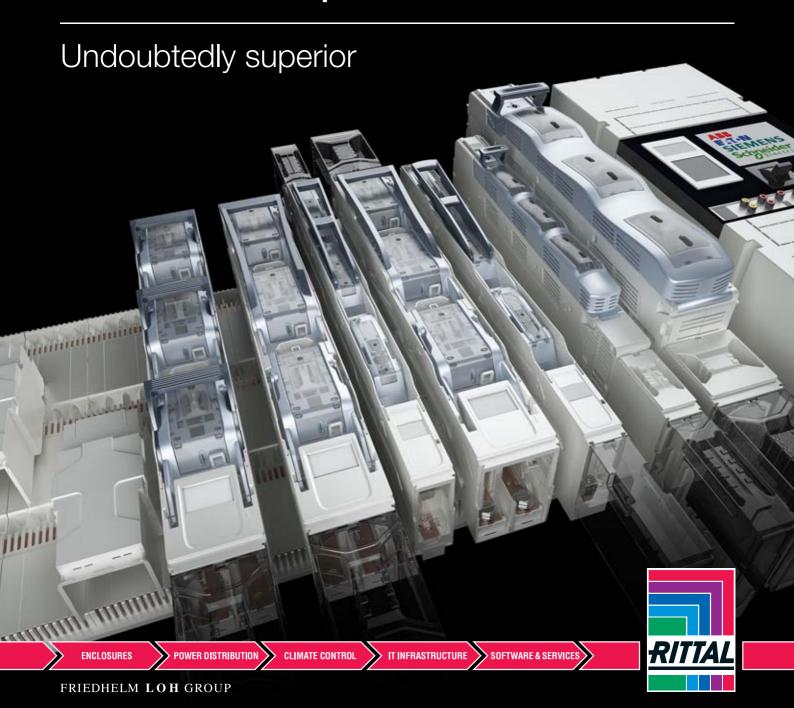
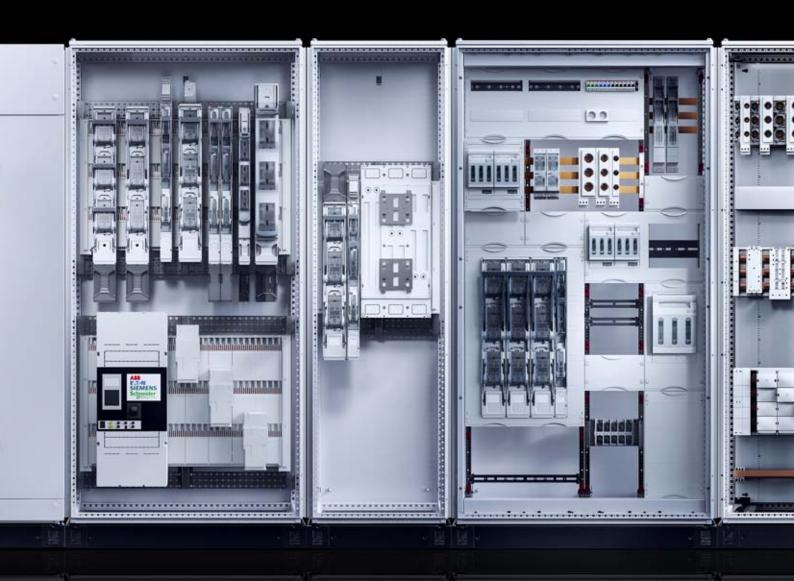
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# Rittal - The System.

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# Rittal – The System.

#### Unlimited options from a single source.

For over 50 years, we have been redefining the future. We produce and develop solutions for you, our customers, covering enclosures, power distribution, climate control, IT infrastructure, software and services. The modular system architecture of our solutions enables them to be tailored to your specific needs and requirements – on a completely customised basis, depending on your industry and the size of your company, and directly from series production. We cater to a wide range of sectors – from mechanical and plant engineering and the automotive industry right through to information technology.

