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RiLine Compact

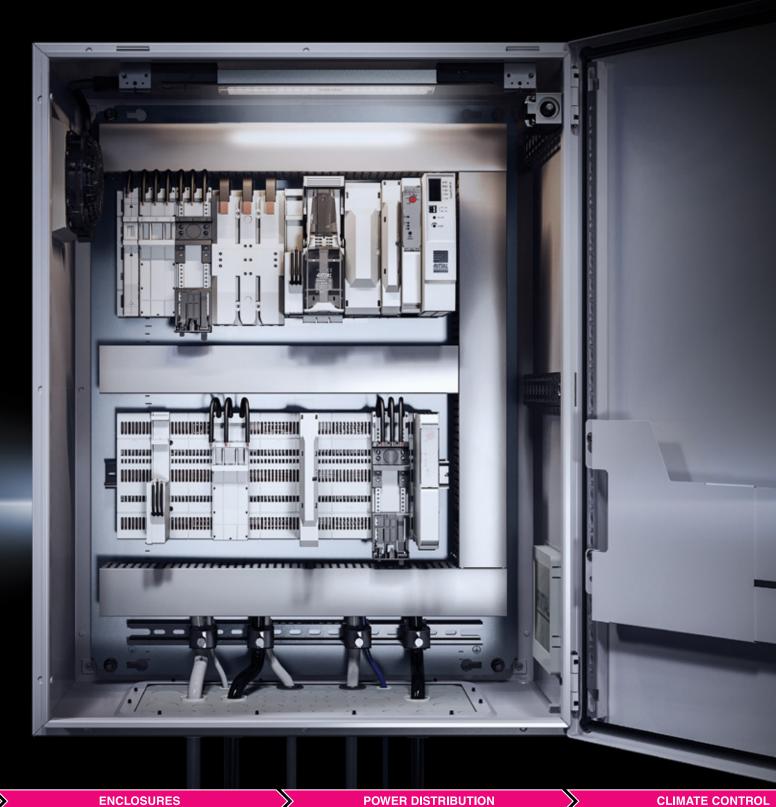
The smart power distribution system





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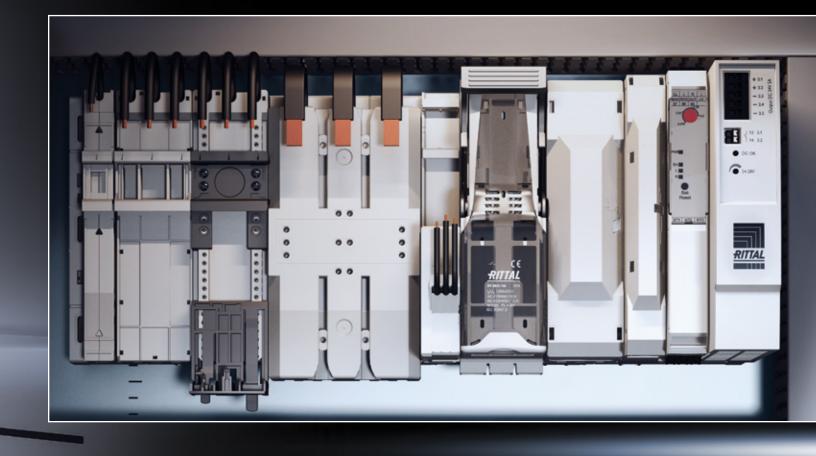


FRIEDHELM LOH GROUP

Power distribution in a confined space

Rittal is the leading supplier of reliable power distribution and backup systems for controlgear. The new RiLine Compact is the tested system solution for compact power distribution in enclosures and small control cabinets. The 4.5 mm pitch pattern available throughout means that no valuable space is wasted on busbar supports etc.

Different unit types are often used which would require conventional wiring. With the new RiLine Compact, a variety of different designs can be used safely and with no loss of space – both standardized and standard-compliant.

