors. Where required, these can be
customised to suit the particular situation.
For details on prices and delivery times,
please contact Rittal.



PLS corner connector
1600 A, 90°



PLS corner connector
1600 A, 270°

Rated currents of busbars E-Cu (DIN 43 671)

DIN 43 671 specifies the continuous currents of busbars at an ambient temperature of 35°C and an average busbar temperature of 65°C. The continuous currents specified in the following table may be adjusted to alternative operating temperatures using a correction factor (k_2).

For safe operation with thermal reserve, it is desirable to limit the busbar temperature to a maximum of 85°C. However, the decisive factor is the lowest permissible continuous temperature of the components which directly contact the busbar system (fuse bases, outgoing cables etc.). The ambient air temperature of the busbars or the busbar system

should not be more than 40°C; an average of 35°C maximum is recommended.

For the continuous temperatures specified in the table, an emission level of 0.4 applies, equivalent to an oxidating copper bar. In modern busbar systems – built into enclosures with a protection category of IP 54 and above – a more favourable emission level can be assumed. The lower emission level facilitates an additional increase in continuous currents compared with the figures in DIN 43 671, irrespective of the specified air and busbar temperature. Experience has shown an increase in the continuous current of 6 – 10 % compared with the table figures for bare copper bars, and 60 % for surface-oxidised copper bars.

Example:

For a bare Cu bar 30 x 10 mm (E-Cu F30), DIN 43 671 specifies a continuous current of $I_{N65} = 573$ A. The correction factor diagram for square cross-sections indicates a correction factor $k_2 = 1.29$ at an air temperature of 35°C and a busbar temperature of 85°C. Thanks to the favourable emission level, the continuous current is increased by a further 6 – 10 %. In this example, a mean value of 8 % is used. Compared with the table figure from DIN 43 671, the Rittal rated current specification for a Cu bar 30 x 10 mm is:

$$I_{N85} = I_{N65} \cdot k_2 \cdot 8 \% \\ = 573 \text{ A} \cdot 1.29 \cdot 1.08 \\ I_{N85} = 800 \text{ A}$$

Continuous currents for busbars

Made from E-Cu with square cross-section in indoor locations at 35°C air temperature and 65°C bar temperature, vertical position or horizontal position of the bar width.

Width x thickness mm	Cross- section mm ²	Weight ¹⁾	Material ²⁾	Continuous current in A			
				AC current up to 60 Hz		DC current + AC current 16 Hz	
				Bare bar	Coated bar	Bare bar	Coated bar
12 x 2	23.5	0.209		108	123	108	123
15 x 2	29.5	0.262		128	148	128	148
15 x 3	44.5	0.396		162	187	162	187
20 x 2	39.5	0.351		162	189	162	189
20 x 3	59.5	0.529		204	237	204	237
20 x 5	99.1	0.882		274	319	274	320
20 x 10	199.0	1.770		427	497	428	499
25 x 3	74.5	0.663		245	287	245	287
25 x 5	124.0	1.110		327	384	327	384
30 x 3	89.5	0.796		285	337	286	337
30 x 5	149.0	1.330		379	447	380	448
30 x 10	299.0	2.660		573	676	579	683
40 x 3	119.0	1.060	E-Cu F30	366	435	367	436
40 x 5	199.0	1.770		482	573	484	576
40 x 10	399.0	3.550		715	850	728	865
50 x 5	249.0	2.220		583	697	588	703
50 x 10	499.0	4.440		852	1020	875	1050
60 x 5	299.0	2.660		688	826	696	836
60 x 10	599.0	5.330		985	1180	1020	1230
80 x 5	399.0	3.550		885	1070	902	1090
80 x 10	799.0	7.110		1240	1500	1310	1590

¹⁾ Calculated with a density of 8.9 kg/dm³

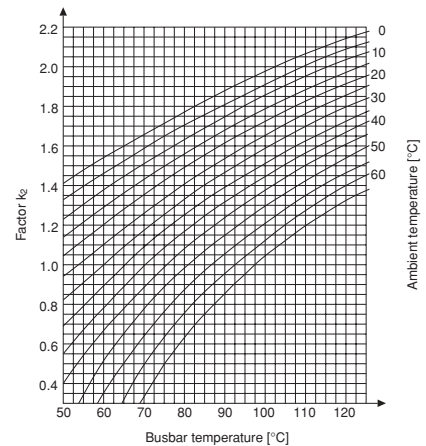
²⁾ Reference basis for the continuous current levels (figures taken from DIN 43 671)

Rittal PLS current load

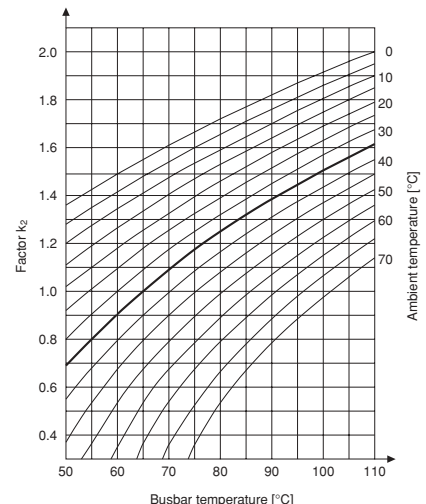
According to DIN 43 671, the correction factor k_2 (correction factor diagram) is used to correct the basic rated current with reference to the existing temperatures of the ambient air and the busbar. In accordance with DIN 43 671, the load figures of the Rittal PLS special bars have been determined on the basis of measurement trials, as follows:

PLS special bars	Basic rated current WS 50/60 Hz	
	for 35/75°C	for 35/65°C
	800 A	684 A
E-Cu 800 A	1600 A	1368 A

Correction factor diagram to DIN 43671



Correction factor diagram for PLS



Calculation of heat loss in busbars

The heat loss of busbars can be calculated using the following equation, provided the AC current resistance is known:

$$P_v = \frac{I_B^2 \cdot r \cdot l}{1000}$$

P_v: [W] heat loss

I_B: [A] operating current

r: [mΩ/m] AC current resistance of the busbar

l: [m] length of busbar which I_B flows through

Note:

The rated current specified for a busbar configuration is the maximum permissible current which this busbar is able to conduct on its entire length. Often, the heat loss calculated with this rated current does not represent a realistic value.

Depending on the spatial division of the power supply (or supplies) and outlets, busbars conduct graduated "operating currents". Therefore, it is expedient for heat loss to be calculated directly section by section using these actual currents.

In order to calculate the heat loss in accordance with the above formula, in individual cases it can be assumed that the rated current of a circuit and/or the "operating currents" of the busbar sections

and the corresponding length of the conductor system in the installation or distributor are known. By contrast, the resistance of conductor systems – particularly the AC current resistance of busbar arrangements – cannot simply be taken from a document or determined yourself. For this reason, and in order to obtain comparable results when determining heat losses, the following table shows the resistance values in mΩ/m for the most common cross-sections of copper busbars.

Alternating current resistance of busbars

	Strand dimensions ²⁾ mm	Resistance per 1 m of busbar system in mΩ/m ¹⁾							
		I 1 main conductor		III 3 main conductors		II II II 3 x 2 main conductors		III III III 3 x 3 main conductors	
		r _{GS}	r _{WS}	r _{GS}	r _{WS}	r _{GS}	r _{WS}	r _{GS}	r _{WS}
	1	2	3	4	5	6	7	8	9
1	12 x 2	0.871	0.871	2.613	2.613				
2	15 x 2	0.697	0.697	2.091	2.091				
3	15 x 3	0.464	0.464	1.392	1.392				
4	20 x 2	0.523	0.523	1.569	1.569				
5	20 x 3	0.348	0.348	1.044	1.044				
6	20 x 5	0.209	0.209	0.627	0.627				
7	20 x 10	0.105	0.106	0.315	0.318	0.158	0.160		
8	25 x 3	0.279	0.279	0.837	0.837	0.419	0.419		
9	25 x 5	0.167	0.167	0.501	0.501	0.251	0.254		
10	30 x 3	0.348	0.348	1.044	1.044	0.522	0.527		
11	30 x 5	0.139	0.140	0.417	0.421	0.209	0.211		
12	30 x 10	0.070	0.071	0.210	0.214	0.105	0.109		
13	40 x 3	0.174	0.174	0.522	0.522	0.261	0.266		
14	40 x 5	0.105	0.106	0.315	0.318	0.158	0.163		
15	40 x 10	0.052	0.054	0.156	0.162	0.078	0.084	0.052	0.061
16	50 x 5	0.084	0.086	0.252	0.257	0.126	0.132	0.084	0.092
18	60 x 5	0.070	0.071	0.210	0.214	0.105	0.112	0.070	0.079
19	60 x 10	0.035	0.037	0.105	0.112	0.053	0.062	0.035	0.047
20	80 x 5	0.052	0.054	0.156	0.162	0.078	0.087	0.052	0.062
21	80 x 10	0.026	0.029	0.078	0.087	0.039	0.049	0.026	0.039
22	100 x 5	0.042	0.045	0.126	0.134	0.063	0.072	0.042	0.053
23	100 x 10	0.021	0.024	0.063	0.072	0.032	0.042	0.021	0.033
24	120 x 10	0.017	0.020	0.051	0.060	0.026	0.036	0.017	0.028

Key to symbols:

r_{GS} Total resistance of busbar system when used for DC current in mΩ/m

r_{WS} Total resistance of busbar system when used for AC current in mΩ/m

¹⁾ The resistance figures are based on an assumed average conductor temperature of 65°C (ambient temperature + self-heating) and a specific resistance of

$$P = 20.9 \left[\frac{\text{m}\Omega \cdot \text{mm}^2}{\text{m}} \right]$$

²⁾ Dimensions match those of standard DIN 43 671

Connection of busbars to DIN 43 673, part 1

DIN 43 673 sets out the guidelines for connections with busbars whose rated current is specified in DIN 43 671. The relevant parameters are the hole diameter, the number of holes and their position, and the size of the connection screws. Busbar connection to DIN 43 673 is used, for example, for shipping splits between two enclosure units or for connecting two systems which cross.

Shipping splits are often connected with Cu brackets. The Cu bracket is packed above the two busbars being connected. Optimum contact is achieved if the busbar and bracket are screw-fastened as per the guidelines in DIN 43 673.

The possible torques of the screws used are sufficient for safe electrical connection of busbars which are slightly height-offset. Plate clamps are not suitable for such applications. They are only used for connecting laminated flat copper bars. In the case of solid copper brackets, the possible tightening torques are not sufficient to compensate for a possible bar offset (shown in an exaggerated form in Figure 1b). Punctiform contact (due to the bar offset) cannot be reliably rectified by a plate clamp. Due to the cross-section taper occurring at the transition point, this will result in an impermissible temperature rise.

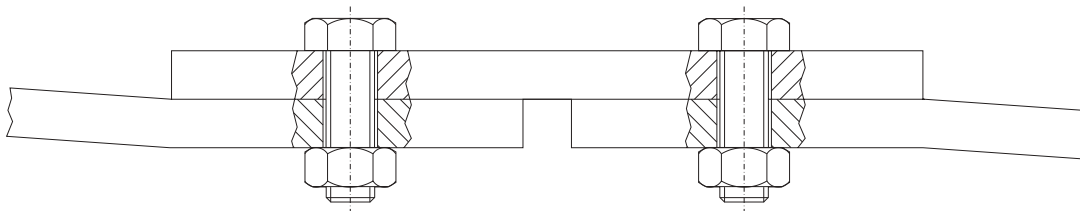
DIN 43 673 contains guidelines on the arrangement of the holes. Depending on the busbar width, there may be one or more holes and various drill hole patterns.

In the case of screw-fastened busbars, a weakening of the conductor material occurs as a result of drilling the hole. However, this does not have a disadvantageous effect, since the resultant weak point is compensated by the conductive screw material. Moreover, at the connection point there are two busbars on top of one another, i.e. the busbar thickness is doubled. The weakening of the material caused by the drilled hole is fully compensated.

In addition to the correct size of the hole and the screw used, the Cu busbars must also have an adequate overlap. Slots are permissible on one side of the connection. Figure 3 shows the valid figures for dimensions b, d, e₁ and e₂.

Figure 1:
Bracket connection

a) Firmly screw-fastened



b) With plate clamp
(Not permissible in this form)

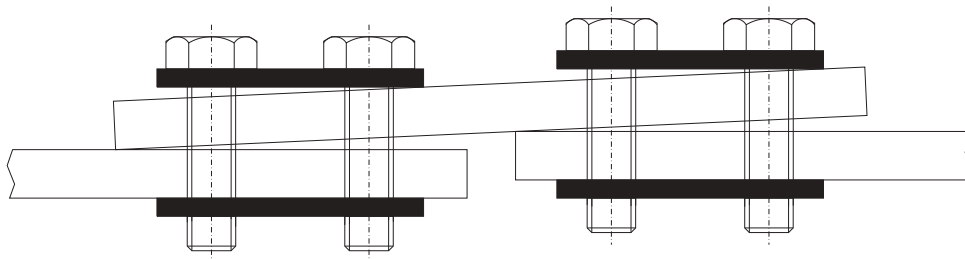


Figure 2:
Screw connection

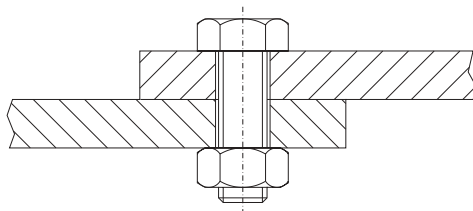


Figure 3:
Hole patterns and holes to DIN 43 673

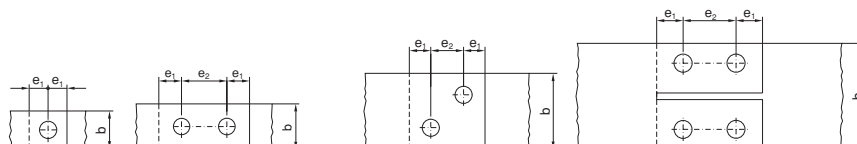
Bar widths	12 to 50			25 to 60			60			80 to 100		
Shape ¹⁾	1			2			3			4		
Drilled holes in the bar ends (drilling pattern)												
	Nominal width b	d	e ₁	d	e ₁	e ₂	e ₁	e ₂	e ₃	e ₁	e ₂	e ₃
Hole size	12	5.5	6	–	–	–	–	–	–	–	–	–
	15	6.6	7.5	–	–	–	–	–	–	–	–	–
	20	9.0	10	–	–	–	–	–	–	–	–	–
	25	11	12.5	11	12.5	30	–	–	–	–	–	–
	30	11	15	11	15	30	–	–	–	–	–	–
	40	13.5	20	13.5	20	40	–	–	–	–	–	–
	50	13.5	25	13.5	20	40	–	–	–	–	–	–
	60	–	–	13.5	20	40	17	26	26	–	–	–
	80	–	–	–	–	–	–	–	–	20	40	40
	100	–	–	–	–	–	–	–	–	20	40	50

Permissible deviations for hole-centre distances ± 0.3 mm

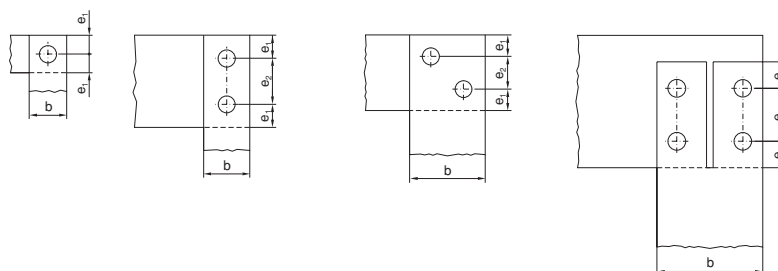
¹⁾ Shape designations 1 – 4 match DIN 46 206, part 2 – Flat-type screw terminal

Figure 4:
Examples of busbar screw connections

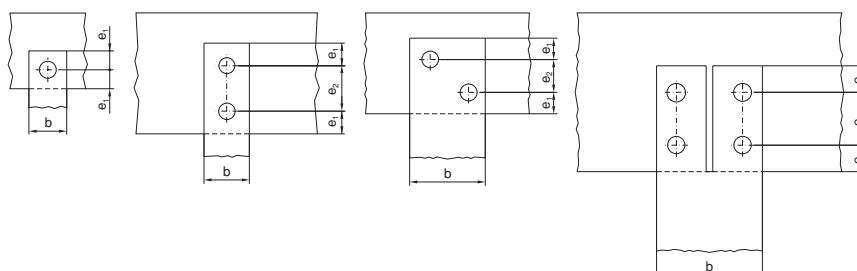
Longitudinal connections



Angular connections



T-connections



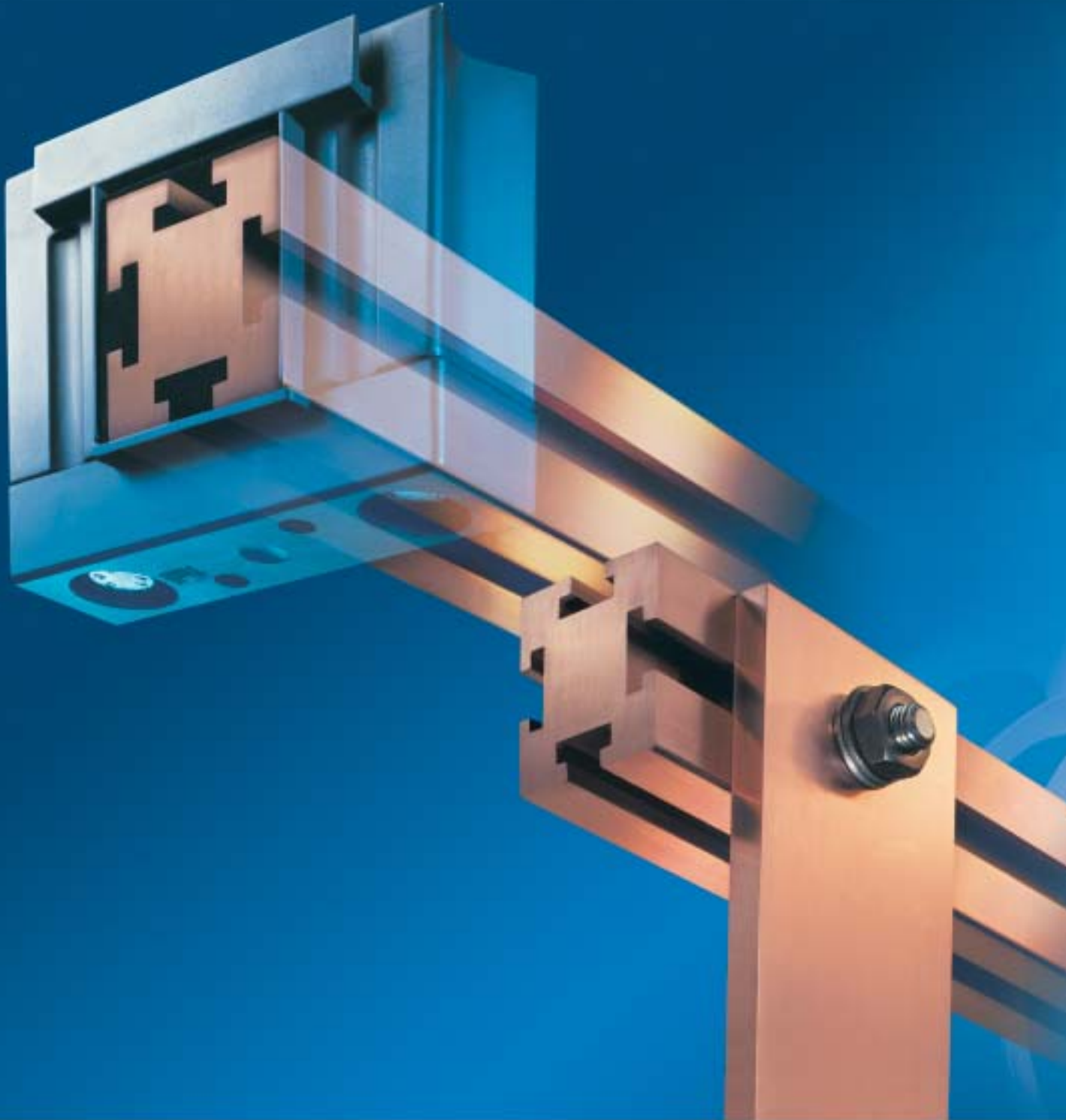
Dimensions b, d, e₁ and e₂ as shown in the table.
Slots are permissible in the end of a bar or end of a bar stack.

Rittal Maxi-PLS

This is the ideal combination for low-voltage distributors and switchgear in the heavy current range. The system is assembled

without any form of machining (such as sawing, drilling, bending etc.).

Therefore, this future-oriented, fully modular system offers new dimensions in fast assembly and safety.



In one system

- Rittal SV-TS 8 enclosure system.
- Rittal Maxi-PLS compact busbars.

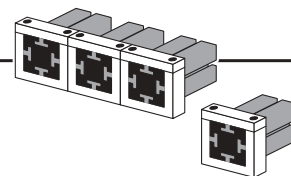
A vision of the future

- Standard components
- Easy, fast assembly
- Compact, secure solutions
- Tailor-made for a broad range of applications

up to 2000 A / up to 3200 A

Bar centre distance
100 mm

Bar centre distance
150 mm



Maxi-PLS system
2000 A/3200 A

System concept

- All manual machining is eliminated.
- Standardised, cost-effective, batch-produced components.
- Type testing of the system technology.
- Compact busbar with four attachment levels; bar length tailored to the enclosure size.
- Standardised contact hazard protection.

System benefits

- Increased productivity (easier project planning, no manual production of busbar connections and connection points, faster assembly).
- Compact configuration; easy access to all connection points.
- High standard of safety.

All you have to do is make your selection, plan and install!

Ingeniously simple assembly of low-voltage distributors and switchgear in the heavy current range

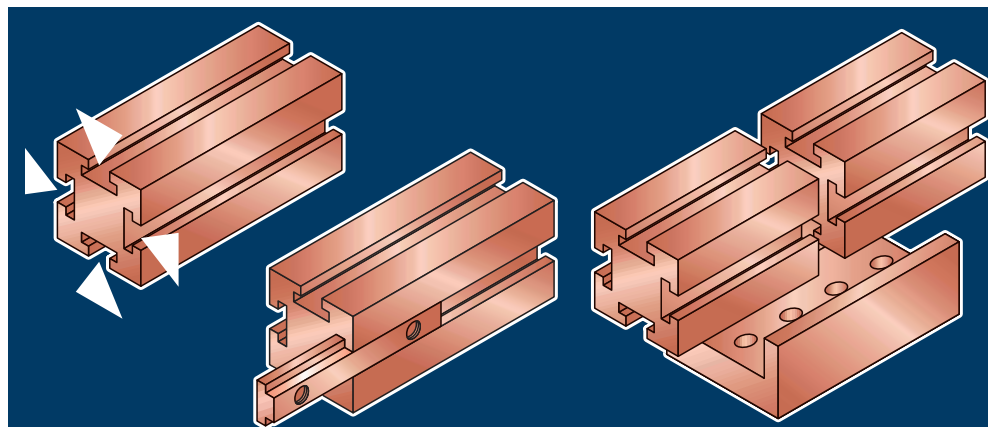
The Rittal SV-TS 8/Maxi-PLS system components are supplied ready to assemble.

All modules are standardised and batch-produced to ensure cost-effectiveness. In conventional systems, individual components must be planned and manufactured separately, an expensive and time-consuming process (e.g. supports for assembly inside the enclosure, copper bars and busbar connections, and contact hazard protection components). The individual sawing, drilling and bending involved is particularly time-consuming.

Rittal SV-TS 8/Maxi-PLS provides the ideal connection between the power supply (e.g. transformer of a plant or installation) and the power distribution system, right down to the smallest piece of equipment.

The Rittal SV-TS 8/Maxi-PLS concept permits the configuration of low-voltage distributors in the following power categories:

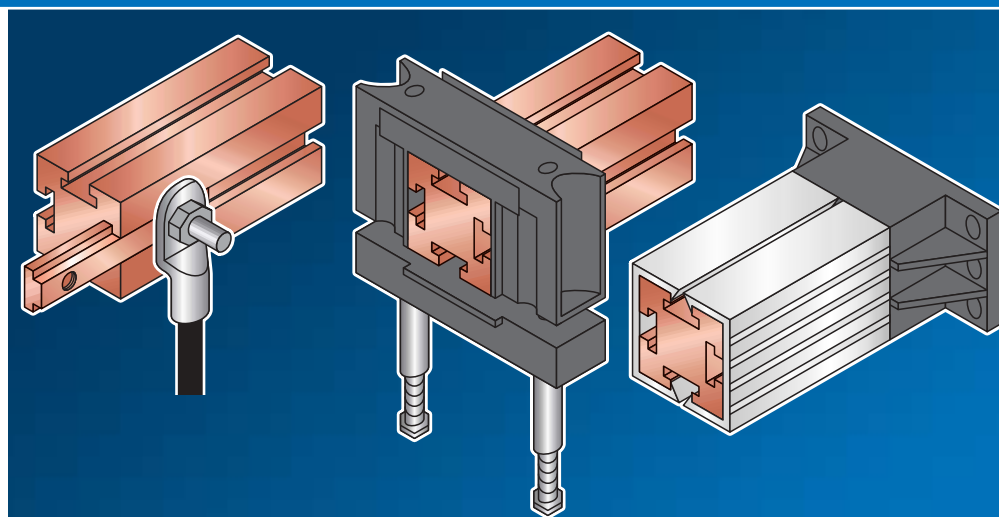
- up to 2000 A
- up to 3200 A.



- Compact design with square profile cross-section (45 x 45 mm to 2000 A, 60 x 60 mm to 3200 A).
- The section lengths are sized to match the enclosure widths.

Attachment and baying with no drilling required

- Four mounting levels.
- T-slots for infinitely variable positioning of the attachment points.
- Simple baying of switch panels.



Simple, practical connection

- Terminal studs and connection plates for ring terminals, as well as all variants of round conductors and flat bars.

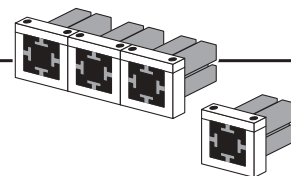
Support to meet every requirement

- Busbar supports for assembly of the main distributor. They are positioned on system attachments fitted in the upper enclosure frame.

- End support for simple, individual configuration of cable connection systems. Fast mounting on TS/PS punched sections with mounting flanges 23 x 73 mm.

All-round contact hazard protection

- Individual cover with simple clip-on mounting.
- Avoidance of small arcs.



TS 8 – The Ri-volutionary Rittal Top enclosure system

- Fast assembly in rows of holes on a 25 mm pitch pattern to DIN.
- TS 8 system attachments for fast mounting of Maxi-PLS supports and power circuit-breakers, no drilling required.
- Option of doors or partial doors on all sides.

Rittal Power distribution

Further information about the TS 8 and its applications in conjunction with Rittal Maxi-PLS and beyond can be found in the TS 8 brochure RI-VOLUTION.

System technology: Fast, compact, secure!

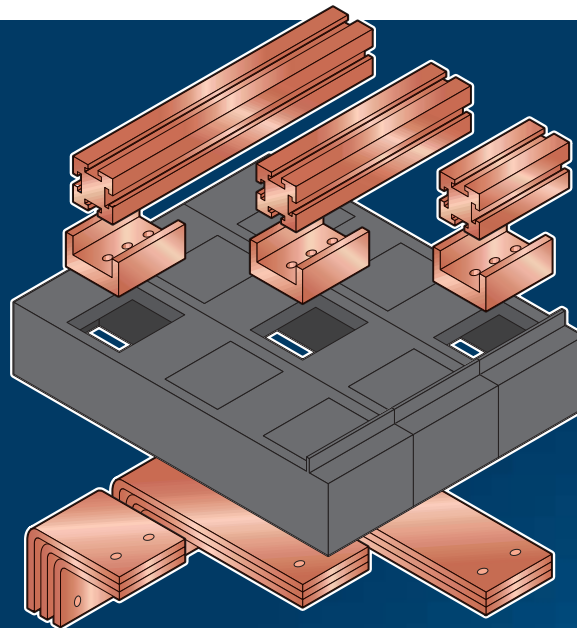
Benefits of using standardised system packages for commercially available power circuit-breakers

Configuration of the Maxi-PLS compact busbars is simple and fast with standard components.

This technology permits compact, parallel bar arrangement, with positioning of the connections tailored to the respective power circuit-breakers.

Standardised, type-tested connections (to DIN EN 60 439-1):

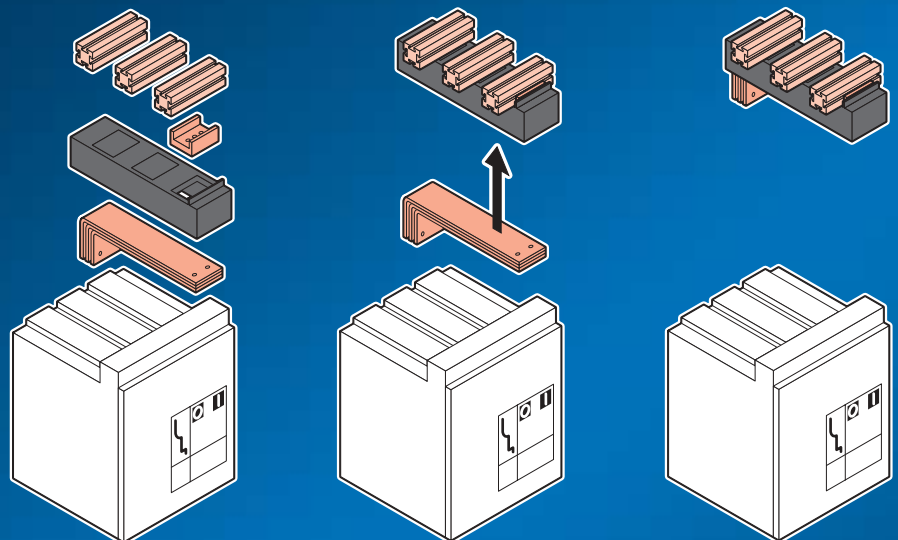
- From the infeed cable connection of the switch panel
- Via the connections of the power circuit-breaker
- To the distributor busbar for NH fused isolators



Three phases connected in parallel

In the modular system, the "heart" of the Maxi-PLS connection technology is quickly created, for a compact solution with perfect insulation:

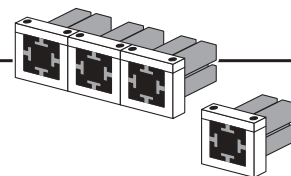
- Low-loss connection points. Easy and compact, with U contact makers.
- Every phase is shielded separately. Isolator chassis for perfectly insulated routing of the connection brackets.
- To fit all standard power circuit-breakers. Pre-assembled connection brackets, ready to install.



No sawing, bending or drilling required

For each phase, the U contact maker, isolator chassis and connection bracket form a single unit. Each unit is screw-fastened to the Maxi-PLS compact busbar using a sliding block.

The centre-to-centre spacing of the connection brackets is adjusted with infinite variation to the respective power circuit-breaker.



Rittal SV-TS 8 enclosure system

Simple baying

- Switch panels divided for transportation purposes.
- Baying connection is created even with fully populated enclosures.

Prepared and ready to install for Maxi-PLS components

- The system attachment to accommodate the Maxi-PLS busbar supports is suspended from the upper enclosure frame and screw-fastened. Made from stainless steel to avoid induced heat.
- TS/PS punched sections with mounting flanges, 23 x 73 mm, are simply located into the vertical adaptor sections and fastened into place. They are used, amongst other things, for fast assembly of Maxi-PLS end supports, T-bar supports and system support rails.

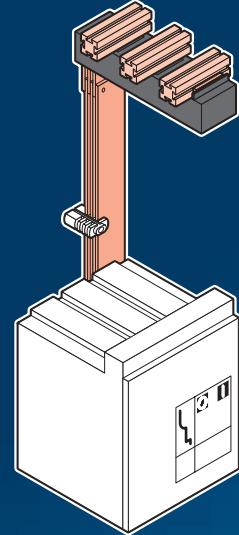
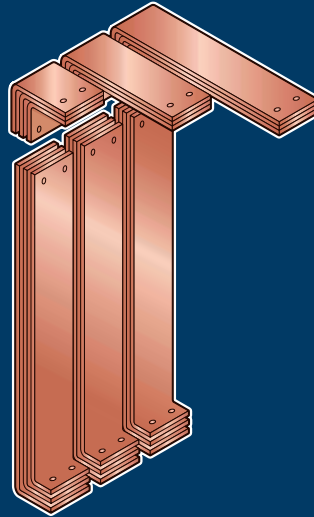
Connection components: Simply complete!

The all-inclusive modular system for switch panels

The SV-TS 8 enclosure system is designed for all commercially available power circuit-breakers.

With ready-to-install connection components, contact to Rittal Maxi-PLS compact busbars is quickly and easily achieved on both the inlet and the outlet side. All connection components are type-tested.

Its simple, fast assembly, type-tested safety and fully modular system sets ingenious new standards for low-voltage distributors.



For a precise-fit connection to the power circuit-breaker

- Ready-to-install connection bars to match the respective power circuit-breaker.

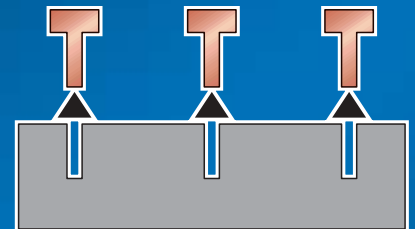
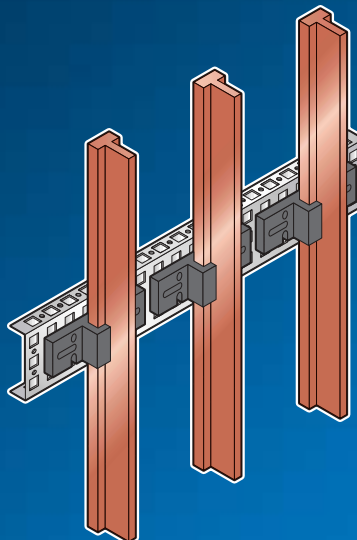
- Stacking insulators to support the power circuit-breaker connection bars ensure added safety. Retrospective use is also no problem.

The modular system is extended to other applications

The outgoing panel for NH fused isolators is the ideal system supplement.

The separate, transportable SV-TS 8 enclosures (incoming and outgoing feeder panel) may be bayed on site, and the Maxi-PLS main busbars retrospectively joined together.

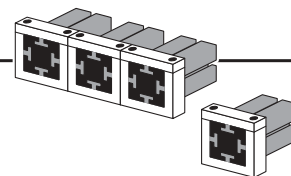
The mechanical and electrical components are standardised and mass-produced for installation of the isolators.



Outgoing panel for NH fused isolators (up to 800 A/1600 A)

- Continuous top mounting of the T-bars thanks to special T-bar supports. Mounting on PS punched sections with mounting flanges 23 x 73 mm with a bar centre distance of 185 mm.

- Compact connection between Maxi-PLS main busbars and T-distributor busbars with the connection kit.



Rittal SV-TS 8 enclosure system – the basis for incoming and outgoing feeder panels

- High load-capacity system support rails with variable attachment points for mounting the power circuit-breaker.
- Standardised fastening levels for NH fused isolators such as ABB SlimLine, Jean Müller SASIL etc.
- Free access and shielding as required. Doors or partial doors may be inserted on the front and rear.



Maxi-PLS system
2000 A/3200 A

Overview of Rittal SV-TS 8 and Maxi-PLS components

The futuristic modular system

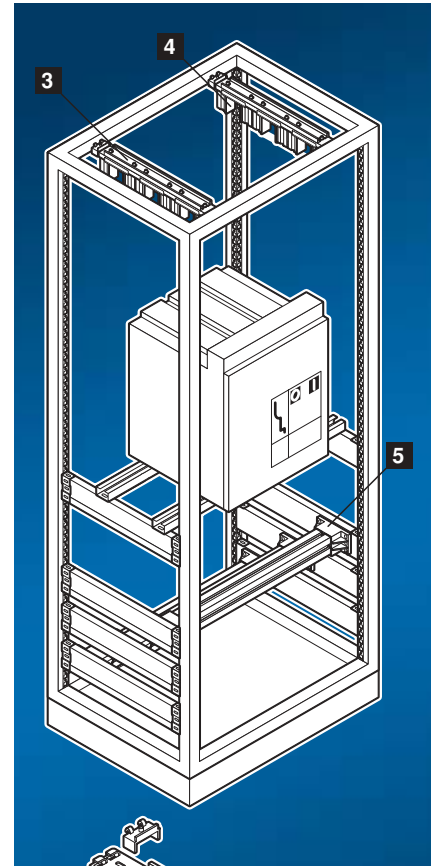
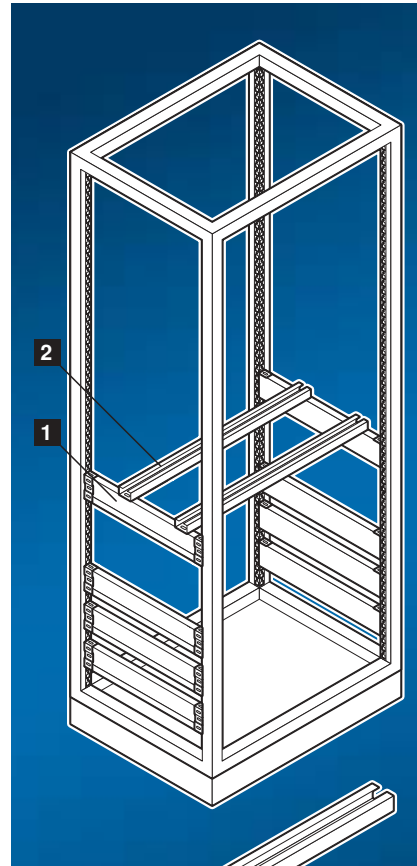
SV-TS 8 enclosures are fully prepared

The enclosure is fully fitted with three-piece gland plate, rear panel, roof and door/partial doors. System punched sections with mounting flanges to accommodate the end supports and system support rails for the power circuit-breakers are fitted and ready to install.

Standardised Maxi-PLS busbars with ingenious fastening technology

Thanks to the perfect system technology and tailored dimensional pitch pattern, Maxi-PLS supports and bars ensure precise-fit, simple and fast installation.

With the aid of sliding blocks or studs, the four attachment levels of the Maxi-PLS busbars permit infinitely variable attachment and contacting of round conductors, laminated flat copper and Maxi-PLS connection brackets and connection kits.



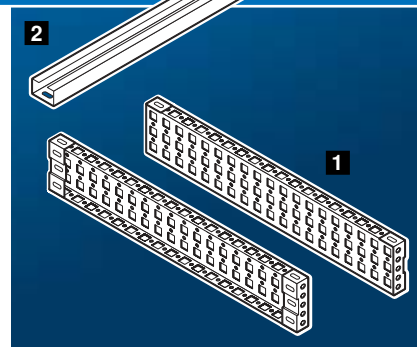
System packages for all commercially available power circuit-breakers

Maxi-PLS busbars, in conjunction with the isolator chassis, the U contact washers and the connection brackets, form the heart of the modular system for connecting power circuit-breakers up to 3200 A with standardised components.

The connection kits are precisely tailored to the respective power circuit-breakers.

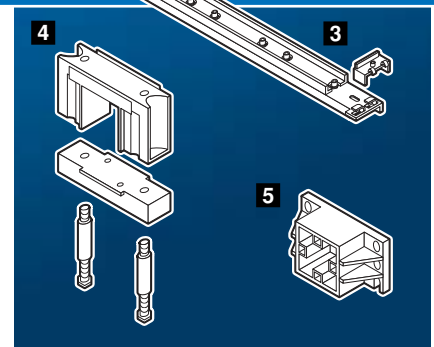
Rittal SV-TS 8 and Rittal Maxi-PLS – fast, straightforward system configuration without machining (no sawing, drilling, bending etc.).

Type-tested to EN 60 439-1/IEC 60 439-1.