Based on the principle "Faster – better – everywhere", our "Rittal – The System." offers a perfectly coordinated system platform that combines innovative products, pioneering engineering solutions and worldwide service to meet a diverse range of requirements:

Faster – As a full-service provider, we help you with planning, assembly, conversion, commissioning and servicing.

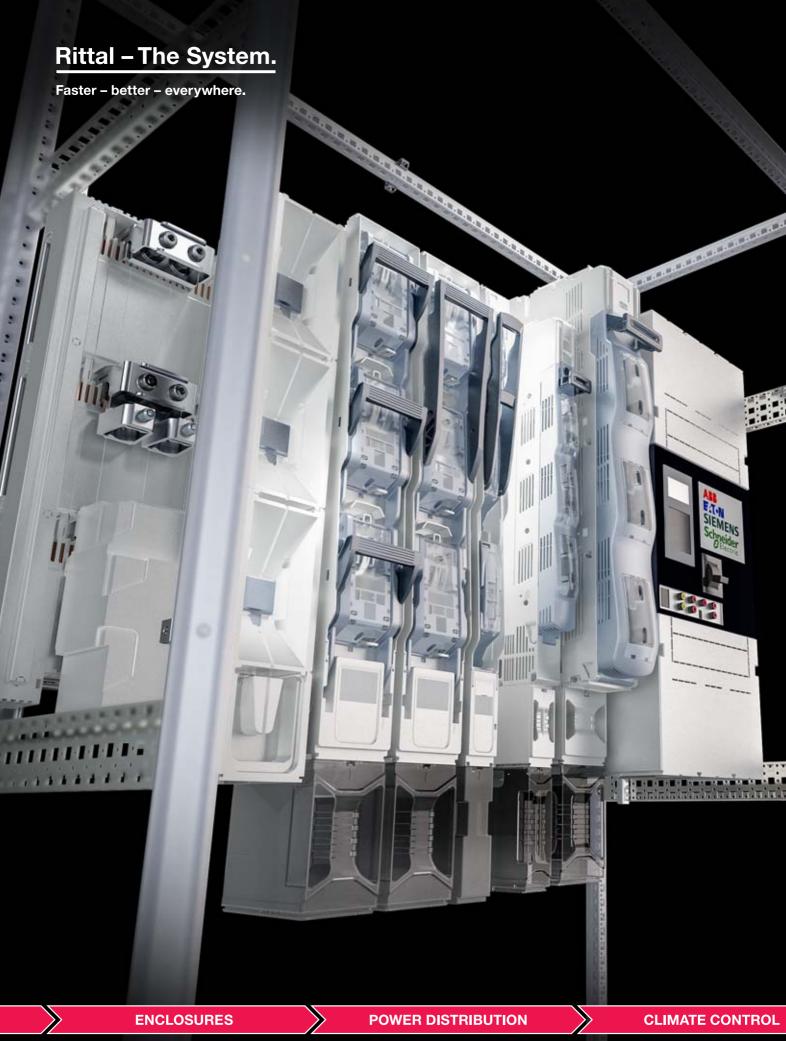
Better – Our certified products and services are available off-the-shelf and deliver verifiable energy and cost efficiency.

Everywhere – Rittal offers solutions throughout the world for a variety of industries, including mechanical and plant engineering, IT and telecommunications.

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FRIEDHELM LOH GROUP

# Tested complete solution – Enclosure and bar system

Rittal is one of the world's leading suppliers of reliable power distribution and backup systems. We can provide you with a tested solution comprising an enclosure and a busbar system. The VX25, as a standard enclosure, is ideal for industrial applications which demand high levels of protection for electrical and electronic equipment. Installation of the operating equipment in low-voltage switch-gear is compliant with IEC 61 439 and documented with a design verification. After planning with Rittal Power Engineering, the design verification is easily generated with a single click.