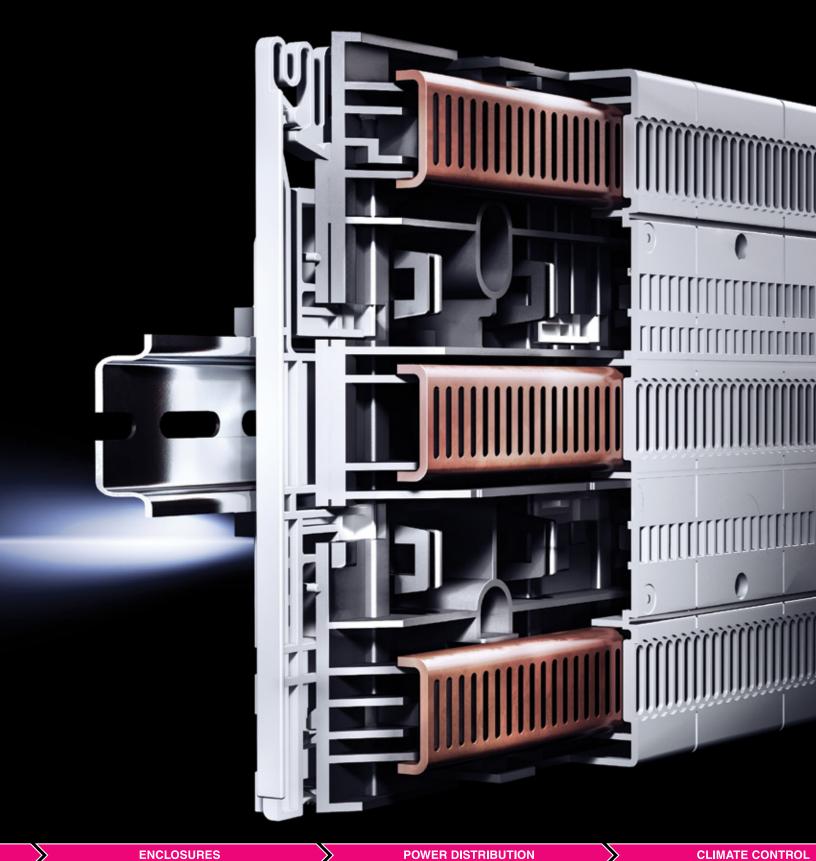


IT INFRASTRUCTURE



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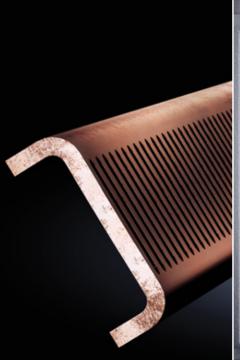


Tool-free assembly made easy

The RiLine Compact system is based on a board with integrated circuit board conductors and a contact pitch pattern throughout. The board and all components are simply top-mounted; no tools required.

Securing the components simultaneously ensures a secure electrical connection to the all-round shock-hazard-protected board. The contact pitch pattern of the RiLine Compact system allows the assemblies to be positioned wherever they are required.