1 TS punched sections with mounting flanges 23 x 73 mm

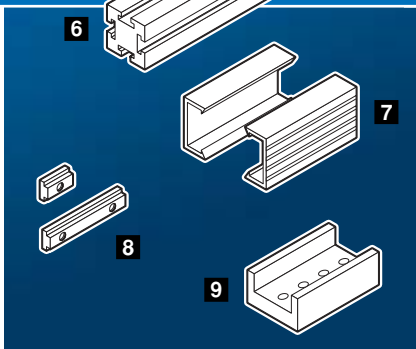
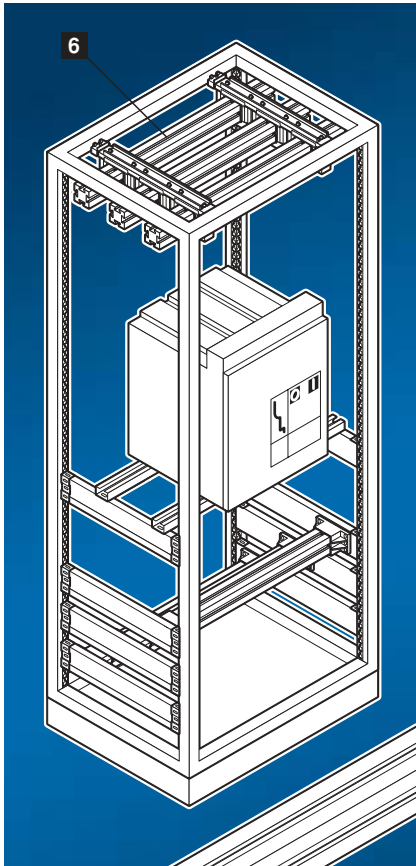
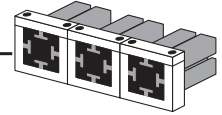
2 System support rail



3 Maxi-PLS system attachment

4 Maxi-PLS busbar support

5 Maxi-PLS end support

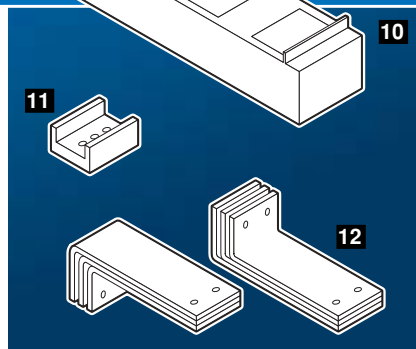
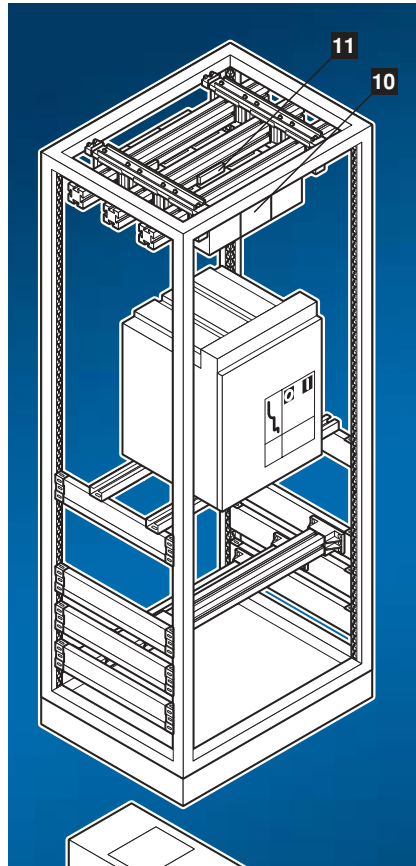


6 Maxi-PLS busbars, E-Cu 57

7 Maxi-PLS cover section

8 Maxi-PLS sliding blocks

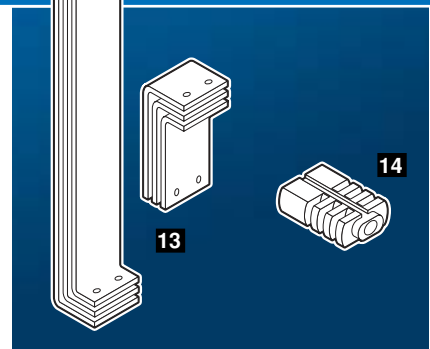
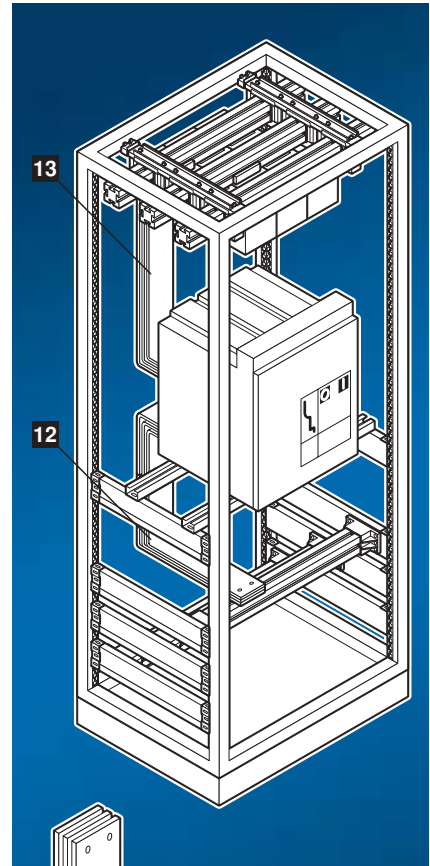
9 Maxi-PLS longitudinal connector, E-Cu 57



10 Maxi-PLS isolator chassis

11 Maxi-PLS U contact makers, E-Cu 57

12 Maxi-PLS connection brackets, E-Cu 57



13 Maxi-PLS connector kit, top/bottom

14 Maxi-PLS stacking insulator

Rittal Maxi-PLS

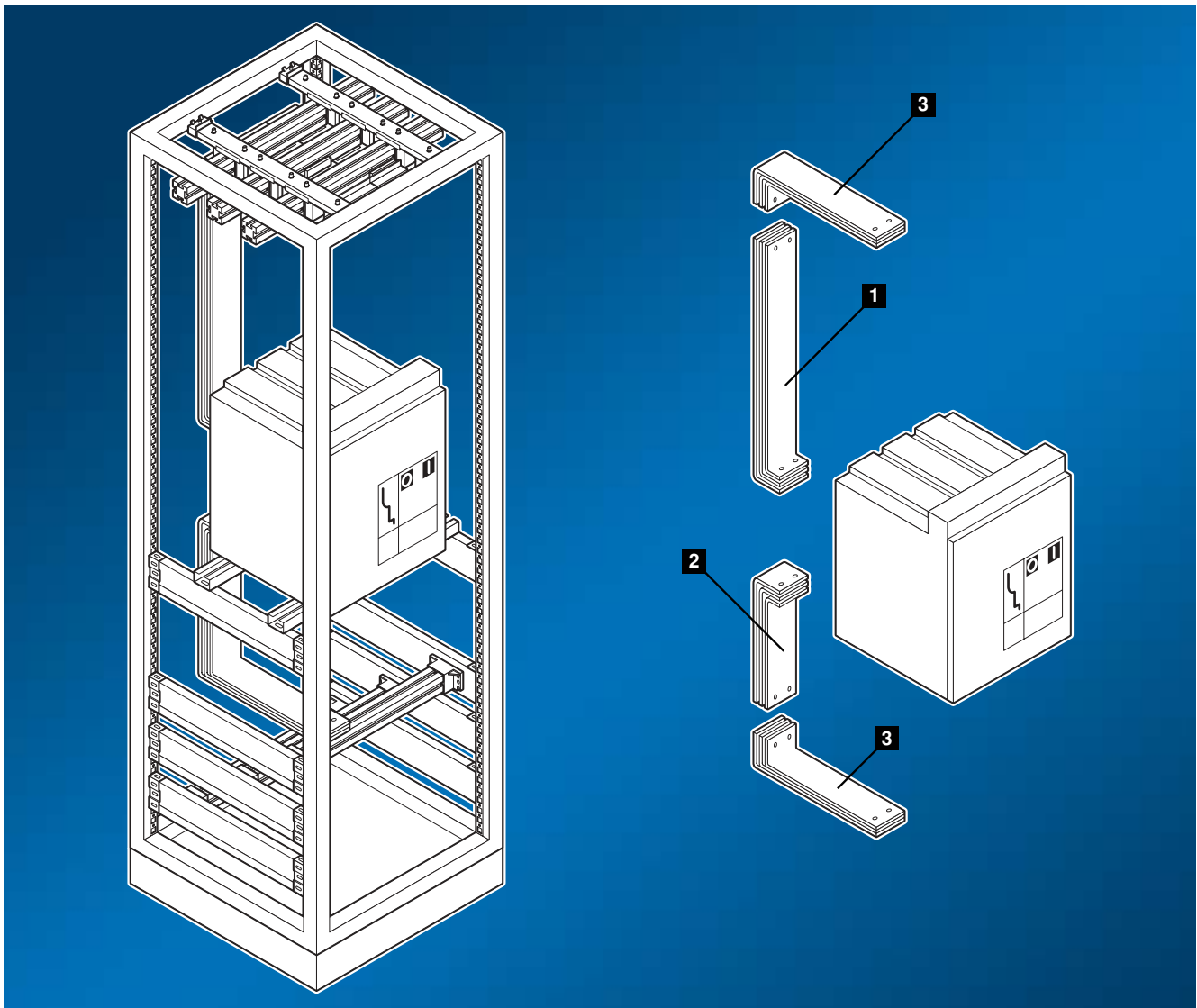
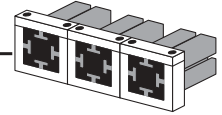
Connector kits

Siemens 3WN6			Maxi-PLS connector kit**		Approx. weight (kg)	Accessories: Maxi-PLS		
Size (BG)	I _e [A]	Version	top	bottom		Connector angles	Isolator chassis	U contact makers
			Model No. SV			top/bottom	Model No. SV	Model No. SV
I	630	Static (VT*)	9641.030	9641.040	16/10	9640.430	9640.020	9640.170
	800		9641.070	9641.080	16/10	9640.430	9640.020	9640.170
	1000		9641.110	9641.120	31/19.5	9640.440	9640.020	9640.170
	1250		9641.150	9641.160	31/19.5	9640.440	9640.020	9640.170
	1600		9641.190	9641.200	31/19.5	9640.440	9640.020	9640.170
I	630	Static (HT*)	9641.010	9641.020	16/10	9640.430	9640.020	9640.170
	800		9641.050	9641.060	16/10	9640.430	9640.020	9640.170
	1000		9641.090	9641.100	31/19.5	9640.440	9640.020	9640.170
	1250		9641.130	9641.140	31/19.5	9640.440	9640.020	9640.170
	1600		9641.170	9641.180	31/19.5	9640.440	9640.020	9640.170
I	630	Rack-mounted (VT*)	9641.350	9641.360	16/10	9640.430	9640.020	9640.170
	800		9641.390	9641.400	16/10	9640.430	9640.020	9640.170
	1000		9641.430	9641.440	31/19.5	9640.440	9640.020	9640.170
	1250		9641.470	9641.480	31/19.5	9640.440	9640.020	9640.170
	1600		9641.510	9641.520	31/19.5	9640.440	9640.020	9640.170
I	630	Rack-mounted (HT*)	9641.330	9641.340	16/10	9640.430	9640.020	9640.170
	800		9641.370	9641.380	16/10	9640.430	9640.020	9640.170
	1000		9641.410	9641.420	31/19.5	9640.440	9640.020	9640.170
	1250		9641.450	9641.460	31/19.5	9640.440	9640.020	9640.170
	1600		9641.490	9641.500	31/19.5	9640.440	9640.020	9640.170

Siemens 3WL Moeller IZM			Maxi-PLS connector kit**		Approx. weight (kg)	Accessories: Maxi-PLS		
I _e [A]	Version	top	bottom	Connector angles		Isolator chassis	U contact makers	
		Model No. SV		top/bottom		Model No. SV	Model No. SV	Model No. SV
630	Static (VT*)	9644.030	9644.040	16/10	9640.430	9640.020	9640.170	
800		9644.070	9644.080	16/10	9640.430	9640.020	9640.170	
1000		9644.110	9644.120	16/10	9640.430	9640.020	9640.170	
1250		9644.150	9644.160	31/19.5	9640.440	9640.020	9640.170	
1600		9644.190	9644.200	31/19.5	9640.440	9640.020	9640.170	
2000		9644.510	9644.520	41/20.5	9640.450	9640.020	9640.170	
630	Static (HT*)	9644.010	9644.020	16/10	9640.430	9640.020	9640.170	
800		9644.050	9644.060	16/10	9640.430	9640.020	9640.170	
1000		9644.090	9644.100	16/10	9640.430	9640.020	9640.170	
1250		9644.130	9644.140	31/19.5	9640.440	9640.020	9640.170	
1600		9644.170	9644.180	31/19.5	9640.440	9640.020	9640.170	
2000		9644.490	9644.500	41/20.5	9640.450	9640.020	9640.170	
630	Rack-mounted (VT*)	9644.310	9644.320	16/10	9640.430	9640.020	9640.170	
800		9644.350	9644.360	16/10	9640.430	9640.020	9640.170	
1000		9644.390	9644.400	16/10	9640.430	9640.020	9640.170	
1250		9644.430	9644.440	31/19.5	9640.440	9640.020	9640.170	
1600		9644.470	9644.480	31/19.5	9640.440	9640.020	9640.170	
2000		9644.530	9644.540	41/20.5	9640.450	9640.020	9640.170	
630	Rack-mounted (HT*)	9644.290	9644.300	16/10	9640.430	9640.020	9640.170	
800		9644.330	9644.340	16/10	9640.430	9640.020	9640.170	
1000		9644.370	9644.380	16/10	9640.430	9640.020	9640.170	
1250		9644.410	9644.420	31/19.5	9640.440	9640.020	9640.170	
1600		9644.450	9644.460	31/19.5	9640.440	9640.020	9640.170	
2000		9644.550***	9644.560***	41/20.5	9640.450	9640.020	9640.170	

Mitsubishi AE-SS			Maxi-PLS connector kit**		Approx. weight (kg)	Accessories: Maxi-PLS		
I _e [A]	Version	top	bottom	Connector angles		Isolator chassis	U contact makers	
		Model No. SV		top/bottom		Model No. SV	Model No. SV	Model No. SV
1000	Static (VT*)	9645.030	9645.040	16/10	9640.430	9640.020	9640.170	
1250		9645.070	9645.080	31/19.5	9640.440	9640.020	9640.170	
1600		9645.110	9645.120	31/19.5	9640.440	9640.020	9640.170	
2000		9645.150	9645.160	47/29	9640.450	9640.020	9640.170	
1000	Static (HT*)	9645.010	9645.020	16/10	9640.430	9640.020	9640.170	
1250		9645.050	9645.060	31/19.5	9640.440	9640.020	9640.170	
1600		9645.090	9645.100	31/19.5	9640.440	9640.020	9640.170	
2000		9645.130	9645.140	47/29	9640.450	9640.020	9640.170	
1000	Rack-mounted (VT*)	9645.350	9645.360	16/10	9640.430	9640.020	9640.170	
1250		9645.390	9645.400	31/19.5	9640.440	9640.020	9640.170	
1600		9645.430	9645.440	31/19.5	9640.440	9640.020	9640.170	
2000		9645.470	9645.480	47/29	9640.450	9640.020	9640.170	
1000	Rack-mounted (HT*)	9645.330	9645.340	16/10	9640.430	9640.020	9640.170	
1250		9645.370	9645.380	31/19.5	9640.440	9640.020	9640.170	
1600		9645.410	9645.420	31/19.5	9640.440	9640.020	9640.170	
2000		9645.450	9645.460	47/29	9640.450	9640.020	9640.170	

* VT → Switch position in door cutout ** Extended delivery times *** For the installation in 800 mm deep enclosures Technical modifications reserved.
HT → Switch position behind the door



Maxi-PLS connector kits, top/bottom

For installation in 600 mm deep enclosures.
Recommended enclosure size WHD 600 x 2000 x 600 mm.
Connection kits for other enclosure sizes available on request.

For commercially available power circuit-breakers from Mitsubishi, Moeller and Siemens up to 2000 A. The correct selection should be made according to the following criteria:

- Make
- Desired rated current I_e
- "Static installation" or rack-mounted
- Position of the power circuit-breaker:
HT → Switch position behind the enclosure door
VT → Switch position in the door cutout

1 Connection kit, top

2 Connection kit, bottom

3 Connection bracket for Maxi-PLS 2000 A, see page 143.

Maxi-PLS stacking insulator

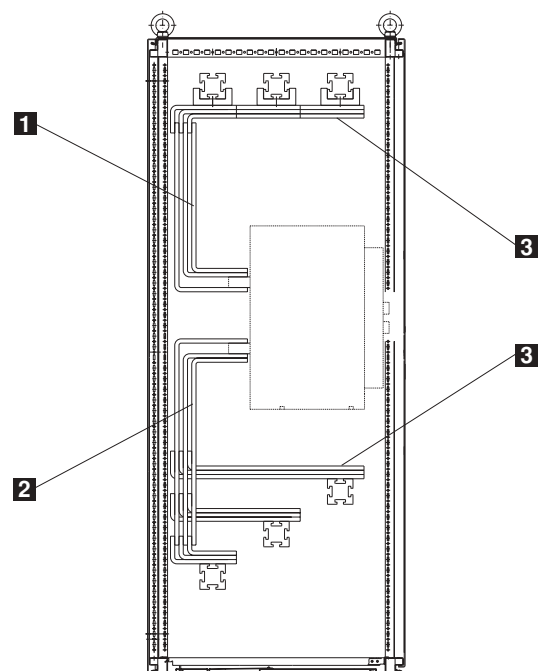
To support the connection kits top/bottom, see page 178.

Maxi-PLS isolator chassis

For isolated routing of Maxi-PLS connection brackets, see page 141.

Maxi-PLS U contact makers

For contacting the connection brackets to the Maxi-PLS busbars, see page 141.



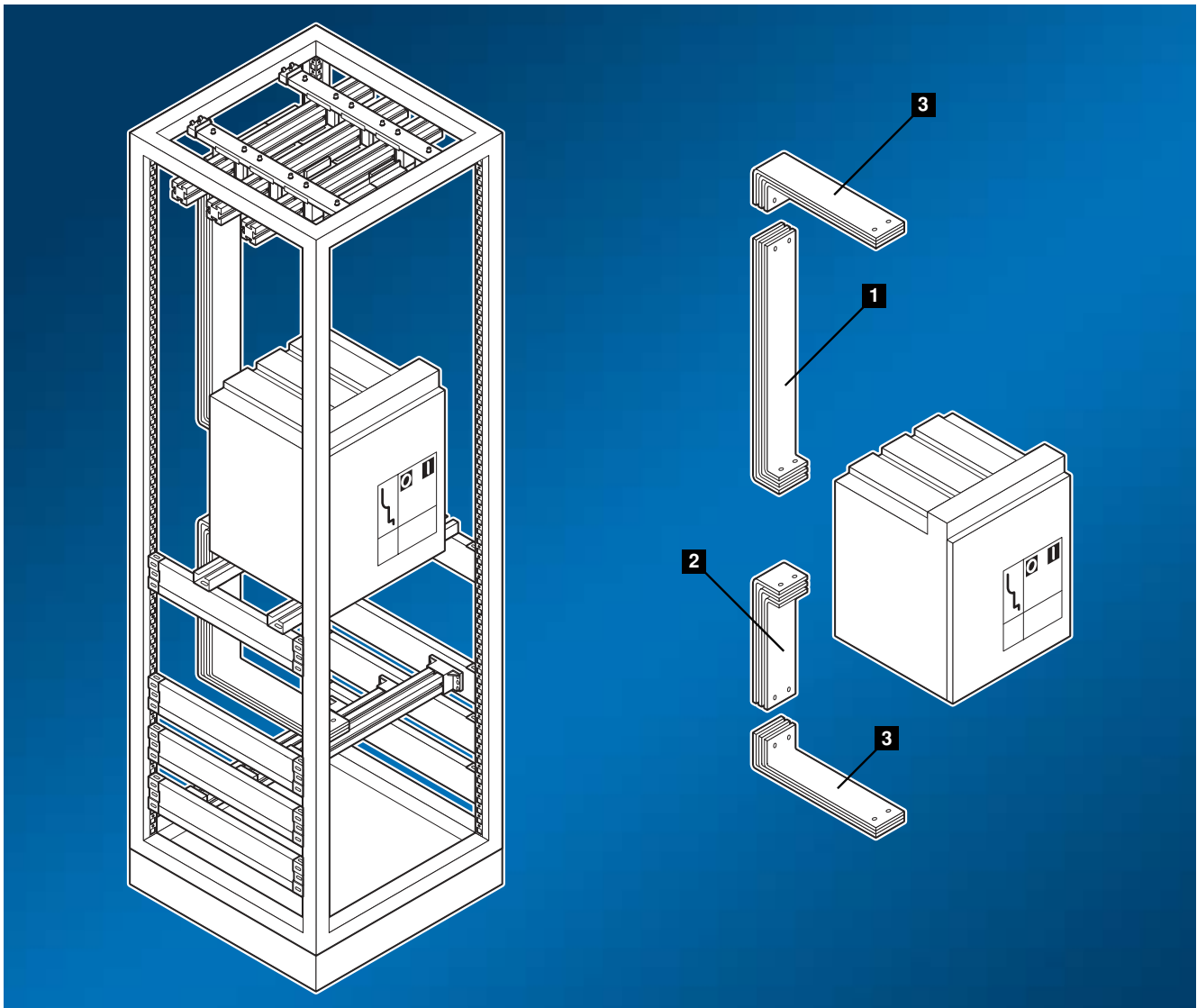
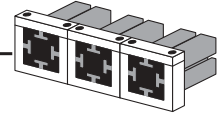
Connector kits

Merlin Gerin Masterpact NW		Maxi-PLS connector kit**		Approx. weight (kg)	Accessories: Maxi-PLS		
I _e [A]	Version	top	bottom		Connector angles	Isolator chassis	U contact makers
		Model No. SV		top/bottom	Model No. SV	Model No. SV	Model No. SV
800	Static (VT*)	9642.030	9642.040	16/10	9640.430	9640.020	9640.170
1000		9642.070	9642.080	31/19.5	9640.440	9640.020	9640.170
1250		9642.110	9642.120	31/19.5	9640.440	9640.020	9640.170
1600		9642.150	9642.160	31/19.5	9640.440	9640.020	9640.170
2000		9642.190	9642.200	41/20.5	9640.450	9640.020	9640.170
800	Static (HT*)	9642.010	9642.020	16/10	9640.430	9640.020	9640.170
1000		9642.050	9642.060	31/19.5	9640.440	9640.020	9640.170
1250		9642.090	9642.100	31/19.5	9640.440	9640.020	9640.170
1600		9642.130	9642.140	31/19.5	9640.440	9640.020	9640.170
2000		9642.170	9642.180	41/20.5	9640.450	9640.020	9640.170
800	Rack-mounted (VT*)	9642.310	9642.320	16/10	9640.430	9640.020	9640.170
1000		9642.350	9642.360	31/19.5	9640.440	9640.020	9640.170
1250		9642.390	9642.400	31/19.5	9640.440	9640.020	9640.170
1600		9642.430	9642.440	31/19.5	9640.440	9640.020	9640.170
2000		9642.470	9642.480	41/20.5	9640.450	9640.020	9640.170
800	Rack-mounted (HT*)	9642.290	9642.300	16/10	9640.430	9640.020	9640.170
1000		9642.330	9642.340	31/19.5	9640.440	9640.020	9640.170
1250		9642.370	9642.380	31/19.5	9640.440	9640.020	9640.170
1600		9642.410	9642.420	31/19.5	9640.440	9640.020	9640.170
2000		9642.450	9642.460	41/20.5	9640.450	9640.020	9640.170

ABB Sace Emax			Maxi-PLS connector kit**		Approx. weight (kg)	Accessories: Maxi-PLS		
Model	I _e [A]	Version	top	bottom		Connector angles	Isolator chassis	U contact makers
			Model No. SV		top/bottom	Model No. SV	Model No. SV	Model No. SV
E1	800	Static (VT*)	9643.030	9643.040	16/10	9640.430	9640.020	9640.170
	1250		9643.070	9643.080	31/19.5	9640.440	9640.020	9640.170
E2	1600		9643.110	9643.120	31/19.5	9640.440	9640.020	9640.170
	2000		9643.150	9643.160	47/29	9640.450	9640.020	9640.170
E1	800	Static (HT*)	9643.010	9643.020	16/10	9640.430	9640.020	9640.170
	1250		9643.050	9643.060	31/19.5	9640.440	9640.020	9640.170
E2	1600		9643.090	9643.100	31/19.5	9640.440	9640.020	9640.170
	2000		9643.130	9643.140	47/29	9640.450	9640.020	9640.170
E1	800	Rack-mounted (VT*)	9643.310	9643.320	16/10	9640.430	9640.020	9640.170
	1250		9643.350	9643.360	31/19.5	9640.440	9640.020	9640.170
E2	1600		9643.390	9643.400	31/19.5	9640.440	9640.020	9640.170
	2000		9643.430	9643.440	47/29	9640.450	9640.020	9640.170
E1	800	Rack-mounted (HT*)	9643.290	9643.300	16/10	9640.430	9640.020	9640.170
	1250		9643.330	9643.340	31/19.5	9640.440	9640.020	9640.170
E2	1600		9643.370	9643.380	31/19.5	9640.440	9640.020	9640.170
	2000		9643.410	9643.420	47/29	9640.450	9640.020	9640.170

* VT → Switch position in door cutout ** Extended delivery times
 HT → Switch position behind the door

Technical modifications reserved.



Maxi-PLS connector kits, top/bottom

For installation in 600 mm deep enclosures.
Recommended enclosure size WHD 600 x 2000 x 600 mm.
Connection kits for other enclosure sizes available on request.

For commercially available power circuit-breakers from ABB and Merlin Gerin up to 2000 A. The correct selection should be made according to the following criteria:

- Make
- Desired rated current I_e
- "Static installation" or rack-mounted

Position of the power circuit-breaker:

HT → Switch position behind the enclosure door
VT → Switch position in the door cutout

1 Connection kit, top

2 Connection kit, bottom

3 Connection bracket for Maxi-PLS 2000 A, see page 143.

Maxi-PLS stacking insulator

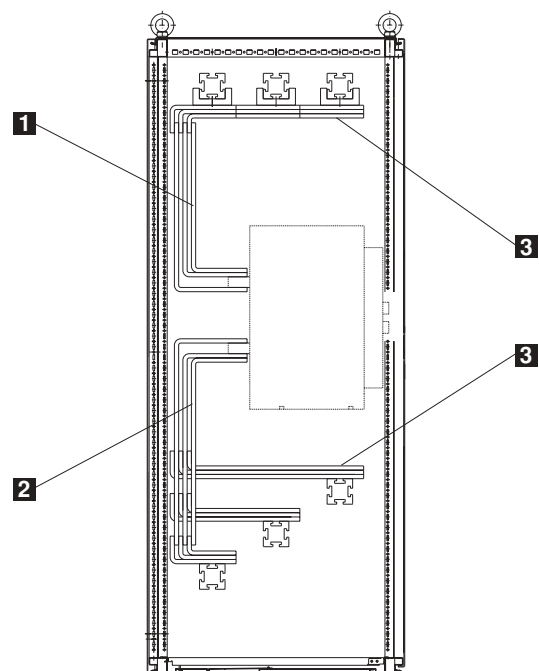
To support the connection kits top/bottom, see page 178.

Maxi-PLS isolator chassis

For isolated routing of Maxi-PLS connection brackets, see page 141.

Maxi-PLS U contact makers

For contacting the connection brackets to the Maxi-PLS busbars, see page 141.



Connection kits for coupling sections

Siemens 3WN6			Maxi-PLS connector kit** bottom	Approx. weight (kg)	Accessories: Maxi-PLS		
Size (BG)	I _e [A]	Version			Connector angles	Isolator chassis	U contact makers
			Model No. SV		Model No. SV	Model No. SV	Model No. SV
I	1600	Static (VT*)	9641.205	19.5	9640.440	9640.020	9640.170
		Static (HT*)	9641.185	19.5	9640.440	9640.020	9640.170
		Rack-mounted (VT*)	9641.525	19.5	9640.440	9640.020	9640.170
		Rack-mounted (HT*)	9641.505	19.5	9640.440	9640.020	9640.170

Siemens 3WL Moeller IZM			Maxi-PLS connector kit** bottom	Approx. weight (kg)	Accessories: Maxi-PLS		
I _e [A]		Version			Connector angles	Isolator chassis	U contact makers
			Model No. SV		Model No. SV	Model No. SV	Model No. SV
1600	Static (VT*)		9644.205	19.5	9640.440	9640.020	9640.170
2000			9644.525	20.5	9640.450	9640.020	9640.170
1600	Static (HT*)		9644.185	19.5	9640.440	9640.020	9640.170
2000			9644.505	20.5	9640.450	9640.020	9640.170
1600	Rack-mounted (VT*)		9644.485	19.5	9640.440	9640.020	9640.170
2000			9644.545	20.5	9640.450	9640.020	9640.170
1600	Rack-mounted (HT*)		9644.465	19.5	9640.440	9640.020	9640.170
2000			9644.565***	20.5	9640.450	9640.020	9640.170

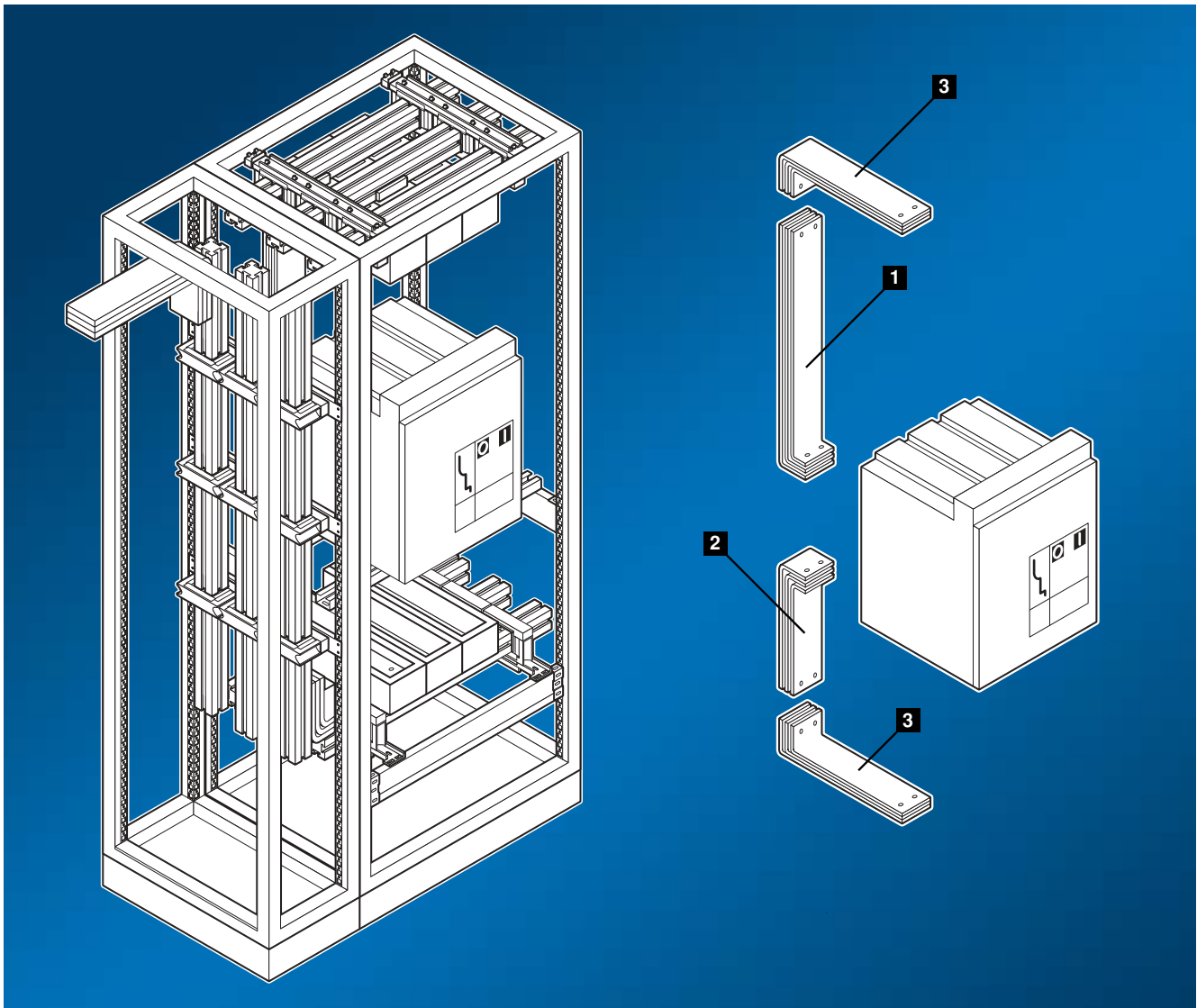
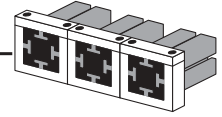
Mitsubishi AE-SS			Maxi-PLS connector kit** bottom	Approx. weight (kg)	Accessories: Maxi-PLS		
I _e [A]		Version			Connector angles	Isolator chassis	U contact makers
			Model No. SV		Model No. SV	Model No. SV	Model No. SV
1600	Static (VT*)		9645.125	19.5	9640.440	9640.020	9640.170
2000			9645.165	29.0	9640.450	9640.020	9640.170
1600	Static (HT*)		9645.105	19.5	9640.440	9640.020	9640.170
2000			9645.145	29.0	9640.450	9640.020	9640.170
1600	Rack-mounted (VT*)		9645.445	19.5	9640.440	9640.020	9640.170
2000			9645.485	29.0	9640.450	9640.020	9640.170
1600	Rack-mounted (HT*)		9645.425	19.5	9640.440	9640.020	9640.170
2000			9645.465	29.0	9640.450	9640.020	9640.170

Merlin Gerin Masterpact NW			Maxi-PLS connector kit** bottom	Approx. weight (kg)	Accessories: Maxi-PLS		
I _e [A]		Version			Connector angles	Isolator chassis	U contact makers
			Model No. SV		Model No. SV	Model No. SV	Model No. SV
1600	Static (VT*)		9642.165	19.5	9640.440	9640.020	9640.170
2000			9642.205	20.5	9640.450	9640.020	9640.170
1600	Static (HT*)		9642.145	19.5	9640.440	9640.020	9640.170
2000			9642.185	20.5	9640.450	9640.020	9640.170
1600	Rack-mounted (VT*)		9642.445	19.5	9640.440	9640.020	9640.170
2000			9642.485	20.5	9640.450	9640.020	9640.170
1600	Rack-mounted (HT*)		9642.425	19.5	9640.440	9640.020	9640.170
2000			9642.465	20.5	9640.450	9640.020	9640.170

ABB Sace Emax			Maxi-PLS connector kit** bottom	Approx. weight (kg)	Accessories: Maxi-PLS		
Model	I _e [A]	Version			Connector angles	Isolator chassis	U contact makers
			Model No. SV		Model No. SV	Model No. SV	Model No. SV
E2	1600	Static (VT*)	9643.125	19.5	9640.440	9640.020	9640.170
	2000		9643.165	29.0	9640.450	9640.020	9640.170
	1600	Static (HT*)	9643.105	19.5	9640.440	9640.020	9640.170
	2000		9643.145	29.0	9640.450	9640.020	9640.170
	1600	Rack-mounted (VT*)	9643.405	19.5	9640.440	9640.020	9640.170
	2000		9643.445	29.0	9640.450	9640.020	9640.170
	1600	Rack-mounted (HT*)	9643.385	19.5	9640.440	9640.020	9640.170
	2000		9643.425	29.0	9640.450	9640.020	9640.170

* VT → Switch position in door cutout ** Extended delivery times *** For the installation in 800 mm deep enclosures
HT → Switch position behind the door

Technical modifications reserved.



Maxi-PLS connection kits for coupling sections

For installation in 600 mm deep enclosures.
Recommended enclosure size WHD 800 x 2000 x 600 mm
(SV-TS 8 enclosures for coupling sets see page 164).
Connection kits for other enclosure sizes available on request.

For commercially available power circuit-breakers from ABB, Merlin Gerin, Mitsubishi, Moeller and Siemens up to 2000 A.
The correct selection should be made according to the following criteria:

- Make
- Desired rated current I_e
- "Static installation" or rack-mounted
- Position of the power circuit-breaker:
HT → Switch position behind the enclosure door
VT → Switch position in the door cutout

- 1** Connection kit, top, see page 134 – 137.
- 2** Connection kit, bottom, for coupling section.
- 3** Connection bracket for Maxi-PLS 2000 A, see page 143.

Maxi-PLS stacking insulator

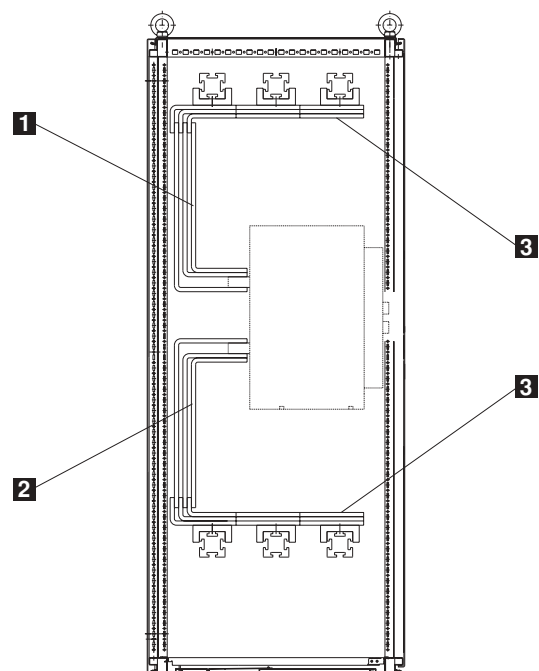
To support the connection kits top/bottom, see page 178.

Maxi-PLS isolator chassis

For isolated routing of Maxi-PLS connection brackets, see page 141.

Maxi-PLS U contact makers

For contacting the connection brackets to the Maxi-PLS busbars, see page 141.



System components

Maxi-PLS busbar supports

	Packs of	Model No. SV
1 Busbar supports	3	9640.000
2 End supports	6	9640.010

3 Maxi-PLS system attachment

For installing Maxi-PLS busbar supports in the TS/PS roof frame.

Material:

Stainless steel

For enclosures	Enclosure depth	Bar centre distance	Packs of	Model No. SV
TS	500 mm	100 mm	2	9640.100
	600 mm	100 mm	2	9640.120
	600 mm	150 mm	2	9640.140
PS	500 mm	100 mm	2	9640.110
	600 mm	100 mm	2	9640.130

For installing Maxi-PLS busbar supports in the TS/PS frame.

Material:

Stainless steel

For enclosures	Enclosure depth	Bar centre distance	Packs of	Model No. SV
TS/PS	–	185 mm	2	9640.150

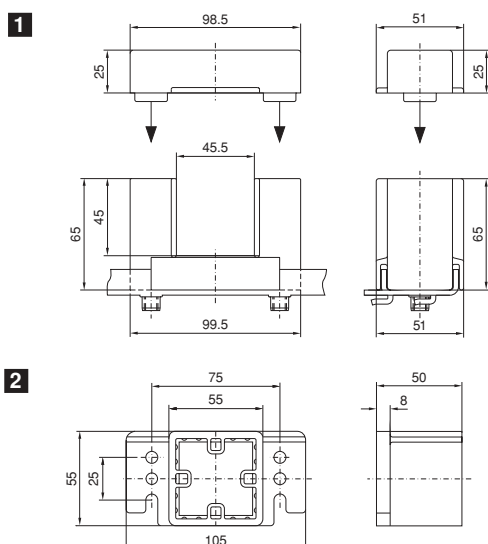
4 Maxi-PLS busbars E-Cu 57

For enclosure width	Length	For	Approx. weight (kg)	Packs of	Model No. SV
600 mm	491 mm	I	19.2	3	9640.200
600 mm	525 mm	II	20.4	3	9640.210
600 mm	599 mm	III	24	3	9640.220
800 mm	691 mm	I	27	3	9640.230
800 mm	725 mm	II	28.5	3	9640.240
800 mm	799 mm	III	31.5	3	9640.250
1,000 mm	891 mm	I	36	3	9640.260
1,000 mm	925 mm	II	37	3	9640.270
1,000 mm	999 mm	III	40	3	9640.280
1,200 mm	1,091 mm	I	43	3	9640.290
1,200 mm	1,125 mm	II	45	3	9640.300
1,200 mm	1,199 mm	III	48	3	9640.310
–	2,400 mm	–	96	3	9640.360

- I Cable connection system with Maxi-PLS end support
- II Left-hand or right-hand end enclosure in a switchgear installation
- III Bayed enclosure with panels bayed on the left and right

Note:

Busbars in special lengths available on request.



5 Maxi-PLS cover section

For clip-on mounting on the Maxi-PLS busbars.

Material:

Hard PVC

Length	Packs of	Model No. SV
1 m	5	9640.050

6 Maxi-PLS end cover

For clip-on mounting on the end surface of Maxi-PLS busbars.

Material:

PA 6.6

Packs of	Model No. SV
6	9640.060

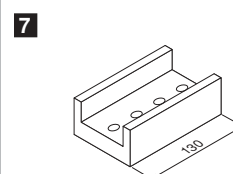
7 Maxi-PLS longitudinal connector E-Cu 57

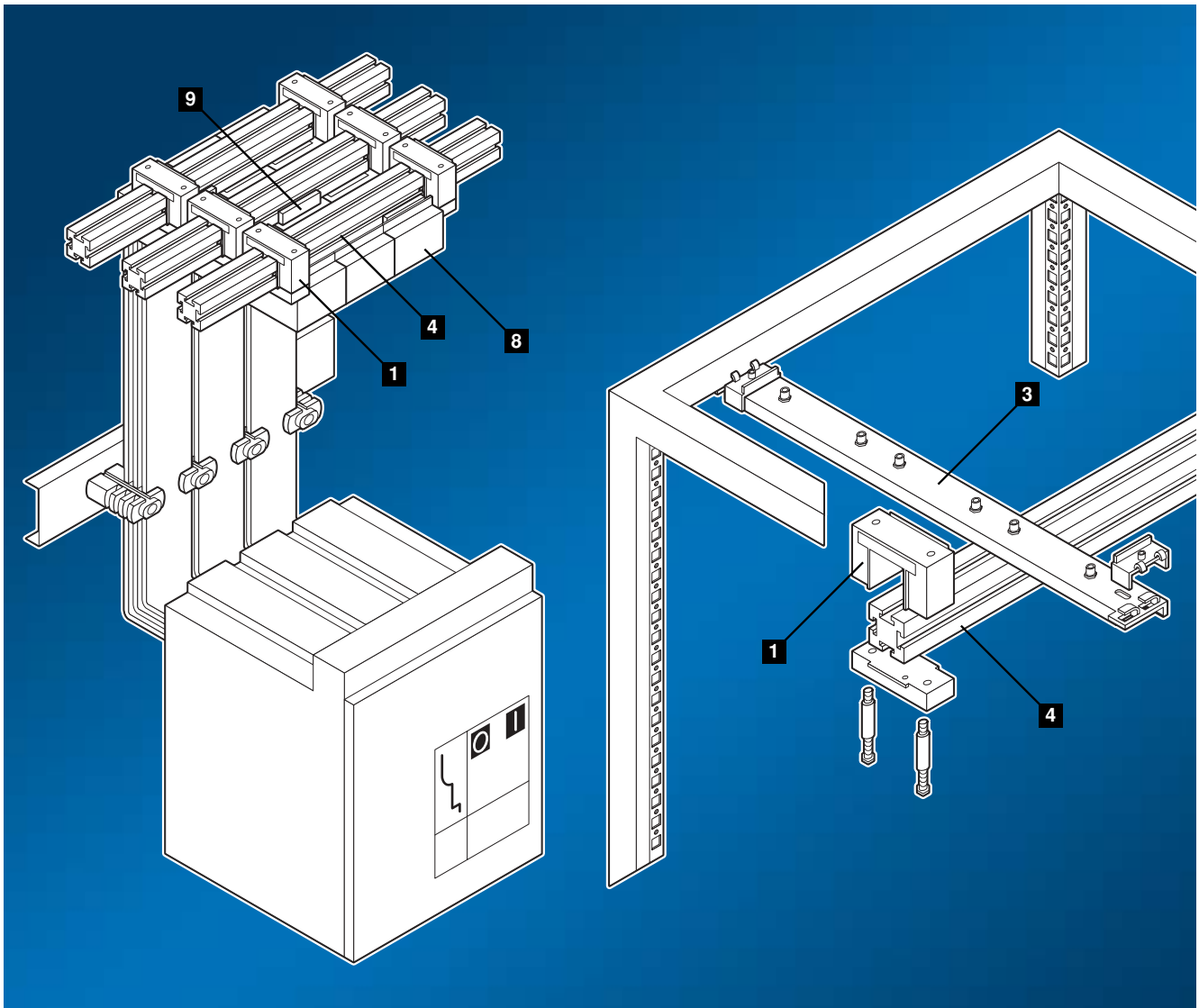
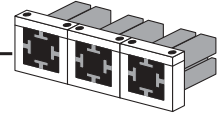
Simple baying connection of Maxi-PLS busbars.

Approx. weight	Packs of	Model No. SV
5.2 kg	3	9640.190

Supply includes:

Sliding blocks.



**8 Maxi-PLS isolator chassis**

For isolated routing of Maxi-PLS connection brackets, see page 143. Material: PA 6.6. Colour: Black.

Supply includes: Assembly parts.

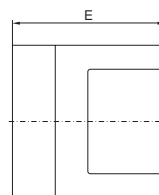
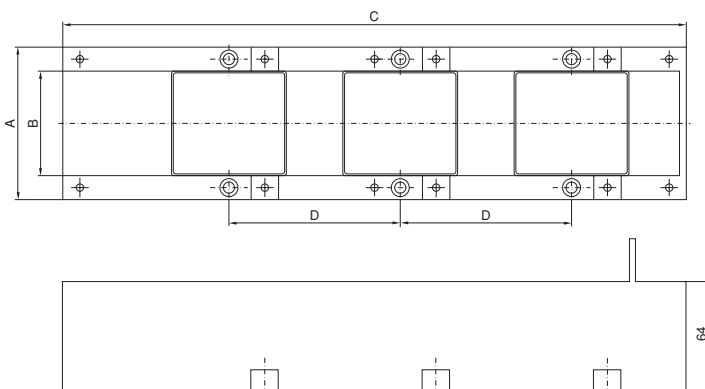
Bar centre distance	For connection bracket width	Packs of	Model No. SV
100 mm	60 mm	1 set	9640.020
150 mm	60 mm	1 set	9650.020
150 mm	100 mm	1 set	9650.030

9 Maxi-PLS U contact makers E-Cu 57

For contacting the connection brackets to the Maxi-PLS busbars.

Supply includes: Sliding blocks.

Width	Approx. weight (kg)	Packs of	Model No. SV
60 mm	2.4	3	9640.170
100 mm	4.0	3	9640.180

8

Model No. SV	A	B	C	D	E
9640.020	89	61	346	100	89
9650.020	89	61	479	150	94
9650.030	129	101	479	150	94

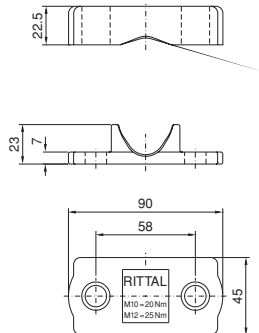
Connection components

1 Maxi-PLS connection clamp

Simple connection of round conductors from 95 to 300 mm² (multi-wire and sector). Suitable for retrospective installation on Maxi-PLS busbars.

Packs of	Model No. SV
3	9640.320

Supply includes:
Assembly parts.

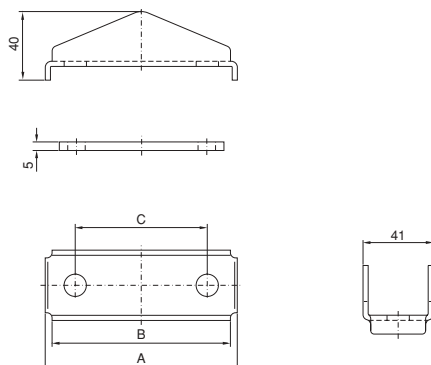


2 Maxi-PLS connection plates

Simple connection of laminated flat copper bars.

Maximum clamping area	Packs of	Model No. SV
2 x 10 x 32 x 1 mm	3	9640.330
2 x 10 x 63 x 1 mm	3	9640.340
2 x 10 x 100 x 1 mm	3	9640.350

Supply includes:
Assembly parts.



Model No. SV	9640.330	9640.340	9640.350
	Size 1	Size 2	Size 3
A	81	112	149
B	73	104	141
C	46	77	114
*	M10	M10	M10
**	20 Nm	25 Nm	30 Nm

* T-head screws

** Tightening torque

3 Maxi-PLS terminal studs

For connecting cables with ring terminals. Including sliding block.

Terminal stud Ø	Packs of	Model No. SV
M12	3	9640.370
M16	3	9640.380

4 Maxi-PLS sliding blocks

For sliding into the Maxi-PLS busbar section at the sides.

Thread	Packs of	Model No. SV
M8	15	9640.970
M10	15	9640.980

5 Maxi-PLS sliding nuts

For retrospective insertion into the Maxi-PLS busbar section.

Thread	Packs of	Model No. SV
M6	15	9640.900
M8	15	9640.910
M10	15	9640.920

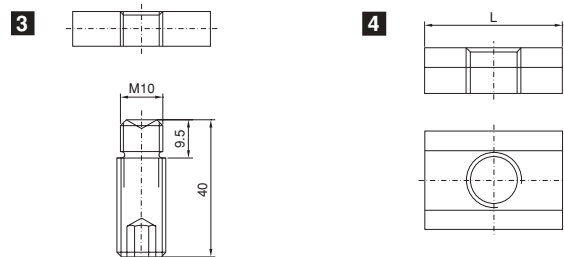
6 Maxi-PLS threaded bolts M10

For individual connection.