#### What we offer

- Complete solution for central, compact power distribution
- Rated voltage up to 690 V
- Rated current up to 2100 A
- Short-circuit protection up to 50 kA
- Bar centre distance 185 mm
- Complete contact hazard protection up to IP2XB (safe from finger-contact) from our system portfolio
- Precise-fit connection and component adaptors for tested, safe connection at high currents
- Fuse elements to suit all situations
- UL approval

#### How you benefit

- Assemble, install and upgrade systems with no drilling or removal of covers
- Busbar contacting variable, contact hazard-protected from the outset, no drilling required
- Suitable for all standard protective gear and switchgear currently available on the market
- Busbar shielding integrated into the cover section to prevent accidental arcing
- User-friendly project planning and generation of a design verification with the Rittal Power Engineering configuration software

#### **Further information**

www.rittal.com



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VX25 Ri4Power 185 Compact

5

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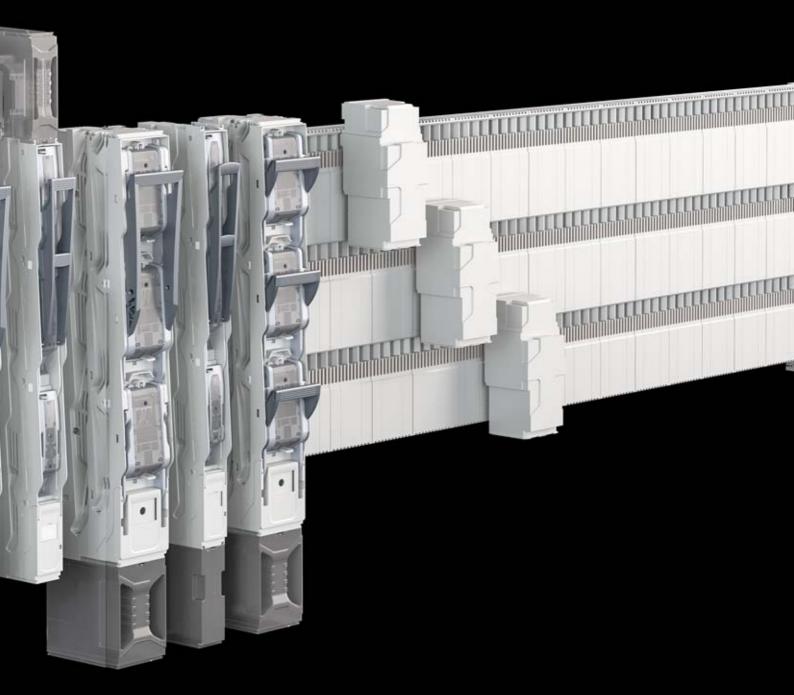
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# The system - Simply secure

With due regard for financial aspects and the requirements of the current standard IEC 61 439, the new VX25 Ri4Power 185 Compact busbar system with 185 mm bar centre distance is ideal for configuring a compact, secure power distribution system.



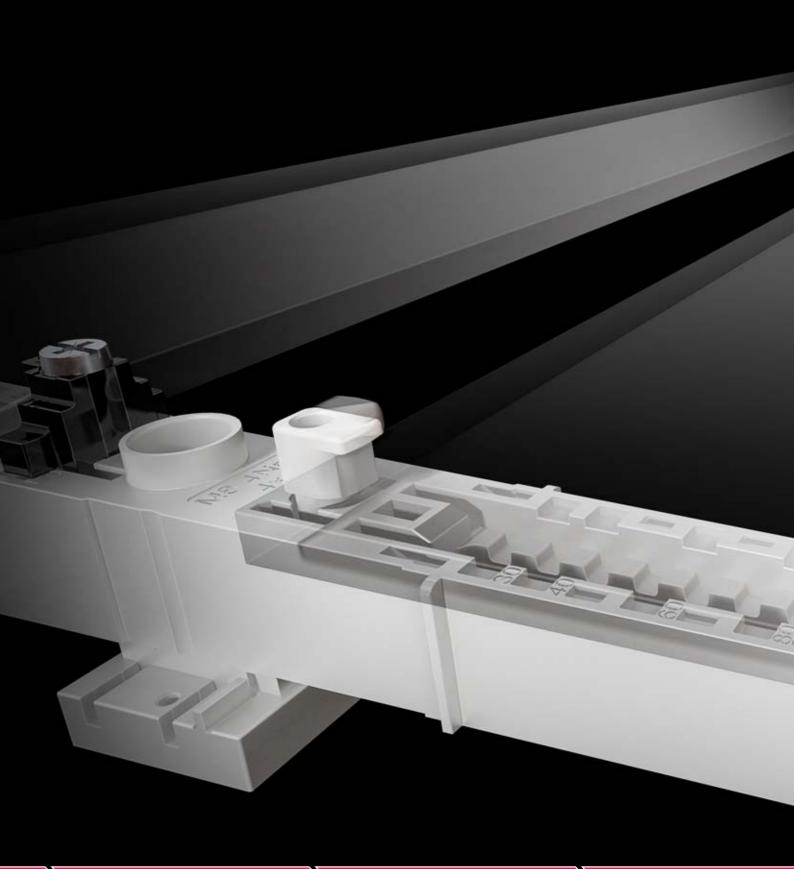
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# Assembly – Simple and standardised