IT INFRASTRUCTURE



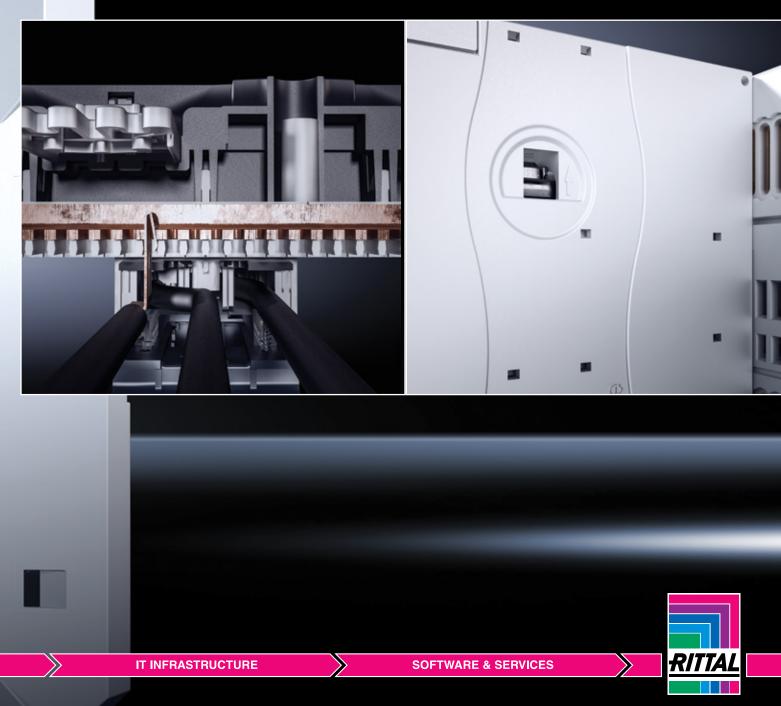
Rittal – The System.

Faster – better – everywhere. **ENCLOSURES POWER DISTRIBUTION CLIMATE CONTROL**

Safe adapter connection

The RiLine Compact adapter supports fast connection of cables and devices. The screw-free connection technology in the adapter means that conductors are quickly connected, and the contact point itself is completely maintenance-free.

The component adapters with preassembled connection cables satisfy the special requirements of standard IEC 61 439, for safe, space-saving assembly of switchgear and protective gear.



Rittal - The System.

Faster – better – everywhere.



Space-saving installation of motor controllers

RiLine Compact motor controllers are used to control motor drives. They have an exceptionally space-saving design and require 50% less space than conventionally wired motor control units. They are suitable for use with direct and reversing starter combinations.

The hybrid technology creates a low-loss motor controller which is particularly gentle on the switching contacts; this in turn helps to extend the service life.

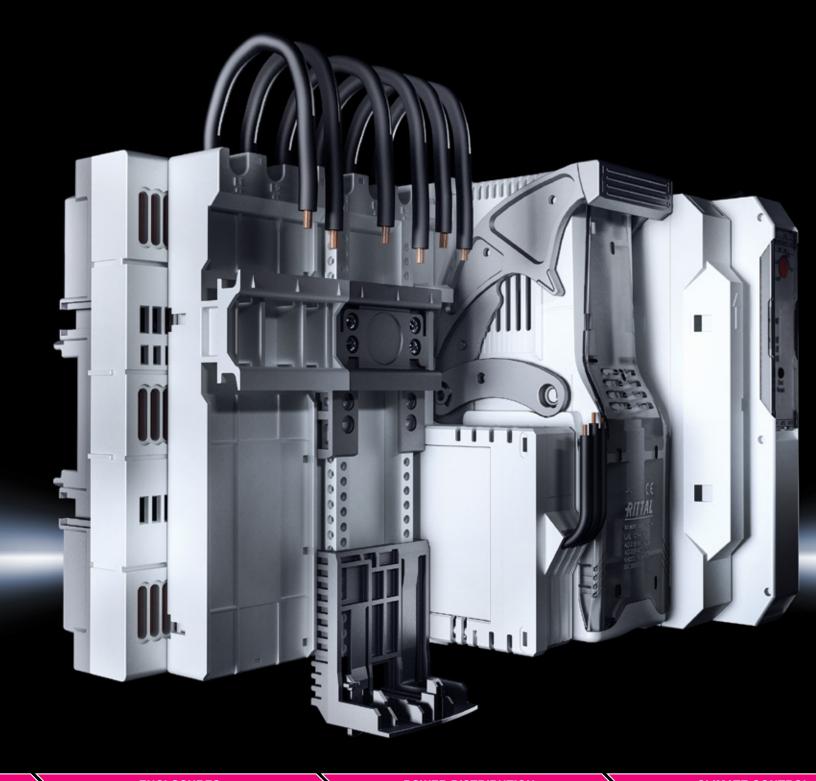


IT INFRASTRUCTURE



Guaranteed global use

- Approvals to IEC and UL
- Fire protection corresponding to UL 94 –V0
- Use of equipment from any manufacturer