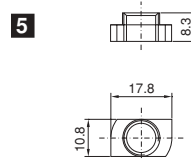
Packs of	Model No. SV
6	9640.960

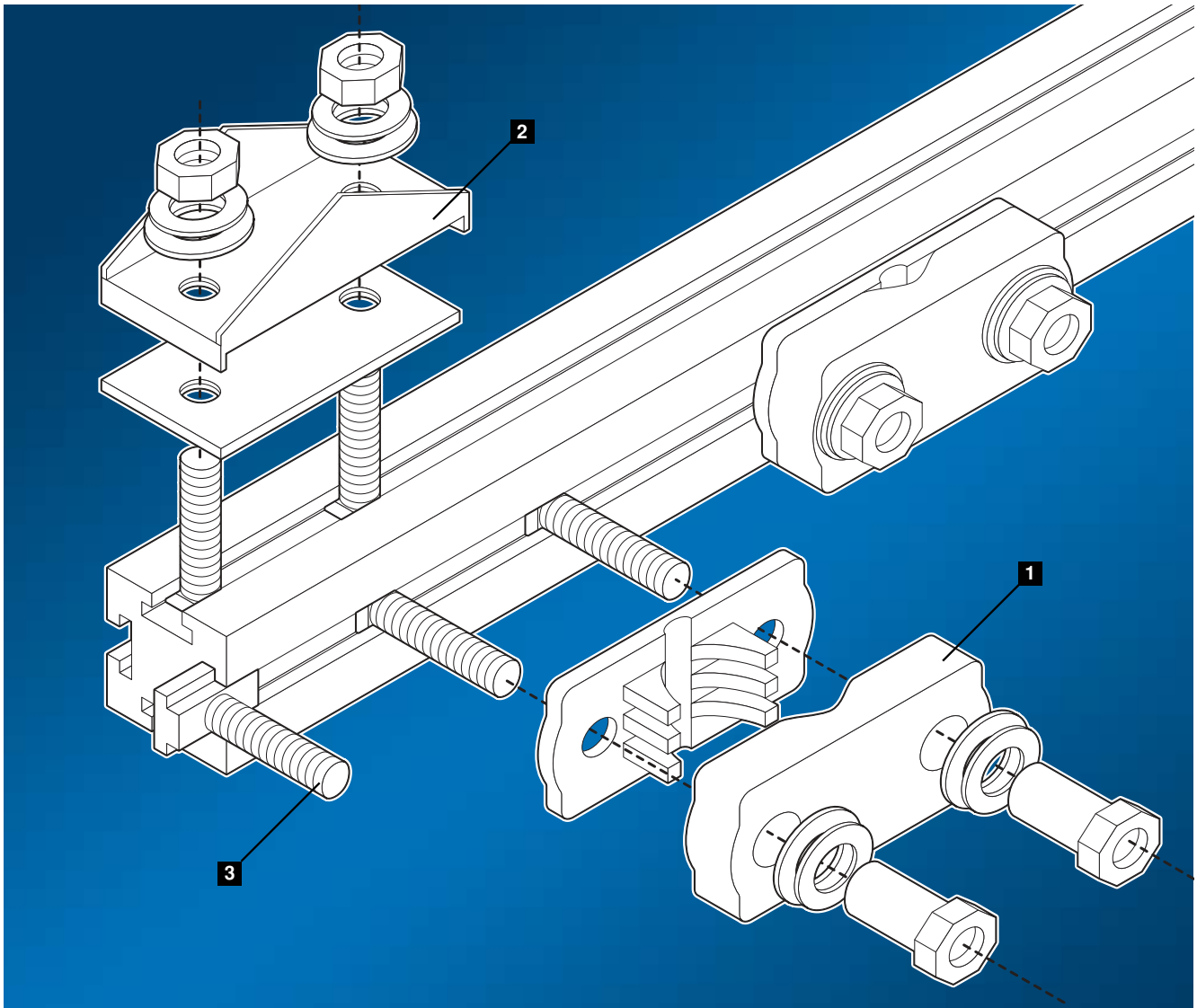
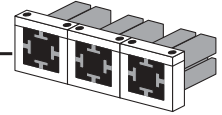
Supply includes:

6 bolts M10 x 80,
6 washers,
6 spring lock washers,
6 nuts.



Model No. SV	Thread	L
9640.970	M8	20
9640.980	M10	25

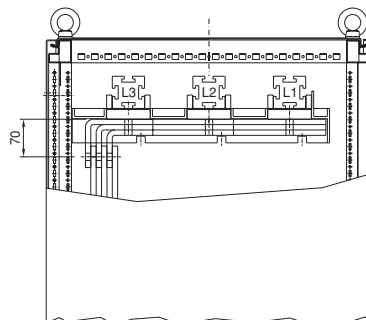




Maxi-PLS connection brackets E-Cu 57

From the main busbar system to the connector kits at the top/bottom.

Width 60 mm				
For enclosure depth	Approx. weight (kg)	Number of brackets per phase	Packs of	Model No. SV
500 mm	5	1	1 set	9640.400
500 mm	10	2	1 set	9640.410
500 mm	14	3	1 set	9640.420
600 mm	6	1	1 set	9640.430
600 mm	11	2	1 set	9640.440
600 mm	16	3	1 set	9640.450



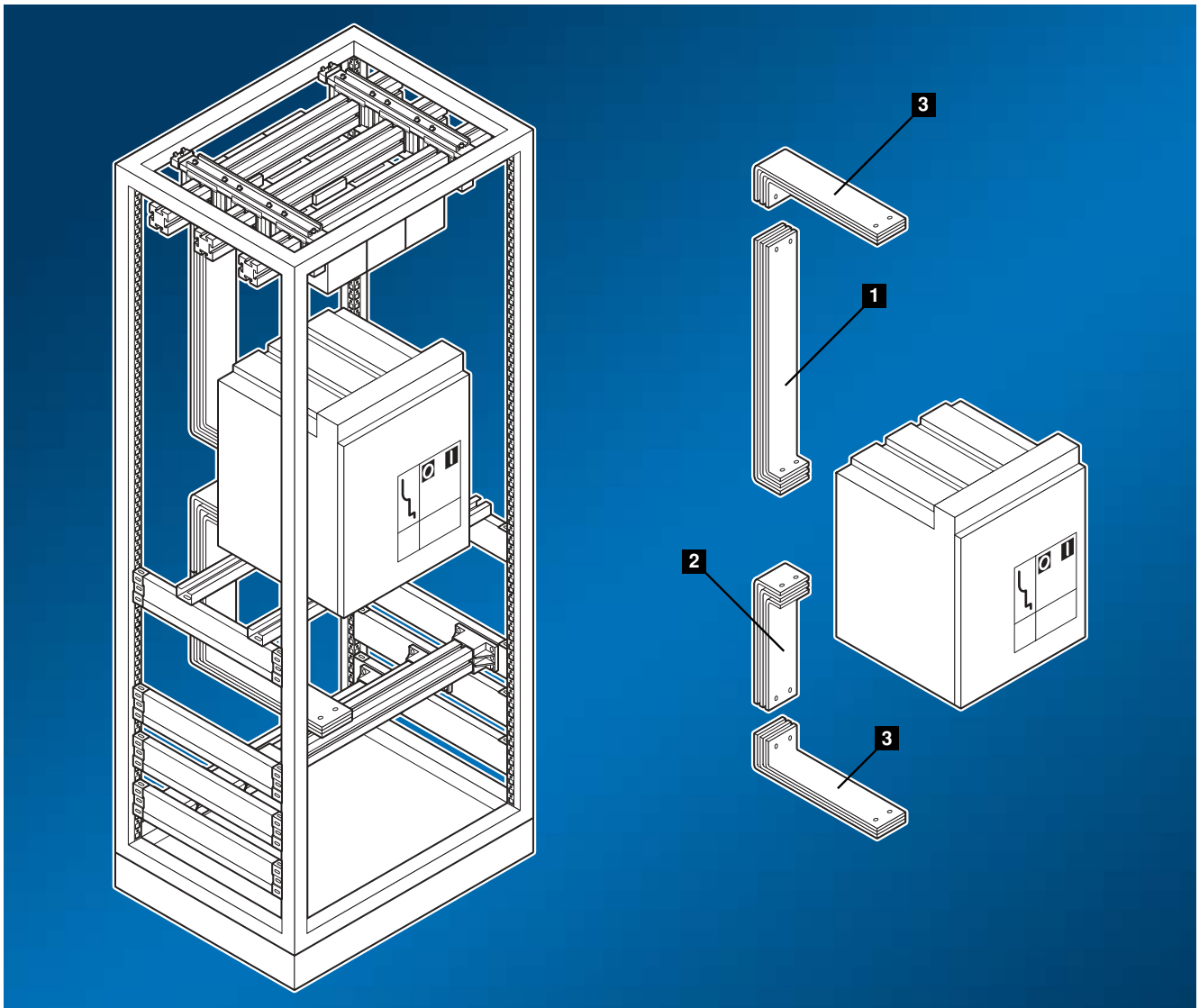
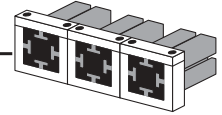
Connector kits

Siemens 3WN6			Maxi-PLS connector kit**		Approx. weight (kg)	Accessories: Maxi-PLS		
Size (BG)	I _e [A]	Version	top	bottom		Connector angles	Isolator chassis	U contact makers
			Model No. SV			top/bottom	Model No. SV	Model No. SV
I	630	Static (VT*)	9651.030	9651.040	16/10	9650.400	9650.020	9650.170
	800		9651.070	9651.080	16/10	9650.400	9650.020	9650.170
	1000		9651.110	9651.120	31/19.5	9650.410	9650.020	9650.170
	1250		9651.150	9651.160	31/19.5	9650.410	9650.020	9650.170
	1600		9651.190	9651.200	31/19.5	9650.410	9650.020	9650.170
I	630	Static (HT*)	9651.010	9651.020	16/10	9650.400	9650.020	9650.170
	800		9651.050	9651.060	16/10	9650.400	9650.020	9650.170
	1000		9651.090	9651.100	31/19.5	9650.410	9650.020	9650.170
	1250		9651.130	9651.140	31/19.5	9650.410	9650.020	9650.170
	1600		9651.170	9651.180	31/19.5	9650.410	9650.020	9650.170
I	630	Rack-mounted (VT*)	9651.350	9651.360	16/10	9650.400	9650.020	9650.170
	800		9651.390	9651.400	16/10	9650.400	9650.020	9650.170
	1000		9651.430	9651.440	31/19.5	9650.410	9650.020	9650.170
	1250		9651.470	9651.480	31/19.5	9650.410	9650.020	9650.170
	1600		9651.510	9651.520	31/19.5	9650.410	9650.020	9650.170
I	630	Rack-mounted (HT*)	9651.330	9651.340	16/10	9650.400	9650.020	9650.170
	800		9651.370	9651.380	16/10	9650.400	9650.020	9650.170
	1000		9651.410	9651.420	31/19.5	9650.410	9650.020	9650.170
	1250		9651.450	9651.460	31/19.5	9650.410	9650.020	9650.170
	1600		9651.490	9651.500	31/19.5	9650.410	9650.020	9650.170

Siemens 3WL Moeller IZM			Maxi-PLS connector kit**		Approx. weight (kg)	Accessories: Maxi-PLS		
I _e [A]	Version	top	bottom	Connector angles		Isolator chassis	U contact makers	
		Model No. SV		top/bottom		Model No. SV	Model No. SV	Model No. SV
630	Static (VT*)	9654.030	9654.040	16/10	9650.400	9650.020	9650.170	
800		9654.070	9654.080	16/10	9650.400	9650.020	9650.170	
1000		9654.110	9654.120	16/10	9650.400	9650.020	9650.170	
1250		9654.150	9654.160	31/19.5	9650.410	9650.020	9650.170	
1600		9654.190	9654.200	31/19.5	9650.410	9650.020	9650.170	
2000		9654.690	9654.700	41/20.5	9650.420	9650.020	9650.170	
630	Static (HT*)	9654.010	9654.020	16/10	9650.400	9650.020	9650.170	
800		9654.050	9654.060	16/10	9650.400	9650.020	9650.170	
1000		9654.090	9654.100	16/10	9650.400	9650.020	9650.170	
1250		9654.130	9654.140	31/19.5	9650.410	9650.020	9650.170	
1600		9654.170	9654.180	31/19.5	9650.410	9650.020	9650.170	
2000		9654.710	9654.720	41/20.5	9650.420	9650.020	9650.170	
630	Rack-mounted (VT*)	9654.350	9654.360	16/10	9650.400	9650.020	9650.170	
800		9654.390	9654.400	16/10	9650.400	9650.020	9650.170	
1000		9654.430	9654.440	16/10	9650.400	9650.020	9650.170	
1250		9654.470	9654.480	31/19.5	9650.410	9650.020	9650.170	
1600		9654.510	9654.520	31/19.5	9650.410	9650.020	9650.170	
2000		9654.650	9654.660	41/20.5	9650.420	9650.020	9650.170	
630	Rack-mounted (HT*)	9654.330	9654.340	16/10	9650.400	9650.020	9650.170	
800		9654.370	9654.380	16/10	9650.400	9650.020	9650.170	
1000		9654.410	9654.420	16/10	9650.400	9650.020	9650.170	
1250		9654.450	9654.460	31/19.5	9650.410	9650.020	9650.170	
1600		9654.490	9654.500	31/19.5	9650.410	9650.020	9650.170	
2000		9654.670***	9654.680***	41/20.5	9650.420	9650.020	9650.170	

Mitsubishi AE-SS			Maxi-PLS connector kit**		Approx. weight (kg)	Accessories: Maxi-PLS		
I _e [A]	Version	top	bottom	Connector angles		Isolator chassis	U contact makers	
		Model No. SV		top/bottom		Model No. SV	Model No. SV	Model No. SV
1000	Static (VT*)	9655.030	9655.040	16/10	9650.400	9650.020	9650.170	
1250		9655.070	9655.080	31/19.5	9650.410	9650.020	9650.170	
1600		9655.110	9655.120	31/19.5	9650.410	9650.020	9650.170	
2000		9655.150	9655.160	47/29	9650.420	9650.020	9650.170	
1000	Static (HT*)	9655.010	9655.020	16/10	9650.400	9650.020	9650.170	
1250		9655.050	9655.060	31/19.5	9650.410	9650.020	9650.170	
1600		9655.090	9655.100	31/19.5	9650.410	9650.020	9650.170	
2000		9655.130	9655.140	47/29	9650.420	9650.020	9650.170	
1000	Rack-mounted (VT*)	9655.310	9655.320	16/10	9650.400	9650.020	9650.170	
1250		9655.350	9655.360	31/19.5	9650.410	9650.020	9650.170	
1600		9655.390	9655.400	31/19.5	9650.410	9650.020	9650.170	
2000		9655.430	9655.440	47/29	9650.420	9650.020	9650.170	
1000	Rack-mounted (HT*)	9655.290	9655.300	16/10	9650.400	9650.020	9650.170	
1250		9655.330	9655.340	31/19.5	9650.410	9650.020	9650.170	
1600		9655.370	9655.380	31/19.5	9650.410	9650.020	9650.170	
2000		9655.410	9655.420	47/29	9650.420	9650.020	9650.170	

* VT → Switch position in door cutout ** Extended delivery times *** For the installation in 800 mm deep enclosures Technical modifications reserved.
HT → Switch position behind the door



Maxi-PLS connector kits, top/bottom

For installation in 600 mm deep enclosures.
Recommended enclosure size WHD 600 x 2000 x 600 mm.
Connection kits for other enclosure sizes available on request.

For commercially available power circuit-breakers from Mitsubishi, Moeller and Siemens up to 2000 A. The correct selection should be made according to the following criteria:

- Make
- Desired rated current I_e
- "Static installation" or rack-mounted
- Position of the power circuit-breaker:
HT → Switch position behind the enclosure door
VT → Switch position in the door cutout

1 Connection kit, top

2 Connection kit, bottom

3 Connection bracket for Maxi-PLS 3200 A, see page 159.

Maxi-PLS stacking insulator

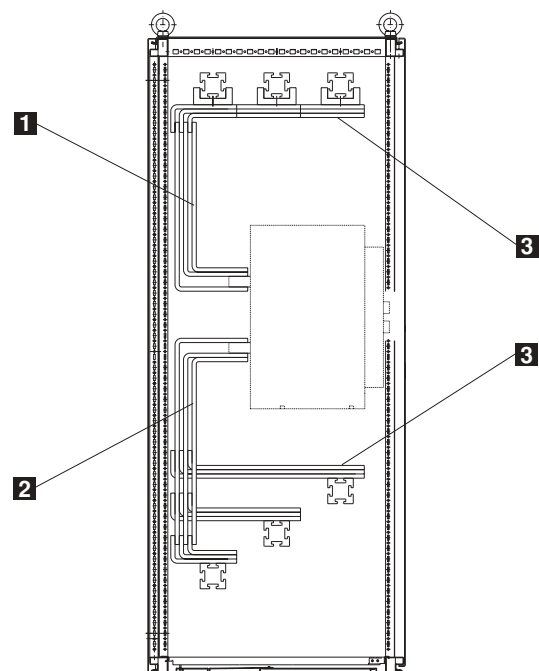
To support the connection kits top/bottom, see page 178.

Maxi-PLS isolator chassis

For isolated routing of Maxi-PLS connection brackets, see page 157.

Maxi-PLS U contact makers

For contacting the connection brackets to the Maxi-PLS busbars, see page 157.



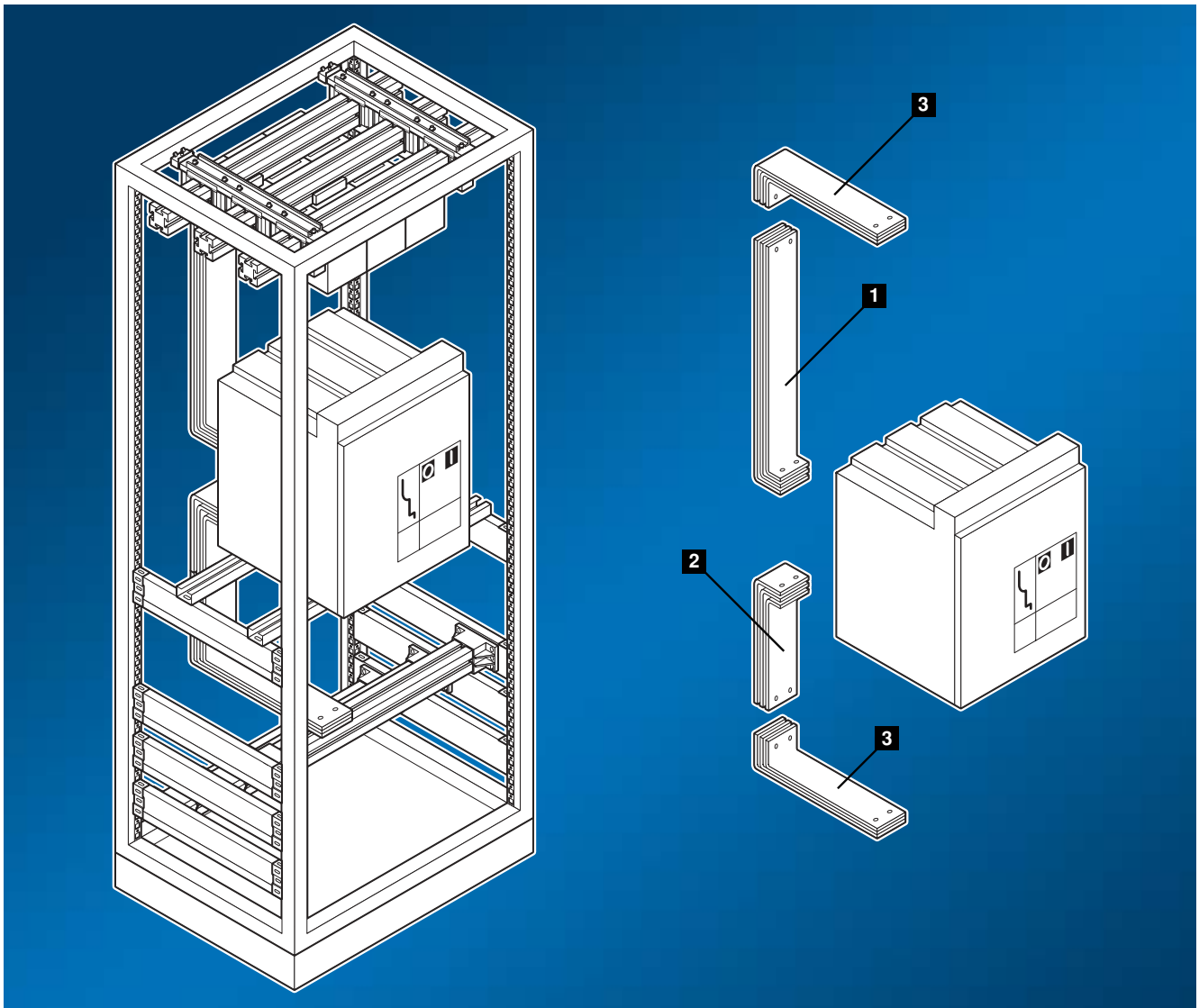
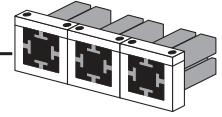
Connector kits

Merlin Gerin Masterpact NW		Maxi-PLS connector kit**		Approx. weight (kg)	Accessories: Maxi-PLS		
I _e [A]	Version	top	bottom		Connector angles	Isolator chassis	U contact makers
		Model No. SV		top/bottom	Model No. SV	Model No. SV	Model No. SV
800	Static (VT*)	9652.030	9652.040	16/10	9650.400	9650.020	9650.170
1000		9652.070	9652.080	31/19.5	9650.410	9650.020	9650.170
1250		9652.110	9652.120	31/19.5	9650.410	9650.020	9650.170
1600		9652.150	9652.160	31/19.5	9650.410	9650.020	9650.170
800	Static (HT*)	9652.010	9652.020	16/10	9650.400	9650.020	9650.170
1000		9652.050	9652.060	31/19.5	9650.410	9650.020	9650.170
1250		9652.090	9652.100	31/19.5	9650.410	9650.020	9650.170
1600		9652.130	9652.140	31/19.5	9650.410	9650.020	9650.170
800	Rack-mounted (VT*)	9652.310	9652.320	16/10	9650.400	9650.020	9650.170
1000		9652.350	9652.360	31/19.5	9650.410	9650.020	9650.170
1250		9652.390	9652.400	31/19.5	9650.410	9650.020	9650.170
1600		9652.430	9652.440	31/19.5	9650.410	9650.020	9650.170
800	Rack-mounted (HT*)	9652.290	9652.300	16/10	9650.400	9650.020	9650.170
1000		9652.330	9652.340	31/19.5	9650.410	9650.020	9650.170
1250		9652.370	9652.380	31/19.5	9650.410	9650.020	9650.170
1600		9652.410	9652.420	31/19.5	9650.410	9650.020	9650.170

ABB Sace Emax			Maxi-PLS connector kit**		Approx. weight (kg)	Accessories: Maxi-PLS		
Model	I _e [A]	Version	top	bottom		Connector angles	Isolator chassis	U contact makers
			Model No. SV		top/bottom	Model No. SV	Model No. SV	Model No. SV
E1	800	Static (VT*)	9653.030	9653.040	16/10	9650.400	9650.020	9650.170
	1250		9653.070	9653.080	31/19.5	9650.410	9650.020	9650.170
E2	1600		9653.110	9653.120	31/19.5	9650.410	9650.020	9650.170
	2000		9653.150	9653.160	47/29	9650.420	9650.020	9650.170
E1	800	Static (HT*)	9653.010	9653.020	16/10	9650.400	9650.020	9650.170
	1250		9653.050	9653.060	31/19.5	9650.410	9650.020	9650.170
E2	1600		9653.090	9653.100	31/19.5	9650.410	9650.020	9650.170
	2000		9653.130	9653.140	47/29	9650.420	9650.020	9650.170
E1	800	Rack-mounted (VT*)	9653.310	9653.320	16/10	9650.400	9650.020	9650.170
	1250		9653.350	9653.360	31/19.5	9650.410	9650.020	9650.170
E2	1600		9653.390	9653.400	31/19.5	9650.410	9650.020	9650.170
	2000		9653.430	9653.440	47/29	9650.420	9650.020	9650.170
E1	800	Rack-mounted (HT*)	9653.290	9653.300	16/10	9650.400	9650.020	9650.170
	1250		9653.330	9653.340	31/19.5	9650.410	9650.020	9650.170
E2	1600		9653.370	9653.380	31/19.5	9650.410	9650.020	9650.170
	2000		9653.410	9653.420	47/29	9650.420	9650.020	9650.170

* VT → Switch position in door cutout ** Extended delivery times
HT → Switch position behind the door

Technical modifications reserved.



Maxi-PLS connector kits, top/bottom

For installation in 600 mm deep enclosures.
Recommended enclosure size WHD 600 x 2000 x 600 mm.
Connection kits for other enclosure sizes available on request.

For commercially available power circuit-breakers from ABB and Merlin Gerin up to 2000 A. The correct selection should be made according to the following criteria:

- Make
- Desired rated current I_e
- "Static installation" or rack-mounted
- Position of the power circuit-breaker:
HT → Switch position behind the enclosure door
VT → Switch position in the door cutout

1 Connection kit, top

2 Connection kit, bottom

3 Connection bracket for Maxi-PLS 3200 A, see page 159.

Maxi-PLS stacking insulator

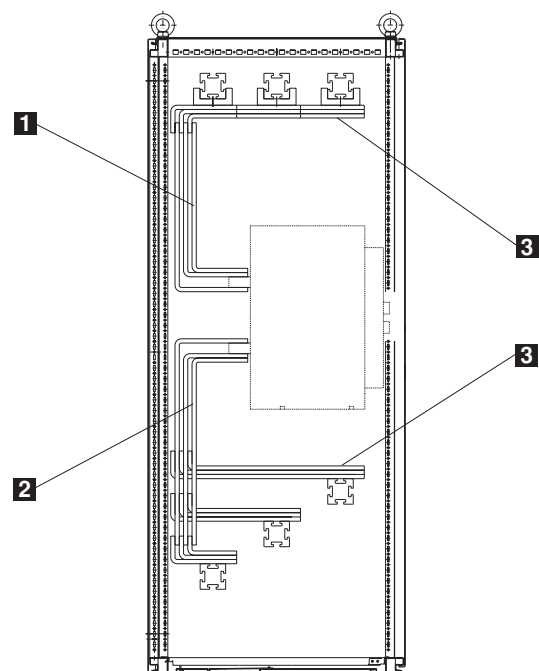
To support the connection kits top/bottom,
see page 178.

Maxi-PLS isolator chassis

For isolated routing of Maxi-PLS connection brackets,
see page 157.

Maxi-PLS U contact makers

For contacting the connection brackets to the Maxi-PLS busbars,
see page 157.



Connector kits

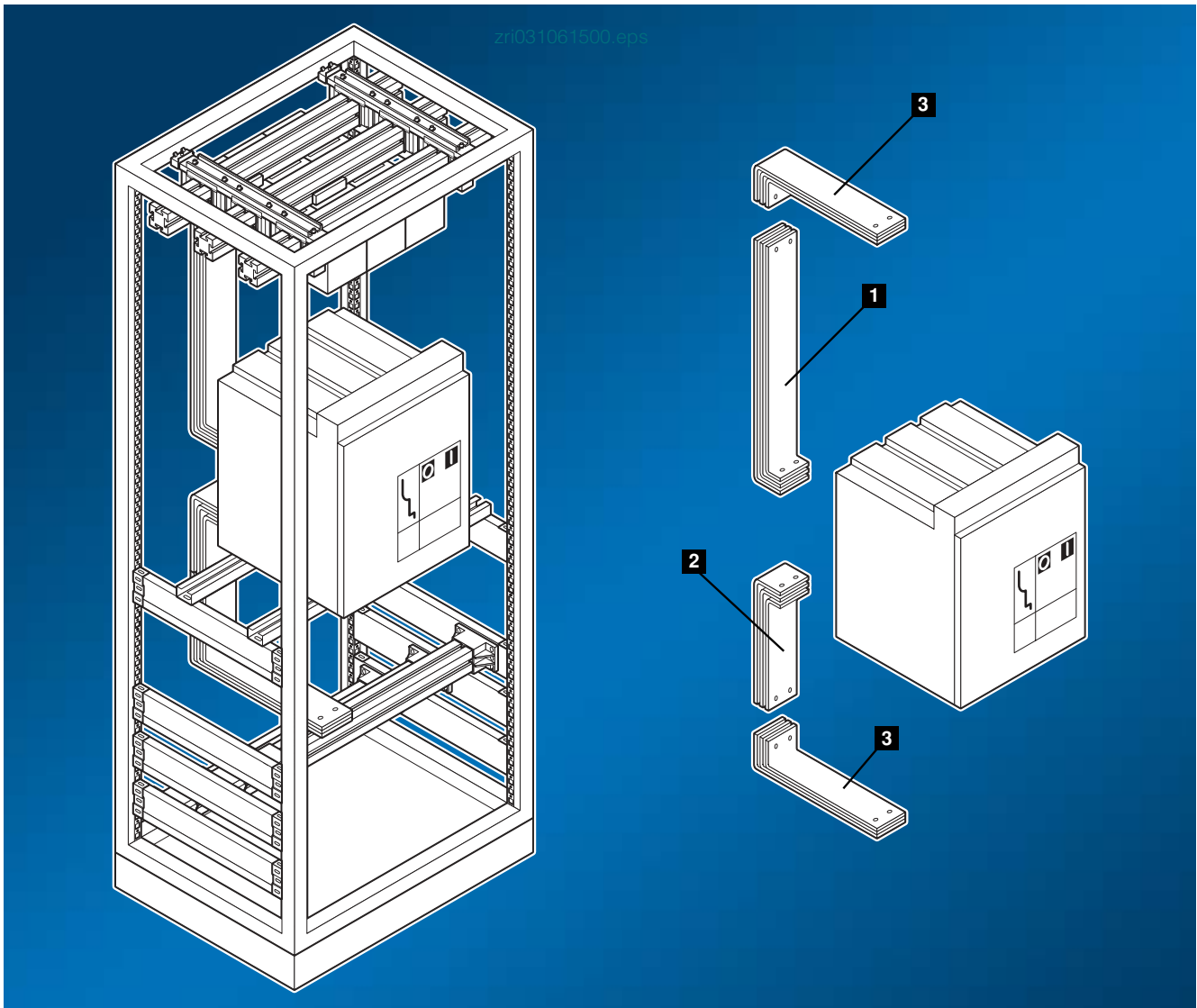
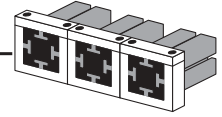
Siemens 3WN6			Maxi-PLS connector kit**		Approx. weight (kg)	Accessories: Maxi-PLS		
Size (BG)	I _e [A]	Version	top	bottom		Connector angles	Isolator chassis	U contact makers
			Model No. SV		top/bottom	Model No. SV	Model No. SV	Model No. SV
II	2000	Static (VT*)	9651.230	9651.240	48/32	9650.470	9650.030	9650.180
	2500		9651.270	9651.280	67/50	9650.480	9650.030	9650.180
	3200		9651.310	9651.320	67/50	9650.480	9650.030	9650.180
II	2000	Static (HT*)	9651.210	9651.220	48/32	9650.470	9650.030	9650.180
	2500		9651.250	9651.260	67/50	9650.480	9650.030	9650.180
	3200		9651.290	9651.300	67/50	9650.480	9650.030	9650.180
II	2000	Rack- mounted (VT*)	9651.550	9651.560	48/32	9650.470	9650.030	9650.180
	2500		9651.590	9651.600	67/50	9650.480	9650.030	9650.180
	3200		9651.630	9651.640	67/50	9650.480	9650.030	9650.180
II	2000	Rack- mounted (HT*)	9651.530	9651.540	48/32	9650.470	9650.030	9650.180
	2500		9651.570	9651.580	67/50	9650.480	9650.030	9650.180
	3200		9651.610	9651.620	67/50	9650.480	9650.030	9650.180

Siemens 3WL Moeller IZM		Maxi-PLS connector kit**		Approx. weight (kg)	Accessories: Maxi-PLS		
I _e [A]	Version	top	bottom		Connector angles	Isolator chassis	U contact makers
		Model No. SV		top/bottom	Model No. SV	Model No. SV	Model No. SV
2000	Static (VT*)	9654.690	9654.700	48/32	9650.420	9650.020	9650.170
2500		9654.270	9654.280	67/50	9650.480	9650.030	9650.180
3200		9654.310	9654.320	67/50	9650.480	9650.030	9650.180
2000	Static (HT*)	9654.710	9654.720	48/32	9650.420	9650.020	9650.170
2500		9654.250	9654.260	67/50	9650.480	9650.030	9650.180
3200		9654.290	9654.300	67/50	9650.480	9650.030	9650.180
2000	Rack- mounted (VT*)	9654.650	9654.660	48/32	9650.420	9650.020	9650.170
2500		9654.590	9654.600	67/50	9650.480	9650.030	9650.180
3200		9654.630	9654.640	67/50	9650.480	9650.030	9650.180
2000	Rack- mounted (HT*)	9654.670***	9654.680***	48/32	9650.420	9650.020	9650.170
2500		9654.570***	9654.580***	67/50	9650.480	9650.030	9650.180
3200		9654.610***	9654.620***	67/50	9650.480	9650.030	9650.180

Mitsubishi AE-SS		Maxi-PLS connector kit**		Approx. weight (kg)	Accessories: Maxi-PLS		
I _e [A]	Version	top	bottom		Connector angles	Isolator chassis	U contact makers
		Model No. SV		top/bottom	Model No. SV	Model No. SV	Model No. SV
2000	Static (VT*)	9655.190	9655.200	48/32	9650.470	9650.030	9650.180
2500		9655.230	9655.240	67/50	9650.480	9650.030	9650.180
3200		9655.270	9655.280	67/50	9650.480	9650.030	9650.180
2000	Static (HT*)	9655.170	9655.180	48/32	9650.470	9650.030	9650.180
2500		9655.210	9655.220	67/50	9650.480	9650.030	9650.180
3200		9655.250	9655.260	67/50	9650.480	9650.030	9650.180
2000	Rack- mounted (VT*)	9655.470	9655.480	48/32	9650.470	9650.030	9650.180
2500		9655.510	9655.520	67/50	9650.480	9650.030	9650.180
3200		9655.550	9655.560	67/50	9650.480	9650.030	9650.180
2000	Rack- mounted (HT*)	9655.450	9655.460	48/32	9650.470	9650.030	9650.180
2500		9655.490	9655.500	67/50	9650.480	9650.030	9650.180
3200		9655.530	9655.540	67/50	9650.480	9650.030	9650.180

* VT → Switch position in door cutout ** Extended delivery times *** For the installation in 800 mm deep enclosures
 HT → Switch position behind the door

Technical modifications reserved.



Maxi-PLS connector kits, top/bottom

For installation in 600 mm deep enclosures.
Recommended enclosure size WHD 800 x 2000 x 600 mm.
Connection kits for other enclosure sizes available on request.

For commercially available power circuit-breakers from Mitsubishi, Moeller and Siemens up to 3200 A. The correct selection should be made according to the following criteria:

- Make
- Desired rated current I_e
- "Static installation" or rack-mounted
- Position of the power circuit-breaker:
HT → Switch position behind the enclosure door
VT → Switch position in the door cutout

1 Connection kit, top

2 Connection kit, bottom

3 Connection bracket for Maxi-PLS 3200 A, see page 159.

Maxi-PLS stacking insulator

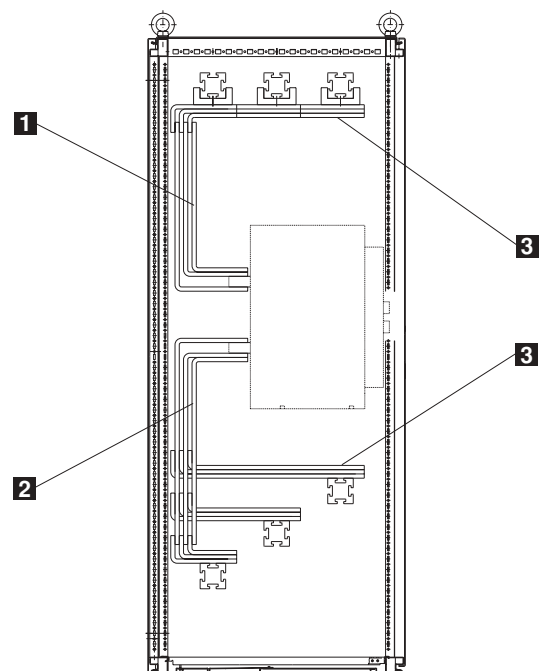
To support the connection kits top/bottom,
see page 178.

Maxi-PLS isolator chassis

For isolated routing of Maxi-PLS connection brackets,
see page 157.

Maxi-PLS U contact makers

For contacting the connection brackets to the Maxi-PLS busbars,
see page 157.



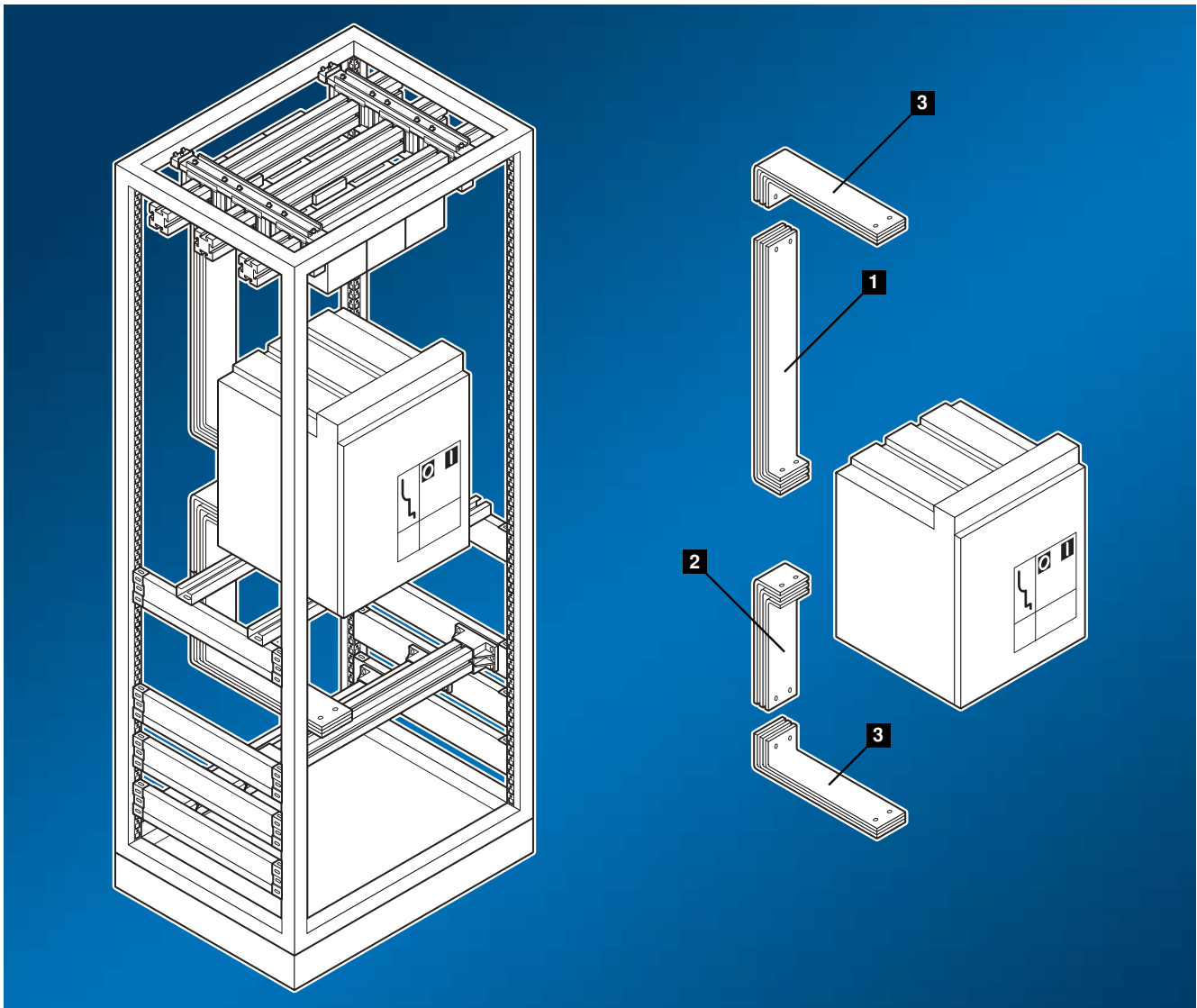
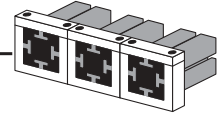
Connector kits

Merlin Gerin Masterpact NW		Maxi-PLS connector kit**		Approx. weight (kg)	Accessories: Maxi-PLS		
I _e [A]	Version	top	bottom		Connector angles	Isolator chassis	U contact makers
		Model No. SV		top/bottom	Model No. SV	Model No. SV	Model No. SV
2000	Static (VT*)	9652.190	9652.200	41/20.5	9650.420	9650.020	9650.170
2500		9652.230	9652.240	48/32	9650.470	9650.030	9650.180
3200		9652.270	9652.280	67/50	9650.480	9650.030	9650.180
2000	Static (HT*)	9652.170	9652.180	41/20.5	9650.420	9650.020	9650.170
2500		9652.210	9652.220	48/32	9650.470	9650.030	9650.180
3200		9652.250	9652.260	67/50	9650.480	9650.030	9650.180
2000	Rack-mounted (VT*)	9652.470	9652.480	41/20.5	9650.420	9650.020	9650.170
2500		9652.510	9652.520	48/32	9650.470	9650.030	9650.180
3200		9652.550	9652.560	67/50	9650.480	9650.030	9650.180
2000	Rack-mounted (HT*)	9652.450	9652.460	41/20.5	9650.420	9650.020	9650.170
2500		9652.490	9652.500	48/32	9650.470	9650.030	9650.180
3200		9652.530	9652.540	67/50	9650.480	9650.030	9650.180

ABB Sace Emax			Maxi-PLS connector kit**		Approx. weight (kg)	Accessories: Maxi-PLS		
Model	I _e [A]	Version	top	bottom		Connector angles	Isolator chassis	U contact makers
			Model No. SV		top/bottom	Model No. SV	Model No. SV	Model No. SV
E3	2000	Static (VT*)	9653.190	9653.200	48/32	9650.470	9650.030	9650.180
	2500		9653.230	9653.240	48/32	9650.470	9650.030	9650.180
	3200		9653.270	9653.280	67/50	9650.480	9650.030	9650.180
E3	2000	Static (HT*)	9653.170	9653.180	48/32	9650.470	9650.030	9650.180
	2500		9653.210	9653.220	48/32	9650.470	9650.030	9650.180
	3200		9653.250	9653.260	67/50	9650.480	9650.030	9650.180
E3	2000	Rack-mounted (VT*)	9653.470	9653.480	48/32	9650.470	9650.030	9650.180
	2500		9653.510	9653.520	48/32	9650.470	9650.030	9650.180
	3200		9653.550	9653.560	67/50	9650.480	9650.030	9650.180
E3	2000	Rack-mounted (HT*)	9653.450	9653.460	48/32	9650.470	9650.030	9650.180
	2500		9653.490	9653.500	48/32	9650.470	9650.030	9650.180
	3200		9653.530	9653.540	67/50	9650.480	9650.030	9650.180

* VT → Switch position in door cutout ** Extended delivery times
HT → Switch position behind the door

Technical modifications reserved.



Maxi-PLS connector kits, top/bottom

For installation in 600 mm deep enclosures.
Recommended enclosure size WHD 800 x 2000 x 600 mm.
Connection kits for other enclosure sizes available on request.

For commercially available power circuit-breakers from ABB and Merlin Gerin up to 3200 A. The correct selection should be made according to the following criteria:

- Make
- Desired rated current I_e
- "Static installation" or rack-mounted
- Position of the power circuit-breaker:
HT → Switch position behind the enclosure door
VT → Switch position in the door cutout

1 Connection kit, top

2 Connection kit, bottom

3 Connection bracket for Maxi-PLS 3200 A, see page 159.

Maxi-PLS stacking insulator

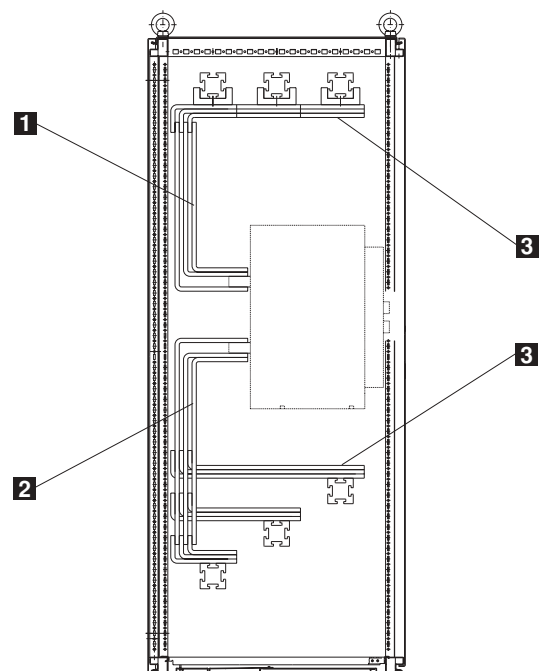
To support the connection kits top/bottom, see page 178.

Maxi-PLS isolator chassis

For isolated routing of Maxi-PLS connection brackets, see page 157.

Maxi-PLS U contact makers

For contacting the connection brackets to the Maxi-PLS busbars, see page 157.