The 185 mm system has been engineered for fast, reliable installation with standardised components and assembly steps. Contact hazard protection cover plates are available in sets for any enclosure width, and include all the necessary components for configuring the enclosure.

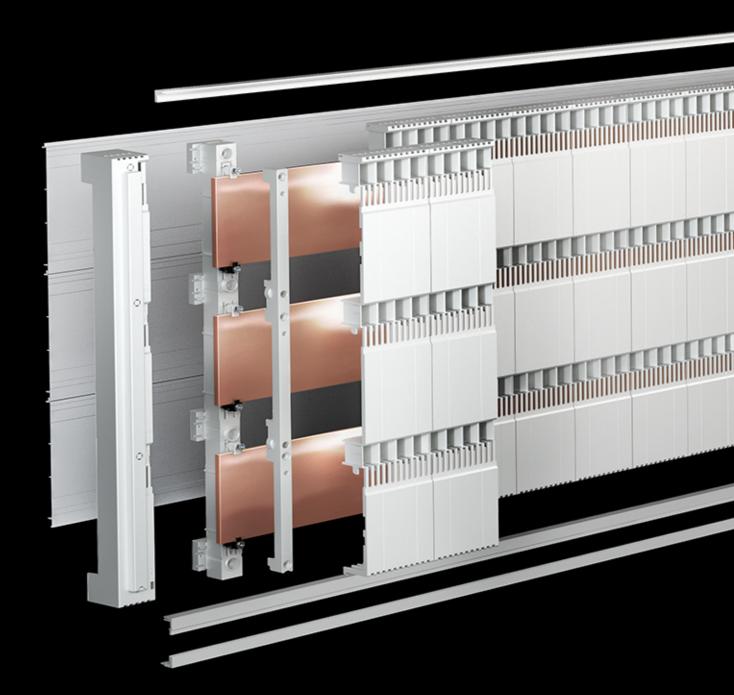
The busbar support is positioned using the system attachments to avoid any loss of configuration space. The entire enclosure width is available to use. Other user-friendly features include no-drill assembly and simple adaptation to various bar cross-sections. Allowance is also made for busbar baying, with full integration into the contact hazard protection system.



# System assembly – No drilling required

The busbar system is quickly and conveniently installed in the enclosure in just three steps:

- Position the system attachment in the enclosure
- Secure the busbar assembly
- Clip the cover system into place



### **Busbar support**

- For busbar dimensions ranging from 40 x 10 to 120 x 10 mm
- The support may be top-mounted with components using the pitch pattern of the cover system
- Rated short-time withstand current I<sub>cw</sub> up to 50 kA
- Rated busbar currents of up to 2100 A
- Mounting via system attachment in the VX25 baying enclosure system, no drilling required