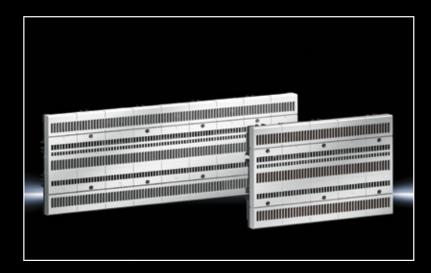


ENCLOSURES POWER DISTRIBUTION CLIMATE CONTROL

RiLine Compact Board

- 225 mm and 405 mm versions
- For 5 or 9 horizontal 45 mm devices
- All-round contact hazard protection

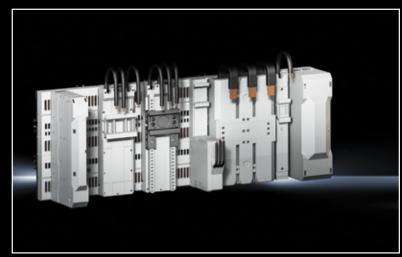
From page 12



Adapter

- Snap on connection to the board
- Comfort component adapters with added adjustablity
- Compact component adapter with integrated fuse holder
- Compact connection adapter with toolless wire connection

From page 13



Motor controller

- For motor and reversing starters up to 4 kW
- With electronic overload protection

From page 19



IT INFRASTRUCTURE



Board



Connection adapter Page 13 Component adapter Page 14 NH fuse-switch disconnector Page 18 Motor controller/power pack Page 19/20

Function:

- Shock-hazard-protected board for the safe accommodation and contacting of components in the RiLine Compact system
- Pre-punched pitch units in the board allow secure, fast positioning of components
- Reduces wiring work by contacting directly onto the board
- For snap-on mounting onto 35 x 7.5/15 mm busbars or for direct attachment to the mounting plate

Material:

- Polyamide
- Polycarbonate
- E-Cu
- Fire protection corresponding to UL 94-V0

Color:

- RAL 7035

Protection category IP to IEC 60 529:

- IP 20

Note:

 The technical data may vary for UL applications

Standards:

– UL 508

- IEC 61 439

Approvals:

– UL

RiLine Compact, 3-pole

	The company of persons								
Rated max. current A	Packs of	100 UL/125 IEC	100 UL/125 IEC						
Rated operating voltage V		690 (AC) 600 (DC)	690 (AC) 600 (DC)						
Number of poles		3-pole	3-pole						
Max. pitch units @45 mm		5	9						
Width mm		225	405						
Height mm		160	160						
Depth mm		45.1	45.1						
Model No.	1 pc(s).	9635.000	9635.010						

Connection adapter



Board Page 12 Component adapter Page 14 NH fuse-switch disconnector Page 18 Motor controller/power pack Page 19/20

Functions:

- To supply power to the board

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Color:

- RAL 7035

Note:

 The technical data may very for UL applications

Approvals:

- ÜL

Rated current max. 80 - 125 A, 3-pole

Rated max. current A	Packs of	48 UL/80 IEC	100 UL/125 IEC
Rated operating voltage V,		690 (AC), 3~ 600 (DC), 3~	690 (AC), 3~ 600 (DC), 3~
Number of poles		3-pole	3-pole
Cable outlet		Top/bottom	Top/bottom
Type of connction		Spring terminal	Box terminal
Connection of round conductors, fine wire without wire end ferrule mm ²		1.5 – 16	6-50
Connection of round conductors, fine wire with wire end ferrule mm ²		1.5 – 16	6-50
Connection of round conductors, multi-wire mm ²		1.5 – 16	6-50
Connection of round conductors, single-wire mm ²		1.5 – 10	6-50
Connection of round conductors		AWG 6 – 16	AWG 1 – 10
Conditional rated short-circuit current lcc kA		-	-
When using fine-wire round conductors 16 mm² with wire end ferrule, we recommend the following crimping tools: Rittal 4054.004, Weidmüller PZ 16, Phoenix Contact Crimpfox 25R		•	-
Can be used as a central infeed or as a longitudinal connector for two bayed boards		-	•
Width mm		22.5	45
Height mm		160	160
Depth mm		115.5	92.5
Model No.	4 pc(s).	9635.200	9635.210