Connection kits for coupling sections

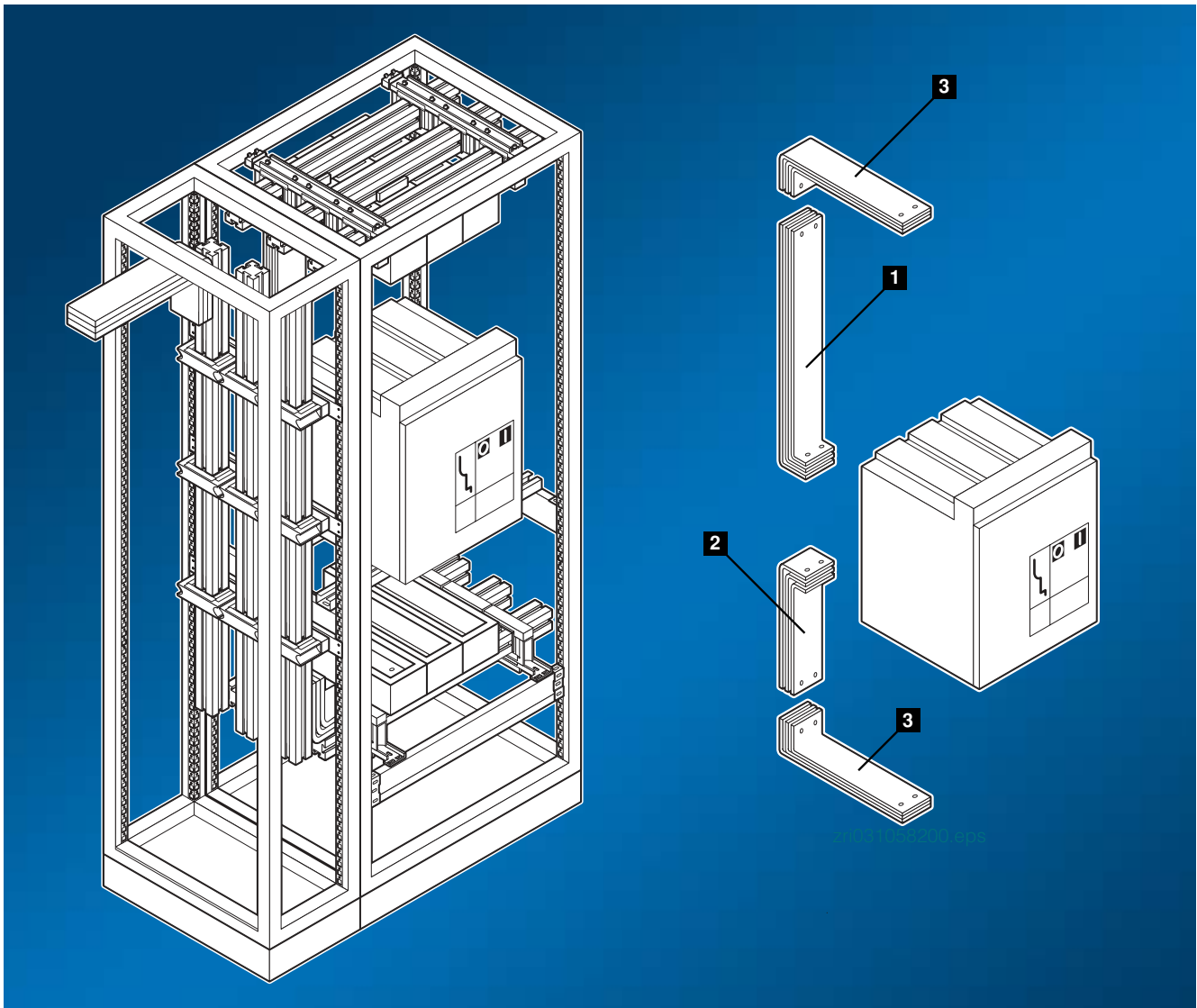
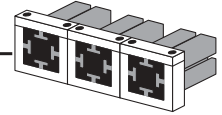
Siemens 3WN6			Maxi-PLS connector kit** bottom	Approx. weight (kg)	Accessories: Maxi-PLS		
Size (BG)	I _e [A]	Version			Connector angles Model No. SV	Isolator chassis Model No. SV	U contact makers Model No. SV
I	1600	Static (VT*)	9651.205	19.5	9650.410	9650.020	9650.170
II	2000		9651.245	32	9650.470	9650.030	9650.180
II	2500		9651.285	50	9650.480	9650.030	9650.180
II	3200		9651.325	50	9650.480	9650.030	9650.180
I	1600	Static (HT*)	9651.185	19.5	9650.410	9650.020	9650.170
II	2000		9651.225	32	9650.470	9650.030	9650.180
II	2500		9651.265	50	9650.480	9650.030	9650.180
II	3200		9651.305	50	9650.480	9650.030	9650.180
I	1600	Rack-mounted (VT*)	9651.525	19.5	9650.410	9650.020	9650.170
II	2000		9651.565	32	9650.470	9650.030	9650.180
II	2500		9651.605	50	9650.480	9650.030	9650.180
II	3200		9651.645	50	9650.480	9650.030	9650.180
I	1600	Rack-mounted (HT*)	9651.505	19.5	9650.410	9650.020	9650.170
II	2000		9651.545	32	9650.470	9650.030	9650.180
II	2500		9651.585	50	9650.480	9650.030	9650.180
II	3200		9651.625	50	9650.480	9650.030	9650.180

Siemens 3WL Moeller IZM		Maxi-PLS connector kit** bottom	Approx. weight (kg)	Accessories: Maxi-PLS		
I _e [A]	Version			Connector angles Model No. SV	Isolator chassis Model No. SV	U contact makers Model No. SV
1600	Static (VT*)	9654.205	19.5	9650.410	9650.020	9650.170
2000		9654.705	32	9650.420	9650.020	9650.170
2500		9654.285	50	9650.480	9650.030	9650.180
3200		9654.325	50	9650.480	9650.030	9650.180
1600	Static (HT*)	9654.185	19.5	9650.410	9650.020	9650.170
2000		9654.725	32	9650.420	9650.020	9650.170
2500		9654.265	50	9650.480	9650.030	9650.180
3200		9654.305	50	9650.480	9650.030	9650.180
1600	Rack-mounted (VT*)	9654.525	19.5	9650.410	9650.020	9650.170
2000		9654.665	32	9650.420	9650.020	9650.170
2500		9654.605	50	9650.480	9650.030	9650.180
3200		9654.645	50	9650.480	9650.030	9650.180
1600	Rack-mounted (HT*)	9654.505	19.5	9650.410	9650.020	9650.170
2000		9654.685***	32	9650.420	9650.020	9650.170
2500		9654.585***	50	9650.480	9650.030	9650.180
3200		9654.625***	50	9650.480	9650.030	9650.180

Mitsubishi AE-SS		Maxi-PLS connector kit** bottom	Approx. weight (kg)	Accessories: Maxi-PLS		
I _e [A]	Version			Connector angles Model No. SV	Isolator chassis Model No. SV	U contact makers Model No. SV
1600	Static (VT*)	9655.125	19.5	9650.410	9650.020	9650.170
2000		9655.205	32	9650.470	9650.030	9650.180
2500		9655.245	50	9650.480	9650.030	9650.180
3200		9655.285	50	9650.480	9650.030	9650.180
1600	Static (HT*)	9655.105	19.5	9650.410	9650.020	9650.170
2000		9655.185	32	9650.470	9650.030	9650.180
2500		9655.225	50	9650.480	9650.030	9650.180
3200		9655.265	50	9650.480	9650.030	9650.180
1600	Rack-mounted (VT*)	9655.405	19.5	9650.410	9650.020	9650.170
2000		9655.485	32	9650.470	9650.030	9650.180
2500		9655.525	50	9650.480	9650.030	9650.180
3200		9655.565	50	9650.480	9650.030	9650.180
1600	Rack-mounted (HT*)	9655.385	19.5	9650.410	9650.020	9650.170
2000		9655.465	32	9650.470	9650.030	9650.180
2500		9655.505	50	9650.480	9650.030	9650.180
3200		9655.545	50	9650.480	9650.030	9650.180

* VT → Switch position in door cutout ** Extended delivery times *** For the installation in 800 mm deep enclosures
HT → Switch position behind the door

Technical modifications reserved.



Maxi-PLS connection kits for coupling sections

For installation in 600 mm deep enclosures.
Recommended enclosure size WHD 1000 x 2000 x 600 mm
(SV-TS 8 enclosures for coupling sets see page 164).
Connection kits for other enclosure sizes available on request.

For commercially available power circuit-breakers from Mitsubishi, Moeller and Siemens up to 3200 A. The correct selection should be made according to the following criteria:

- Make
- Desired rated current I_e
- "Static installation" or rack-mounted
- Position of the power circuit-breaker:
HT → Switch position behind the enclosure door
VT → Switch position in the door cutout

1 Connection kit, top, see page 144 – 151.

2 Connection kit, bottom, for coupling section.

3 Connection bracket for Maxi-PLS 3200 A, see page 159.

Maxi-PLS stacking insulator

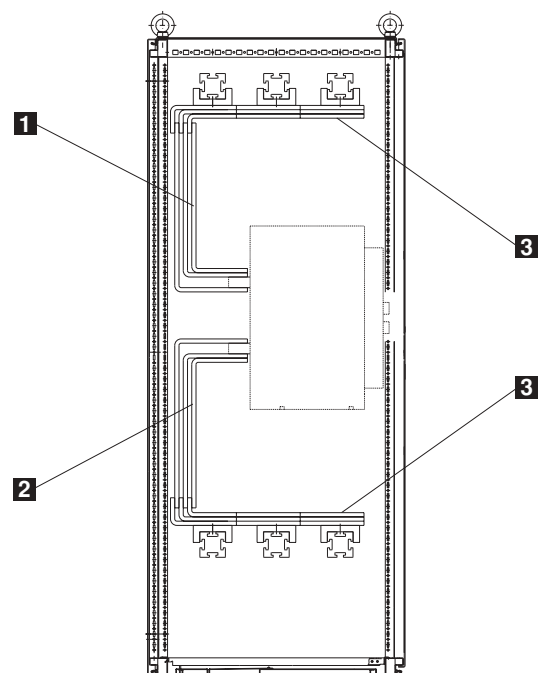
To support the connection kits top/bottom, see page 178.

Maxi-PLS isolator chassis

For isolated routing of Maxi-PLS connection brackets, see page 157.

Maxi-PLS U contact makers

For contacting the connection brackets to the Maxi-PLS busbars, see page 157.



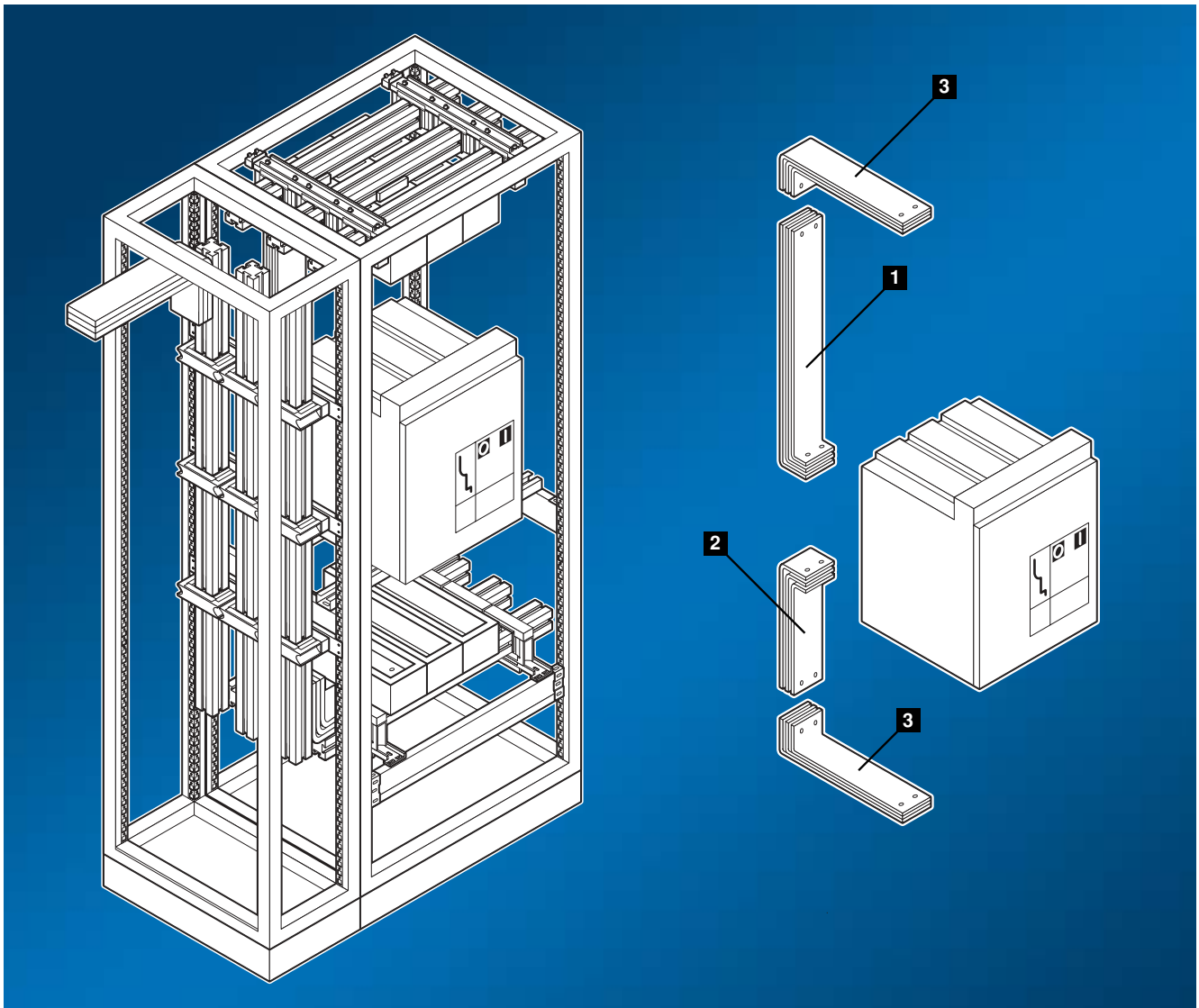
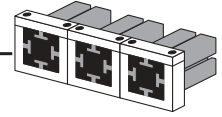
Connection kits for coupling sections

Merlin Gerin Masterpact NW		Maxi-PLS connector kit** bottom	Approx. weight (kg)	Accessories: Maxi-PLS		
I _e [A]	Version			Connector angles Model No. SV	Isolator chassis Model No. SV	U contact makers Model No. SV
1600	Static (VT*)	9652.165	19.5	9650.410	9650.020	9650.170
2000		9652.205	20.5	9650.420	9650.020	9650.170
2500		9652.245	32	9650.470	9650.030	9650.180
3200		9652.285	50	9650.480	9650.030	9650.180
1600	Static (HT*)	9652.145	19.5	9650.410	9650.020	9650.170
2000		9652.185	20.5	9650.420	9650.020	9650.170
2500		9652.225	32	9650.470	9650.030	9650.180
3200		9652.265	50	9650.480	9650.030	9650.180
1600	Rack-mounted (VT*)	9652.445	19.5	9650.410	9650.020	9650.170
2000		9652.485	20.5	9650.420	9650.020	9650.170
2500		9652.525	32	9650.470	9650.030	9650.180
3200		9652.565	50	9650.480	9650.030	9650.180
1600	Rack-mounted (HT*)	9652.425	19.5	9650.410	9650.020	9650.170
2000		9652.465	20.5	9650.420	9650.020	9650.170
2500		9652.505	32	9650.470	9650.030	9650.180
3200		9652.545	50	9650.480	9650.030	9650.180

ABB Sace Emax			Maxi-PLS connector kit** bottom	Approx. weight (kg)	Accessories: Maxi-PLS		
Model	I _e [A]	Version			Connector angles Model No. SV	Isolator chassis Model No. SV	U contact makers Model No. SV
E2	1600	Static (VT*)	9653.125	19.5	9650.410	9650.020	9650.170
	2000		9653.165	29	9650.420	9650.020	9650.170
E3	2000		9653.205	32	9650.470	9650.030	9650.180
	2500		9653.245	50	9650.470	9650.030	9650.180
	3200		9653.285	50	9650.480	9650.030	9650.180
E2	1600	Static (HT*)	9653.105	19.5	9650.410	9650.020	9650.170
	2000		9653.145	29	9650.420	9650.020	9650.170
E3	2000		9653.185	32	9650.470	9650.030	9650.180
	2500		9653.225	50	9650.470	9650.030	9650.180
	3200		9653.265	50	9650.480	9650.030	9650.180
E2	1600	Rack-mounted (VT*)	9653.405	19.5	9650.410	9650.020	9650.170
	2000		9653.445	29	9650.420	9650.020	9650.170
E3	2000		9653.485	32	9650.470	9650.030	9650.180
	2500		9653.525	50	9650.470	9650.030	9650.180
	3200		9653.565	50	9650.480	9650.030	9650.180
E2	1600	Rack-mounted (HT*)	9653.385	19.5	9650.410	9650.020	9650.170
	2000		9653.425	29	9650.420	9650.020	9650.170
E3	2000		9653.465	32	9650.470	9650.030	9650.180
	2500		9653.505	50	9650.470	9650.030	9650.180
	3200		9653.545	50	9650.480	9650.030	9650.180

* VT → Switch position in door cutout ** Extended delivery times
HT → Switch position behind the door

Technical modifications reserved.



Maxi-PLS onnection kits for coupling sections

For installation in 600 mm deep enclosures.

Recommended enclosure size WHD 1000 x 2000 x 600 mm (SV-TS 8 enclosures for coupling sets see page 164).

Connection kits for other enclosure sizes available on request.

For commercially available power circuit-breakers from ABB and Merlin Gerin up to 3200 A. The correct selection should be made according to the following criteria:

- Make
- Desired rated current I_e
- "Static installation" or rack-mounted
- Position of the power circuit-breaker:
HT → Switch position behind the enclosure door
VT → Switch position in the door cutout

1 Connection kit, top, see page 144 – 151.

2 Connection kit, bottom, for coupling section.

3 Connection bracket for Maxi-PLS 3200 A, see page 159.

Maxi-PLS stacking insulator

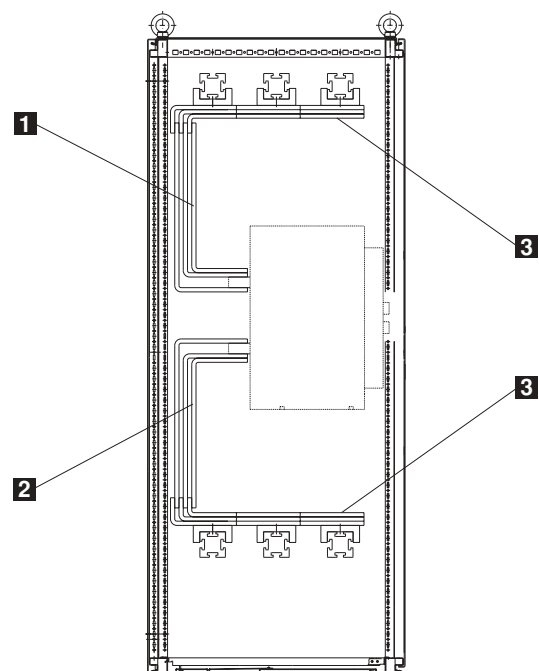
To support the connection kits top/bottom, see page 178.

Maxi-PLS isolator chassis

For isolated routing of Maxi-PLS connection brackets, see page 157.

Maxi-PLS U contact makers

For contacting the connection brackets to the Maxi-PLS busbars, see page 157.



System components

Maxi-PLS busbar supports

	Packs of	Model No. SV
1 Busbar supports	3	9650.000
Busbar supports, suitable for top-mounting, see page 176	3	9650.160
2 End supports	6	9650.010

3 Maxi-PLS system attachment

For installing Maxi-PLS busbar supports in the TS/PS roof frame.

Material:

Stainless steel

For enclosures	Enclosure depth	Bar centre distance	Packs of	Model No. SV
TS	600 mm	150 mm	2	9650.100
	800 mm	150 mm	2	9650.120
PS	600 mm	150 mm	2	9650.110
	800 mm	150 mm	2	9650.130

For installing Maxi-PLS busbar supports in the TS/PS frame.

Material:

Stainless steel

For enclosures	Enclosure depth	Bar centre distance	Packs of	Model No. SV
TS/PS	–	185 mm	2	9650.150

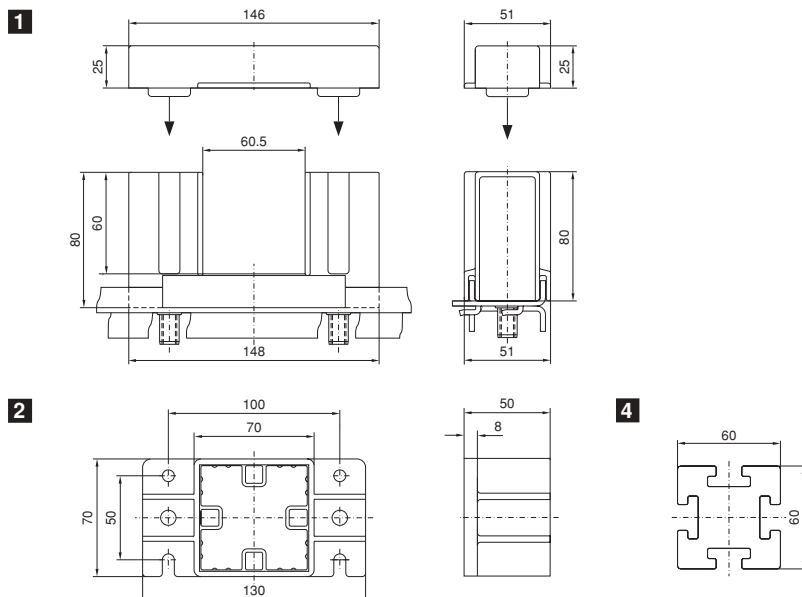
4 Maxi-PLS busbars E-Cu 57

For enclosure width	Length	For	Approx. weight (kg)	Packs of	Model No. SV
600 mm	491 mm	I	35	3	9650.200
600 mm	525 mm	II	37	3	9650.210
600 mm	599 mm	III	43	3	9650.220
800 mm	691 mm	I	49	3	9650.230
800 mm	725 mm	II	51	3	9650.240
800 mm	799 mm	III	56	3	9650.250
1,000 mm	891 mm	I	63	3	9650.260
1,000 mm	925 mm	II	65	3	9650.270
1,000 mm	999 mm	III	71	3	9650.280
1,200 mm	1,091 mm	I	77	3	9650.290
1,200 mm	1,125 mm	II	80	3	9650.300
1,200 mm	1,199 mm	III	85	3	9650.310
–	2,400 mm	–	171	3	9650.360

- I Cable connection system with Maxi-PLS end support
- II Left-hand or right-hand end enclosure in a switchgear installation
- III Bayed enclosure with panels bayed on the left and right

Note:

Busbars in special lengths available on request.



5 Maxi-PLS cover section

For clip-on mounting on the Maxi-PLS busbars.

Material:

Hard PVC

Length	Packs of	Model No. SV
1 m	5	9650.050

6 Maxi-PLS end cover

For clip-on mounting on the end surface of Maxi-PLS busbars.

Material:

PA 6.6

Packs of	Model No. SV
6	9650.060

7 Maxi-PLS longitudinal connector E-Cu 57

Simple baying connection of Maxi-PLS busbars.

Approx. weight	Packs of	Model No. SV
7 kg	3	9650.190

Supply includes:

Sliding blocks.

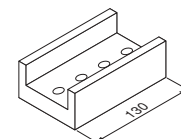
8 Maxi-PLS stabiliser

To increase short-circuit resistance (I_{cw} up to 120 kA).

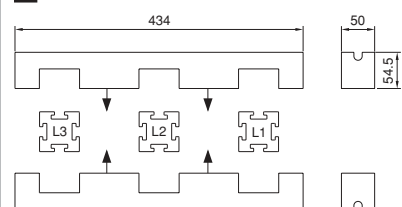
Packs of	Model No. SV
4*	9650.140

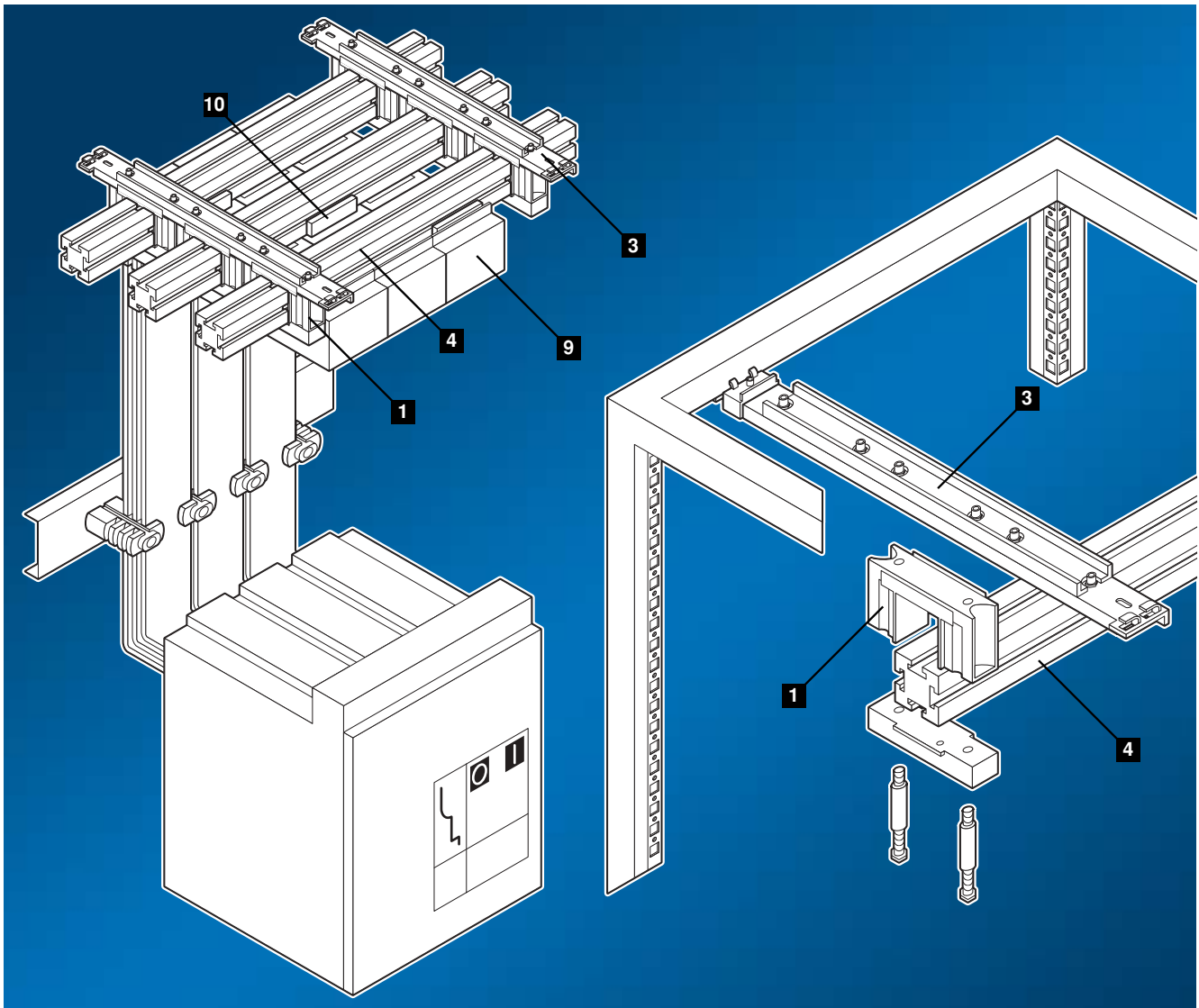
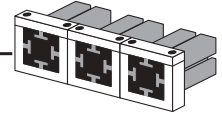
* Modules for two complete stabilisers

7



8



**9 Maxi-PLS isolator chassis**

For isolated routing of Maxi-PLS connection brackets, see page 159. Material: PA 6.6. Colour: Black.

Supply includes: Assembly parts.

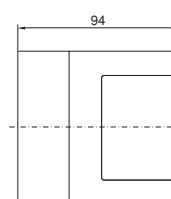
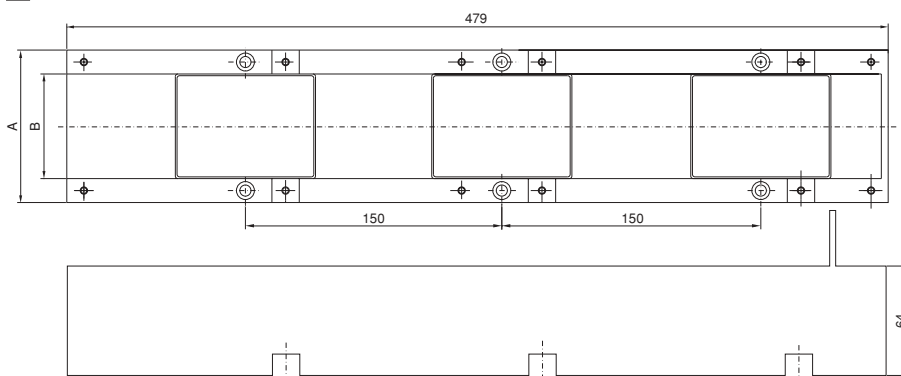
Bar centre distance	For connection bracket width	Packs of	Model No. SV
150 mm	60 mm	1 set	9650.020
150 mm	100 mm	1 set	9650.030

10 Maxi-PLS U contact makers E-Cu 57

For contacting the connection brackets to the Maxi-PLS busbars.

Supply includes: Sliding blocks.

Width	Approx. weight (kg)	Packs of	Model No. SV
60 mm	3.4	3	9650.170
100 mm	5.7	3	9650.180

9

Model No. SV	A	B
9650.020	89	61
9650.030	129	101

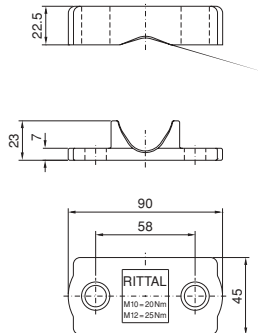
Connection components

1 Maxi-PLS connection clamp

Simple connection of round conductors from 95 to 300 mm² (multi-wire and sector). Suitable for retrospective installation on Maxi-PLS busbars.

Packs of	Model No. SV
3	9650.320

Supply includes:
Assembly parts.

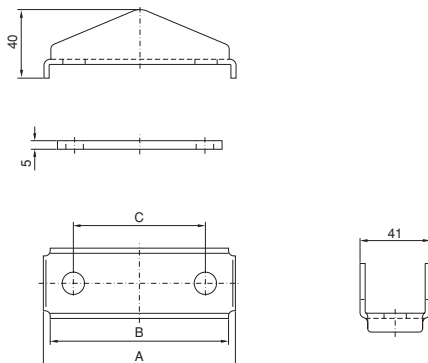


2 Maxi-PLS connection plates

Simple connection of laminated flat copper bars.

Maximum clamping area	Packs of	Model No. SV
2 x 10 x 32 x 1 mm	3	9650.330
2 x 10 x 63 x 1 mm	3	9650.340
2 x 10 x 100 x 1 mm	3	9650.350

Supply includes:
Assembly parts.



Model No. SV	9650.330	9650.340	9650.350
	Size 1	Size 2	Size 3
A	81	112	149
B	73	104	141
C	46	77	114
*	M12	M12	M12
**	25 Nm	30 Nm	35 Nm

* T-head screws

** Tightening torque

3 Maxi-PLS terminal studs

For connecting cables with ring terminals. Including sliding block.

Terminal stud Ø	Packs of	Model No. SV
M12	3	9650.370
M16	3	9650.380

4 Maxi-PLS sliding blocks

For sliding into the Maxi-PLS busbar section at the sides.

Thread	Packs of	Model No. SV
M10	15	9650.980
M12	15	9650.990

5 Maxi-PLS sliding nuts

For retrospective insertion into the Maxi-PLS busbar section.

Thread	Packs of	Model No. SV
M6	15	9650.900
M10	15	9650.910
M12	15	9650.920

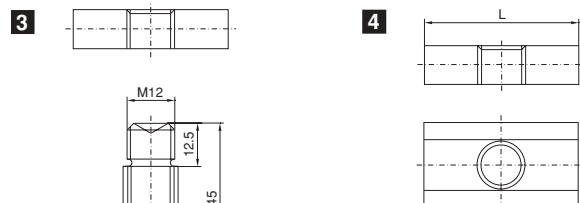
6 Maxi-PLS threaded bolts M12

For individual connection.

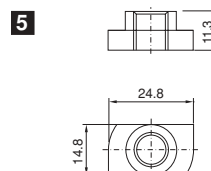
Packs of	Model No. SV
6	9650.960

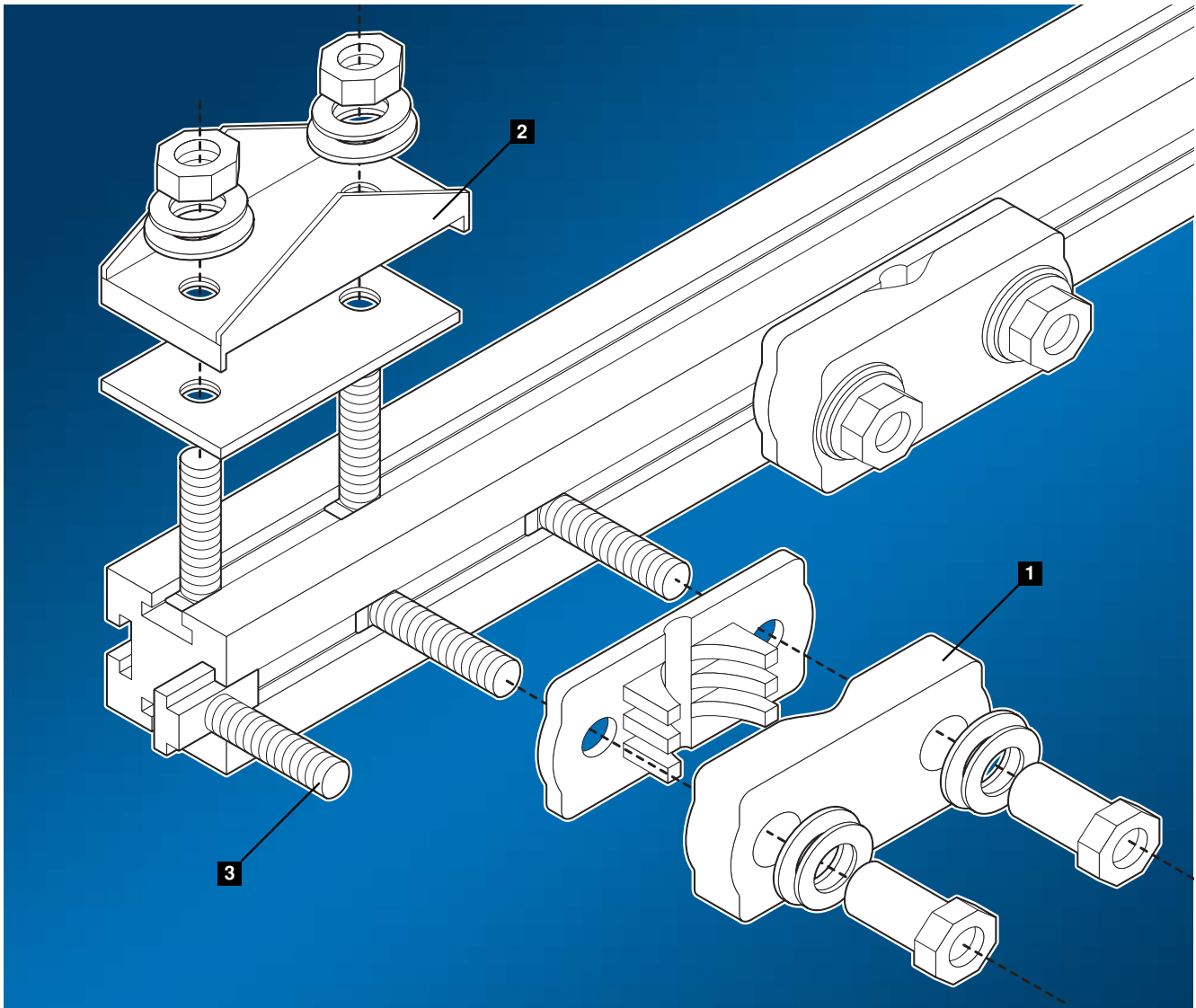
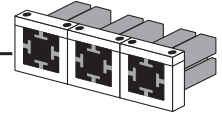
Supply includes:

6 bolts M12 x 80,
6 washers,
6 spring lock washers,
6 nuts.



Model No. SV	Thread	L
9650.980	M10	25
9650.990	M12	35

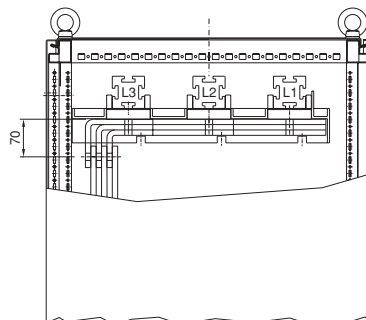




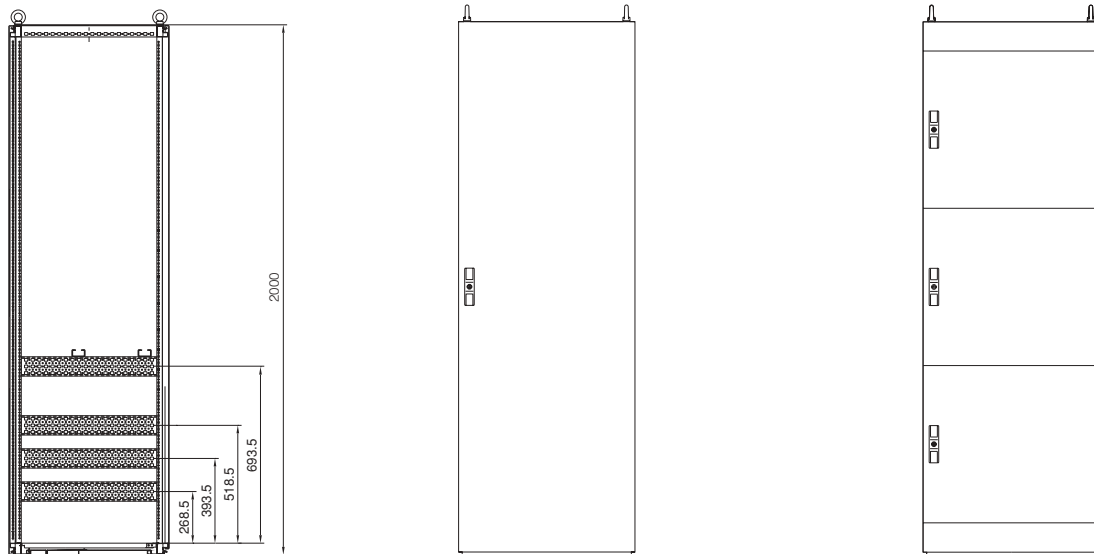
Maxi-PLS connection brackets E-Cu 57

From the main busbar system to the connector kits at the top/bottom.

Width 60 mm					Width 100 mm				
For enclosure depth	Approx. weight (kg)	Number of brackets per phase	Packs of	Model No. SV	For enclosure depth	Approx. weight (kg)	Number of brackets per phase	Packs of	Model No. SV
600 mm	6	1	1 set	9650.400	600 mm	9	1	1 set	9650.460
600 mm	11	2	1 set	9650.410	600 mm	18	2	1 set	9650.470
600 mm	17	3	1 set	9650.420	600 mm	26	3	1 set	9650.480
800 mm	8	1	1 set	9650.430	800 mm	13	1	1 set	9650.490
800 mm	15	2	1 set	9650.440	800 mm	24	2	1 set	9650.500
800 mm	22	3	1 set	9650.450	800 mm	36	3	1 set	9650.510



SV-TS 8 enclosures for inlet / outlet



Pre-assembled for direct installation of power circuit-breakers

For Maxi-PLS			2000 A	3200 A	2000 A	3200 A
Width in mm		Packs of	600	800	600	800
Height in mm			2000	2000	2000	2000
Depth in mm			600	600	600	600
	SV	1	9660.660	9660.860	9660.670	9660.870
Doors			1	1	3	3
Approx. weight (kg)			78	88	78	88

Base/plinth

Components front and rear	Height 100 mm	TS	1 set	8601.600	8601.800	8601.600	8601.800
	Height 200 mm	TS	1 set	8602.600	8602.800	8602.600	8602.800
Trim panels (sides)	Height 100 mm	TS	1 set	8601.060	8601.060	8601.060	8601.060
	Height 200 mm	TS	1 set	8602.060	8602.060	8602.060	8602.060

+ Accessories

Cable clamp rails	PS	2	4191.000	4192.000	4191.000	4192.000
Cable entry plates ¹⁾	TS	2	8800.060	8800.080	8800.060	8800.080
TS side panels	TS	2	8106.212	8106.212	8106.212	8106.212

Maxi-PLS roof plates see page 178

¹⁾ Cable entry grommets see Catalogue 30, page 892

Lock systems see Catalogue 30, page 936 – 938

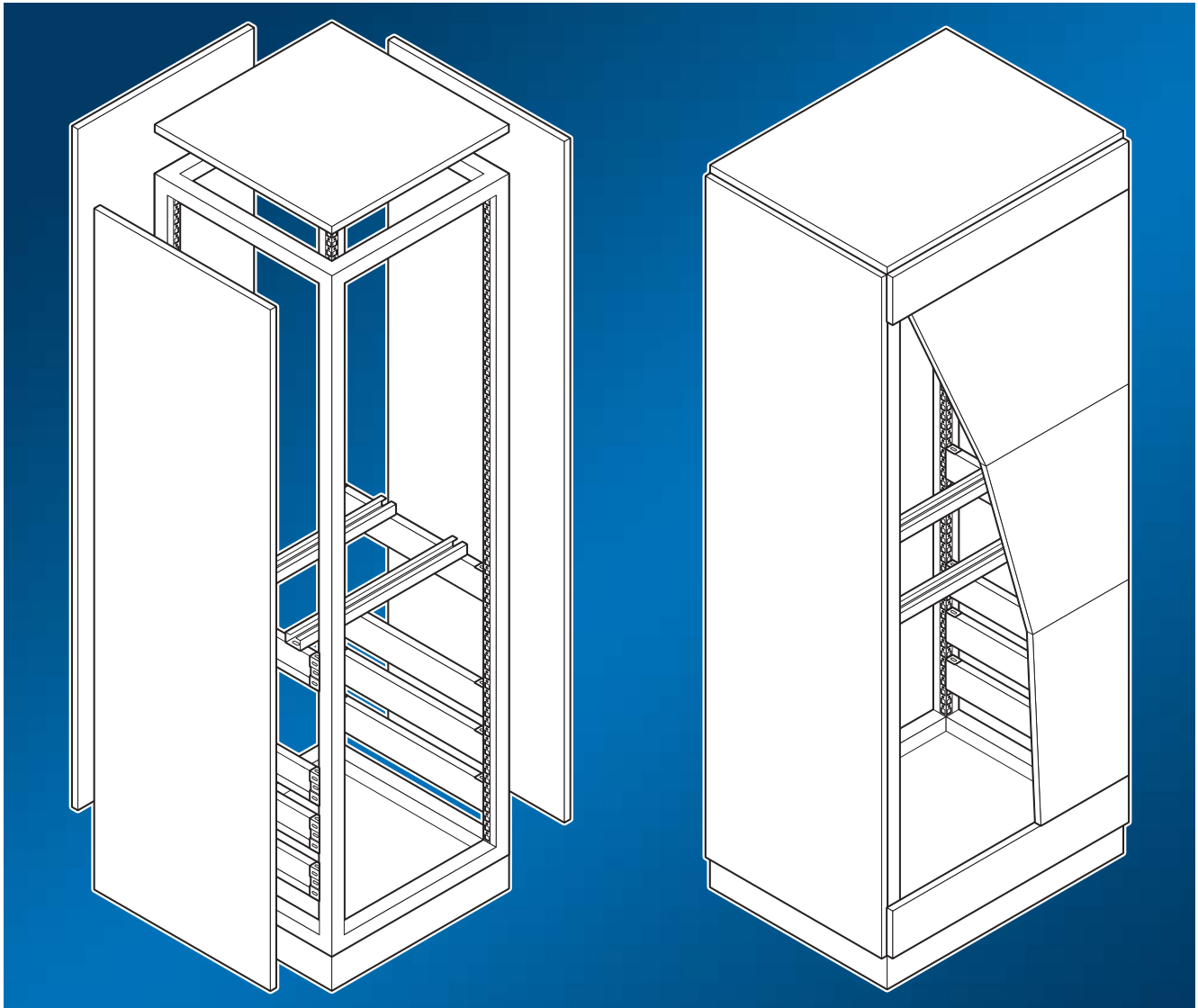
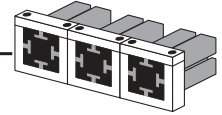
Other sizes and designs available on request.