#### **Cover section**

- Contact hazard protection up to IP2XB (safe from finger-contact)
- Integral busbar shielding to prevent
- accidental arcing
- Secure positioning of the top-mounting components, thanks to centring device
- New contact system allows components to be top-mounted on the cover section
- Components are easily retrofitted without removing the cover section



### **Base tray**

- For rear contact hazard protection of the busbar assembly
- For optimum all-round contact hazard protection in conjunction with the cover section
- Prepared ready to install, fits VX25 baying enclosure system widths from 600 mm to 1200 mm



11



# Current transmission – Low-loss and reliable

The sophisticated busbar contact system revolutionises current transmission, and offers the best possible protection from the outset. Simply lock home for reliable, low-loss contact – no measuring or drilling required. And best of all: Air is still able to circulate between the new standardised earthing elements, significantly reducing temperature rise, which in turn enables higher loads.



# The perfect-fit adaptor system

Connection and component adaptors for tested, safe connection at high currents

- For air circuit-breakers up to 630 A and 1600 A
- Direct connection of various conductor types
- No-drill connection system to the busbar



# Busbar connection adaptors and connection blocks

- Compact, fast connection of cables and lines
- Suitable for various types of conductor
- With standardised contact hazard protection cover plates



# Component adaptors for compact circuit-breakers

- Two sizes up to 630 A and 1600 A
- Variants for clamping or screw attachment
- Make contact without drilling
- Ideal for incoming and outgoing circuits

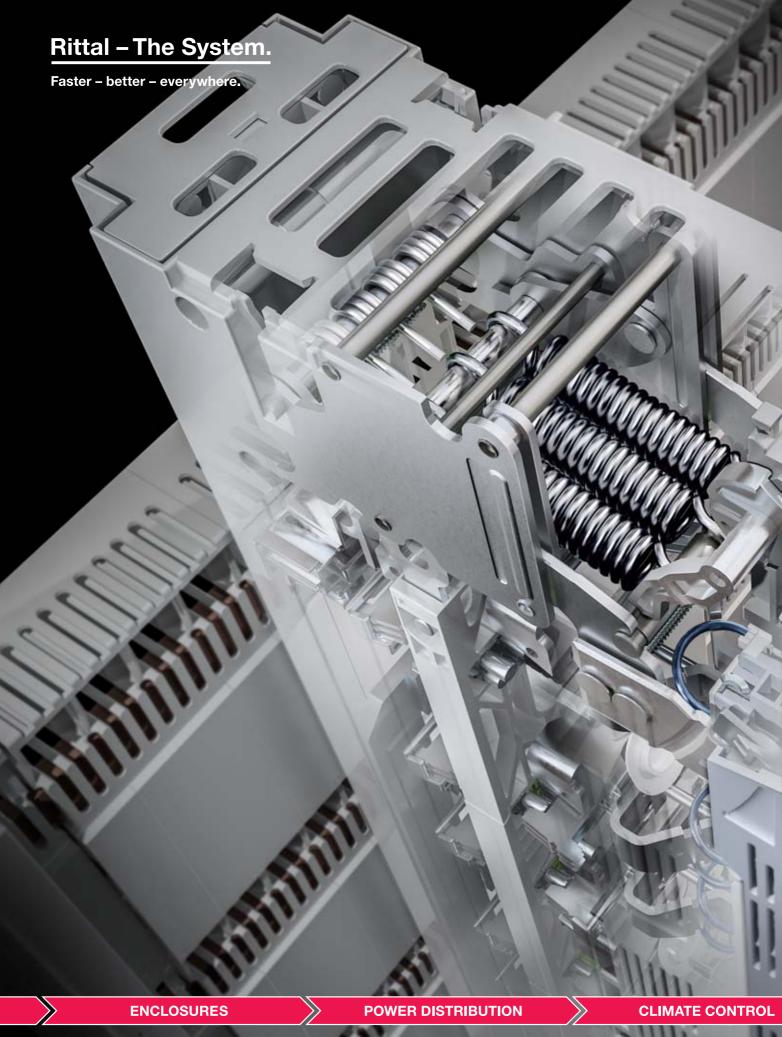




- Form-fit, prepared for switch brands ABB, Eaton, Schneider Electric, Siemens
- Preassembled connector kits from the adaptor to the circuit-breaker
- Optional integration of a current transformer
- Complete contact hazard protection in the inlet and outlet zones