Component adapter



Board Page 12 Connection adapter Page 13 NH fuse-switch disconnector Page 18 Motor controller/power pack Page 19/20

Functions:

 For mechanical attachment and direct contacting of electrical equipment on the boardr.

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Color:

- RAL 7035

Note:

- Different adapter versions are required depending on the preferred phase connection
- The technical data may vary for UL applications

Note:

– UL

Rated current max. 16 – 63 A, 1-pole

Design	Packs of	L1	L2	L3	L1	L2	L3
Rated current max. A		16	16	16	63	63	63
Rated operating voltage V, ~		690 (AC), 1~					
Number of poles		Single-pole	Single-pole	Single-pole	Single-pole	Single-pole	Single-pole
Connection cables, design		AWG 14	AWG 14	AWG 14	AWG 8	AWG 8	AWG 8
Connection cables, length mm		100	100	100	100	100	100
Support rails Qty/height mm		1 / 10	1 / 10	1 / 10	1 / 10	1 / 10	1 / 10
Support rail version		static	static	static	static	static	static
Width mm		18	18	18	18	18	18
Height mm		160	160	160	160	160	160
Depth mm		35	35	35	35	35	35
Model No.	1 pc(s).	9635.371	9635.372	9635.373	9635.381	9635.382	9635.383

Component adapter



Board Page 12 Connection adapter Page 13 NH fuse-switch disconnector Page 18 Motor controller/power pack Page 19/20

Functions:

 For mechanical attachment and direct contacting of electrical equipment on the board

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Color:

- RAL 7035

Note:

 The technical data may very for UL applications

Approvals:

– ÜL

Rated current max. 16 – 45 A, 3-pole

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Design		With integrated fuse holder	Basic	Basic	Comfort	Comfort	Comfort	Comfort	Page
Fuse type (class)		CC	-	-	-	-	-	-	
Rated current max. A		12 UL/16 IEC	12 UL/16 IEC	30 UL/32 IEC	12 UL/16 IEC	20 UL/25 IEC	30 UL/32 IEC	40 UL/45 IEC	
Rated operating voltage V, ~		690 (AC), 3~ 600 (DC), 3~							
Number of poles		3-pole							
Fuse size mm		10 x 38	-	-	-	-	-	-	
Connection cables, design		AWG 14	AWG 14	AWG 10	AWG14	AWG 12	AWG 10	AWG 8	
Connection cables, length mm		125	120	100	160	100	160	100	
Support rails Qty/height mm		1 / 10	1 / 10	1 / 10	1 / 10	1 / 10	1 / 10	1 / 10	
Support rails version		static	static	static	adjustable	adjustable	adjustable	adjustable	
Width mm		22.5	45	45	45	45	45	45	
Height mm		160	160	160	160	160	160	160	
Depth mm		80	34.5	34.5	34.5	34.5	34.5	34.5	
Model No.		9635.300	9635.310	9635.320	9635.330	9635.340	9635.350	9635.360	
	Packs of	1 pc(s).	4 pc(s).						
Accessories									
Support rail	10 pc(s).	-	_	_	9635.600	9635.600	9635.600	9635.600	21
Positioner		-	-	-	see page	see page	see page	see page	21
Extension module	8 pc(s).	-	-	-	9635.630	9635.630	9635.630	9635.630	21
Extension kit	4 pc(s).	-	-	-	9635.640	9635.640	9635.640	9635.640	22

Component support



Board Page 12 Connection adapter Page 13 NH fuse-switch disconnector Page 18 Motor controller/power pack Page 19/20

Functions:

- For extending the mounting options on the board when using wide equipment.