Supply includes	Material Sheet steel	Surface finish
Enclosure frame	1.5 mm	Dipcoat primed in RAL 7044
Door(s)	2.0 mm	Dipcoat primed in RAL 7044 Powder coated in textured RAL 7032 on the outside
Roof	1.5 mm	
Rear panel	1.5 mm	
Three-piece gland plates	1.5 mm	Zinc-plated

With fitted punched section without mounting flange for Maxi-PLS end support mounting

With fitted system support rails for attaching the power circuit-breaker

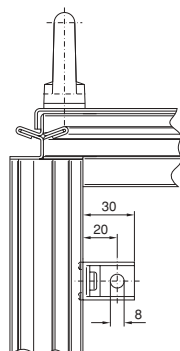
Lock: Standard double-bit lock insert



Maxi-PLS cover attachment

For power circuit-breaker fields.
For simple mounting of covers.

For Maxi-PLS system	Packs of	Model No. SV
2000 A/3200 A	8	9660.680



Base/plinth

The modular base/plinth
concept offers exceptional
cost and function benefits.



Cable entry plates

For simple, fast cable entry
and sealing.



Cable clamp rails

These ensure strain relief for
cable entry.

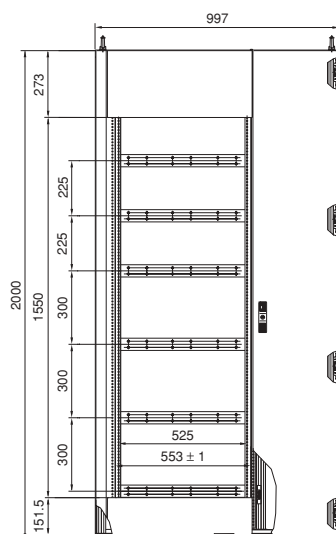


TS side panels

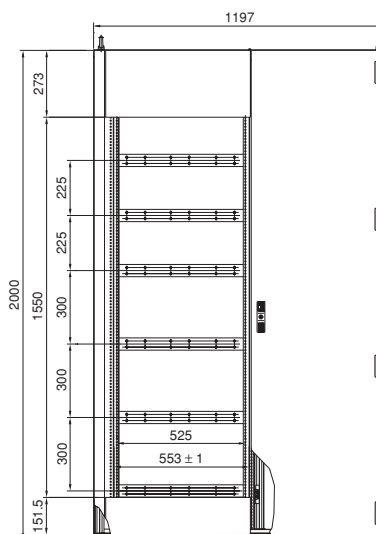
Convenient access to the TS
interior, thanks to the option of
hinging.

SV-TS 8 enclosures for NH fused isolators

SV 9660.510 / SV 9660.410



SV 9660.540 / SV 9660.440



For NH fused isolators – Make			ABB SlimLine		Jean Müller SASIL	
Width in mm		Packs of	1000	1200	1000	1200
Height in mm			2000	2000	2000	2000
Depth in mm			600	600	600	600
Model No.	SV	1	9660.510	9660.540	9660.410	9660.440
Doors			1	1	1	1
Approx. weight (kg)			110	135	110	135

Base/plinth

Components front and rear	Height 100 mm	TS	1 set	8601.000	8601.200	8601.000	8601.200
	Height 200 mm	TS	1 set	8602.000	8602.200	8602.000	8602.200
Trim panels (sides)	Height 100 mm	TS	1 set	8601.060	8601.060	8601.060	8601.060
	Height 200 mm	TS	1 set	8602.060	8602.060	8602.060	8602.060

Accessories

TS side panels	TS	2	8106.212	8106.212	8106.212	8106.212
Lock systems see Catalogue 30, page 936 – 938						
Maxi-PLS roof plates see page 178						
Cover for distributor busbar (from the isolator manufacturer's range)			ABB Model No. NHP 407062 R..		Jean Müller Model No. A 8900 101	

Supply includes	Material	Surface finish
Enclosure frame	Sheet steel	
Door	1.5 mm	Dipcoat primed in RAL 7044
Roof	2.0 mm	Dipcoat primed in RAL 7044 Powder coated in textured RAL 7032 on the outside
Rear panel	1.5 mm	
Three-piece gland plates	1.5 mm	
		Zinc-plated

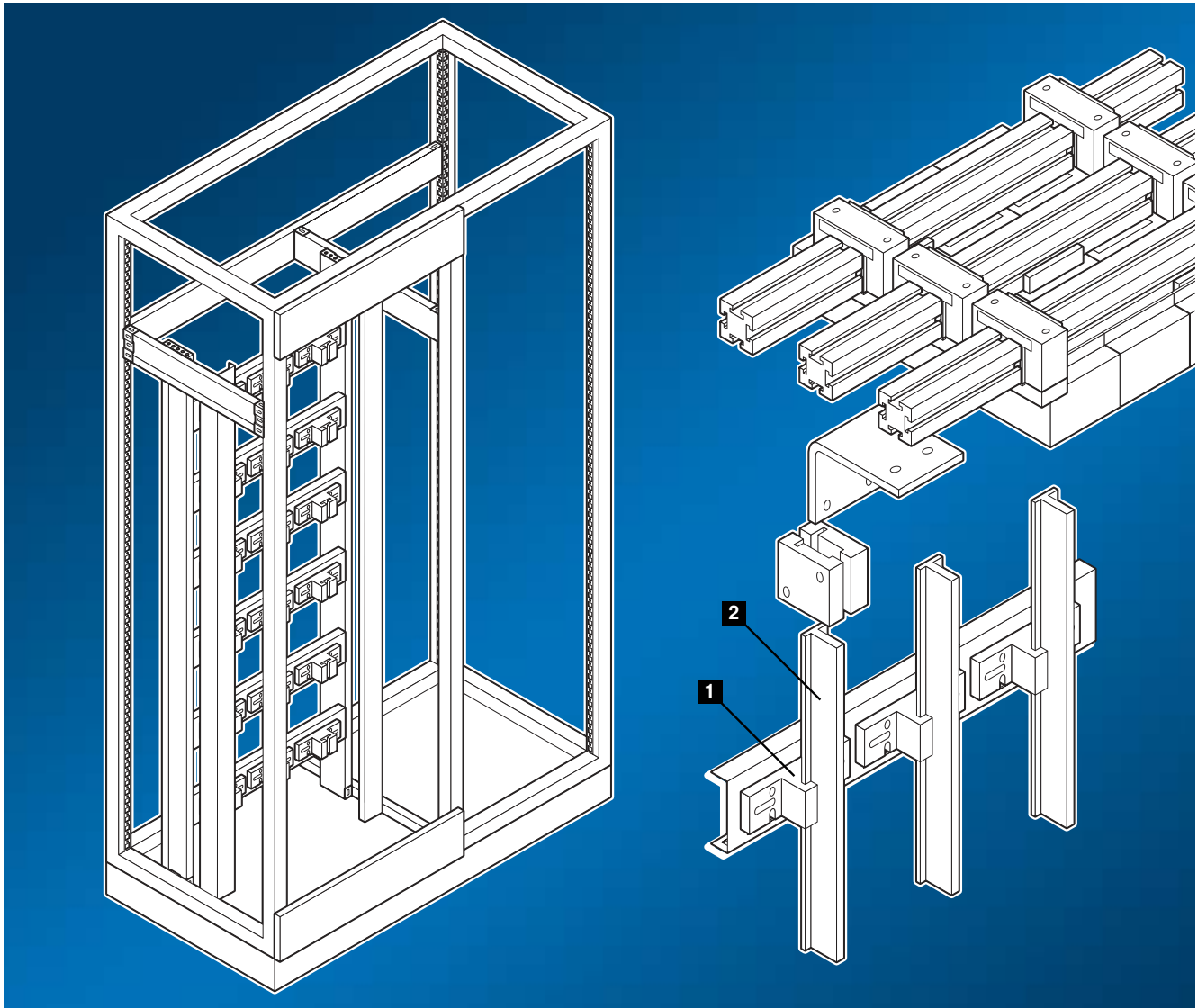
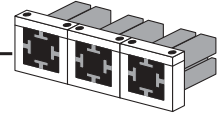
Lock: Standard double-bit lock insert

With fitted support rails to accommodate Maxi-PLS T-bar support

Maxi-PLS T connector kits 800 A/1600 A

For Maxi-PLS T busbar			up to 800 A			up to 1600 A			Accessories	
For enclosure depth	System	Bar centre distance	Approx. weight (kg)	Packs of	Model No. SV	Approx. weight (kg)	Packs of	Model No. SV	Maxi-PLS U contact makers* Model No. SV	Maxi-PLS isolator chassis* Model No. SV
500 mm	2000 A	100 mm	8	1 set	9660.040	–	–	–	9640.170	9640.020
600 mm	2000 A	100 mm	9	1 set	9660.050	13	1 set	9660.140	9640.170	9640.020
600 mm	2000 A	150 mm	9	1 set	9660.060	13	1 set	9660.150	9640.170	9650.020
600 mm	3200 A	150 mm	9	1 set	9660.070	13	1 set	9660.160	9650.170	9650.020
800 mm	3200 A	150 mm	10	1 set	9660.080	15	1 set	9660.170	9650.170	9650.020

* Technical information and scope of delivery see page 141, 157



1 Maxi-PLS T bar support

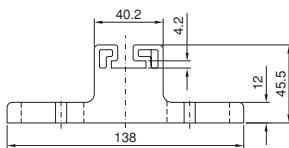
up to 800 A

Design	Packs of	Model No. SV
T support	3	9660.000
T end support	3	9660.010

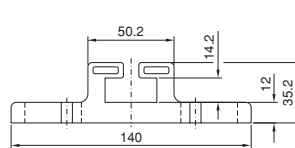
up to 1600 A

T support	3	9660.100
T end support	3	9660.110

SV 9660.000
SV 9660.010



SV 9660.100
SV 9660.110



2 Maxi-PLS T busbar E-Cu 57

10 mm knife edge.

up to 800 A

Length (mm)	Approx. weight (kg)	Packs of	Model No. SV
1000	13	3	9660.020
1600	20	3	9660.030

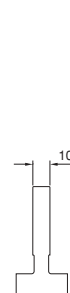
up to 1600 A

1000	25	3	9660.120
1600	40	3	9660.130

SV 9660.020
SV 9660.030

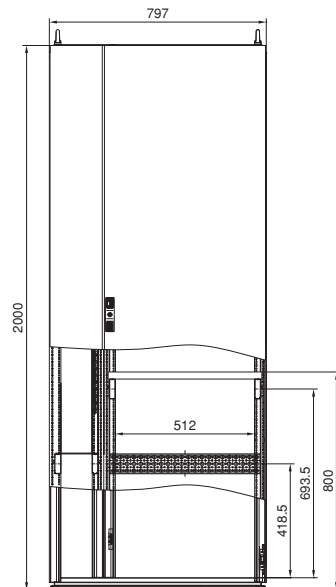


SV 9660.120
SV 9660.130

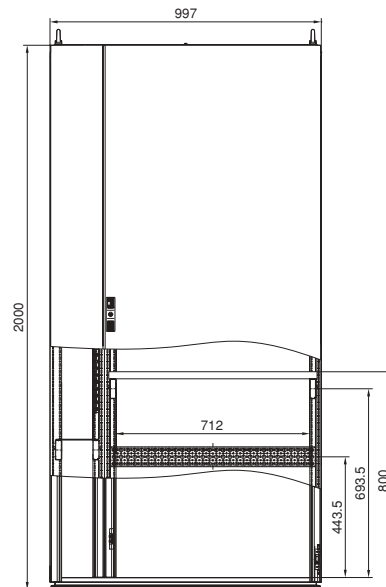


SV-TS 8 enclosures for coupling sets

SV 9660.300



SV 9660.350



For Maxi-PLS			2000 A	3200 A
Width in mm		Packs of	800	1000
Height in mm			2000	2000
Depth in mm			600	600
Model No.	SV	1	9660.300	9660.350
Doors			1	1
Approx. weight (kg)			145	175

Base/plinth

Components front and rear	Height 100 mm	TS	1 set	8601.800	8601.000
	Height 200 mm	TS	1 set	8602.800	8602.000
Trim panels (sides)	Height 100 mm	TS	1 set	8601.060	8601.060
	Height 200 mm	TS	1 set	8602.060	8602.060

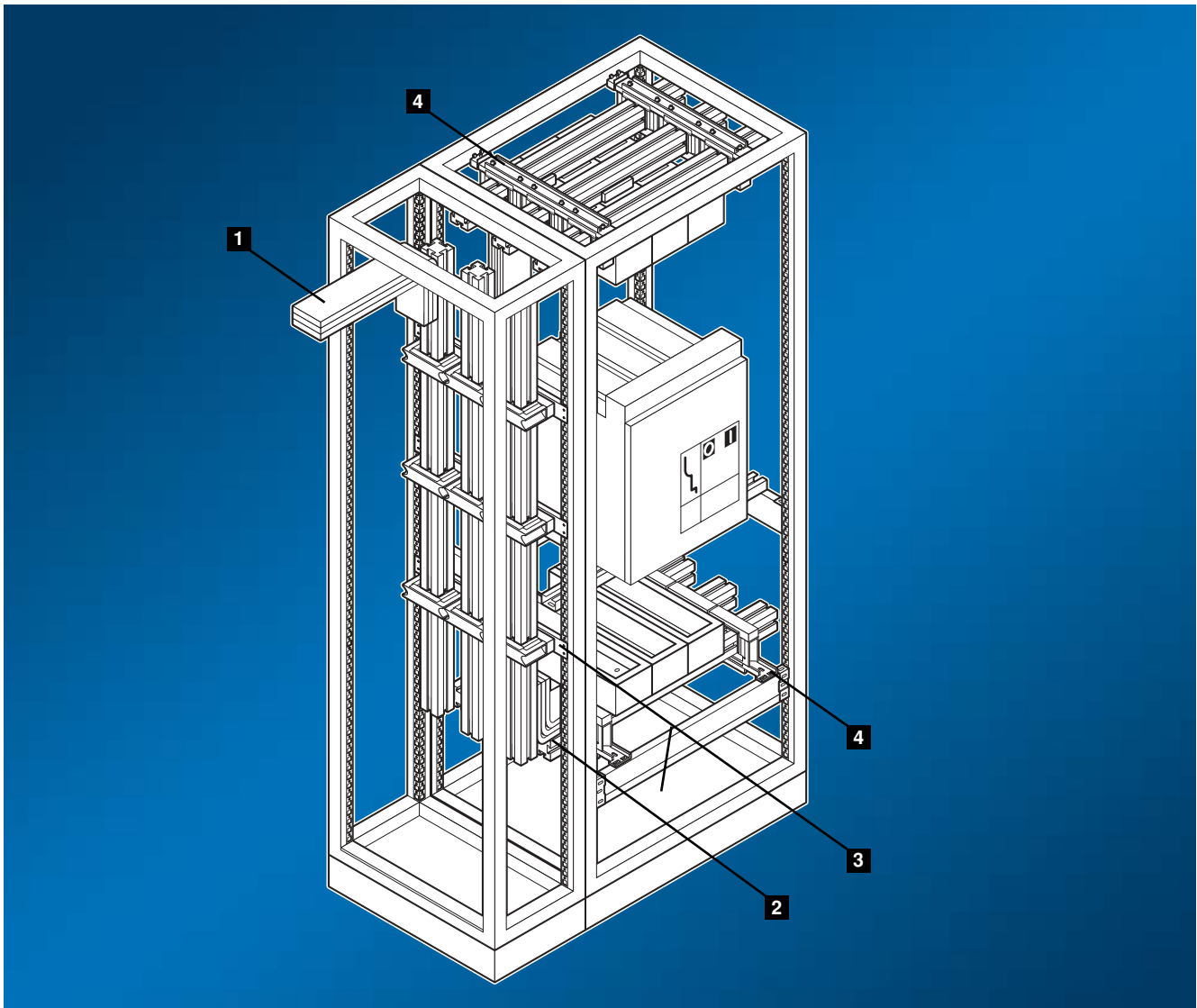
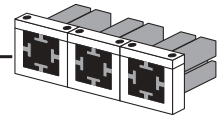
Accessories

Cable clamp rails	PS	2	4192.000	4336.000
Cable entry plates ¹⁾	TS	2	8800.060	8800.080
TS side panels	TS	2	8106.212	8106.212

Maxi-PLS roof plates see page 178

¹⁾ Cable entry grommets see Catalogue 30, page 892

Supply includes	Material	Surface finish
Enclosure frame	Sheet steel	
	1.5 mm	Dipcoat primed in RAL 7044
Door	2.0 mm	Dipcoat primed in RAL 7044 Powder coated in textured RAL 7032 on the outside
Roof	1.5 mm	
Rear panel	1.5 mm	
Three-piece gland plates	1.5 mm	Zinc-plated
With fitted system support rails for attaching the power circuit-breaker		
Lock: Standard double-bit lock insert		



1 Maxi-PLS coupling sets
2 2000 A/3200 A, vertical

For installing in 600 mm deep SV-TS 8 enclosures for coupling sections.

For standard power circuit-breakers from ABB, Merlin Gerin, Mitsubishi, Moeller and Siemens up to 2000 A/3200 A.

The selection of coupling sets occurs via the rated current I_e of the primary busbars to be coupled:

- Coupling set 2000 A:
 $I_e \leq 2000$ A
- Coupling set 3200 A:
 $I_e 2000$ A ≤ 3200 A

For coupling section	2000 A	3200 A
Approx. weight (kg)	98	152
Packs of	1 set	1 set
Model No. SV	9660.320	9660.370

Supply includes:

3 busbars E-Cu, 1 set of connection angular brackets E-Cu, top (L1 – L3) **1**, 1 set of connection angular brackets E-Cu, bottom (L1 – L3) **2**, assembly parts.

3 Maxi-PLS system attachment for coupling sections

For attaching Maxi-PLS busbar supports – see page 140/156 – and Maxi-PLS coupling sets to the TS frame section.

Material:

Stainless steel

For coupling section	Bar centre distance	Packs of	Model No. SV
2000 A	100 mm	2	9640.070
3200 A	150 mm	2	9650.070

4 Maxi-PLS system attachment

For attaching Maxi-PLS busbar supports – see page 140/156 – to the punched section with mounting flange in the lower area and to the roof frame.

Material:

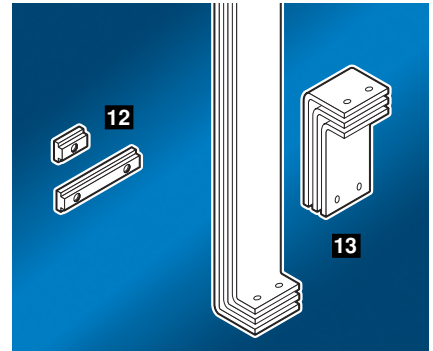
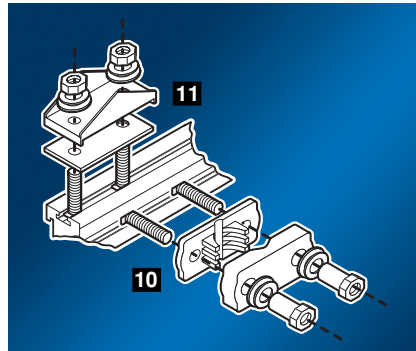
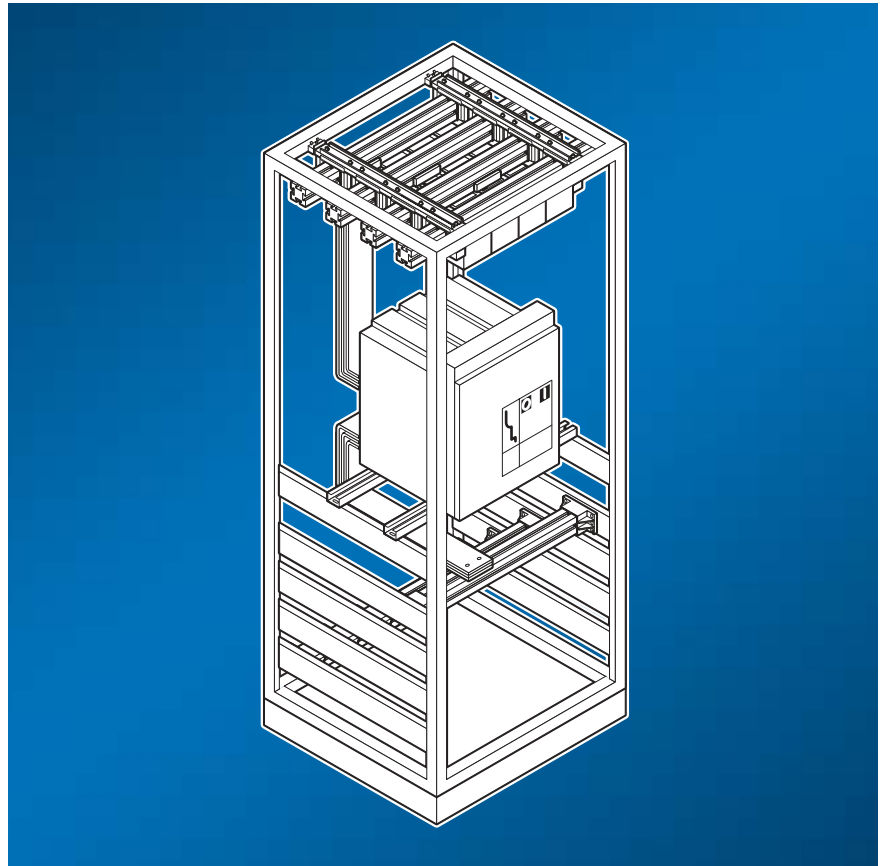
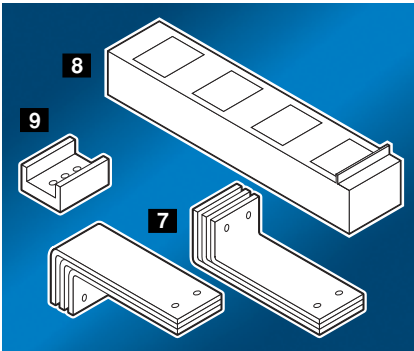
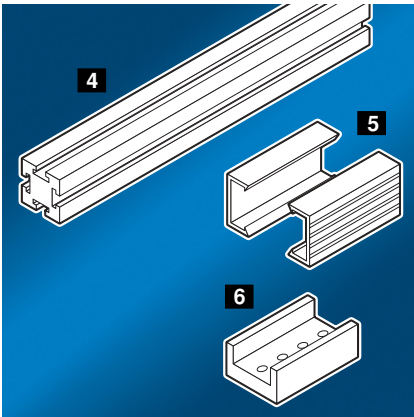
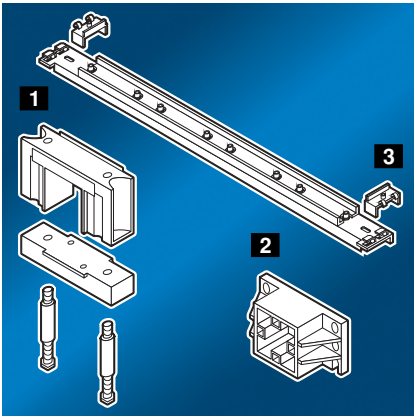
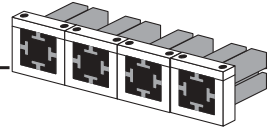
Stainless steel

For coupling section	Bar centre distance	Packs of	Model No. SV
2000 A	100 mm	2	9640.120
3200 A	150 mm	2	9650.100

Rittal Maxi-PLS, 4-pole

System components / Connection components

				! Also required:			
Maxi-PLS system components		Model No. SV	Packs of	Model No. SV	Packs of	Technical specifications	
						Corresp. to Model No. SV	See page
1	Busbar support	9640.000	3	9649.000	1	9640.000	140
2	End supports	9640.010	6	9649.010	2	9640.010	140
3	System attachment , 100 mm bar centre distance, for installing the busbar supports 1						
	– for TS enclosure depth 600 mm (roof segment)	9640.080	2	–	–	–	–
	– for TS/PS enclosures (rear segment)	9640.090	2	–	–	–	–
4	Busbars E-Cu 57 (length/for enclosure width)						
	491/600 mm	9649.200	4	–	–	9640.200	140
	525/600 mm	9649.210	4	–	–	9640.210	140
	599/600 mm	9649.220	4	–	–	9640.220	140
	691/800 mm	9649.230	4	–	–	9640.230	140
	725/800 mm	9649.240	4	–	–	9640.240	140
	799/800 mm	9649.250	4	–	–	9640.250	140
	891/1000 mm	9649.260	4	–	–	9640.260	140
	925/1000 mm	9649.270	4	–	–	9640.270	140
	999/1000 mm	9649.280	4	–	–	9640.280	140
	1091/1200 mm	9649.290	4	–	–	9640.290	140
	1125/1200 mm	9649.300	4	–	–	9640.300	140
	1199/1200 mm	9649.310	4	–	–	9640.310	140
	2400/– mm	9649.360	4	–	–	9640.360	140
5	Cover section for 4 , length 1000 mm	9640.050	5	–	–	–	140
	End cover for 4	9640.060	6	9649.060	2	9640.060	140
6	Longitudinal connector E-Cu 57 for 4 (baying connection)	9640.190	3	9649.190	1	9640.190	140
7	Connection bracket E-Cu 57 Width 60 mm, for 600 mm enclosure depth (Number of brackets per phase)						
	1	9649.430	1 set	–	–	9640.430	143
	2	9649.440	1 set	–	–	9640.440	143
	3	9649.450	1 set	–	–	9640.450	143
8	Isolator chassis for 7 , bar centre distance 100 mm	9649.020	1 set	–	–	9640.020	141
9	U contact maker E-Cu 57 for 7 , 60 mm wide	9640.170	3	9649.170	1	9640.170	141
10	Connection clamp for round conductors 95 to 300 mm ²	9640.320	3	–	–	–	142
11	Connection plates for laminated copper bars (maximum clamping area)						
	2 x 10 x 32 x 1 mm	9640.330	3	–	–	–	142
	2 x 10 x 63 x 1 mm	9640.340	3	–	–	–	142
	2 x 10 x 100 x 1 mm	9640.350	3	–	–	–	142
	Terminal studs for connecting cables with ring terminals						
	M12	9640.370	3	–	–	–	142
	M16	9640.380	3	–	–	–	142
12	Sliding blocks for sliding into the busbar section 4 from the side (thread)						
	M8	9640.970	15	–	–	–	142
	M10	9640.980	15	–	–	–	142
	Sliding nuts for retrospective insertion into the busbar section 4 (thread)						
	M6	9640.900	15	–	–	–	142
	M8	9640.910	15	–	–	–	142
	M10	9640.920	15	–	–	–	142
	Threaded bolt M10 for individual connection options	9640.960	6	–	–	–	142
13	Connection kits on request. Accessories, see page 176 – 178.						



1 Maxi-PLS busbar support

2 Maxi-PLS end support

3 Maxi-PLS system attachment

4 Maxi-PLS busbars, E-Cu 57

5 Maxi-PLS cover section

6 Maxi-PLS longitudinal connector, E-Cu 57

7 Maxi-PLS connection bracket, E-Cu 57

8 Maxi-PLS isolator chassis

9 Maxi-PLS U contact maker, E-Cu 57

10 Maxi-PLS connection clamp

11 Maxi-PLS connection plates

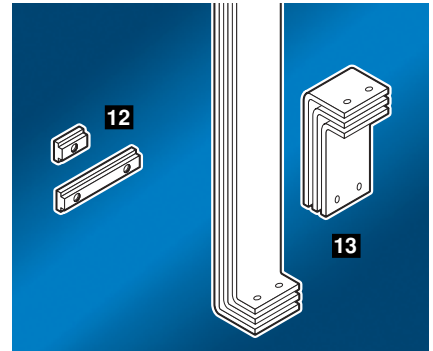
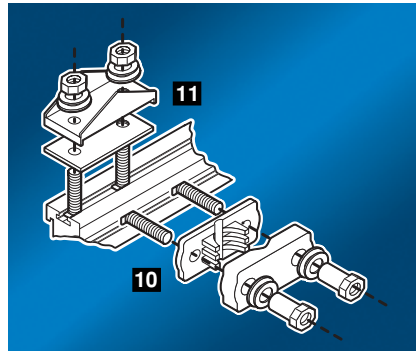
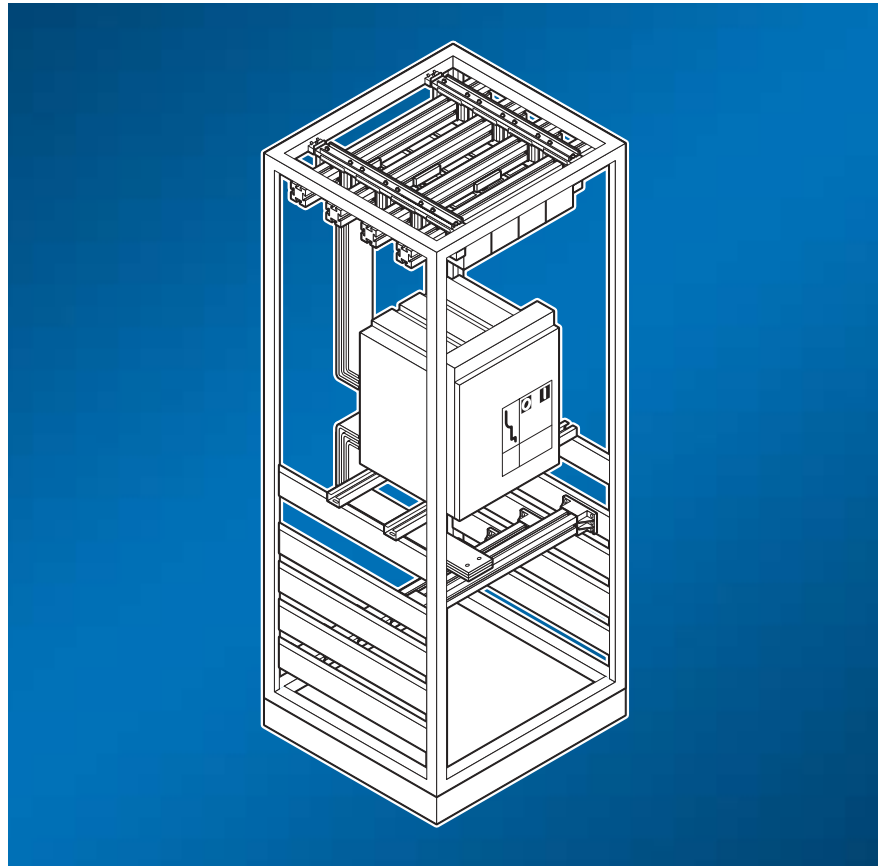
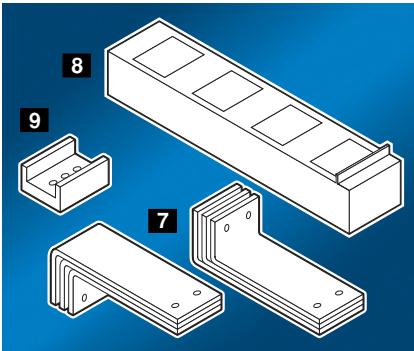
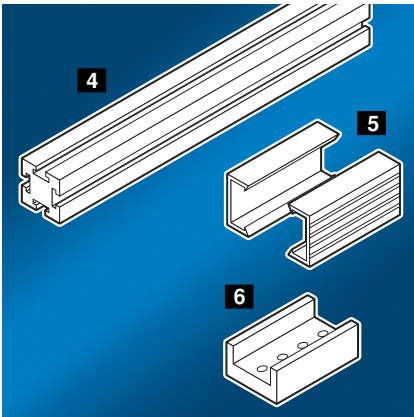
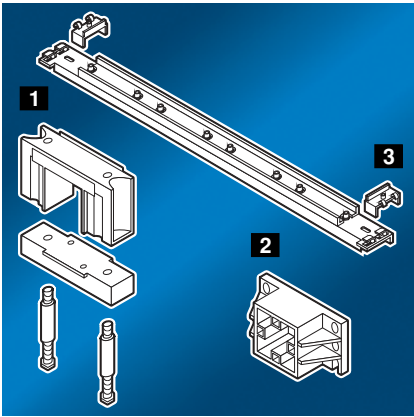
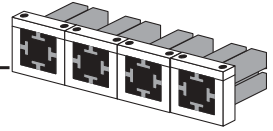
12 Maxi-PLS sliding blocks

13 Maxi-PLS connector kit top/bottom

Rittal Maxi-PLS, 4-pole

System components / Connection components

				! Also required:			
Maxi-PLS system components		Model No. SV	Packs of	Model No. SV	Packs of	Corresp. to Model No. SV	See page
1	Busbar support	9650.000	3	9659.000	1	9650.000	156
2	End supports	9650.010	6	9659.010	2	9650.010	156
3	System attachment , 150 mm bar centre distance for installing the busbar supports 1						
	– for TS enclosure depth 800 mm (roof segment)	9650.080	2	–	–	–	–
	– for TS/PS enclosures (rear segment)	9650.090	2	–	–	–	–
4	Busbars E-Cu 57 (length/for enclosure width)						
	491/600 mm	9659.200	4	–	–	9650.200	156
	525/600 mm	9659.210	4	–	–	9650.210	156
	599/600 mm	9659.220	4	–	–	9650.220	156
	691/800 mm	9659.230	4	–	–	9650.230	156
	725/800 mm	9659.240	4	–	–	9650.240	156
	799/800 mm	9659.250	4	–	–	9650.250	156
	891/1000 mm	9659.260	4	–	–	9650.260	156
	925/1000 mm	9659.270	4	–	–	9650.270	156
	999/1000 mm	9659.280	4	–	–	9650.280	156
	1091/1200 mm	9659.290	4	–	–	9650.290	156
	1125/1200 mm	9659.300	4	–	–	9650.300	156
	1199/1200 mm	9659.310	4	–	–	9650.310	156
	2400/– mm	9659.360	4	–	–	9650.360	156
5	Cover section for 4 , length 1000 mm	9650.050	5	–	–	–	156
	End cover for 4	9650.060	6	9659.060	2	9650.060	156
6	Longitudinal connector E-Cu 57 for 4 (baying connection)	9650.190	3	9659.190	1	9650.190	156
7	Connection bracket E-Cu 57 , for 800 mm enclosure depth (Width/number of brackets per phase)						
	60 mm/1	9659.400	1 set	–	–	9650.430	159
	60 mm/2	9659.410	1 set	–	–	9650.440	159
	60 mm/3	9659.420	1 set	–	–	9650.450	159
	100 mm/1	9659.460	1 set	–	–	9650.490	159
	100 mm/2	9659.470	1 set	–	–	9650.500	159
	100 mm/3	9659.480	1 set	–	–	9650.510	159
8	Isolator chassis for 7 , bar centre distance 150 mm						
	– for connection bracket width 60 mm	9659.020	1 set	–	–	9650.020	157
	– for connection bracket width 100 mm	9659.030	1 set	–	–	9650.030	157
9	U contact makers E-Cu 57 for 7						
	60 mm wide	9650.170	3	9659.170	1	9650.170	157
	100 mm wide	9650.180	3	9659.180	1	9650.180	157
10	Connection clamp for round conductors 95 to 300 mm ²	9650.320	3	–	–	–	158
11	Connection plates for laminated copper bars (maximum clamping area)						
	2 x 10 x 32 x 1 mm	9650.330	3	–	–	–	158
	2 x 10 x 63 x 1 mm	9650.340	3	–	–	–	158
	2 x 10 x 100 x 1 mm	9650.350	3	–	–	–	158
	Terminal studs for connecting cables with ring terminals						
	M12	9650.370	3	–	–	–	158
	M16	9650.380	3	–	–	–	158
12	Sliding blocks for sliding into the busbar section 4 from the side (thread)						
	M10	9650.980	15	–	–	–	158
	M12	9650.990	15	–	–	–	158
	Sliding nuts for retrospective insertion into the busbar section 4 (thread)						
	M6	9650.900	15	–	–	–	158
	M10	9650.910	15	–	–	–	158
	M12	9650.920	15	–	–	–	158
	Threaded bolts M12 for individual connection options	9650.960	6	–	–	–	158
13	Connection kits on request. Accessories, see page 176 – 178.						



1 Maxi-PLS busbar support

2 Maxi-PLS end support

3 Maxi-PLS system attachment

4 Maxi-PLS busbars, E-Cu 57

5 Maxi-PLS cover section

6 Maxi-PLS longitudinal connector, E-Cu 57

7 Maxi-PLS connection bracket, E-Cu 57

8 Maxi-PLS isolator chassis

9 Maxi-PLS U contact makers, E-Cu 57

10 Maxi-PLS connection clamp

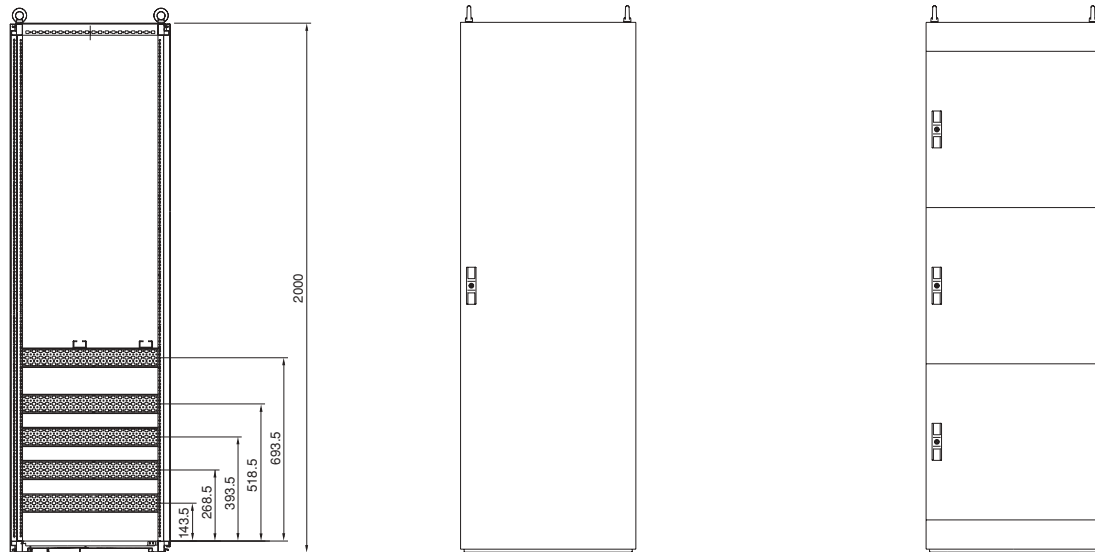
11 Maxi-PLS connection plates

12 Maxi-PLS sliding blocks

13 Maxi-PLS connector kit top/bottom

Rittal Maxi-PLS, 4-pole

SV-TS 8 enclosures for incoming / outgoing circuit



Pre-assembled for direct installation of power circuit-breakers

For Maxi-PLS			2000 A	3200 A	2000 A	3200 A
Width in mm		Packs of	600	800	600	800
Height in mm			2000	2000	2000	2000
Depth in mm			600	800	600	800
Model No.	SV	1	9649.620	9659.620	9649.630	9659.630
Doors			1	1	3	3
Approx. weight (kg)			78	88	78	88

Base/plinth

Components front and rear	Height 100 mm	TS	1 set	8601.800	8601.800	8601.800	8601.800
	Height 200 mm	TS	1 set	8602.800	8602.800	8602.800	8602.800
Trim panels (sides)	Height 100 mm	TS	1 set	8601.060	8601.080	8601.060	8601.080
	Height 200 mm	TS	1 set	8602.060	8602.080	8602.060	8602.080

+ Accessories

Cable clamp rails	PS	2	4192.000	4192.000	4192.000	4192.000
Cable entry plates ¹⁾	TS	2	8800.080	8800.080	8800.080	8800.080
TS side panels	TS	2	8106.212	8108.200	8106.212	8108.200

Maxi-PLS roof plates see page 178

¹⁾ Cable entry grommets see Cat. 30, page 892

Lock systems see Cat. 30, pages 936 – 938

Other sizes and designs available on request.

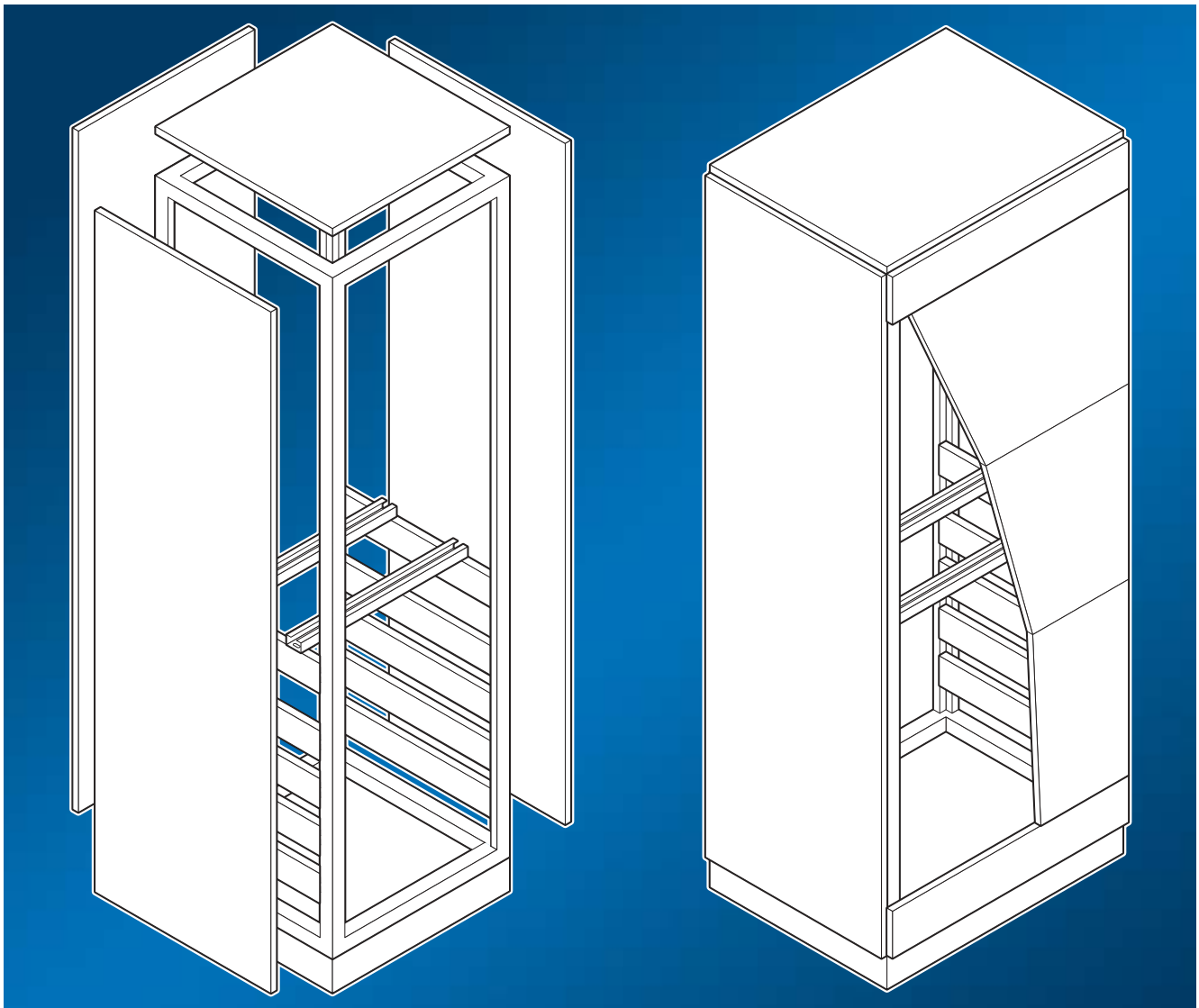
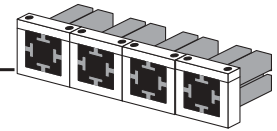
Supply includes	Material	Surface finish
Enclosure frame	Sheet steel	Dipcoat primed in RAL 7044
Door(s)	2.0 mm	Dipcoat primed in RAL 7044 Powder coated in textured RAL 7032 on the outside
Roof	1.5 mm	
Rear panel	1.5 mm	
Three-piece gland plates	1.5 mm	Zinc-plated

With fitted punched section without mounting flange for mounting on Maxi-PLS end support

With fitted system support rails for attaching the power circuit-breaker

Lock: Standard double-bit lock insert

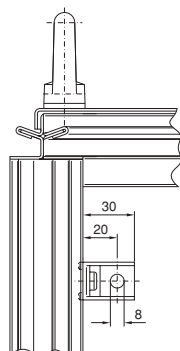
up to 2000 A, up to 3200 A



Maxi-PLS cover attachment

For power circuit-breaker fields.
For simple mounting of covers.

For Maxi-PLS system	Packs of	Model No. SV
2000 A/3200 A	8	9660.680



Base/plinth

The modular base/plinth concept offers exceptional cost and function benefits.



Cable entry plates

For simple, fast cable entry and sealing.



Cable clamp rails

These ensure strain relief for cable entry.



TS side panels

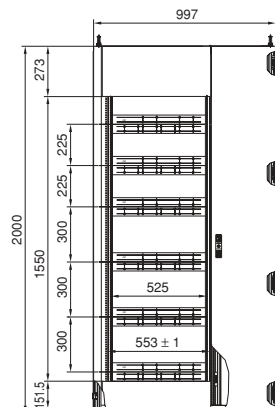
Convenient access to the TS interior, thanks to the option of hinging.