# The switching operation – Fast and safe

The actual switching operation is performed mechanically, independently of the operator, by means of an integrated quick-break contact. This guarantees reliable switching operations at all times. The double-break contacts ensure that all poles are de-energised when replacing a fuse. Only then can the fuse cover be removed and the fuse replaced safely. Vertical arrangement of the bars minimises reciprocal temperature rises occurring when multiple bars are arranged on top of one another horizontally. This vertical arrangement also facilitates easier cable connection, and there is no need for a separate cable connection space at the side.



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# Disconnect and switch with one device

The NH slimline switch-disconnectors for operator-independent disconnection and switching with fuses\_

■ Integral quick-break contact with double-break ensures safe operation



### NH slimline switch-disconnectors

- Suitable for fuse sizes 00 to 3
- No-drill contacting with clamping screw attachment
- Optionally with electronic fuse monitoring



### **Cable connection space**

- User-friendly cable connection optionally from above or below
- Connection of various conductor types
- Extended contact hazard protection for the connection space



# Operator-independent switch element

- Fast switching operation with quick-break contact
- Double-break allows fuse replacement with the system de-energised
- Lid lock can only be released with a tool
- Integrated switch position display



# Fuse elements to suit all situations

The system of NH slimline fuse-switch disconnectors is based on separate air routing for heat dissipation, and targeted removal of switching gases.

- Simple device assembly
- Single-pole or 3-pole, switchable
- Optimum contact hazard protection



20

### NH slimline fuse-switch disconnectors, sizes 00 to 3

- Single-pole and 3-pole switchable variants
- Symmetrical layout for cable outlet at the top and bottom
- Optional integration of current transformers
- Versions with and without fuse monitoring
- Self-closing voltage testing holes
- Prepared for multiple lead seals
- Hinged terminal cover
- Cascadable connection space extension
- Simple conversion of the bolt or screw connections
- Contact hazard-proof fuse contacts with the top section dismantled
- Optional micro-switch monitoring of the cover switch position







# VX25 Ri4Power 185 Compact busbar system



### More detailed information and further components can be found at www.rittal.com

Busbar support					
Bar centre distance mm	Rated operating voltage V, ~	Number of poles	For busbars mm	Packs of	Model No.
185	1000, 3~ 1500 (DC)	3-pole	40 x 10 60 x 10 80 x 10 100 x 10 120 x 10	2 pc(s).	9677.500
Contact hazard protect	ion				
		For	enclosure width mm	Packs of	Model No.
End covers I/r		-		2 pc(s).	9677.600
			600	1 pc(s).	9677.550
Contact hazard protection cover (cover section, base tray, centre cover, end section)		800		1 pc(s).	9677.560
			1000	1 pc(s).	9677.570
			1200	1 pc(s).	9677.580
Cover strip for contact hazard protection cover			_	3 pc(s).	9677.650



Busbars E-Cu, length: 2400 mm/bar			
Dimensions mm	Packs of	Model No.	
40 x 10	3 pc(s).	3587.000	
60 x 10	2 pc(s).	3589.005	
80 x 10	1 pc(s).	3590.005	
100 x 10	1 pc(s).	3590.015	
120 x 10	1 pc(s).	3590.020	



System attachment		
For enclosure width mm	Packs of	Model No.
600	1 pc(s).	9677.511
800	1 pc(s).	9677.521
1000	1 pc(s).	9677.531
1200	1 pc(s).	9677.541



Busbar connector					
For busbar mm	Length mm	Packs of	Model No.		
40 x 10 80 x 10 100 x 10	40	1 pc(s).	9677.610		
60 x 10 100 x 10 120 x 10	60	1 pc(s).	9677.620		