Material:

- Polyamide - Fire protection corresponding to UL 94-V0

Color:

- RAL 7035

Approvals:

– ÜL

Without contact system

Support rails Qty/height mm	Packs of	1/10
Support rail version		static
Width mm		18
Height mm		160
Depth mm		34.5
Model No.	6 pc(s).	9635.390

Circuit-breaker component adapter



Board Page 12 Connection adapter Page 13 NH fuse-switch disconnector Page 18 Motor controller/power pack Page 19/20

Functions:

- For mechanical attachment and direct contacting of circuitbreakers on the board
- Circuit-breaker is fitted using variably adjustable fixing points (M4)

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Color:

- RAL 7035

Note:

- Consider the mounting distance of the circuit-breaker when selecting the circuitbreaker component adapter
- Depending on the circuitbreaker used, there may be a reduction in output
- The technical data may vary for UL applications

Approvals:

– Ül

Rated current max. 160 A, 3-pole

Rated max. current A	Packs of	100 UL/160 IEC	100 UL/160 IEC	Page
Rated operating voltage V, ~		690 (AC), 3~ 600 (DC), 3~	690 (AC), 3~ 600 (DC), 3~	
Number of poles		3-pole	3-pole	
Cable outlet		Top/bottom	Top/bottom	
For switchgear make (model)		ABB (XT1) Allen Bradley (140G-G) Siemens (3VA10, 3VA11, 3VA51)	ABB (XT2) Allen Bradley (140G-H) Eaton (NZM1) Schneider Electric (NSXm)	
Mounting distance mm		25	30	
Width mm		90	90	
Height mm		160	160	
Depth mm		45	45	
Model No.	1 pc(s).	9635.100	9635.110	

NH fuse-switch disconnector



Board Page 12 Connection adapter Page 13 Component adapter Page 14 Motor controller/power pack Page 19/20

Functions:

- To protect connected equipment
- Integrated test holes provide measurement access to the contact parts of the fuse inserts
- For cable outlet at the top, the NH fuse-switch disconnector must be mounted on the board rotated through 180°

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0
- Contact tracks: Silver-plated hard copper

Color:

- RAL 7035

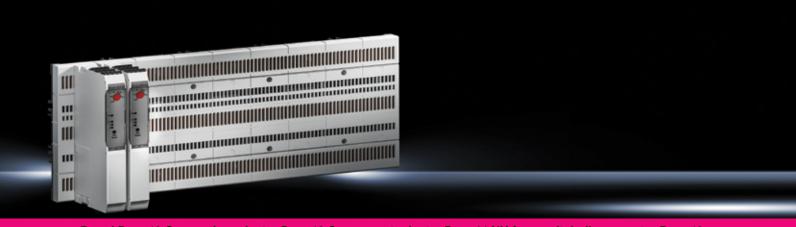
Basis of test:

- IEC/DIN EN 60 947-3

Size 000

0.20 000	5120 000							
Size	Packs of	000						
Rated operating current max. A		125 IEC						
Rated operating voltage V, ~		690 (AC), 3~ 440 (DC), 3~						
Number of poles		3-pole						
Cable outlet		Top/bottom						
Type of connection		Box terminal						
Connection of round conductors mm ²		2.5 – 50						
Clamping area for laminated copper bars (W x H) mm		10 x 10						
Width mm		49.5						
Height mm		174.5						
Depth mm		96						
Model No.	1 pc(s).	9635.700						

Motor controller



Board Page 12 Connection adapter Page 12 Component adapter Page 14 NH fuse-switch disconnector Page 18

Functions:

- For controlling motors as direct or reversing starters with integrated over-ride protection
- The hybrid technology used facilitates frequent switching by semi-conductors with zero wear
- During operation, mechanical contacts ensure a low heat loss
- Space-saving configuration due to the minimal build width