Maxi-PLS system
2000 A/3200 A,
4-pole

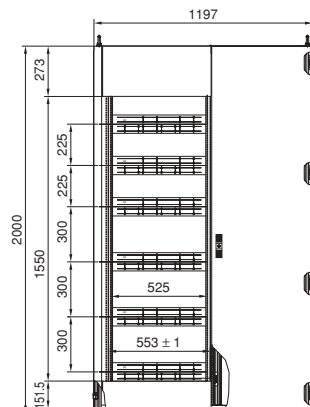
Rittal Maxi-PLS, 4-pole

SV-TS 8 enclosures for NH fused isolators

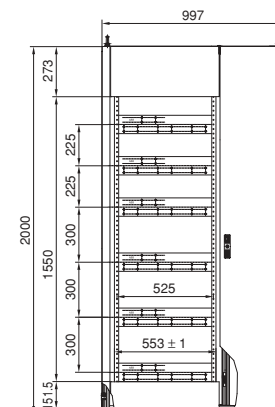
SV 9649.640
SV 9659.640



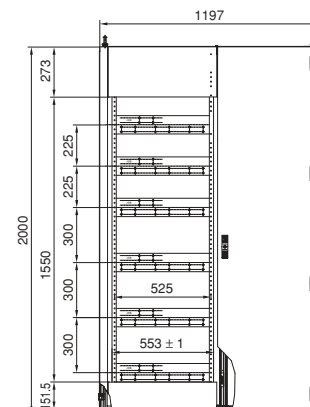
SV 9649.650
SV 9659.650



SV 9649.660
SV 9659.660



SV 9649.670
SV 9659.670



For Maxi-PLS			2000 A				3200 A			
For NH fused isolators			ABB SlimLine		Jean Müller SASIL		ABB SlimLine		Jean Müller SASIL	
Width in mm		Packs of	1000	1200	1000	1200	1000	1200	1000	1200
Height in mm			2000	2000	2000	2000	2000	2000	2000	2000
Depth in mm			600	600	600	600	800	800	800	800
Model No.	SV	1	9649.660	9649.670	9649.640	9649.650	9659.660	9659.670	9659.640	9659.650
Doors			1	1	1	1	1	1	1	1
Approx. weight (kg)			120	145	120	145	145	160	145	160

Base/plinth

Components front and rear	Height 100 mm	TS	1 set	8601.000	8601.200	8601.000	8601.200	8601.000	8601.200	8601.000	8601.200
	Height 200 mm	TS	1 set	8602.000	8602.200	8602.000	8602.200	8602.000	8602.200	8602.000	8602.200
Trim panels (sides)	Height 100 mm	TS	1 set	8601.060	8601.060	8601.060	8601.060	8601.080	8601.080	8601.080	8601.080
	Height 200 mm	TS	1 set	8602.060	8602.060	8602.060	8602.060	8602.080	8602.080	8602.080	8602.080

Accessories

TS side panels	TS	2	8106.212	8106.212	8106.212	8106.212	8108.200	8108.200	8108.200	8108.200
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Lock systems See Cat. 30, pages 936 – 938

Maxi-PLS roof plates see page 178

Cover for distribution busbar (from the isolator manufacturer's range)	ABB Model No. NHP 407062 R..	Jean Müller Model No. A 8900 101	ABB Model No. NHP 407062 R..	Jean Müller Model No. A 8900 101
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Supply includes	Material	Surface finish
Enclosure frame	Sheet steel	
Door	1.5 mm	Dipcoat primed in RAL 7044
Roof	2.0 mm	
Rear panel	1.5 mm	Dipcoat primed in RAL 7044
Three-piece gland plates	1.5 mm	Powder coated in textured RAL 7032 on the outside
		Zinc-plated

Lock: Standard double-bit lock insert

With fitted support rails to accommodate Maxi-PLS T-bar support

Maxi-PLS T-connector kits 800 A/1600 A

For Maxi-PLS T-busbar			up to 800 A				up to 1600 A			
For enclosure depth	System	Bar centre distance	Approx. weight (kg)	Packs of	For ¹⁾ Model No. SV	For ²⁾ Model No. SV	Approx. weight (kg)	Packs of	For ¹⁾ Model No. SV	For ²⁾ Model No. SV
600 mm	2000 A	100 mm	12	1 set	9649.080	9649.140	18	1 set	9649.090	9649.150
800 mm	3200 A	150 mm	14	1 set	9659.080	9659.140	20	1 set	9659.090	9659.150

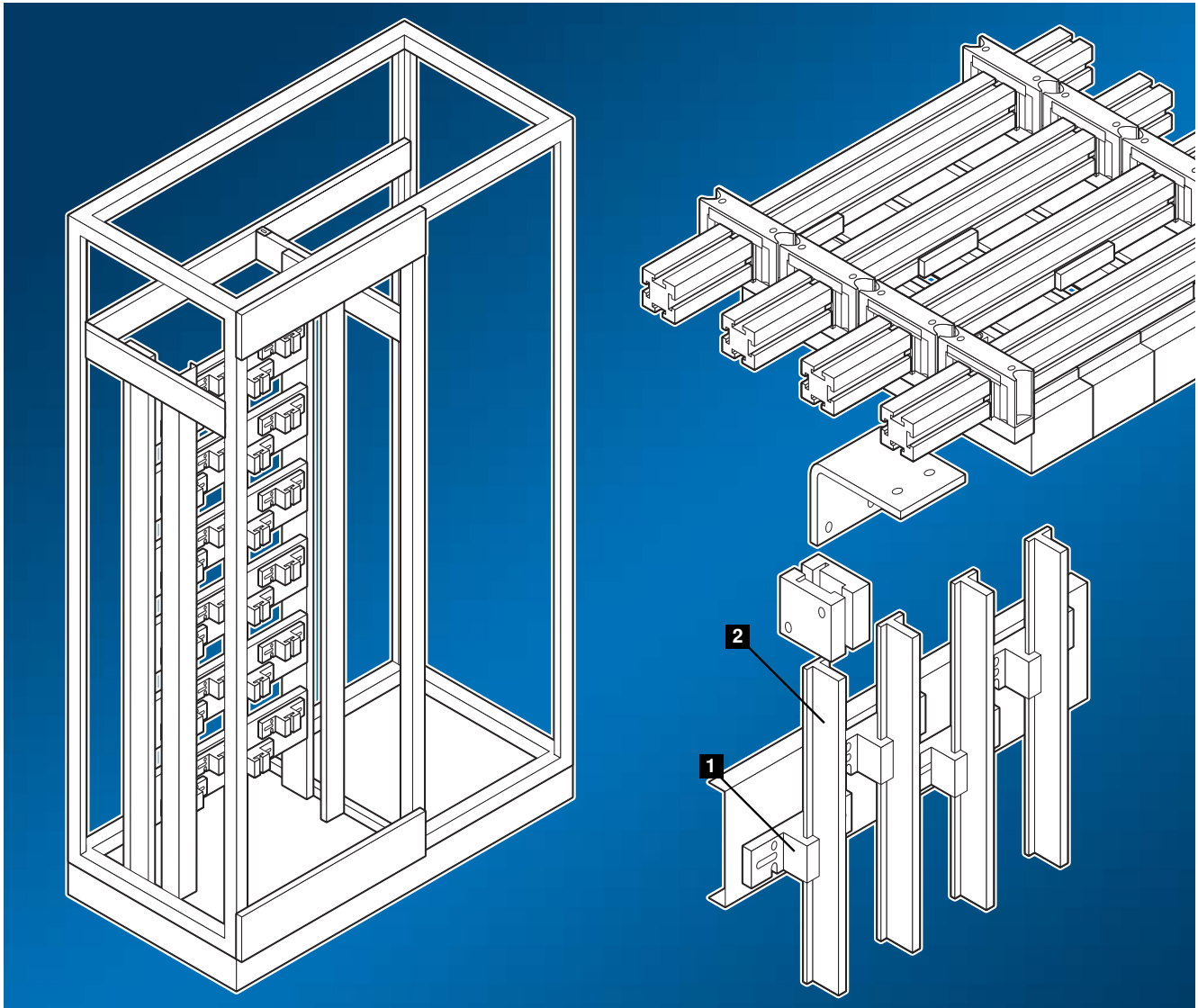
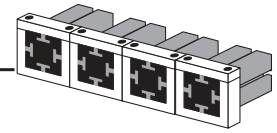
Accessories

U contact makers and isolator chassis see page 166, 168

NH fused isolators

¹⁾ ABB SlimLine

²⁾ Jean Müller SASIL



1 Maxi-PLS T-bar support

up to 800 A

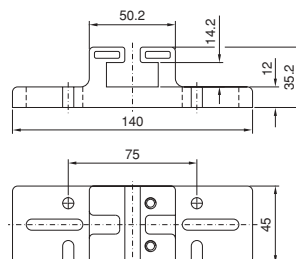
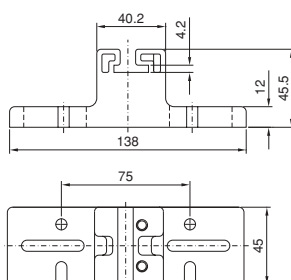
Design	Packs of	Model No. SV	! Also required: Packs of	Model No. SV
T-support	3	9660.000	1	9649.100
T-end support	3	9660.010	1	9649.110

up to 1600 A

T-support	3	9660.100	1	9659.100
T-end support	3	9660.110	1	9659.110

SV 9660.000 / .010
SV 9649.100 / .110

SV 9660.100 / .110
SV 9659.100 / .110



2 Maxi-PLS T-busbars E-Cu 57

10 mm knife edge.

up to 800 A

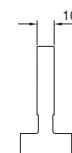
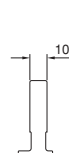
Length (mm)	Approx. weight each (kg)	Packs of	Model No. SV	! Also required: Packs of	Model No. SV
1000	4.3	3	9660.020	1	9649.120
1600	6.7	3	9660.030	1	9649.130

up to 1600 A

1000	8.3	3	9660.120	1	9659.120
1600	13.3	3	9660.130	1	9659.130

SV 9660.020 / .030
SV 9649.120 / .130

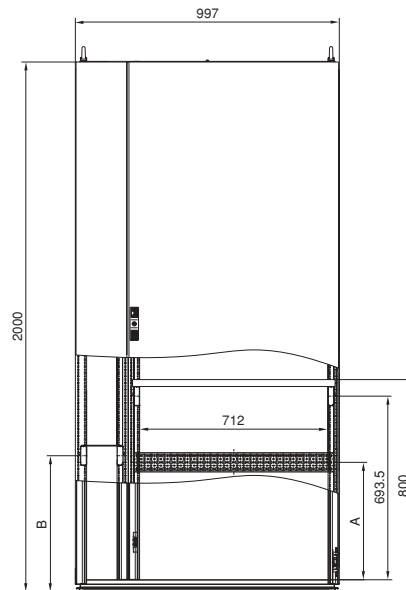
SV 9660.120 / .130
SV 9659.120 / .130



Rittal Maxi-PLS, 4-pole

SV-TS 8 enclosures for coupling sets

SV 9649.680 / SV 9659.690



Model No. SV	A	B
9649.680	418.5	418.5
9659.690	443.5	468.5

For Maxi-PLS			2000 A	3200 A
Width in mm		Packs of	1000	1000
Height in mm			2000	2000
Depth in mm			600	800
Model No.	SV	1	9649.680	9659.690
Doors			1	1
Approx. weight (kg)			165	195

Base/plinth

Components front and rear	Height 100 mm	TS	1 set	8601.000	8601.000
	Height 200 mm	TS	1 set	8602.000	8602.000
Trim panels (sides)	Height 100 mm	TS	1 set	8601.060	8601.080
	Height 200 mm	TS	1 set	8602.060	8602.080

Accessories

Cable clamp rails	PS	2	4336.000	4336.000
Cable entry plates ¹⁾	TS	2	8800.080	8800.080
TS side panels	TS	2	8106.212	8108.200

Maxi-PLS roof plates see page 178

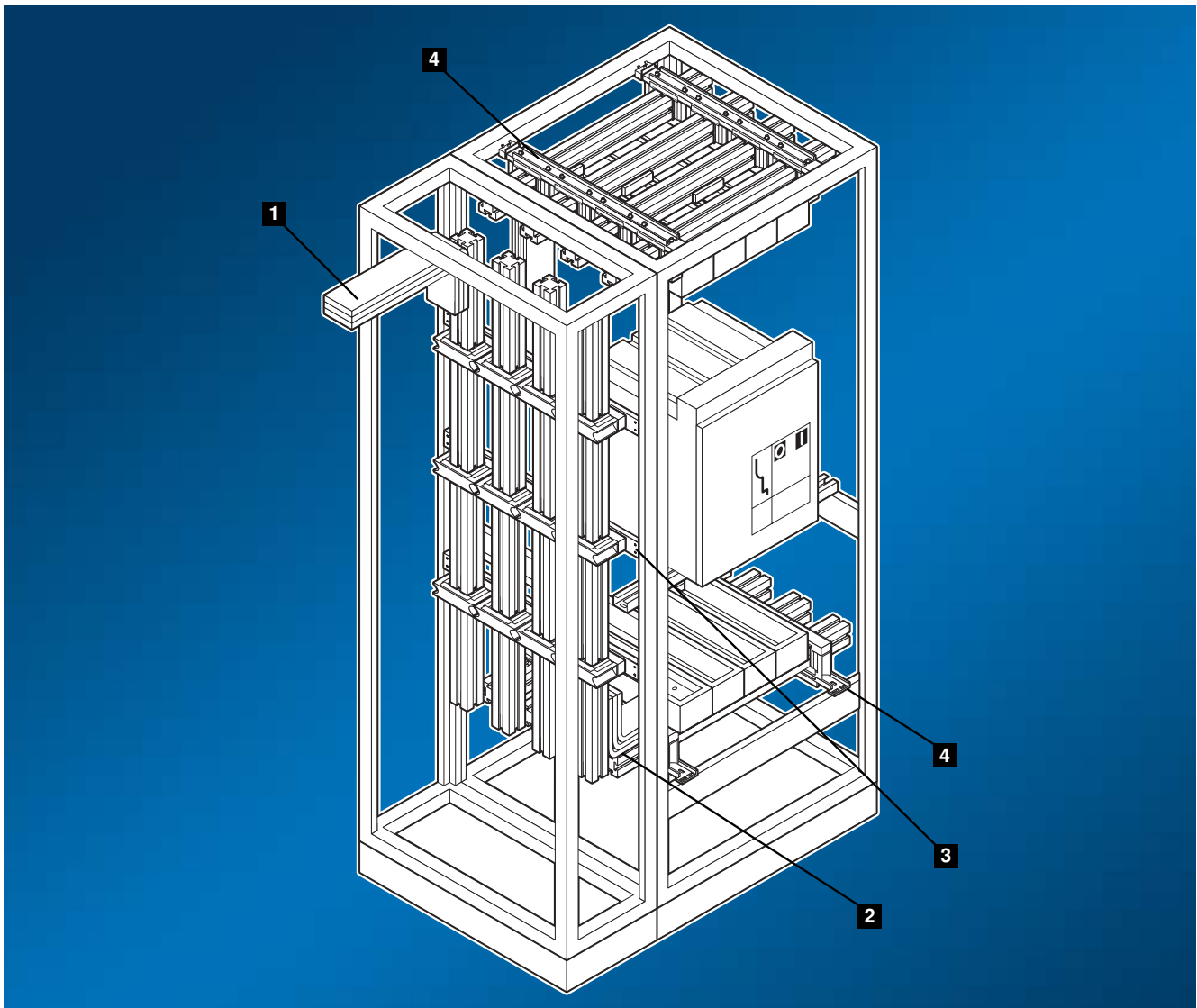
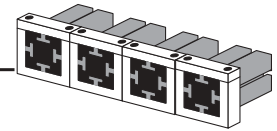
¹⁾ Cable entry grommets see Cat. 30, page 892

Lock systems see Cat. 30, pages 936 – 938

Supply includes	Material	Surface finish
Enclosure frame	Sheet steel	Dipcoat primed in RAL 7044
Door	1.5 mm	Dipcoat primed in RAL 7044 Powder coated in textured RAL 7032 on the outside
Roof	2.0 mm	
Rear panel	1.5 mm	
Three-piece gland plates	1.5 mm	Zinc-plated

With fitted system support rails for attaching the power circuit-breaker

Lock: Standard double-bit lock insert



1 Maxi-PLS coupling sets
2 2000 A/3200 A, vertical

For installing in 600/800 mm deep SV-TS 8 enclosures for coupling sections.

For standard power circuit-breakers from ABB, Merlin Gerin, Mitsubishi, Moeller and Siemens up to 2000 A/3200 A.

Coupling sets should be selected according to the rated current I_e of the primary busbars to be coupled:

- Coupling set 2000 A:
 $I_e \leq 2000$ A
- Coupling set 3200 A:
 $I_e 2000$ A $\leq$ 3200 A

For coupling section	2000 A	3200 A
Approx. weight (kg)	130	202
Packs of	1 set	1 set
Model No. SV	9649.700	9659.700

Supply includes:

4 busbars E-Cu,
1 set of connection brackets E-Cu, top (L1 – L3, N) **1**
1 set of connection brackets E-Cu, bottom (L1 – L3, N) **2**, assembly parts.

3 Maxi-PLS system attachment for coupling sections

For attaching Maxi-PLS busbar supports – see page 166, 168 – and Maxi-PLS coupling sets to the TS frame section.

Material:
Stainless steel

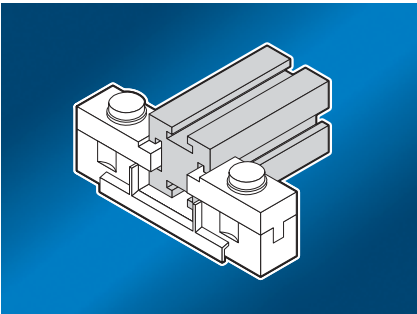
For coupling section	Bar centre distance	Packs of	Model No. SV
2000 A	100 mm	2	9649.070
3200 A	150 mm	2	9659.070

4 Maxi-PLS system attachment

For attaching Maxi-PLS busbar supports – see page 166, 168 – to the punched section with mounting flange in the lower area and to the roof frame.

Material:
Stainless steel

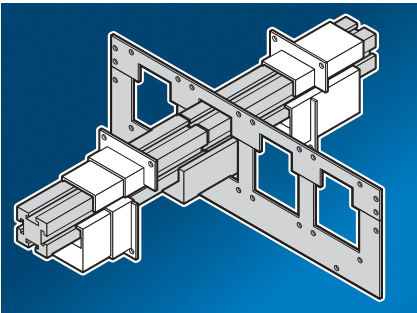
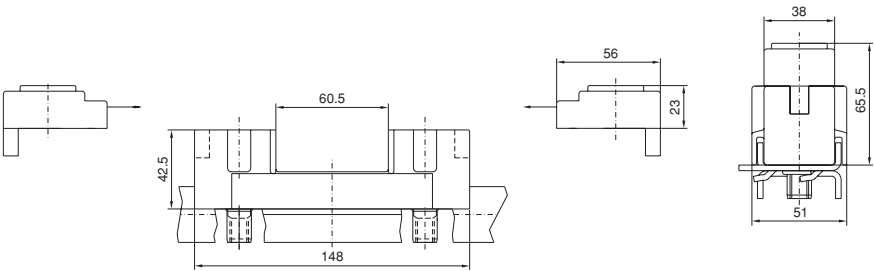
For coupling section	Bar centre distance	Packs of	Model No. SV
2000 A	100 mm	2	9640.080
3200 A	150 mm	2	9650.080



Maxi-PLS busbar supports
up to 3200 A

Suitable for top-mounting e.g. with Rittal
NH fused isolators – see page 96/97.

Packs of	Model No. SV
3	9650.160



Maxi-PLS busbar gland

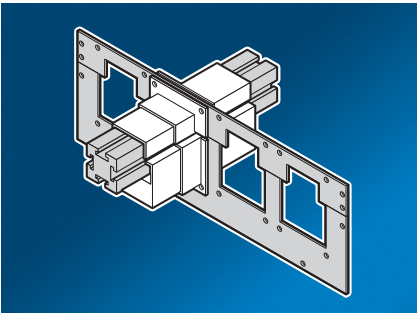
Exceeds the requirements of BGV A2 in
conjunction with the Maxi-PLS divider
panel and the divider panel modules.

Material:
PA 66

For use without longitudinal connectors	Packs of	Model No. SV
For system		
2000 A	1 set	9640.600*
3200 A	1 set	9650.600*

Supply includes:
Including assembly parts

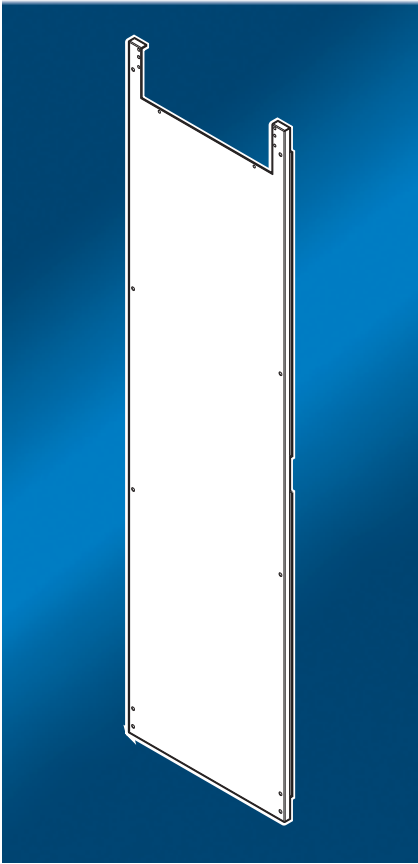
* Required number of packs for system
configuration
3-pole = 6 packs
4-pole = 8 packs



For use with longitudinal connectors			! Also required:
For system	Packs of	Model No. SV	Model No. SV
2000 A	1 set	9640.610**	9640.600**
3200 A	1 set	9650.610**	9650.600**

Supply includes:
Including assembly parts

** Required number of packs for system
configuration
3-pole = 3 packs
4-pole = 4 packs



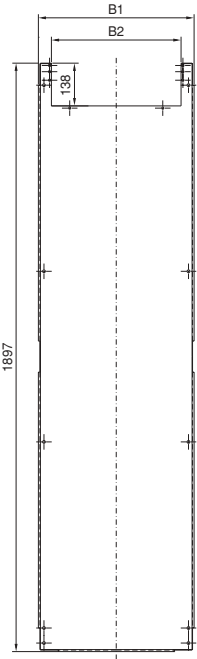
Maxi-PLS divider panel

For side shielding from neighbouring panels. In conjunction with the Maxi-PLS busbar gland and the Maxi-PLS divider panel modules, as a preventive measure to prevent arcing.

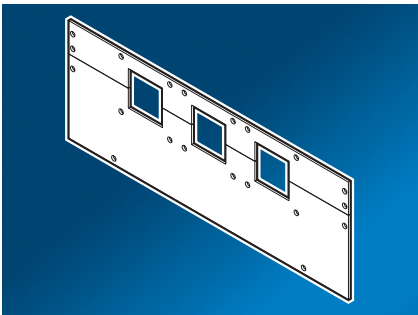
Material:
Sheet steel, 1.5 mm, zinc-plated, passivated.

Supply includes:
Including assembly parts.

For TS enclosures		Packs of	Model No. SV
Depth mm	Height mm		
600	2000	1	9660.620
800	2000	1	9659.590



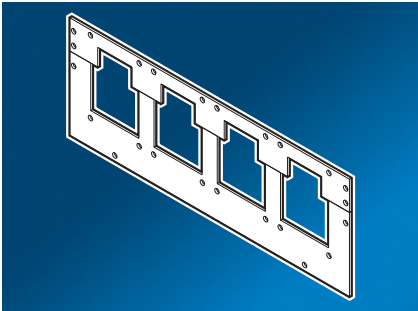
Model No. SV	B1	B2
9660.620	502	418
9659.590	702	618



Maxi-PLS divider panel modules

For use without longitudinal connectors				Packs of	Model No. SV
For system		For enclosure depth mm	Bar centre distance mm		
2000 A	3-pole	600	100	1 set	9640.620
	3-pole	–	185	1 set	9640.640
	4-pole	600	100	1 set	9649.600
3200 A	3-pole	600	150	1 set	9650.620
	3-pole	–	185	1 set	9650.640
	4-pole	800	150	1 set	9659.600

Supply includes:
Including assembly parts.



For use with longitudinal connectors				Packs of	Model No. SV
For system		For enclosure depth mm	Bar centre distance mm		
2000 A	3-pole	600	100	1 set	9640.630
	3-pole	–	185	1 set	9640.650
	4-pole	600	100	1 set	9649.610
3200 A	3-pole	600	150	1 set	9650.630
	3-pole	–	185	1 set	9650.650
	4-pole	800	150	1 set	9659.610

Supply includes:
Including assembly parts.

Rittal Maxi-PLS

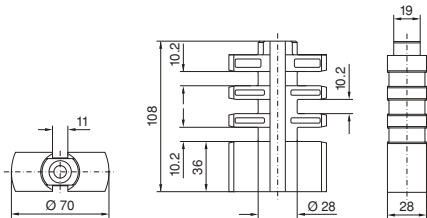
Accessories



Maxi-PLS stacking insulator

To support the connection kits top/bottom.
Also suitable for retrospective use.

Packs of	Model No. SV
6	9660.200



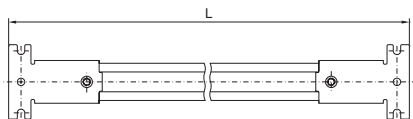
Maxi-PLS C rails

For attaching the Maxi-PLS stacking insulator to the TS 8 frame section.

Material:
Sheet steel, zinc plated, passivated.

For TS enclosures		Packs of	Model No. SV
Width mm	Depth mm		
600	600	4	9660.210
800	800	4	9660.220

Supply includes:
4 C rails,
8 clamps,
assembly parts.



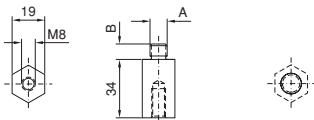
Model No. SV	L mm
9660.210	600
9660.220	800



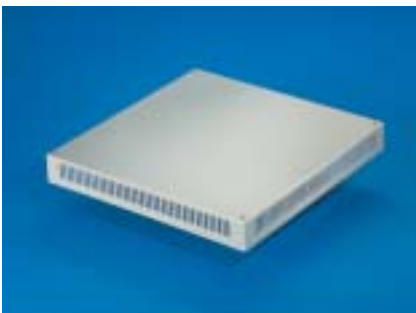
Maxi-PLS terminal studs

For attaching NH fused isolators, size 00 (Model No. SV 3591.040) – see page 96 – to Maxi-PLS busbars.

For Maxi-PLS system	Packs of	Model No. SV
2000 A	3	9640.390
3200 A	3	9650.390



Model No. SV	A	B
9640.390	M10	9
9650.390	M12	12



Maxi-PLS roof plates, vented

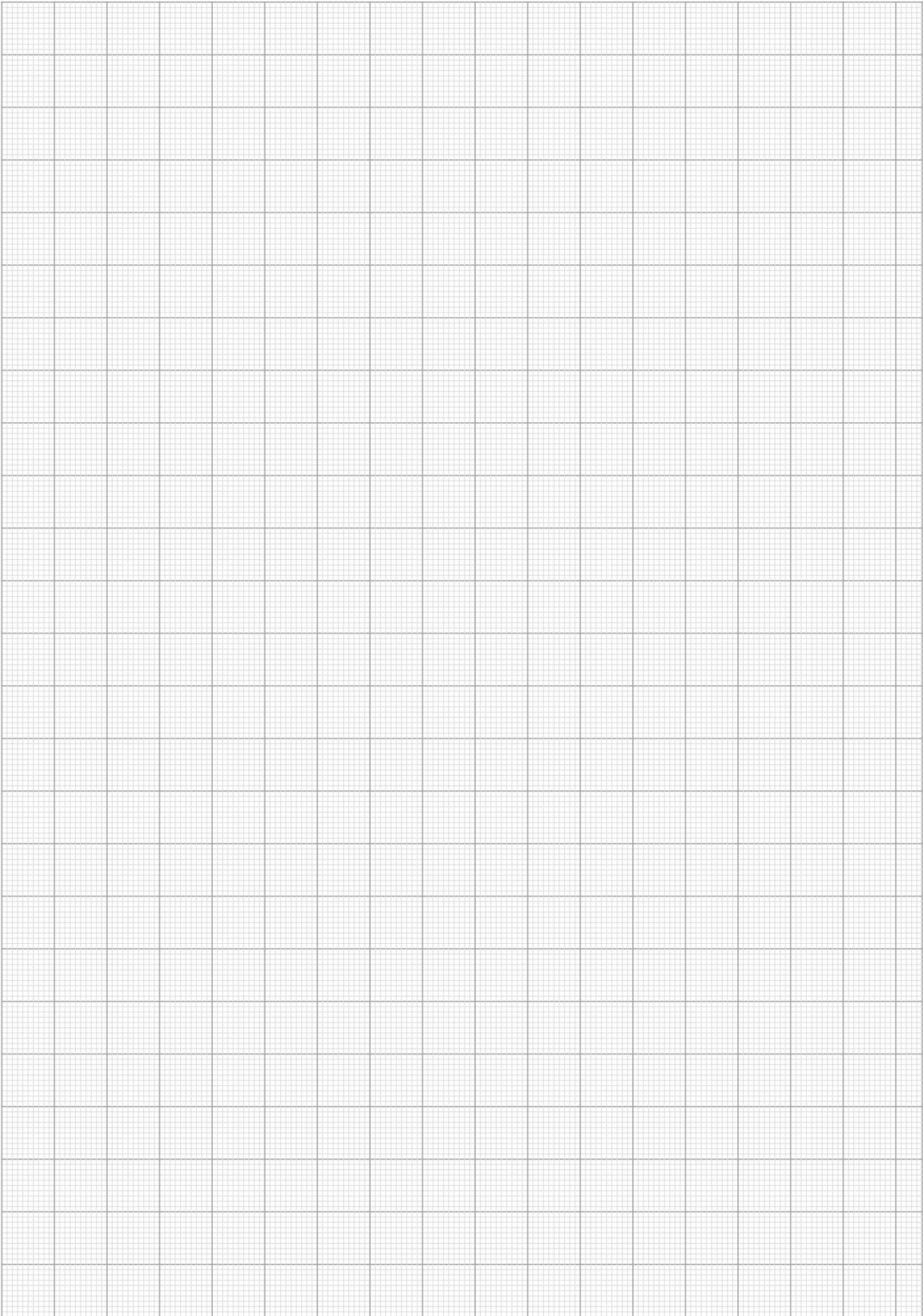
In exchange for the standard TS 8 roof.
50 mm high, with vent slots all round.

Material:
Sheet steel, spray finished.

Colour:
RAL 7032

Supply includes:
1 roof plate including assembly parts.

For TS enclosures		Packs of	Model No. SV
Width mm	Depth mm		
600	600	1	9660.230
	800	1	9659.520
800	600	1	9660.240
	800	1	9659.530
1000	600	1	9660.250
	800	1	9659.540
1200	600	1	9660.260
	800	1	9659.550



Technical specifications, Rittal Maxi-PLS

Maxi-PLS 2000 A (incoming panel)

Electrical parameters	Rated voltage	Rated insulation voltage U_i	1000 V	EN 60 439-1
		Rated operating voltage U_e	690 V	
		Rated surge voltage resistance U_{imp}	8 kV	
		Overvoltage category	IV	
		Level of contamination	3	
		Rated frequency	50 Hz	
	Rated current (main busbar)	Rated operating current I_e	1700 A	For IP 54
			2000 A	For IP 2x ¹⁾
		Rated surge current resistance I_{pk}	110 kA	
		Rated short-time current resistance I_{cw}	50 kA	
Mechanical parameters	Dimensions	Enclosure width	600 and 800 mm	EN 50 298
		Enclosure height	2,000 mm ²⁾	
		Enclosure depth	600 mm ²⁾	
		Pitch pattern	25 mm	
		Protection category	Max. IP 54	EN 60 439-1
		Design	1	
	Surface protection	Enclosure frame	Dipcoat primed in RAL 7044	
		Panels (roof plate, rear panel)	Dipcoat primed in RAL 7044 Powder coated in RAL 7032 on the outside	
		System attachment	Stainless steel	
		System rails and punched sections with mounting flanges	Sheet steel, zinc-plated, passivated	
Operating and ambient conditions	Ambient temperature	Material	E-Cu 57, bare	DIN 1787
		External dimensions	45 x 45 mm	
		Cross-section	1,380 mm ²	
	Atmospheric conditions	Short-term peak	+40°C	EN 60 439-1
		Maximum on a 24 h average	+35°C	
		Low	-5°C	
		Normal climatic stress		
		Relative humidity	50 % at 40°C	
			Operation up to 1000 m above sea level	

¹⁾ Using air inlet filter SK 3326.200 and Maxi-PLS roof plate SV 9660.230 / .240

²⁾ Other sizes available on request

Maxi-PLS 3200 A (incoming panel)

Electrical parameters	Rated voltage	Rated insulation voltage U_i	1000 V	EN 60 439-1
		Rated operating voltage U_e	690 V	
		Rated surge voltage resistance U_{imp}	8 kV	
		Overvoltage category	IV	
		Level of contamination	3	
		Rated frequency	50 Hz	
	Rated current (main busbar)	Rated operating current I_e	2100 A	For IP 54
			2600 A	For IP 2x ¹⁾
			3000 A	For IP 2x ²⁾
			3200 A	³⁾
		Rated surge current resistance I_{pk}	165 kA (264 kA) ⁵⁾	
		Rated short-time current resistance I_{cw}	70 kA (124 kA) ⁵⁾	
Mechanical parameters	Dimensions	Enclosure width	600 and 800 mm	EN 50 298
		Enclosure height	2,000 mm ⁴⁾	
		Enclosure depth	600 mm ⁴⁾	
		Pitch pattern	25 mm	
		Protection category	Max. IP 54	EN 60 439-1
		Design	1	
	Surface protection	Enclosure frame	Dipcoat primed in RAL 7044	
		Panels (roof plate, rear panel)	Dipcoat primed in RAL 7044 Powder coated in RAL 7032 on the outside	
		System attachment	Stainless steel	
		System rails and punched sections with mounting flanges	Sheet steel, zinc-plated, passivated	
Operating and ambient conditions	Ambient temperature	Material	E-Cu 57, bare	DIN 1787
		External dimensions	60 x 60 mm	
		Cross-section	2,700 mm ²	
	Atmospheric conditions	Short-term peak	+40°C	EN 60 439-1
		Maximum on a 24 h average	+35°C	
		Low	-5°C	
		Normal climatic stress		
		Relative humidity	50 % at 40°C	
			Operation up to 1000 m above sea level	

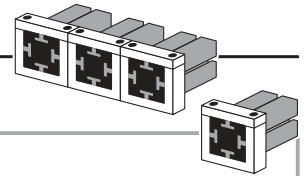
¹⁾ Using air inlet filter SK 3326.200 and Maxi-PLS roof plate SV 9660.230 / .240

²⁾ Using fan-and-filter unit SK 3327.100 (700 m³/h) and Maxi-PLS roof plate SV 9660.230 / .240

³⁾ Busbars in open frame (free air convection) or special climate control measures to maintain the enclosure internal temperature

⁴⁾ Other sizes available on request

⁵⁾ Using Maxi-PLS stabiliser SV 9650.140



T-bar system 800 A

Electrical parameters	Rated voltage	Rated insulation voltage U_i	1000 V	EN 60 439-1
		Rated operating voltage U_e	690 V	
		Rated surge voltage resistance U_{imp}	8 kV	
		Overvoltage category	IV	
		Level of contamination	3	
		Rated frequency	50 Hz	
Mechanical parameters	Rated current (main busbar)	Rated operating current I_e	1000 A	For IP 3x
		Rated surge current resistance I_{pk}	110 kA	
		Rated short-time current resistance I_{cw}	50 kA	
	Dimensions	Enclosure width	1,000 and 1,200 mm	EN 50 298
		Enclosure height	2,000 mm ¹⁾	
		Enclosure depth	600 mm ¹⁾	
		Pitch pattern	25 mm	
	Protection category	Design	1	EN 60 439-1
		Enclosure frame	Dipcoat primed in RAL 7044	
		Panels (roof plate, rear panel)	Dipcoat primed in RAL 7044 Powder coated in RAL 7032 on the outside	
		System rails and punched sections with mounting flanges	Sheet steel, zinc-plated, passivated	
Operating and ambient conditions	Surface protection	Busbar		
		Material	E-Cu 57, bare	DIN 1787
		Width contact strip	10 mm	
		Cross-section	470 mm ²	
	Ambient temperature	Short-term peak	+40°C	EN 60 439-1
		Maximum on a 24 h average	+35°C	
		Low	-5°C	
	Atmospheric conditions	Normal climatic stress		EN 60 439-1
		Relative humidity	50 % at 40°C	
		Operation up to 1000 m above sea level		

¹⁾ Other sizes available on request

T-bar system 1600 A

Electrical parameters	Rated voltage	Rated insulation voltage U_i	1000 V	EN 60 439-1
		Rated operating voltage U_e	690 V	
		Rated surge voltage resistance U_{imp}	8 kV	
		Overvoltage category	IV	
		Level of contamination	3	
		Rated frequency	50 Hz	
Mechanical parameters	Rated current (main busbar)	Rated operating current I_e	1600 A	For IP 3x
		Rated surge current resistance I_{pk}	110 kA	
		Rated short-time current resistance I_{cw}	50 kA	
	Dimensions	Enclosure width	1,000 and 1,200 mm	EN 50 298
		Enclosure height	2,000 mm ¹⁾	
		Enclosure depth	600 mm ¹⁾	
		Pitch pattern	25 mm	
	Protection category	Design	1	EN 60 439-1
		Enclosure frame	Dipcoat primed in RAL 7044	
		Panels (roof plate, rear panel)	Dipcoat primed in RAL 7044 Powder coated in RAL 7032 on the outside	
		System rails and punched sections with mounting flanges	Sheet steel, zinc-plated, passivated	
Operating and ambient conditions	Surface protection	Busbar		
		Material	E-Cu 57, bare	DIN 1787
		Width contact strip	10 mm	
		Cross-section	910 mm ²	
	Ambient temperature	Short-term peak	+40°C	EN 60 439-1
		Maximum on a 24 h average	+35°C	
		Low	-5°C	
	Atmospheric conditions	Normal climatic stress		EN 60 439-1
		Relative humidity	50 % at 40°C	
		Operation up to 1000 m above sea level		

¹⁾ Other sizes available on request

Technical specifications, Rittal Maxi-PLS

Maxi-PLS 2000 A (coupling section)

Electrical parameters	Rated voltage	Rated insulation voltage U_i	1000 V	EN 60 439-1
		Rated operating voltage U_e	690 V	
		Rated surge voltage resistance U_{imp}	8 kV	
		Overvoltage category	IV	
		Level of contamination	3	
		Rated frequency	50 Hz	
Mechanical parameters	Rated current (main busbar)	Rated operating current I_e	1700 A	For IP 54
			2000 A	For IP 2x ¹⁾
		Rated surge current resistance I_{pk}	110 kA	
		Rated short-time current resistance I_{cw}	50 kA	
	Dimensions	Enclosure width	800 mm ²⁾	EN 50 298
		Enclosure height	2,000 mm ²⁾	
		Enclosure depth	600 mm ²⁾	
		Pitch pattern	25 mm	
	Surface protection	Protection category	Max. IP 54	EN 60 439-1
		Design	1	
		Enclosure frame	Dipcoat primed in RAL 7044	
		Panels (roof plate, rear panel)	Dipcoat primed in RAL 7044 Powder coated in RAL 7032 on the outside	
Operating and ambient conditions	Ambient temperature	System attachment	Stainless steel	
		System rails and punched sections with mounting flanges	Sheet steel, zinc-plated, passivated	
		Busbar	Material	DIN 1787
			External dimensions	
	Atmospheric conditions		Cross-section	
		Short-term peak	+40°C	EN 60 439-1
		Maximum on a 24 h average	+35°C	
		Low	-5°C	
		Normal climatic stress		EN 60 439-1
		Relative humidity	50 % at 40°C	
			Operation up to 1000 m above sea level	

¹⁾ Using air inlet filter SK 3326.200 and Maxi-PLS roof plate SV 9660.240

²⁾ Other sizes available on request

Maxi-PLS 3200 A (coupling section)

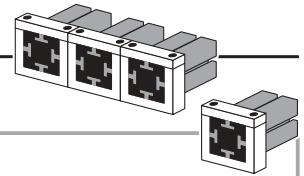
Electrical parameters	Rated voltage	Rated insulation voltage U_i	1000 V	EN 60 439-1
		Rated operating voltage U_e	690 V	
		Rated surge voltage resistance U_{imp}	8 kV	
		Overvoltage category	IV	
		Level of contamination	3	
		Rated frequency	50 Hz	
Mechanical parameters	Rated current (main busbar)	Rated operating current I_e	2100 A	For IP 54
			2600 A	For IP 2x ¹⁾
			3000 A	For IP 2x ²⁾
			3200 A	³⁾
	Dimensions	Rated surge current resistance I_{pk}	110 kA	
		Rated short-time current resistance I_{cw}	50 kA	
		Enclosure width	1,000 mm ⁴⁾	EN 50 298
		Enclosure height	2,000 mm ⁴⁾	
		Enclosure depth	600 mm ⁴⁾	
		Pitch pattern	25 mm	
Operating and ambient conditions	Ambient temperature	Protection category	Max. IP 54	EN 60 439-1
		Design	1	
		Enclosure frame	Dipcoat primed in RAL 7044	
		Panels (roof plate, rear panel)	Dipcoat primed in RAL 7044 Powder coated in RAL 7032 on the outside	
	Surface protection	System attachment	Stainless steel	
		System rails and punched sections with mounting flanges	Sheet steel, zinc-plated, passivated	
		Busbar	Material	DIN 1787
			External dimensions	
	Atmospheric conditions		Cross-section	
		Short-term peak	+40°C	EN 60 439-1
		Maximum on a 24 h average	+35°C	
		Low	-5°C	
		Normal climatic stress		EN 60 439-1
		Relative humidity	50 % at 40°C	
			Operation up to 1000 m above sea level	

¹⁾ Using air inlet filter SK 3326.200 and Maxi-PLS roof plate SV 9660.250

²⁾ Using fan-and-filter unit SK 3327.100 (700 m³/h) and Maxi-PLS roof plate SV 9660.250

³⁾ Busbars in open frame (free air convection) or special climate control measures to maintain the enclosure internal temperature

⁴⁾ Other sizes available on request



Maxi-PLS 2000 A (185 mm busbar system in the rear section of the enclosure)

Electrical parameters	Rated voltage	Rated insulation voltage U_i	1000 V	EN 60 439-1
		Rated operating voltage U_e	690 V	
		Rated surge voltage resistance U_{imp}	8 kV	
		Overvoltage category	IV	
		Level of contamination	3	
		Rated frequency	50 Hz	
	Rated current (main busbar)	Rated operating current I_e	1700 A	For IP 54
			2000 A	For IP 2x ¹⁾
		Rated surge current resistance I_{pk}	110 kA	
		Rated short-time current resistance I_{cw}	50 kA	
Mechanical parameters	Dimensions	Enclosure width	600, 800, 1,000 and 1,200 mm	EN 50 298
		Enclosure height	2,000 mm ²⁾	
		Enclosure depth	500, 600 and 800 mm	
		Pitch pattern	25 mm	
	Protection category		Max. IP 54	EN 60 439-1
		Design	1	
	Surface protection	Enclosure frame	Dipcoat primed in RAL 7044	
		Panels (roof plate, rear panel)	Dipcoat primed in RAL 7044 Powder coated in RAL 7032 on the outside	
		System attachment	Stainless steel	
		System rails and punched sections with mounting flanges	Sheet steel, zinc-plated, passivated	
Operating and ambient conditions	Ambient temperature	Material	E-Cu 57, bare	DIN 1787
		External dimensions	45 x 45 mm	
		Cross-section	1,380 mm ²	
	Atmospheric conditions	Short-term peak	+40°C	EN 60 439-1
		Maximum on a 24 h average	+35°C	
		Low	-5°C	
		Normal climatic stress		
		Relative humidity	50 % at 40°C	
			Operation up to 1000 m above sea level	

¹⁾ Using air inlet filter SK 3326.200 and Maxi-PLS roof plate SV 9660.230 / .240 / .250 / .260

²⁾ Enclosure height 1800 and 2200 mm available on request

Maxi-PLS 3200 A (185 mm busbar system in the rear section of the enclosure)

Electrical parameters	Rated voltage	Rated insulation voltage U_i	1000 V	EN 60 439-1
		Rated operating voltage U_e	690 V	
		Rated surge voltage resistance U_{imp}	8 kV	
		Overvoltage category	IV	
		Level of contamination	3	
		Rated frequency	50 Hz	
	Rated current (main busbar)	Rated operating current I_e	2100 A	For IP 54
			2600 A	For IP 2x ¹⁾
			3000 A	For IP 2x ²⁾
			3200 A	³⁾
		Rated surge current resistance I_{pk}	165 kA	
		Rated short-time current resistance I_{cw}	70 kA	
Mechanical parameters	Dimensions	Enclosure width	600, 800, 1,000 and 1,200 mm	EN 50 298
		Enclosure height	2,000 mm ⁴⁾	
		Enclosure depth	500, 600 and 800 mm	
		Pitch pattern	25 mm	
	Protection category		Max. IP 54	EN 60 439-1
		Design	1	
	Surface protection	Enclosure frame	Dipcoat primed in RAL 7044	
		Panels (roof plate, rear panel)	Dipcoat primed in RAL 7044 Powder coated in RAL 7032 on the outside	
		System attachment	Stainless steel	
		System rails and punched sections with mounting flanges	Sheet steel, zinc-plated, passivated	
Operating and ambient conditions	Ambient temperature	Material	E-Cu 57, bare	DIN 1787
		External dimensions	60 x 60 mm	
		Cross-section	2,700 mm ²	
	Atmospheric conditions	Short-term peak	+40°C	EN 60 439-1
		Maximum on a 24 h average	+35°C	
		Low	-5°C	
		Normal climatic stress		
		Relative humidity	50 % at 40°C	
			Operation up to 1000 m above sea level	

¹⁾ Using air inlet filter SK 3326.200 and Maxi-PLS roof plate SV 9660.230 / .240 / .250 / .260

²⁾ Using fan-and-filter unit SK 3327.100 (700 m³/h) and Maxi-PLS roof plate SV 9660.230 / .240 / .250 / .260

³⁾ Busbars in open frame (free air convection) or special climate control measures to maintain the enclosure internal temperature

⁴⁾ Enclosure height 1800 and 2200 mm available on request

Planning and project management in line with regulations

As a general principle, low-voltage switchgear and distributors should be planned to meet the operating conditions of their final installation site. To this end, the operator of the plant, in collaboration with the manufacturer, should stipulate the operating and ambient conditions. Moreover, as a general rule, the operator or planning office should also supply the manufacturer with full electrical specifications of both the mains supply end and the distributor outlet end. This makes it possible to plan and manufacture a cost-effective system with optimum adaptation to the technical requirements.