Contact hazard protection cover for enclosure connection				
Packs of	Model No.			
1 pc(s).	9677.640			



Connection adaptor					
Rated current max. A	Rated operating voltage V, ~	Packs of	Model No.		
800	690, 3~	1 pc(s).	9677.900		
1400	690, 3~	1 pc(s).	9677.905		

# VX25 Ri4Power 185 Compact busbar system



Connection block						
Rated current max. A	Rated operating voltage V, ~	Connection of round conductors mm <sup>2</sup>	Clamping area for laminated copper bars W x H mm	Packs of	Model No.	
1000	690, 1~	185 – 300	-	1 pc(s).	9677.915	
1600	690, 1~	-	80 x 20	1 pc(s).	9677.910	
1600	690, 1~	240	_	1 pc(s).	9677.920	



Component adaptor with clamping attachment					
Rated current max. A	Rated operating voltage V, ~	Packs of	Model No.		
630	690, 3~	1 pc(s).	9677.770		
1000	690, 3~	1 pc(s).	9677.700		
1600	690, 3~	1 pc(s).	9677.710		



Component adaptor with screw attachment					
Rated current max. A	Rated operating voltage V, ~	Packs of	Model No.		
630	690, 3~	1 pc(s).	9677.780		
1000	690, 3~	1 pc(s).	9677.705		
1600	690, 3~	1 pc(s).	9677.715		



NH slimline fu	ıse-switch d	isconnector			
Design	Size	Rated current max. A	Rated operating voltage V, ~	Packs of	Model No.
	00	160	690, 3~	1 pc(s).	9677.010
Single-pole,	1	250	690, 3~	1 pc(s).	9677.110
switchable 2	2	400	690, 3~	1 pc(s).	9677.210
	3	630	690, 3~	1 pc(s).	9677.310
	00	160	690, 3~	1 pc(s).	9677.000
	00	160	690, 3~	1 pc(s).	9677.025
3-pole,	1	250	690, 3~	1 pc(s).	9677.100
switchable	2	400	690, 3~	1 pc(s).	9677.200
	3	630	690, 3~	1 pc(s).	9677.300
	3	1250	690, 3~	1 pc(s).	9677.340



NH slimline 1	NH slimline fuse-switch disconnector with electronic fuse monitoring					
Design	Size	Rated current max. A	Rated operating voltage V, ~	Packs of	Model No.	
	00	160	400, 3~	1 pc(s).	9677.015	
3-pole, switchable	1	250	400, 3~	1 pc(s).	9677.115	
switchable	2	400	400, 3~	1 pc(s).	9677.215	
•	3	630	400, 3~	1 pc(s).	9677.315	



NH slimline s	witch-discon	nector			
Design	Size	Rated current max. A	Rated operating voltage V, ~	Packs of	Model No.
	00	160	690, 3~	1 pc(s).	9677.060
	00	160	690, 3~	1 pc(s).	9677.070
	00	160	690, 3~	1 pc(s).	9677.065
	00	160	690, 3~	1 pc(s).	9677.075
3-pole,	1	250	690, 3~	1 pc(s).	9677.160
switchable	1	250	690, 3~	1 pc(s).	9677.165
	2	400	690, 3~	1 pc(s).	9677.260
	2	400	690, 3~	1 pc(s).	9677.265
	3	630	690, 3~	1 pc(s).	9677.360
	3	500	690, 3~	1 pc(s).	9677.365



NH slimline switch-disconnector with electronic fuse monitoring					
Design	Size	Rated current max. A	Rated operating voltage V, ~	Packs of	Model No.
3-pole, switchable	00	160	400, 3~	1 pc(s).	9677.080
	00	160	400, 3~	1 pc(s).	9677.085
	1	250	400, 3~	1 pc(s).	9677.180
	2	400	400, 3~	1 pc(s).	9677.280
	3	630	400, 3~	1 pc(s).	9677.380

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- IT Infrastructure
- Software & Services

You can find the contact details of all Rittal companies throughout the world here.



www.rittal.com/contact

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