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Color:

- RAL 7035

Note:

 The technical data may very for UL applications

Rated current max. 0.6 - 9 A, 3-pole

Rated current max. A	Packs of	0.6	2.4	3	9	9
Rated operating voltage V, ~, Hz		500 (AC), 3~, 50/60				
Heat loss (max.) W		2.8	5.5	5.5	12	12
Number of poles		3-pole	3-pole	3-pole	3-pole	3-pole
Fuse size mm		10 x 38				
Connection of round conductors mm ²		0.14 - 2.5	0.14 - 2.5	0.14 - 2.5	0.14 - 2.5	0.14 - 2.5
Safety integrity level (SIL) to IEC 61 508 - safe switch-off		-	-	3	-	3
Safety integrity level (SIL) to IEC 61 508 - motor protection		-	-	2	-	2
Adjustable current monitoring A		0.075 - 6	0.18 - 2.4	0.18 - 3	1.5 - 9	1.5 - 9
Width mm		22.5	22.5	22.5	22.5	22.5
Height mm		160	160	160	160	160
Depth mm		114	114	114	114	114
Approvals		UL	UL	-	UL	-
Model No.	1 pc(s).	9635.400	9635.410	9635.415	9635.420	9635.425

Power Pack



Board Page 12 Connection adapter Page 12 Component adapter Page 14 NH fuse-switch disconnector Page 18

Functions:

- 24 V DC control voltage supply.
- Integrated push-in terminal for tool-free connection of the output.
- Supports parallel switching for increased output or for redundancy
- Fast commissioning, due to tool-free installation and automatic contacting of the power pack.

Material:

- Plastic

Color:

– RAL 7035

Protection category IP to IEC 60 529:

- IP 20

Protection class:

- II (in a closed enclosure)

Standards:

- EN 61 000-6-2
- IEC 61 010-1 SELV

Directives:

- EMC Directive 2014/30/EU
- Low Voltage Directive 2014/35/EU

Approvals:

– UL

Power Pack

Rated operating voltage V, ~, Hz	Packs of	400, 2~, 50/60 400, 3~, 50/60 500, 2~, 50/60 500, 3~, 50/60
Output voltage V (DC)		24
Output current (max.) A		5
Connection of round conductors mm ²		0.2 – 4
Width mm		36
Height mm		160
Depth mm		159
Operating temperature range		-25 °C+70 °C
Storage temperature range		-40 °C+85 °C
Model No.	1 pc(s).	9635.800

RiLine Compact Accessories

for component adapters

Support rail

for Comfort component adapter

For attaching equipment and reverser combinations.

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

- RAL 9005

Width mm	Width mm Height mm		Model No.
45	56	10 pc(s)	9635.600

Positioner

for Comfort component adapter

For attaching equipment and reverser combinations.

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Color:

- RAL 9005

	Width mm	Height mm	For switch- gear make model	Packs of	Model No.
	45	65	Siemens (S00, S0)	10 pc(s)	9635.610
•	45	47.5	Eaton (PKZ/PKE size 0)	10 pc(s)	9635.620

Extension module

for Comfort component adapter

For direct starters of varying lengths.

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Color:

- RAL 7035

Width mm	Height mm	For switch- gear make model	Packs of	Model No.
45	65	Siemens (S00, S0)	10 pc(s)	9635.610
45	47.5	Eaton (PKZ/PKE size 0)	10 pc(s)	9635.620









Width mm

45

Height mm

Packs of

8 pc(s)

Model No.

9635.630

RiLine Compact Accessories





Extension kit

for Comfort component adapter

For attaching reverser combinations with 90 mm width.

Width mm	Height mm	Packs of	Model No.
90	80	4 pc(s)	9635.640

Material:

- Polyamide
- Fire protection corresponding to UL 94-V0

Color

- RAL 7035

Supply includes:

- 1 piece consists of
 - 1 expansion module,
 - 2 extension modules,
 - 3 connection pins

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