Important operating and ambient conditions

- Rated operating voltage U_e
- Mains frequency Hz
- Rated insulation voltage U_i
- Busbar rated current I_{sas}
- Rated current for the supply end I_{zu}
- Rated surge current resistance I_{pk}
- Rated short-time current resistance I_{cw}
- Ambient temperature condition °C
- Atmospheric climatic stress, specifying the relative humidity and temperature
- Protection category of the overall system IP. . .
- Specification to DIN EN 60 529
- Protection category

Important basic data for planning and project management

- Applicable regulations and standards, both regional and international
- Electricity supply company conditions
- Operator-specific regulations
- Mains-specific protective measures/ mains type
- Rated voltage and frequency
- Rated current with due regard for the number of conductors (infeed and busbars)
- Rated insulation voltage
- Short-circuit current at the point of installation
- Location of incoming cables, from above or below
- Number of incoming cables and wires, specifying the type and cross-section
- Number of outlets, specifying the operating load and the envisaged outgoing cables with type and cross-section
- For the outlet side, specification of the simultaneity factor and rated load factor of the relevant equipment items.



Rated load factor

The rated load factor of a switchgear enclosure or part thereof (e.g. a field) comprising several main circuits refers to the ratio between the largest sum total of all currents anticipated at any given time in

the affected main circuits and the sum total of the rated currents of all main circuits of the switchgear enclosure or observed part thereof.

Number of main circuits	Load factor
2 and 3	0.9
4 and 5	0.8
6 and 7	0.7
10 or more	0.6

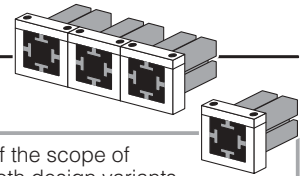
Rated currents and short-circuit currents of standard transformers

Rated voltage $U_N = 400 \text{ V}$	400 V		
Short-circuit voltage U_k		4 % ¹⁾	6 % ²⁾
Power consumption S_{NT} [kVA]	Rated current I_N [A]	Short-circuit current I_k ³⁾ [kA]	
50	72	1.89	1.20
100	144	3.61	2.41
160	230	5.77	3.85
200	288	7.22	4.81
250	360	9.02	6.01
315	455	11.36	7.58
400	589	14.43	9.62
500	722	18.04	12.03
630	910	22.73	15.15
800	1156	28.86	19.24
1000	1444	36.08	24.05
1250	1805	45.09	30.06
1600	2312	57.72	38.48
2000	2882	72.15	48.10

¹⁾ $U_k = 4 \%$ standardised to DIN 42 503 for $S_{NT} = 50 \dots 630 \text{ kVA}$

²⁾ $U_k = 6 \%$ standardised to DIN 42 511 for $S_{NT} = 100 \dots 1600 \text{ kVA}$

³⁾ I_k = Initial symmetrical short-circuit current of transformer when connecting to a mains supply with unlimited short-circuit lead



Design differences between TTA and PTTA

The following regulation applies to the manufacture of low-voltage switchgear and distributors with Rittal SV technology: **DIN EN 60 439-1 (DIN VDE 0660 part 500)**

Low-voltage switchgear enclosures – requirements for type-tested and partially type-tested enclosures.

This standard makes a distinction between

- Type-tested switchgear enclosures (TTA) and
- partially type-tested switchgear enclosures (PTTA).

This refers to the following: Type-tested switchgear enclosures (TTA)

are switchgear enclosures or parts thereof (e.g. functional units, assemblies) which match the switchgear enclosure type-tested under the standard, without any major deviations from the original type or system.

Partially type-tested switchgear enclosures (PTTA)

are switchgear enclosures which are manufactured individually or in small quantities for specific application conditions and which contain both type-tested and non-type-tested assemblies, provided the latter are derived from type-tested assemblies (e.g. by means of calculation) which have passed the appropriate tests.

There are no quality differences defined between the two design variants TTA and PTTA. In other words, they are deemed to be of equal value.

However, both design variants require different proof and tests.

The following proof and tests must be provided for system configuration in line with regulations and evidence of CE conformity:

TTA/PTTA to DIN EN 60 439-1

- Compliance with the limit overtemperature
- Dielectric strength
- Short-circuit resistance
- Effectiveness of the PE conductor
- Creepage distances and clearance
- Mechanical function
- IP protection categories
- Wiring, electrical function
- Insulation
- Protective measures.

Amongst type-tested switchgear enclosures TTA, this evidence is provided by one-off type testing and unit testing following assembly.

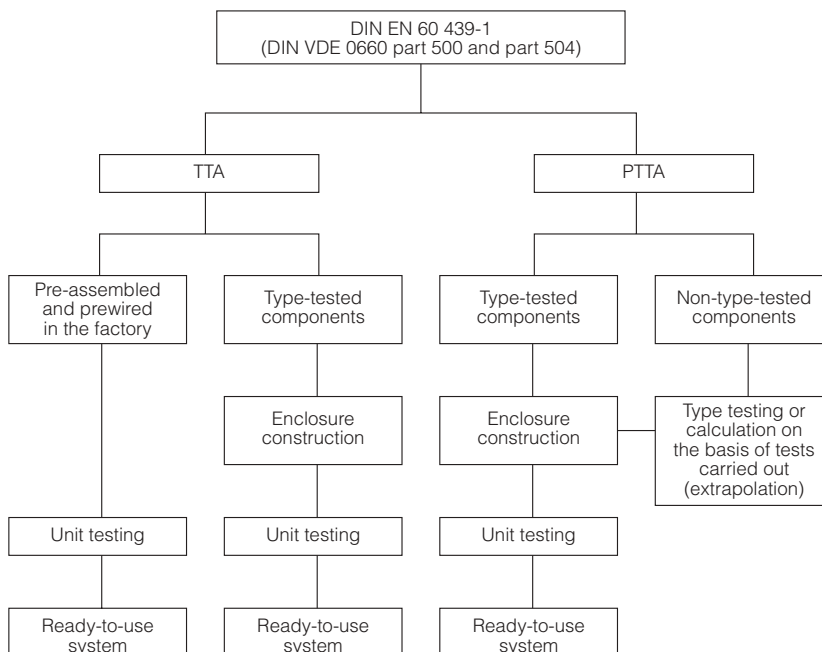
In the case of partially type-tested switchgear enclosures PTTA, complete evidence must be provided for each system installed, either by means of testing or by means of calculation based on the tests performed.

For details of the scope of testing for both design variants, please refer to table 7 in DIN EN 60 439-1 which contains references to the standard section number.

This standard specifies that random variation e.g. of switchgear and protective equipment of different makes or models within a switchgear installation is no longer possible without evidence of testing or calculation. This evidence can only be supplied by the manufacturer/workshop.

Special consideration must be made for this fact, both when planning and when purchasing switchgear and distributors.

Difference between TTA and PTTA



Unit testing (final inspection of installations)

According to DIN VDE 0100 part 610 (original inspection), low-voltage installations, including switchgear and distributors, should be subjected to an original inspection prior to commissioning and handover to the customer.

On-site inspection of the customer's system is not necessary for switchgear and distributors, provided an inspection record from the manufacturer/workshop is available.

This cost-saving variant should be the norm in all cases where no retrospective modifications have been implemented on site.

Installation distribution enclosure

System benefits

Demand everything from us!

The Rittal SV-TS 8 enclosure system has a new dimension. ISV Installation Distribution Enclosures make an ideal addition to the Rittal Maxi-PLS modular system. With the Rittal system concept – low voltage distributors and switchgear in the heavy current range (Maxi-PLS) and distribution enclosures up to 630 A (ISV) – are developed further. Especially in technical services for facilities and industry, this combination offers quick, easy installation as well as exceptional operating safety.

Rittal ISV complete solutions also include “stand alone” solutions:

Baying, pre-assembled enclosures for direct accommodation of the modules for all distribution and safety functions, including important SV components such as on-load isolators, fused isolators, and bus-mounting fuse bases.

Switch to perfection technically and visually – to Rittal ISV.



Electricity is indispensable in everyday life. That's why it's important for the power supply to be safe. ISV from Rittal makes an important contribution here. Cost-effective. Quick. Safe.



ISV enclosure systems with preconfigured mounting level for the installation of modules. Module installation can occur outside or inside the enclosure.

The “one-stop supplier” concept has decisive advantages. Easier planning and procurement with one partner, faster installation through coordinated systems, giving less time and investment costs.

ISV-TS 8 enclosure system

- connectable with all TS 8 enclosures of the same height and depth
- installed ready to use
- modular component installation up to 630 A
- flexible component installation with the TS 8 enclosure accessories program, such as doors, lock systems, partial mounting plates, climate control components
- optional door hinging on l/h or r/h side

ISV modules

- pitch 150 x 250 mm (H x W)
- for all distribution and safety requirements
- module installation can occur outside or inside the distributor
- rapid assembly system facilitates precise position of the modules in the ISV-TS 8 enclosure
- cover is prepared for a lead seal
- colour: insulating material RAL 9002

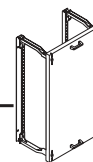
ISV components

completely available for population with Rittal components, such as

- NH fused isolators
- NH on-load isolators
- Bus-mounting fuse bases
- Connection components

Rittal Maxi-PLS

Low voltage distribution in the heavy current range – through interconnection with ISV installation distribution enclosures that are technically and visually an ideal system enhancement.



Installation distribution enclosure

ISV-TS 8 enclosures

Top view with side panels shown (B4).

Planning the enclosures

Order list of pre-configured enclosures including system accessories. Refer to the table for scope of supply.

- ① Roof
- ② Rear panel
- ③ Mounting angles
- ④ Gland plates, three-part
- ⑤ Contact hazard protection frame
- ⑥ Door

Width measurements									Model No. SV
B1	B2	B3	B4	B5	B6	B7	B8	B9	
597	592	512	606	475	455	605	512	440	9665.900
847	842	762	856	725	705	605	512	690	9665.910
1097	1092	1012	1106	975	955	605	512	940	9665.920
597	592	512	606	475	455	405	312	440	9665.940
847	842	762	856	725	705	405	312	690	9665.950
1097	1092	1012	1106	975	955	405	312	940	9665.960

Width in mm		Packs of	600		850		1100	
Height in mm			2000		2000		2000	
Depth in mm			400	600	400	600	400	600
Model No.	SV	1	9665.940	9665.900	9665.950	9665.910	9665.960	9665.920
Doors			1	1	1	1	2	2
Approx. weight (kg)			89.5	94.5	113.5	120	157	167

Base/plinth

		Height 100 mm	TS	1 set	8601.600	8601.600	8601.850	8601.850	8601.300	8601.300
Components front and rear	Height 100 mm	TS	1 set	8602.600	8602.600	8602.850	8602.850	8602.100	8602.100	
	Height 200 mm	TS	1 set	8602.600	8602.600	8602.850	8602.850	8602.100	8602.100	
Trim panels (sides)	Height 100 mm	TS	1 set	8601.040	8601.060	8601.040	8601.060	8601.040	8601.060	
	Height 200 mm	TS	1 set	8602.040	8602.060	8602.040	8602.060	8602.040	8602.060	

Accessories

		PS	2	4191.000	4191.000	4195.000	4195.000	–	–
Cable clamp rails	PS	2	4191.000	4191.000	4195.000	4195.000	–	–	
Cable entry plates ¹⁾	TS	2	8800.060	8800.060	8800.085	8800.085	–	–	
TS side panels	TS	2	8104.200	8106.200	8104.200	8106.200	8104.200	8106.200	

¹⁾ Cable entry grommets see Cat. 30, page 892

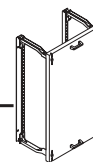
Lock systems see Cat. 30, pages 936 – 938

Plastic cable gland plates see Cat. 30, page 896

Other sizes and designs available on request

Doors with viewing window available on request

Supply includes	Material Sheet steel	Surface finish
Enclosure frame	1.5 mm	Dipcoat primed in RAL 7044
Door(s)	2.0 mm	Dipcoat primed in RAL 7044 Powder coated in textured RAL 7032 on the outside
Roof	1.5 mm	
Rear panel	1.5 mm	
Three-piece gland plates	1.5 mm	Zinc-plated
Contact hazard protection frame in hard PVC, RAL 9002		
Lock: Standard double-bit lock insert		



Technical specifications

Rated current up to	400 A	630 A
Rated surge current resistance I_{pk} at a maximum busbar support centre distance of 300 mm	30 kA	45 kA
Rated insulation voltage U_i to VDE 0110	690 V AC	
cos phi	0.3	
Cross-section of phase conductor L1 – L3	30 x 5 mm	30 x 10 mm
Cross-section of neutral conductor N	25 x 10 mm	25 x 10 mm
Cross-section of PE conductor	12 x 10 mm	12 x 10 mm
Protective measures	Protection category 1 (with PE conductor)	
Overvoltage category	3	
IP protection category	IP 20 without door, IP 40/IP 55 with door	

Note:

Climate control variants, see Cat 30, from page 446.
Rittal enclosures are optionally available in RAL 7035.



Cable clamp rails

These ensure strain relief for cable entry.



Cable entry plates

For simple, fast cable entry and sealing.

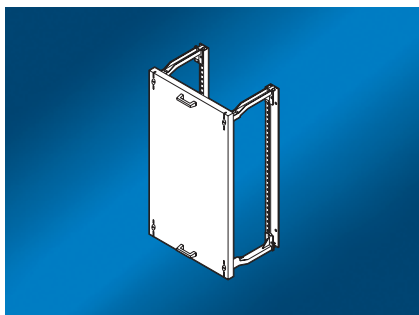


Cable entry grommets

(up to 47 mm diameter) in conjunction with the cable entry plates: Fast and sealed!

Installation distribution enclosure

Installation modules



Contact hazard protection modules

- For covering open installation areas
- Cover is prepared for a lead seal
- Insulating material RAL 9002

Mechanical component installation	Size				Packs of	Model No. SV
	Width unit (WU) ¹⁾		Height unit (U) ²⁾			
Empty module	1	250 mm	1	150 mm	1	9665.000
	1	250 mm	2	300 mm	1	9665.010
	1	250 mm	3	450 mm	1	9665.020
	1	250 mm	4	600 mm	1	9665.030
	2	500 mm	1	150 mm	1	9665.040
	2	500 mm	2	300 mm	1	9665.050
	2	500 mm	3	450 mm	1	9665.060
	2	500 mm	4	600 mm	1	9665.070

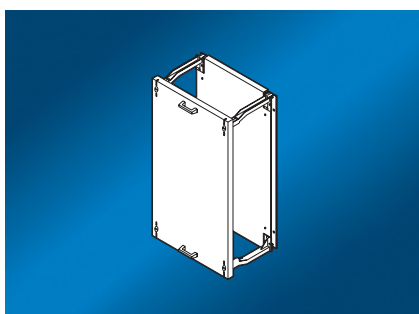
¹⁾ 1 WU $\triangleq$ 250 mm

²⁾ 1 U $\triangleq$ 150 mm



Accessories:

Terminal block	For installation into 250 mm wide contact hazard protection modules	see page 201
Cable clamp rails	For attaching cable clamps	



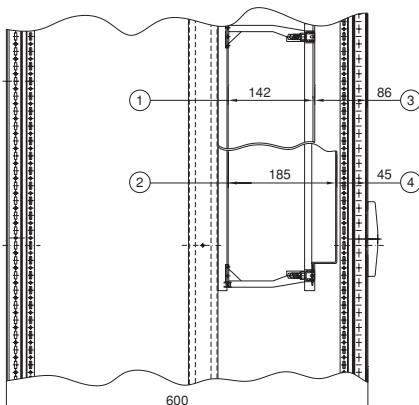
Mounting plate modules

- With mounting plate in 2 mm zinc-plated sheet steel
- Cover is prepared for a lead seal
- Insulating material RAL 9002
- Maximum usable depth 142 mm

Mechanical component installation Mounting plate (W x H)	Size				Packs of	Model No. SV
	Width unit (WU) ¹⁾		Height unit (U) ²⁾			
200 x 150 mm	1	250 mm	1	150 mm	1	9665.080
200 x 300 mm	1	250 mm	2	300 mm	1	9665.090
200 x 450 mm	1	250 mm	3	450 mm	1	9665.100
200 x 600 mm	1	250 mm	4	600 mm	1	9665.110
450 x 150 mm	2	500 mm	1	150 mm	1	9665.120
450 x 300 mm	2	500 mm	2	300 mm	1	9665.130
450 x 450 mm	2	500 mm	3	450 mm	1	9665.140
450 x 600 mm	2	500 mm	4	600 mm	1	9665.150

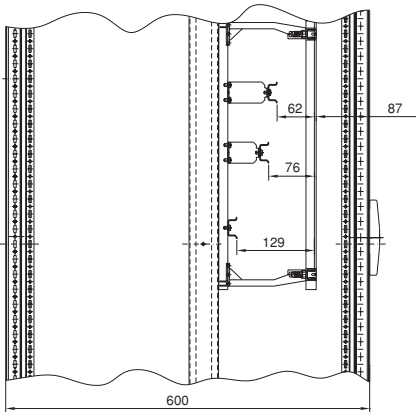
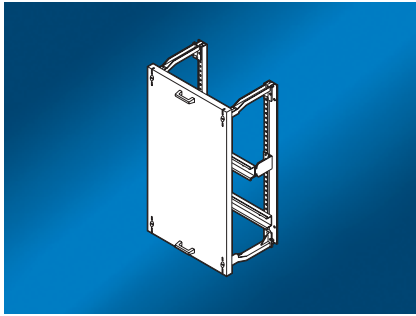
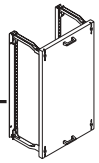
¹⁾ 1 WU $\triangleq$ 250 mm

²⁾ 1 U $\triangleq$ 150 mm



Available space in

- ① = Mounting plate module
- ② = Mounting plate module with deep cover
- ③ = Contact hazard protection module
- ④ = Contact hazard protection module with deep cover



Support rail modules

- For installing terminal blocks, cable ties, etc.
- Top hat rail 35/15 mm to EN 50 022
- Slides in the 25 mm grid
- Cover is prepared for a lead seal
- Insulating material RAL 9002

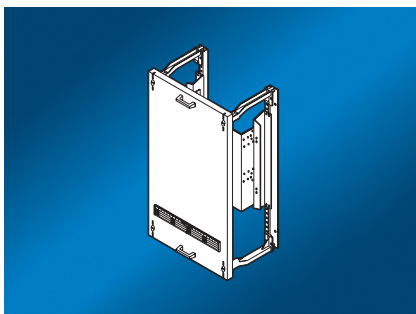
Mechanical component installation Number of support rails	Size				Packs of	Model No. SV
	Width unit (WU) ¹⁾		Height unit (U) ²⁾			
1	1	250 mm	1	150 mm	1	9665.160
	1	250 mm	2	300 mm	1	9665.170
2	1	250 mm	3	450 mm	1	9665.180
3	1	250 mm	4	600 mm	1	9665.190
1	2	500 mm	1	150 mm	1	9665.200
	2	500 mm	2	300 mm	1	9665.210
2	2	500 mm	3	450 mm	1	9665.220
3	2	500 mm	4	600 mm	1	9665.230

¹⁾ 1 WU $\triangleq$ 250 mm

²⁾ 1 U $\triangleq$ 150 mm

+ Accessories:

Terminal block	For installation into 250 mm wide support rail modules	see page 201
Spacer	For attaching to support rails	
Support rails	For devices or terminals with snap fastening	
Cable clamp rails	For attaching cable clamps	



Support rail modules

- Variably usable with switchgear
- One-piece assembly block
- Cover is prepared for a lead seal
- Insulating material RAL 9002

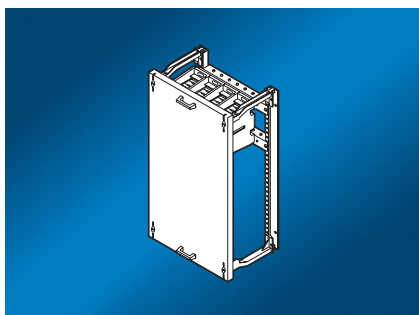
Mechanical component installation	Size				Packs of	Model No. SV
	Width unit (WU) ¹⁾		Height unit (U) ²⁾			
Mounting surface area W x H 190 x 210 mm, usable depth adjustable from 86 – 161 mm	1	250 mm	3	450 mm	1	9665.360
Mounting surface area W x H 190 x 210 mm, usable depth adjustable from 86 – 153 mm	2	500 mm	3	450 mm	1	9665.370

¹⁾ 1 WU $\triangleq$ 250 mm

²⁾ 1 U $\triangleq$ 150 mm

Installation distribution enclosure

Installation modules



Connection modules

- For connecting copper and aluminium conductors
- Single-wire and multi-wire conductors with compressed wire end ferrule or laminated copper bar Rittal Flexibar "S"
- Cover is prepared for a lead seal
- Insulating material RAL 9002

Mechanical component installation Terminal connection top and bottom		Size				Packs of	Model No. SV
		Width unit (WU) ¹⁾		Height unit (U) ²⁾			
250 A, 4-pole	Round conductor: 1 x 16 – 150 mm ² or 2 x 16 – 70 mm ² Laminated flat	1	250 mm	3	450 mm	1	9665.300
250 A, 5-pole	copper: clamping area W x H 17 x 21 mm	1	250 mm	3	450 mm	1	9665.310
400 A, 4-pole	Round conductor: 1 x 50 – 240 mm ² or 2 x 25 – 120 mm ² Laminated flat	1	250 mm	3	450 mm	1	9665.320
400 A, 5-pole	copper: clamping area W x H 25 x 21 mm	1	250 mm	3	450 mm	1	9665.330
630 A, 4-pole	Round conductor: 1 x 120 – 300 mm ² or 2 x 120 – 185 mm ² Laminated flat	2	500 mm	3	450 mm	1	9665.340
630 A, 5-pole	copper: clamping area W x H 41 x 21 mm	2	500 mm	3	450 mm	1	9665.350

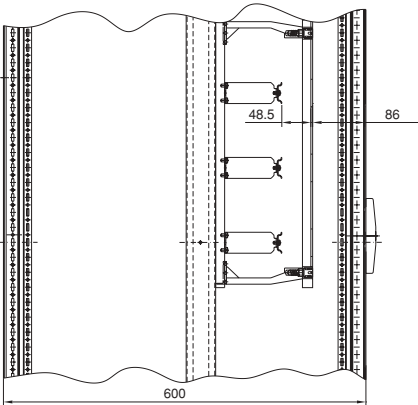
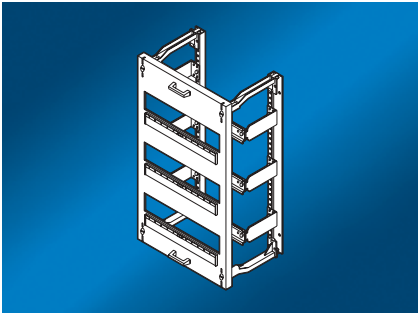
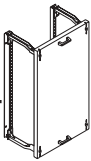
¹⁾ 1 WU $\triangleq$ 250 mm

²⁾ 1 U $\triangleq$ 150 mm



Accessories:

Laminated copper bars	For connecting to the terminal block of the connection module	see page 105
Cable clamp rails	For attaching cable clamps	see page 201



Serial installation device modules

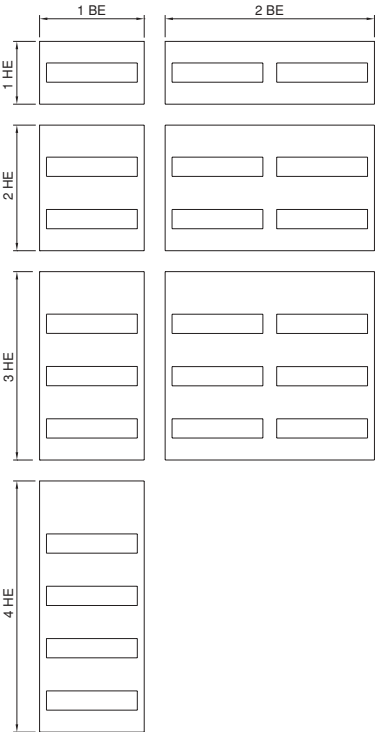
- For adding serial installation devices
- Top hat rail 35/15 mm to EN 50 022
- Cover is prepared for a lead seal
- Insulating material RAL 9002

Mechanical component installation	Size				Packs of	Model No. SV
	Width unit (WU) ¹⁾		Height unit (U) ²⁾			
12 divider units (1 x 12 x 18 mm)	1	250 mm	1	150 mm	1	9665.240
24 divider units (2 x 12 x 18 mm)	1	250 mm	2	300 mm	1	9665.250
36 divider units (3 x 12 x 18 mm)	1	250 mm	3	450 mm	1	9665.260
48 divider units (4 x 12 x 18 mm)	1	250 mm	4	600 mm	1	9665.270
24 divider units (2 x 12 x 18 mm)	2	500 mm	1	150 mm	1	9665.280
48 divider units (4 x 12 x 18 mm)	2	500 mm	2	300 mm	1	9665.290
72 divider units (6 x 12 x 18 mm)	2	500 mm	3	300 mm	1	9665.500

¹⁾ 1 WU Δ 250 mm
²⁾ 1 U Δ 150 mm

 Accessories:

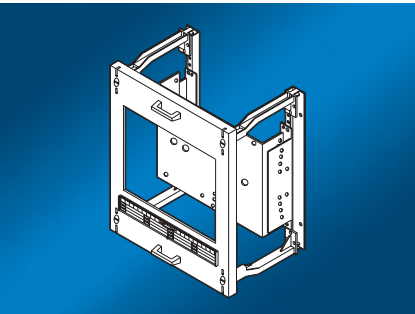
Cover strips	For blanking unneeded device cutouts	see page 200
Terminal block	For installation into 250 mm wide serial installation device modules	see page 201



HE = U
BE = WU

Installation distribution enclosure

Installation modules



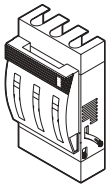
NH on-load isolator modules

- Suitable for accommodating the Rittal on-load isolator sizes 00 to 3 for mounting plate installation
- Cover is prepared for a lead seal
- Insulating material RAL 9002

Mechanical component installation			Size				Packs of	Model No. SV
			Width unit (WU) ¹⁾		Height unit (U) ²⁾			
Assembly block perforated and positioned as well as cutout in plate for NH on-load isolator	1 x size 00 160 A	1	1	250 mm	2	300 mm	1	9665.380
	2 x size 00 160 A	1	1	250 mm	2	300 mm	1	9665.390
	1 x size 1 250 A	2	1	250 mm	3	450 mm	1	9665.400
Not included in the supply: NH on-load isolator*	1 x size 2 400 A	3	1	250 mm	3	450 mm	1	9665.410
	1 x size 3 630 A	4	2	500 mm	3	450 mm	1	9665.420

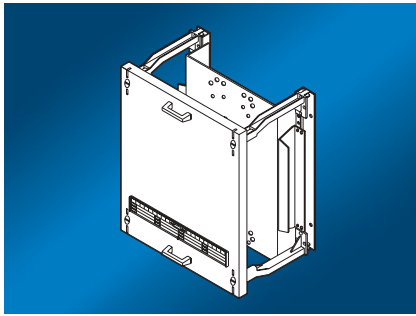
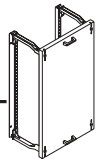
¹⁾ 1 WU $\triangleq$ 250 mm

²⁾ 1 U $\triangleq$ 150 mm



* NH on-load isolator for mounting plate installation

	Size	Model No. SV		see page
1	Size 00	3488.000 3489.000	3488.310 3489.310	100
2	Size 1	3409.000	3409.310	101
3	Size 2	3415.010	3415.310	102
4	Size 3	3095.010	3095.310	103



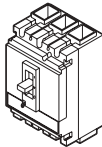
Power circuit-breaker modules

- Suitable for accommodating standard power circuit-breakers from ABB, Merlin Gerin, Moeller and Siemens in 3-pin configuration, up to 630 A
- Cover is prepared for a lead seal
- Insulating material RAL 9002

Mechanical component installation		Size				Packs of	Model No. SV
		Width unit (WU) ¹⁾		Height unit (U) ²⁾			
Mounting plate perforated and positioned for power circuit-breaker	1	1	250 mm	2	300 mm	1	9665.430
	2	1	250 mm	3	450 mm	1	9665.440
	3	1	250 mm	2	300 mm	1	9665.450
	4	1	250 mm	3	450 mm	1	9665.460
Not included in the supply: power circuit-breaker*	5	1	250 mm	3	450 mm	1	9665.470
	6	1	250 mm	3	450 mm	1	9665.480

¹⁾ 1 WU Δ 250 mm

²⁾ 1 U Δ 150 mm



* Power circuit-breaker

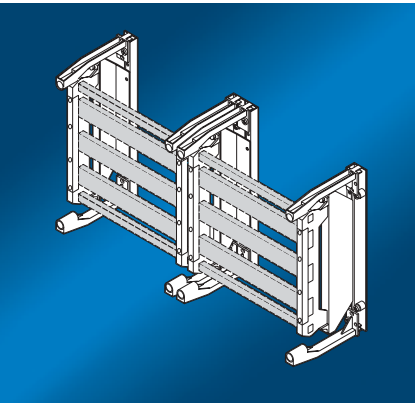
I _N	Make							
	ABB		Merlin Gerin		Moeller		Siemens	
160 A	1	Tmax T1	3	Compact NS 100	3	NZM 7	3	Sentron VL160
		Tmax T2		Compact NS 160				Sentron VL160X
250 A	2	Tmax T3	4	Compact NS 250	5	NZM 7	4	Sentron VL250
400 A	5	SACE Isomax S5	6	Compact NS 400	5	NZM 10	5	Sentron VL400
630 A	5	SACE Isomax S5 SACE Isomax S6	6	Compact NS 630	5	NZM 10	5	Sentron VL630

Note:

The pitch patterns for attaching the power circuit-breakers and the accompanying cutout dimensions are shown in the "ISV" assembly instructions that are included with the ISV-TS 8 enclosures (see page 188/189).

Installation distribution enclosure

Installation modules



Busbar support

- 5-pole busbar support (60 mm bar centre distance)
- Suitable for configuring busbar connections, bus-mounting fuse bases, and NH bus-mounting on-load isolators size 00
- Busbar connections in accordance with assembly instructions
- Cover is prepared for a lead seal
- Insulating material RAL 9002

Mechanical component installation	Usable busbar dimensions E-Cu	Packs of	Model No. SV
4 busbar supports for max. 2 height units ¹⁾ and max. 2 width units ²⁾ Not included in the supply: Busbars	Busbars L1/L2/L3 30 x 5 mm (400 A) 30 x 10 mm (630 A)	4	9665.490
	Busbar N 25 x 10 mm		
	Busbar PE 12 x 10 mm		

¹⁾ 1 U $\triangleq$ 150 mm

²⁾ 1 WU $\triangleq$ 250 mm

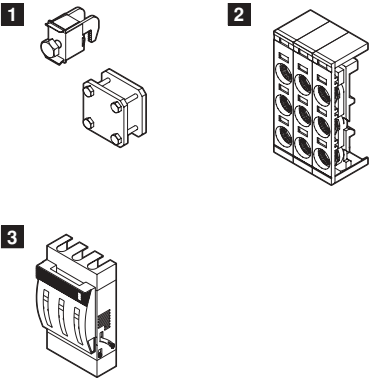
+ Accessories:

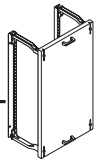
Busbars E-Cu	see page 104
Laminated copper bars	see page 105
Conductor connection clamps for busbar connections	see page 48
Plate clamps for busbar connections	see page 48
Busbar connector	see page 104

Note:

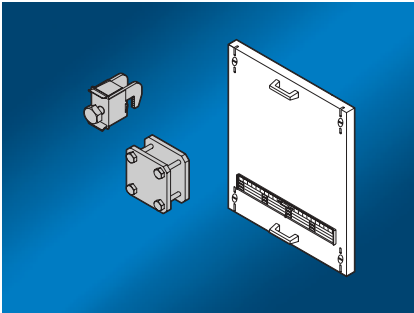
- Depending on the configuration and connection variant, the Cu busbars have to be cut to the required length, prior to installation in accordance with the assembly instructions which is included with the ISV-TS 8 enclosures (see page 188/189).
- 5-pole busbars configuration feasible only for configuring busbar connections **1** and NH bus-mounting on-load isolators size 00 **3**.
- With bus-mounting fuse bases **2** only 3-pole configuration (L1/L2/L3) feasible. In this case, N and PE must be configured using busbar support SV 3050.000 (see page 40) or busbar module 2-pole (Model No. SV 9665.590 or SV 9665.600 – see page 199).
- For enclosure-to-enclosure busbar connections, the following busbar connectors should be used (see page 104):

Busbars	Model No. SV
L1/L2/L3	9320.020
N	9320.020
PE	9350.070





Also required:



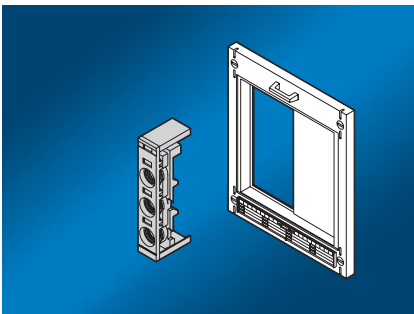
1 Contact hazard protection cover, one-piece

Description	Size				Packs of	Model No. SV
	Width unit (WU) ¹⁾		Height unit (U) ²⁾			
For busbar connections*	1	250 mm	2	300 mm	1	9665.530

¹⁾ 1 WU $\triangleq$ 250 mm

²⁾ 1 U $\triangleq$ 150 mm

* **Conductor connection clamps, plate clamps** (see page 48)



2 Contact hazard protection cover for bus-mounting fuse bases

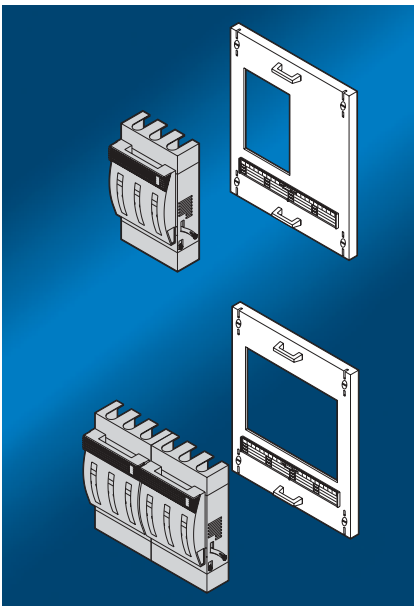
Description	Size				Packs of	Model No. SV
	Width unit (WU) ¹⁾		Height unit (U) ²⁾			
For bus-mounting fuse bases 6 x D 02-E 18	1	250 mm	2	300 mm	1	9665.520
For bus-mounting fuse bases* 4 x D II-E 27, 3 x D III-E 33	1	250 mm	2	300 mm	1	9665.540

¹⁾ 1 WU $\triangleq$ 250 mm

²⁾ 1 U $\triangleq$ 150 mm

* **Bus-mounting fuse bases and accessories** (see page 62)

Type	Model No.	Bus-mounting fuse base	Contact hazard protection cover	End caps
D 02-E 18	SV	3418.000	3419.000	3420.000
D II-E 27	SV	3427.000	3428.000	3429.000
D III-E 33	SV	3433.000	3434.000	3435.000



3 Contact hazard protection covers for NH bus-mounting on-load isolator size 00

Description		Size				Packs of	Model No. SV
		Width unit (BE) ¹⁾		Height unit (U) ²⁾			
For NH bus-mounting on-load isolator*	1 x size 00	1	250 mm	2	300 mm	1	9665.550
	2 x size 00	1	250 mm	2	300 mm	1	9665.560

¹⁾ 1 WU $\triangleq$ 250 mm

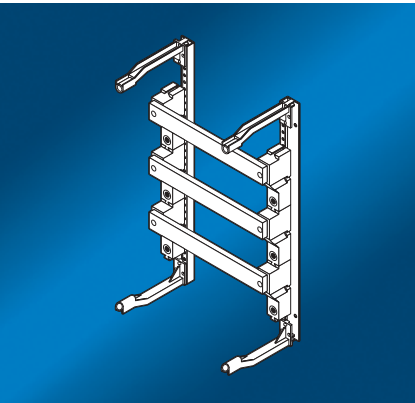
²⁾ 1 U $\triangleq$ 150 mm

* **NH bus-mounting on-load isolator**

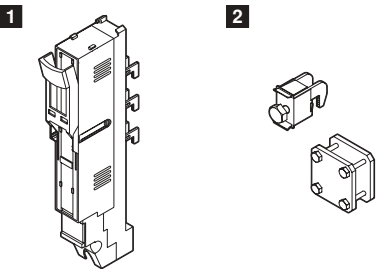
Size	Model No. SV		see page
Size 00	3400.000	3490.210	66/67
	3401.000	3491.210	
	3402.000	3492.210	
	3403.000	3493.210	

Installation distribution enclosure

Installation modules



Configuration variants



NH fused isolators modules

- With busbars E-Cu (100 mm bar centre distance)
- For NH fused isolators size 00 or busbar connections
- Cover is prepared for a lead seal
- Insulating material RAL 9002

Mechanical component installation	Size				Packs of	Model No. SV
	Width unit (WU) ¹⁾		Height unit (U) ²⁾			
Cu busbar system: 3-pole, 630 A, with busbars 30 x 10 mm Not included in the supply: NH fused isolators*	1	250 mm	3	450 mm	1	9665.570
	2	500 mm	3	450 mm	1	9665.580

¹⁾ 1 WU $\triangleq$ 250 mm

²⁾ 1 U $\triangleq$ 150 mm

* NH fused isolator size 00

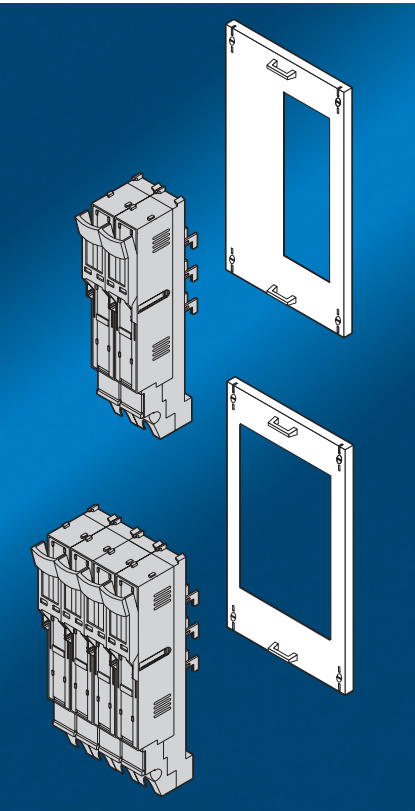
Cable outlet top/bottom, M8 connector (Model No. SV 3591.010)	see page 90
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+ Accessories:

Conductor connection clamps for busbar connections	see page 48
Plate clamps for busbar connections	see page 48
Laminated copper bars	see page 105

Note:

- In order to be able to ensure trouble-free cable connection, a contact hazard protection module (Model No. SV 9665.000 – see page 190) has to be installed below the NH fused isolator modules.
- Busbar connection in accordance with “ISV” assembly instructions.

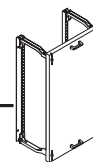


1 Contact hazard protection covers for NH fused isolator size 00

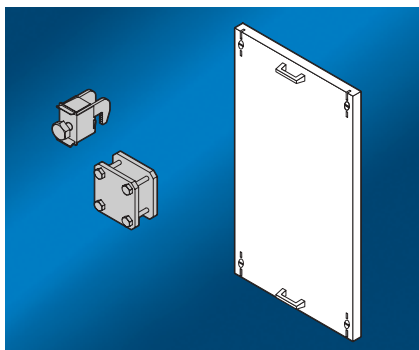
Description		Size				Packs of	Model No. SV
		Width unit (WU) ¹⁾		Height unit (U) ²⁾			
For NH fused isolator	2 x size 00	1	250 mm	3	450 mm	1	9665.620
	4 x size 00	1	250 mm	3	450 mm	1	9665.630

¹⁾ 1 WU $\triangleq$ 250 mm

²⁾ 1 U $\triangleq$ 150 mm



Also required:



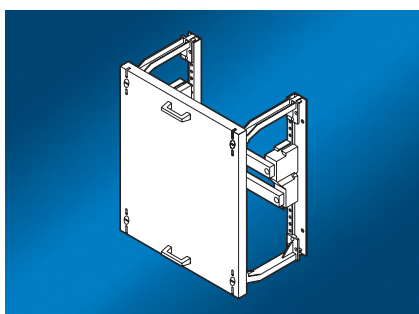
2 Contact hazard protection cover, one-piece

Description	Size				Packs of	Model No. SV
	Width unit (WU) ¹⁾		Height unit (U) ²⁾			
For busbar connections*	1	250 mm	3	450 mm	1	9665.610

¹⁾ 1 WU $\triangleq$ 250 mm

²⁾ 1 U $\triangleq$ 150 mm

* **Conductor connection clamps, plate clamps** (see page 48)



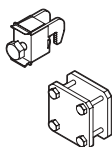
Busbar modules, 2-pole

- For connecting N and PE
- Contact hazard protection cover included
- Cover is prepared for a lead seal
- Insulating material RAL 9002

Description	Size				Packs of	Model No. SV
	Width unit (WU) ¹⁾		Height unit (U) ²⁾			
Bus unit: 2-pole for N and PE with busbars 30 x 10 mm	1	250 mm	2	300 mm	1	9665.590
	2	500 mm	2	300 mm	1	9665.600

¹⁾ 1 WU $\triangleq$ 250 mm

²⁾ 1 U $\triangleq$ 150 mm

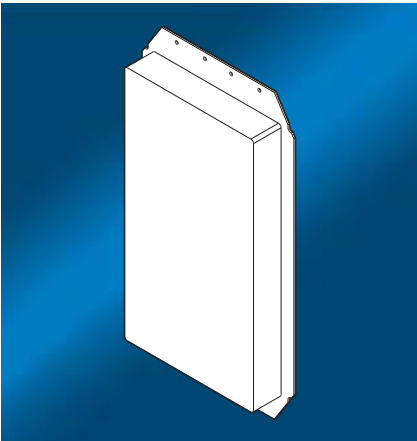


Accessories:

Conductor connection clamps for busbar connections	see page 48
Plate clamps for busbar connections	see page 48
Laminated copper bars	see page 105

Installation distribution enclosure

Accessories

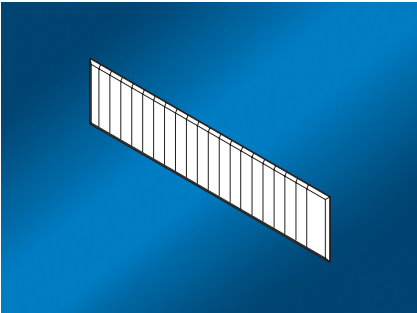


Deep cover

For increasing the usable depth.

- For installation on one-piece contact hazard protection covers
- W x H x D 450 x 250 x 43 mm
- Insulating material RAL 7035

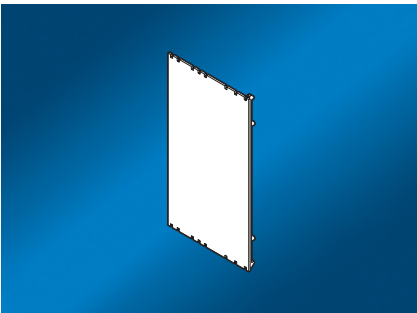
Packs of	Model No. SV
1	9665.640



Cover strips

For blanking unnecessary component cutouts in serial installation device modules, max. 12 divider units (12 x 18 mm), divisible every 9 mm.

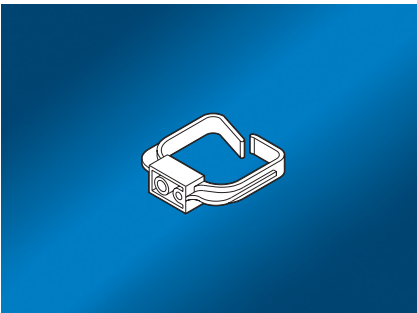
Packs of	Model No. SV
1	9665.650



Cover panel

For blanking unnecessary cutouts for bus-mounting fuse bases, 108 mm wide.

Packs of	Model No. SV
1	9665.660

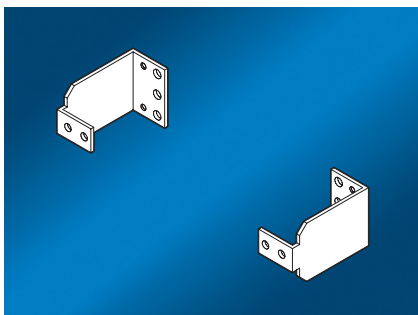
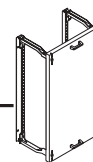


Wiring brackets

for installing

- C rails 30/15 mm
- TS punched sections with mounting flanges
- TS frame section

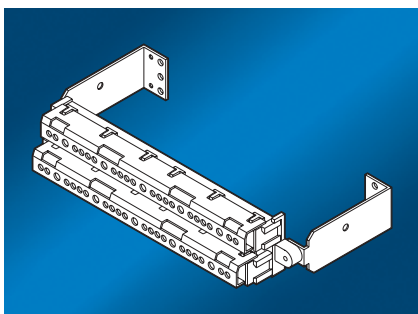
Packs of	Model No. SV
10	9665.670



Spacers

For configuring support rails with attachment screws, 53 mm high.

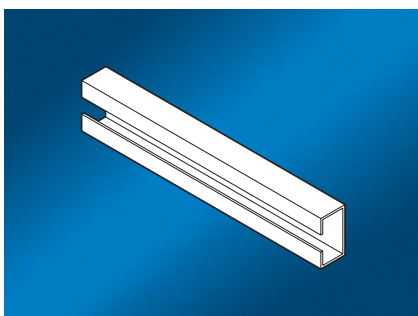
Packs of	Model No. SV
2	9665.680



Terminal block

For installation into 250 mm wide contact hazard protection modules and support rail modules.
2-pole for N and PE, each with 20 x 4 mm², 5 x 25 mm².

Packs of	Model No. SV
1	9665.690

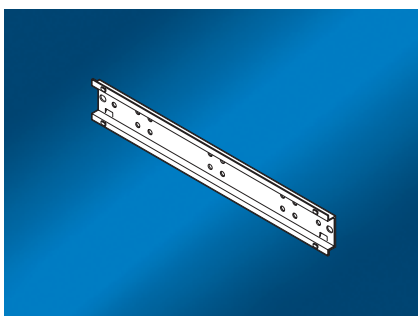


Cable clamp rails

For attaching cable clamps (see Cat. 30, page 898) in

- connection modules
- contact hazard protection modules
- support rail modules

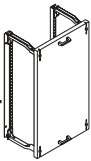
Required width units of the modules	Packs of	Model No. SV
1 WU (250 mm)	1	9665.700
2 WU (500 mm)	1	9665.710



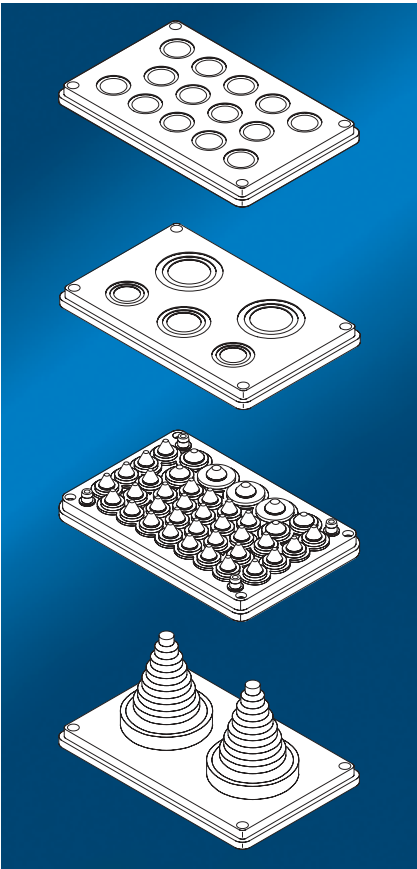
Support rails

For snap fastening components or terminals, 15 mm high.

Required width units of the modules	Packs of	Model No. SV
1 WU (250 mm)	1	9665.720
2 WU (500 mm)	1	9665.730



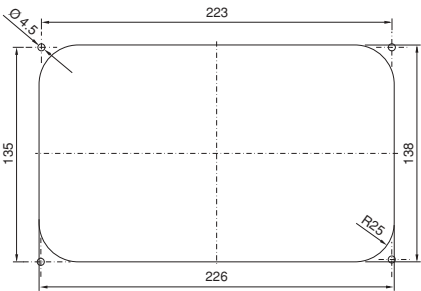
Accessories



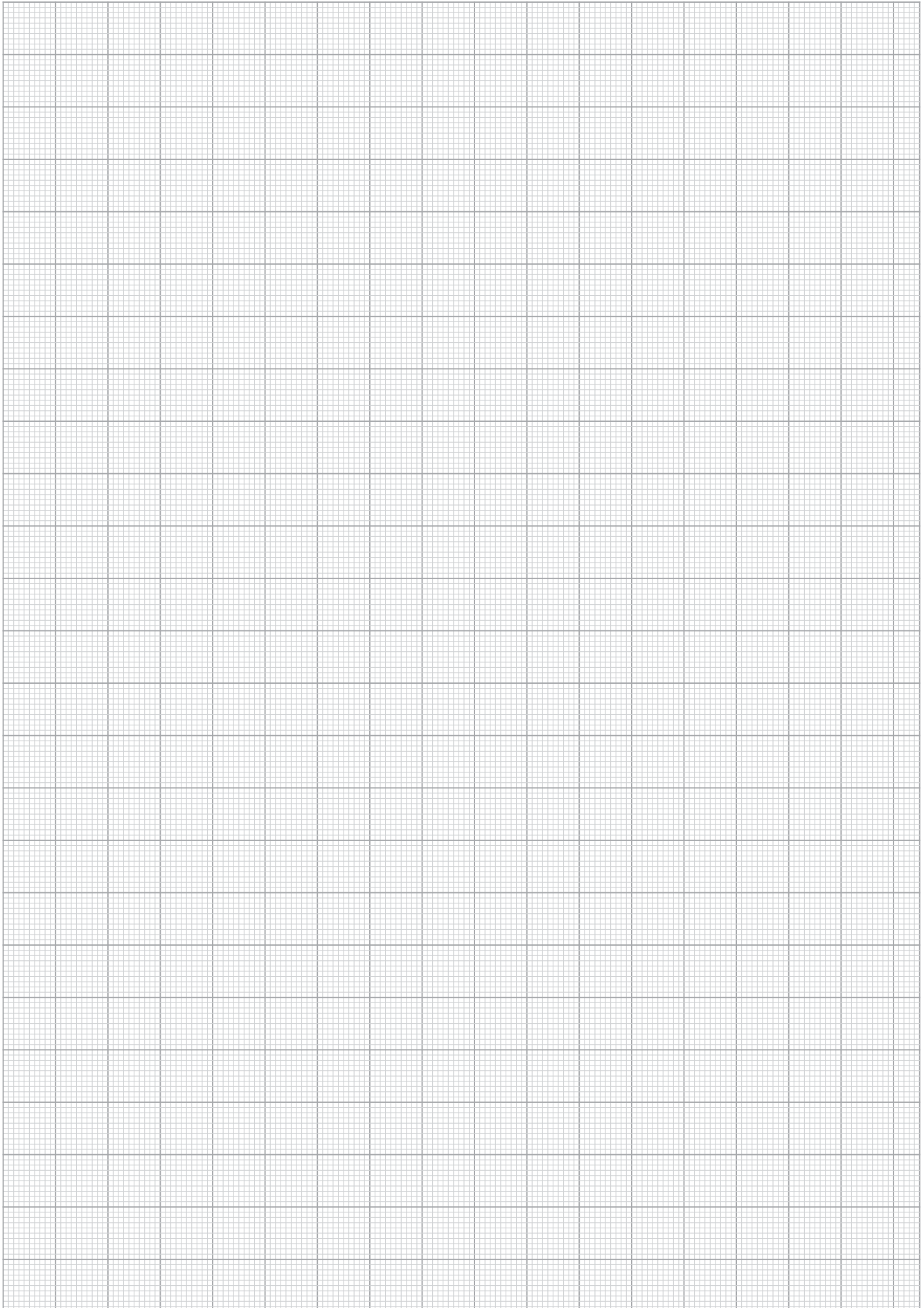
Cable entry gland

- Including seal
- Protection category IP 55
- Insulating material RAL 7032

Design	Packs of	Model No. SV
14 x M25/32	1	9665.750
2 x M25/32/40, 1 x M32/40/50, 2 x M40/50/63	1	9665.760
With sealing membranes 32 x dia. 7 – 16 mm, 4 x dia. 10 – 20 mm, 3 x dia. 14 – 26 mm	1	9665.770
With entry glands up to 66 mm diameter	1	9665.780



Cutout dimensions for SV 9665.750 to SV 9665.780



Installation distribution enclosure

From wiring plan to complete solution

Planning sequence

A Gather electrical functions from the wiring plan (circuit diagram) and assign **modules** to the electrical functions.

B Specify assignment of the modules taking into consideration the wiring system/ the cable outlet top/bottom and **enclosure dimensions**.

Text for tenders

Distribution enclosure in RAL 7032 incl. 200 mm high base/plinth for setting up in the electrical control room, protection category IP 54, solid sheet steel door, protection class 1 with PE conductor.

Maximum dimensions:

Width 1,200 mm

Height 2,400 mm

Depth 600 mm

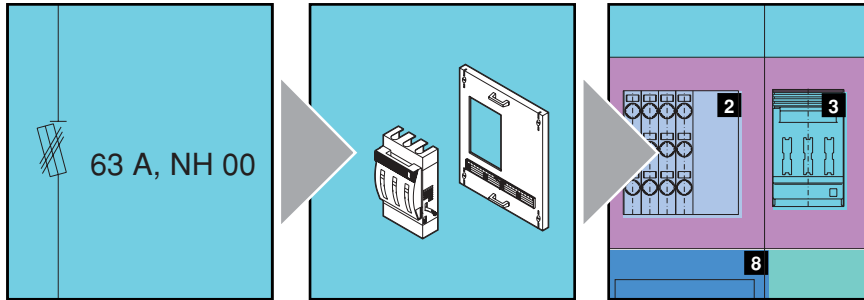
Mains type:

TN (L1, L2, L3, PE, PEN),
230/400 V AC, 50 Hz

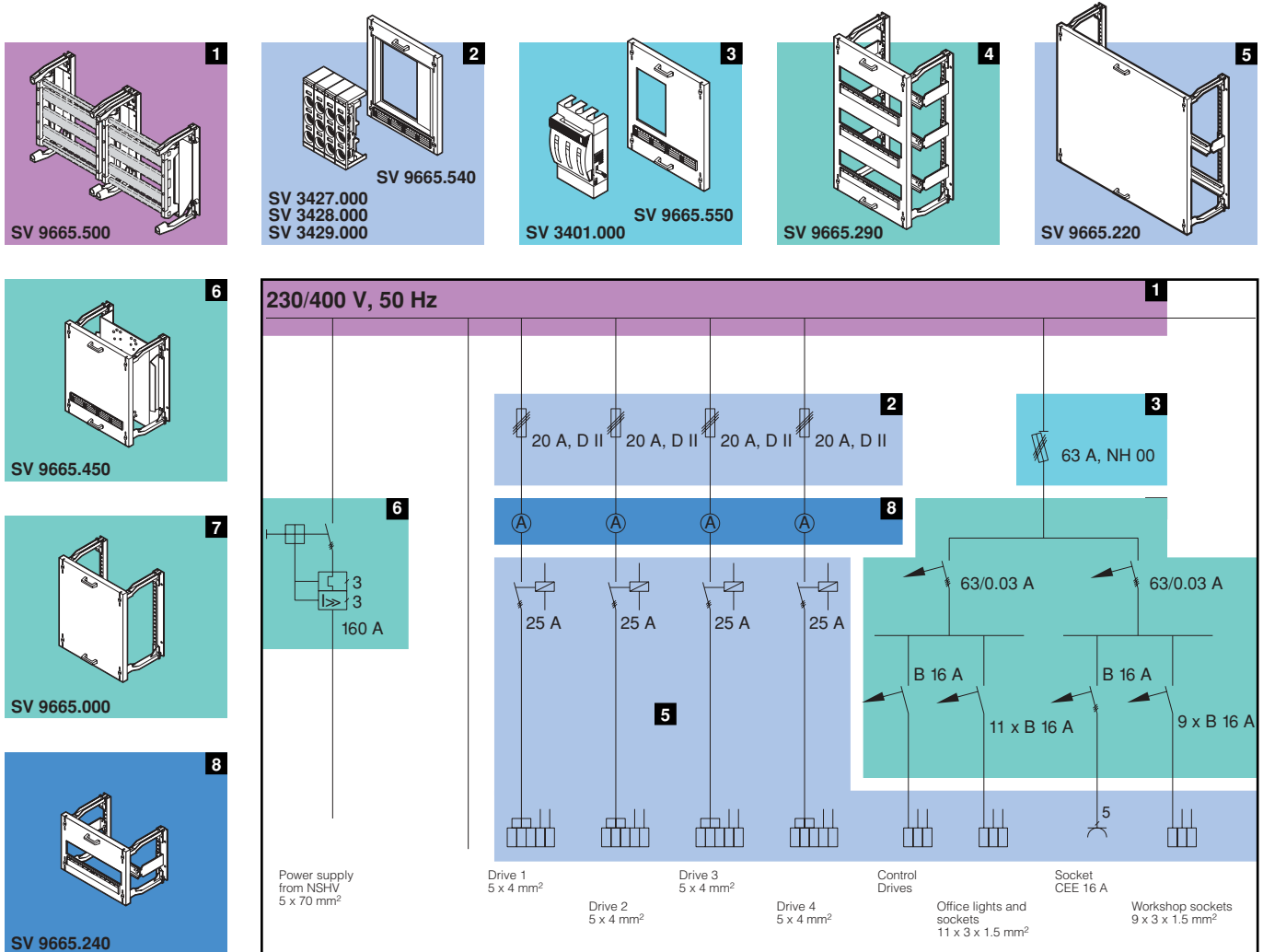
Rated current primary busbar:
400 A

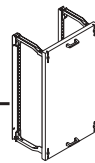
Cable outlet:
Bottom

Type of connection:
With terminal blocks



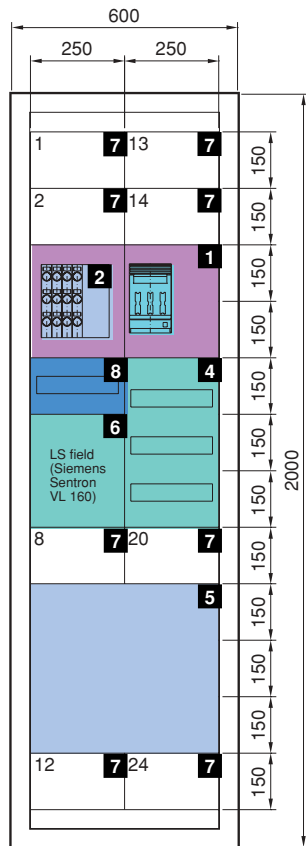
A Electronic functions and modules





B Assignment of modules in enclosure

Installation examples



Enclosure with equipment	Packs required	Model No.
Enclosure	1	SV 9665.900
Base/plinth components front/rear	1	TS 8602.600
Base/plinth trim, side	1	TS 8602.060
TS 8 side panels	1	TS 8106.200

ISV components	Packs required	Model No. SV
1 Busbar support	1	9665.490
2 Contact hazard protection cover for bus-mounting fuse base	1	9665.540
3 Contact hazard protection cover for 1 x size 00 isolator	1	9665.550
4 Serial installation device module	1	9665.260
5 Support rail module	1	9665.220
6 Power circuit-breaker module	1	9665.450
7 Contact hazard protection module	8	9665.000
8 Serial installation device module	1	9665.240

SV Accessories	Packs required	Model No. SV
1 Busbar, E-Cu 57, 30 x 5 mm	1	3584.000
2 Bus-mounting fuse bases D II-E 27	1	3427.000
2 Contact hazard protection cover for bus-mounting fuse bases D II-E 27	1	3428.000
2 End caps for bus-mounting fuse bases D II-E 27	1	3429.000
3 NH bus-mounting on-load isolator, size 00	1	3401.000

Optional accessories	Cat. 30, page
Cable clamp rail	898
Cable entry plate	892
Cable entry grommets	892
Plastic cable gland plates	896

Additional installation components are not a component of the Rittal delivery program. See installation example:

- 4** Fault current safety switch
- 4** Circuit-breaker
- 5** Terminal blocks
- 6** Power circuit-breaker
- 8** Installation ammeter etc.

Master for planning

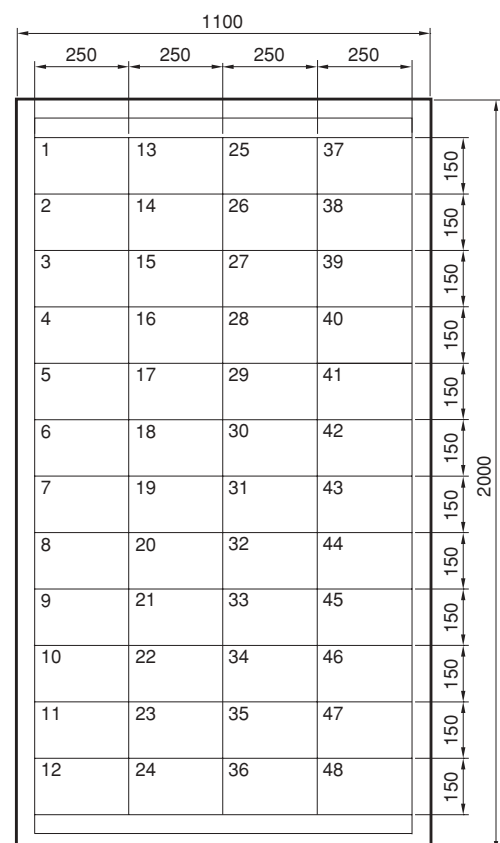
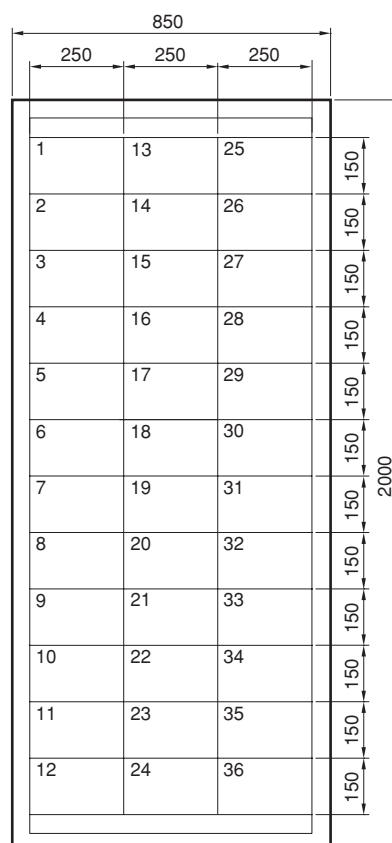
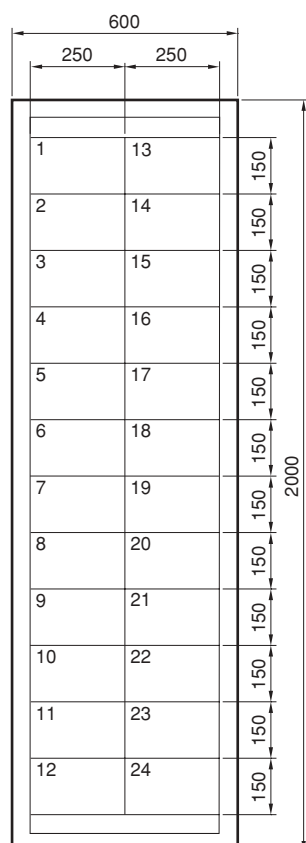


Table of order numbers

Model No.	Page	Model No.	Page	Model No.	Page	Model No.	Page	Model No.	Page
3000.000	40	3089.000	41	3455.500	48	3545.000	54	9320.270	52
3001.000	41	3090.000	49, 81	3456.500	48	3546.000	61	9320.280	52
3002.000	41	3091.000	49, 81	3457.500	48	3547.000	61	9320.290	52
3003.000	41	3092.000	41, 80	3458.500	48	3548.000	23, 24, 55, 61	9320.300	53
3004.000	41	3093.000	62, 63	3459.500	48	3549.000	23, 24, 55, 61	9320.310	53
3005.000	41	3095.010	88, 103	3460.500	95	3550.000	48	9320.320	53
3006.000	41	3095.020	72	3485.000	97	3554.000	48, 81	9320.330	53
3007.000	41	3095.030	72	3486.000	97	3555.000	48	9320.340	53
3008.000	41	3095.110	89, 103	3487.000	97	3559.000	81	9320.350	53
3009.000	41	3095.120	73	3488.000	100	3560.000	81, 95	9320.360	53
3012.000	41	3095.130	73	3488.310	100	3561.000	81, 95	9320.370	53
3013.000	41	3095.210	73	3489.000	100	3562.000	81, 95	9320.380	51
3014.000	41	3095.230	73	3489.310	100	3563.000	81, 95	9320.390	51
3015.000	41	3095.310	89, 103	3490.000	67, 83	3565.000	105	9320.400	51
3016.000	41	3099.000	74	3490.210	67, 83	3566.000	105	9320.410	51
3017.000	41	3400.000	66, 82	3491.000	67, 83	3567.000	105	9320.420	51
3018.000	60	3401.000	66, 82	3491.210	67, 83	3568.000	105	9320.430	51
3019.000	60	3402.000	66, 82	3492.000	67, 83	3569.000	105	9320.440	50
3020.000	107	3403.000	66, 82	3492.210	67, 83	3570.000	105	9320.450	50
3020.100	106	3404.000	66	3493.000	67, 83	3571.000	105	9320.460	53
3023.000	107	3405.000	66	3493.210	67, 83	3572.000	105	9320.470	53
3024.000	42	3406.000	66	3494.000	69, 85	3573.000	105	9350.000	26
3025.000	44	3407.000	66	3494.210	69, 85	3574.000	105	9350.010	26
3026.000	42	3408.000	74	3495.000	69, 85	3575.000	105	9350.020	27
3027.000	42	3409.000	101	3495.210	69, 85	3576.000	105	9350.030	27
3028.000	42	3409.310	101	3496.000	57	3577.000	105	9350.050	27
3031.000	104	3410.000	68, 84	3499.000	75, 91	3578.000	105	9350.060	26
3032.000	104	3411.000	68, 84	3499.010	75, 91	3579.000	105	9350.070	26, 41, 104
3033.000	44	3412.000	82, 83, 84, 85	3499.020	86, 87	3580.000	26, 41, 104	9350.080	28
3034.000	44	3413.000	82, 83, 84, 85	3499.030	88, 89	3580.100	26, 41, 104	9350.090	28
3035.000	44	3414.000	75, 91	3499.040	74	3581.000	26, 41, 104	9350.100	28
3036.000	56	3415.010	86, 102	3499.050	74	3581.100	26, 104	9350.110	28
3037.000	56	3415.020	70	3499.070	74	3582.000	41, 104	9350.120	28
3038.000	56	3415.030	70	3500.000	42	3583.000	41, 104	9350.130	28
3039.000	56	3415.110	87, 102	3501.000	42	3584.000	41, 104	9350.140	28
3040.000	54	3415.120	71	3502.000	42	3585.000	41, 104	9350.150	28
3041.000	54	3415.130	71	3503.000	42	3586.000	41, 80, 104	9350.160	30
3042.000	55	3415.210	71	3504.000	43	3587.000	80, 104	9350.170	30
3043.000	55	3415.230	71	3505.000	43	3588.000	80, 94, 104	9350.180	30
3044.000	55	3415.310	87, 102	3506.000	42, 44	3589.000	80, 94, 99, 104	9350.190	30
3045.000	55	3418.000	62	3507.000	42, 44	3590.000	94, 99, 104	9350.200	31
3046.000	56	3419.000	62	3508.000	42, 44	3591.010	90	9350.210	31
3047.000	56	3420.000	62	3509.000	42	3591.020	64	9350.220	30
3048.000	56	3421.000	62	3510.000	44	3591.030	64	9350.230	30
3049.000	56	3422.000	63	3511.000	44	3591.040	96	9350.240	30
3050.000	40	3423.000	63	3512.000	44	3591.050	96	9350.250	30
3052.000	94	3424.000	63	3513.000	44	3591.060	96	9350.260	28
3055.000	99	3425.000	63	3514.000	45	3592.010	75, 91, 97	9350.270	28
3056.000	99	3427.000	62	3515.000	45	3592.020	75, 91, 97	9350.280	29
3057.000	99	3428.000	62	3516.000	44	3595.010	64, 90, 96	9350.290	29
3058.000	99	3429.000	62, 63	3517.000	47	9320.000	58	9350.300	29
3059.000	99	3430.000	62, 63	3518.000	42	9320.010	58	9350.310	29
3060.000	99	3431.000	25, 27, 65, 100	3519.000	44	9320.020	41, 104	9350.320	29
3061.000	99	3432.000	74	3520.000	63	9320.030	41, 104	9350.330	29
3063.000	60	3433.000	62	3521.000	63	9320.040	65	9350.340	31
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3066.000	40	3435.000	62, 63	3523.000	43	9320.060	43	9350.400	27
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3070.000	55	3439.000	47	3527.000	44	9320.100	29, 30, 51	9600.000	20
3071.000	25, 27, 75, 91, 97	3439.010	47	3528.000	44	9320.110	29, 30, 51, 52	9601.000	20
3073.000	80	3440.000	46	3529.000	44	9320.120	24, 58	9602.000	20
3074.000	80, 94	3441.000	46	3530.000	63	9320.140	29, 30, 51, 52	9603.000	20
3075.000	80, 94	3442.000	46	3531.000	63	9320.150	23, 29, 30, 51, 52	9604.000	20, 26
3076.000	80	3443.000	46	3532.000	63	9320.160	50	9605.000	20, 26
3078.000	40	3444.000	46	3533.000	45	9320.170	50	9606.000	20, 26
3079.000	105	3445.000	57	3536.000	55, 57, 61	9320.180	50	9607.000	20, 26
3079.010	105	3446.000	57	3537.000	55, 57, 61	9320.190	50	9608.000	20, 26
3080.000	41	3447.000	57	3538.000	55, 57, 61	9320.200	50	9609.000	20, 26
3083.000	80	3448.000	57	3539.000	59	9320.210	50	9610.000	20, 26
3084.000	41	3450.500	48	3540.000	54	9320.220	50	9611.000	20
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3086.000	49, 81, 84, 85	3452.500	48	3542.000	61	9320.240	50	9613.000	21
3087.000	49, 81	3453.500	48	3543.000	61	9320.250	50	9614.000	22
3088.000	49, 81	3454.500	48	3544.000	54	9320.260	52	9614.100	22

Table of order numbers

Model No.	Page	Model No.	Page	Model No.	Page	Model No.	Page	Model No.	Page
9614.110	22	9640.900	142	9650.260	156	9659.470	168	9665.170	191
9615.000	22	9640.910	142	9650.270	156	9659.480	168	9665.180	191
9615.100	22	9640.920	142	9650.280	156	9659.520	178	9665.190	191
9616.000	24	9640.960	142	9650.290	156	9659.530	178	9665.200	191
9617.000	24	9640.970	142	9650.300	156	9659.540	178	9665.210	191
9618.000	23	9640.980	142	9650.310	156	9659.550	178	9665.220	191
9619.000	23	9649.000	166	9650.320	158	9659.590	177	9665.230	191
9620.000	23	9649.010	166	9650.330	158	9659.600	177	9665.240	193
9621.000	23	9649.020	166	9650.340	158	9659.610	177	9665.250	193
9622.000	23	9649.060	166	9650.350	158	9659.620	170	9665.260	193
9623.000	23, 24	9649.070	175	9650.360	156	9659.630	170	9665.270	193
9623.100	23, 24	9649.080	172	9650.370	158	9659.640	172	9665.280	193
9624.000	20	9649.090	172	9650.380	158	9659.650	172	9665.290	193
9625.000	22	9649.100	173	9650.390	178	9659.660	172	9665.300	192
9626.000	22	9649.110	173	9650.400	159	9659.670	172	9665.310	192
9627.000	24	9649.120	173	9650.410	159	9659.690	174	9665.320	192
9628.000	24	9649.130	173	9650.420	159	9659.700	175	9665.330	192
9629.000	24	9649.140	172	9650.430	159	9660.000	163	9665.340	192
9629.010	22	9649.150	172	9650.440	159	9660.010	163	9665.350	192
9629.020	22	9649.170	166	9650.450	159	9660.020	163	9665.360	191
9629.030	22	9649.190	166	9650.460	159	9660.030	163	9665.370	191
9629.100	25	9649.200	166	9650.470	159	9660.040	162	9665.380	194
9630.000	25	9649.210	166	9650.480	159	9660.050	162	9665.390	194
9640.000	140	9649.220	166	9650.490	159	9660.060	162	9665.400	194
9640.010	140	9649.230	166	9650.500	159	9660.070	162	9665.410	194
9640.020	141, 162	9649.240	166	9650.510	159	9660.080	162	9665.420	194
9640.050	140	9649.250	166	9650.600	176	9660.100	163	9665.430	195
9640.060	140	9649.260	166	9650.610	176	9660.110	163	9665.440	195
9640.070	165	9649.270	166	9650.620	177	9660.120	163	9665.450	195
9640.080	166, 175	9649.280	166	9650.630	177	9660.130	163	9665.460	195
9640.090	166	9649.290	166	9650.640	177	9660.140	162	9665.470	195
9640.100	140	9649.300	166	9650.650	177	9660.150	162	9665.480	195
9640.110	140	9649.310	166	9650.900	158	9660.160	162	9665.490	196
9640.120	140, 165	9649.360	166	9650.910	158	9660.170	162	9665.500	193
9640.130	140	9649.430	166	9650.920	158	9660.200	178	9665.520	197
9640.140	140	9649.440	166	9650.960	158	9660.210	178	9665.530	197
9640.150	140	9649.450	166	9650.980	158	9660.220	178	9665.540	197
9640.170	141, 162	9649.600	177	9650.990	158	9660.230	178	9665.550	197
9640.180	141	9649.610	177	9659.000	168	9660.240	178	9665.560	197
9640.190	140	9649.620	170	9659.010	168	9660.250	178	9665.570	198
9640.200	140	9649.630	170	9659.020	168	9660.260	178	9665.580	198
9640.210	140	9649.640	172	9659.030	168	9660.300	164	9665.590	199
9640.220	140	9649.650	172	9659.060	168	9660.320	165	9665.600	199
9640.230	140	9649.660	172	9659.070	175	9660.350	164	9665.610	199
9640.240	140	9649.670	172	9659.080	172	9660.370	165	9665.620	198
9640.250	140	9649.680	174	9659.090	172	9660.410	162	9665.630	198
9640.260	140	9649.700	175	9659.100	173	9660.440	162	9665.640	200
9640.270	140	9650.000	156	9659.110	173	9660.510	162	9665.650	200
9640.280	140	9650.010	156	9659.120	173	9660.540	162	9665.660	200
9640.290	140	9650.020	141, 157, 162	9659.130	173	9660.620	177	9665.670	200
9640.300	140	9650.030	141, 157	9659.140	172	9660.660	160	9665.680	201
9640.310	140	9650.050	156	9659.150	172	9660.670	160	9665.690	201
9640.320	142	9650.060	156	9659.170	168	9660.680	161, 171	9665.700	201
9640.330	142	9650.070	165	9659.180	168	9660.860	160	9665.710	201
9640.340	142	9650.080	168, 175	9659.190	168	9660.870	160	9665.720	201
9640.350	142	9650.090	168	9659.200	168	9665.000	190	9665.730	201
9640.360	140	9650.100	156, 165	9659.210	168	9665.010	190	9665.750	202
9640.370	142	9650.110	156	9659.220	168	9665.020	190	9665.760	202
9640.380	142	9650.120	156	9659.230	168	9665.030	190	9665.770	202
9640.390	178	9650.130	156	9659.240	168	9665.040	190	9665.780	202
9640.400	143	9650.140	156	9659.250	168	9665.050	190	9665.900	188
9640.410	143	9650.150	156	9659.260	168	9665.060	190	9665.910	188
9640.420	143	9650.160	156, 176	9659.270	168	9665.070	190	9665.920	188
9640.430	143	9650.170	162	9659.280	168	9665.080	190	9665.940	188
9640.440	143	9650.180	157	9659.290	168	9665.090	190	9665.950	188
9640.450	143	9650.190	156	9659.300	168	9665.100	190	9665.960	188
9640.600	176	9650.200	156	9659.310	168	9665.110	190		
9640.610	176	9650.210	156	9659.360	168	9665.120	190		
9640.620	177	9650.220	156	9659.400	168	9665.130	190		
9640.630	177	9650.230	156	9659.410	168	9665.140	190		
9640.640	177	9650.240	156	9659.420	168	9665.150	190		
9640.650	177	9650.250	156	9659.460	168	9665.160	191		

Maxi-PLS connector kits see page 134 – 139, 144 – 155.

a

z

Busbars Maxi-PLS	173
Bus-mounting fuse bases	
– for 40 mm busbar systems	27
– for 60 mm busbar systems	62 – 63
– Mini-PLS	25
– size 00	66
Bus-mounting on-load isolator	
– size 00	66 – 67, 82 – 83
– size 1	68 – 69, 84 – 85
– size 2	70 – 71
– size 3	72 – 73

C

C rails Maxi-PLS	178
Cable clamp rails	
– ISV	201
– PS	160, 188
Cable entry gland ISV	202
Cable entry plates TS	160, 188
Clamps	48, 81, 95
– Maxi-PLS	142, 158
Clamp-type terminal connection	
– for NH fused isolators	91, 97
– for NH isolators	75, 91
Clamp-type terminal connection parts	
– for NH fused isolators	91, 97
– for NH isolators	75, 91, 97
Component adaptor	
– for 40 mm busbar systems	28 – 31
– for 60 mm busbar systems	50 – 60
– Mini-PLS	22 – 24
Component support	
– for 60 mm busbar systems	57, 61
Conductor connection	
clamps	48, 49, 81, 95
Connection	
– for NH isolators	75, 91, 97
Connection bracket Maxi-PLS	143, 159
Connection clamps	48, 81, 95
– Maxi-PLS	142, 158
Connection kits	
– Maxi-PLS	134 – 139, 144 – 155
Connection modules ISV	192
Connection parts	
– for NH isolators	75, 91, 97
Connection plates	
– for 150 mm busbar systems	99
Connection plates Maxi-PLS	142, 158
Connector	
– E-Cu	26, 41, 104
– Maxi-PLS	140, 156
– Mini-PLS	20
Connector kits	
– Maxi-PLS	162, 172
Connectors	
– E-Cu	104
– PLS	43, 45
Connectors, angular	119
Contact hazard protection cover	
– for bus mounting fuse bases	62 – 63
– ISV	197 – 199
Contact hazard protection frame	
– for NH bus-mounting	
on-load isolators, size 00	74
Contact hazard protection ISV	190
Contact makers Maxi-PLS	141, 157
Copper bars	
– E-Cu	26, 41, 80, 94, 99, 104
– Maxi-PLS	140, 156

A

Accessories ISV	200 – 202
Adaptor	
– 40 mm for NH isolators, size 000	27
– 60 mm for NH isolators, size 000	65
– 100 mm for NH isolators, sizes 00 to 3	82 – 89
– Mini-PLS for NH isolators, size 000	25
Angular connectors	119
Assembly kit for component adaptors	60

Busbar adaptor	
– 40 mm for NH isolators, size 000	27
– 60 mm for NH isolators, size 000	65
– 100 mm for NH isolators, sizes 00 to 3	82 – 89
– Mini-PLS for NH isolators size 000	25
Busbar connection adaptor	
– for 40 mm busbar systems	27
– for 60 mm busbar systems	46 – 47
– for PLS busbar systems	47
Busbar connectors	
– E-Cu	26, 41, 104
– Mini-PLS	20
– PLS	43, 45
Busbar cover sections	41, 80
– SV	26 – 31
Busbar gland Maxi-PLS	176
Busbar modules ISV	199
Busbar support Maxi-PLS	176
Busbar supports	
– 40 mm bar centre distance	26
– 60 mm bar centre distance	40
– 100 mm bar centre distance	80
– 150 mm bar centre distance	99
– 185 mm bar centre distance	94
– ISV	196
– Maxi-PLS	140, 156
– Mini-PLS	20
– PLS	42, 44
Busbar systems	
– Maxi-PLS	124 – 185
– PLS	42 – 44
– SV	26, 40 – 41, 80, 94, 99
Busbars	
– cover sections	94
– E-Cu	26, 41, 80, 94, 104
– Maxi-PLS	140, 156, 163
– Mini-PLS	20
– PLS	42, 44

B

Bar insulation	
– for 150 mm busbar systems	99
Bar support Maxi-PLS	163, 173
Base isolators	
– for busbars	104
Base tray section infill PLS	43, 45
Base tray sections	
– Mini-PLS	20, 26
– PLS	42, 44
Base/plinth	
– for ISV-TS 8 enclosures	188
– for SV-TS 8 enclosures	160, 162, 164, 170, 172, 174

– Mini-PLS	20
– PLS	42, 44
Coupling sets Maxi-PLS	165, 175
Cover attachment Maxi-PLS	161
Cover panel ISV	200
Cover sections	
– for busbars	26, 41, 80, 94
– Maxi-PLS	140, 156
– Mini-PLS	20, 26
– PLS	42, 44
Cover strips	
– for component adaptors	55, 57
– for component supports	61
– ISV	200
Covers	
– for busbar adaptors 100 mm	82 – 85
– for bus-mounting fuse bases	62 – 63
– for connection clamps	49, 81
– for NH units (PLS)	74
– ISV	197 – 199

D

Deep cover ISV	200
Distribution enclosure ISV	186 – 205
Divider panel modules Maxi-PLS	177

E

Enclosures ISV-TS 8	188
Enclosures SV-TS 8	
– for coupling sets	164, 174
– for incoming/outgoing circuit	170
– for inlet/outlet	160
– for NH fused isolators	162, 172
End caps	
– for bus-mounting fuse bases	62 – 63
End cover	
– for busbar supports	26, 41, 80
– for Mini-PLS busbar supports	20
– for PLS busbar supports	42, 44
End cover Maxi-PLS	140, 156
End support for T busbars Maxi-PLS	173
Expansion connectors PLS	43, 45
Extension cover	
– for bus-mounting fuse bases	62 – 63

F

Fuse bases	
– size 00	66
Fuse elements	
– for 40 mm busbar systems	27
– for 60 mm busbar systems	62 – 63
– Mini-PLS	25
Fused isolators	
– size 00	64, 90, 96
– sizes 1 – 3	97

H

Holder	
– for laminated copper bars	105

I

Identification label support	
– for NH fused isolators	
– size 00	64, 90, 96
Identification labels	
– for bus-mounting	
– fuse bases	25, 27, 62 – 63
Insert strip	
– for component adaptors	55, 57
– for component supports	61
– for Mini-PLS	
– component adaptors	23 – 24
Inserted screw nuts	
– for NH fused isolators size 00	96
Inserts	
– for busbar supports	41, 80, 94
Installation distribution enclosure	186 – 205
Installation distribution enclosure	
– ISV	186 – 205
Isolator chassis Maxi-PLS	141, 157
Isolators	
– size 00	64, 66 – 67, 82 – 83, 90, 96
– size 000	25, 27, 65, 100
– size 1	68 – 69, 84 – 85, 101
– size 1 – 3	97
– size 2	70 – 71, 86 – 87, 102
– size 3	72 – 73, 88 – 89, 103
ISV Planning sequence	204 – 205
ISV-TS 8 enclosures	188

L

Laminated copper bars	105
Longitudinal connector Maxi-PLS	140, 156

M

Maxi-PLS busbar systems	124 – 185
Maxi-PLS divider panel	177
Maxi-PLS systems	171
Micro-switch	
– for NH units	25, 27, 75, 91, 97
Mini-PLS busbar system	20 – 25
Modules ISV	190 – 199
Mounting clip	
– for multi-functional	
– component adaptor	29 – 30, 51 – 52
Mounting kit for NH isolators, size 000	74
Mounting plate modules ISV	190
Multi-functional component adaptor	
– for 40 mm busbar systems	28 – 31
– for 60 mm busbar systems	50 – 53

N

N/PE support	40
NH bus-mounting fuse bases	
– size 00	66
NH bus-mounting on-load isolator	
– size 00	66 – 67, 82 – 83
– size 1	68 – 69, 84 – 85
– size 2	70 – 71, 86 – 87
– size 3	72 – 73, 88 – 89
NH fused isolators	
– size 00	64, 90, 96
– sizes 1 – 3	97
NH fused isolators modules	
– ISV	198
NH on-load isolator modules	194
NH on-load isolators	
– size 00	100
– size 000	25, 27, 65, 100
– size 1	101
– size 2	102
– size 3	103

O

On-load isolators	
– size 00	66 – 67, 82 – 83, 100
– size 000	25, 27, 65, 100
– size 1	68 – 69, 84 – 85, 101
– size 2	70 – 71, 86 – 87, 102
– size 3	72 – 73, 88 – 89, 103
Overview power circuit-breakers/ starter combinations (component adaptors)	110 – 113

P

PC software	106 – 107
Planning sequence ISV	204 – 205
Plate clamps	48, 81, 95
PLS angular connectors	119
PLS busbar systems	42 – 45
PLS cover for NH units	74
Plug-in connector	29
– for Mini-PLS component adaptors	23 – 24
– for multi-functional component adaptor	29 – 30, 51 – 52
Power circuit-breaker modules ISV	195
Power circuit-breakers/starter combinations (overview component adaptors)	110 – 113
Power-Plan	107

Q

Quick-fit component adaptors Mini-PLS	23
--	----

R

Rittal Power-Plan	107
Rittal SV-Plan	106
Rittal textbook	107
Roof plates Maxi-PLS	178

S

Serial installation device modules ISV	193
Short-circuit resistance diagrams	108 – 109
Side cover for bus-mounting fuse bases	62 – 63
Side panels – for ISV-TS 8 enclosures	188
– for SV-TS 8 enclosures	160, 162, 164, 170, 172, 174
Sliding blocks Maxi-PLS	142, 158
Sliding nuts – Maxi-PLS	142, 158
Software program	106 – 107
Spacers ISV	201
Spacing pieces for busbar support (150 mm)	99
Special busbars – Maxi-PLS	140, 156, 163
– Mini-PLS	20
– PLS	42, 44
Special busbars Maxi-PLS	173
Stacking insulator Maxi-PLS	178
Support – 40 mm bar centre distance	26
– 60 mm bar centre distance	40
– 100 mm bar centre distance	80
– for laminated copper bars	105
– for T busbars Maxi-PLS	163, 173
– ISV	196
– Maxi-PLS	140, 156, 176
– PLS	42, 44
Support cover	41
Support rail modules ISV	191
Support rails – for component adaptors	55, 57 – 58
– for component supports	61
– for Mini-PLS component adaptors	23 – 24
– for multi-functional component adaptor	29 – 30, 51 – 52
– ISV	201
Supports – 150 mm bar centre distance	99
– 185 mm bar centre distance	94
SV textbook	107
SV-Plan	106
SV-TS 8 enclosures – for coupling sets	164, 174
– for inlet/outlet	160
– for NH fused isolators	162, 172
SV-TS 8 enclosures for incoming/outgoing circuit	170
System attachment – for coupling sections Maxi-PLS	165, 175
– Maxi-PLS	140, 156, 165, 175
System covers	49, 81
– for NH isolators, size 1	84 – 85

T

T bar support Maxi-PLS	163, 173
T busbars Maxi-PLS	163, 173
T connector kits Maxi-PLS	162, 172
T end support for T busbars Maxi-PLS	163
Technical information SV – Bus-mounting fuse bases	118
– currents of busbars	120 – 123
– Laminated copper bars	119
– NH-gear	114 – 117
– Short-circuit resistance diagrams	108 – 109
Technical informations SV – Overview power circuit-breakers/ starter combinations	110 – 113
Technical specifications SV – Maxi-PLS	180 – 183
Terminal block ISV	201
Terminal connection – for NH isolators	97
Terminal studs – for NH fused isolators Maxi-PLS	178
– Maxi-PLS	142, 158
Textbook SV	107
Threaded bolts Maxi-PLS	142, 158

U

U contact makers Maxi-PLS	141, 157
Universal support for laminated copper bars	105

W

Wiring brackets ISV	200
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