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RiLine Compact

The smart power distribution system



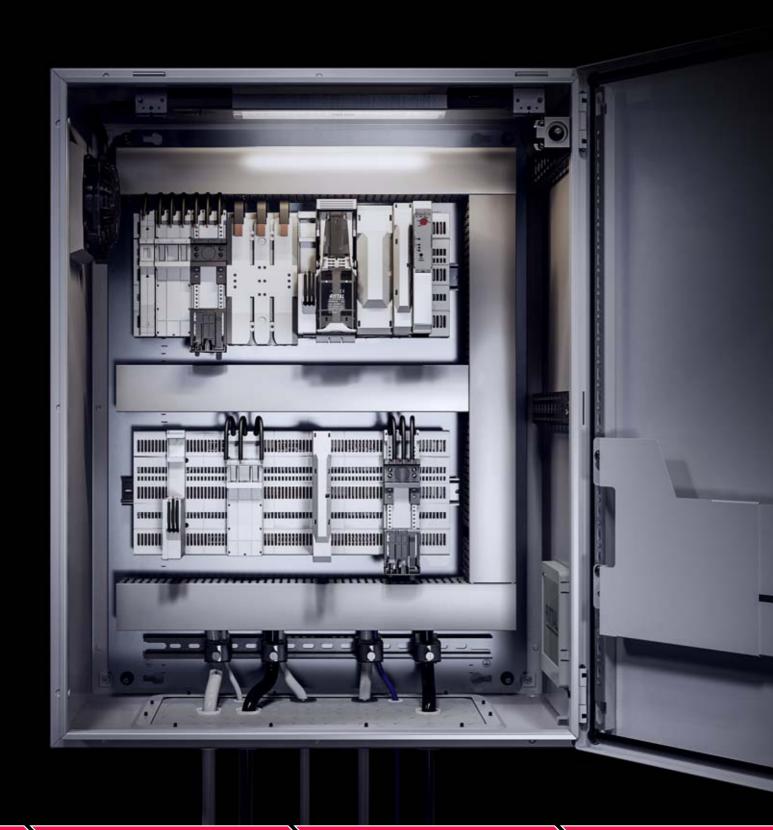
ENCLOSURE

POWER DISTRIBUTIO

CLIMATE CONTRO

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ENCLOSURES

POWER DISTRIBUTION

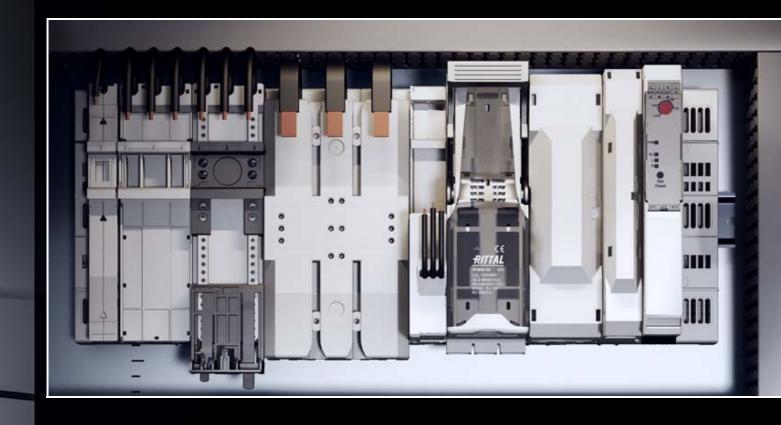
CLIMATE CONTROL

Power distribution in a confined space

Rittal are the suppliers of reliable power distribution and backup systems for controlgear.

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.

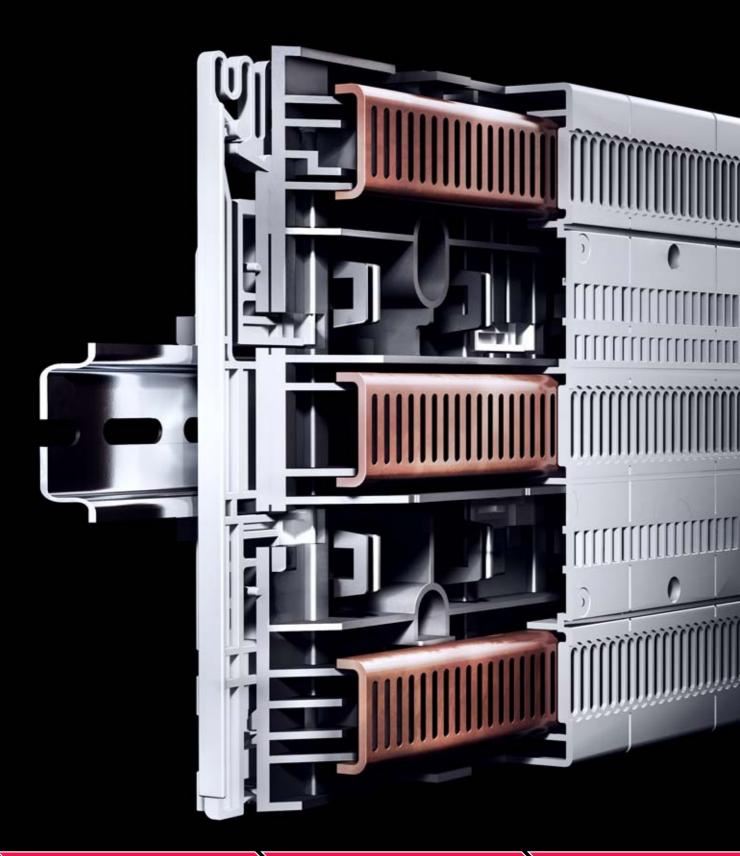
Different unit types are often used which would require conventional wiring.
With RiLine Compact, a variety of different designs can be used safely and with no loss of space – both standardised and standard-compliant.



IT INFRASTRUCTURE



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ENCLOSURES

POWER DISTRIBUTION

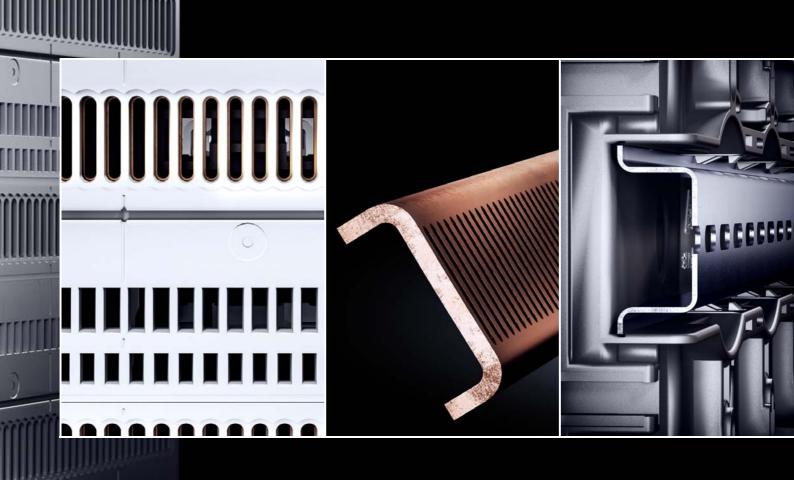
CLIMATE CONTROL

Tool-free assembly made easy

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

Attaching the components simultaneously ensures a secure electrical connection to the all-round shock-hazard-protected board.

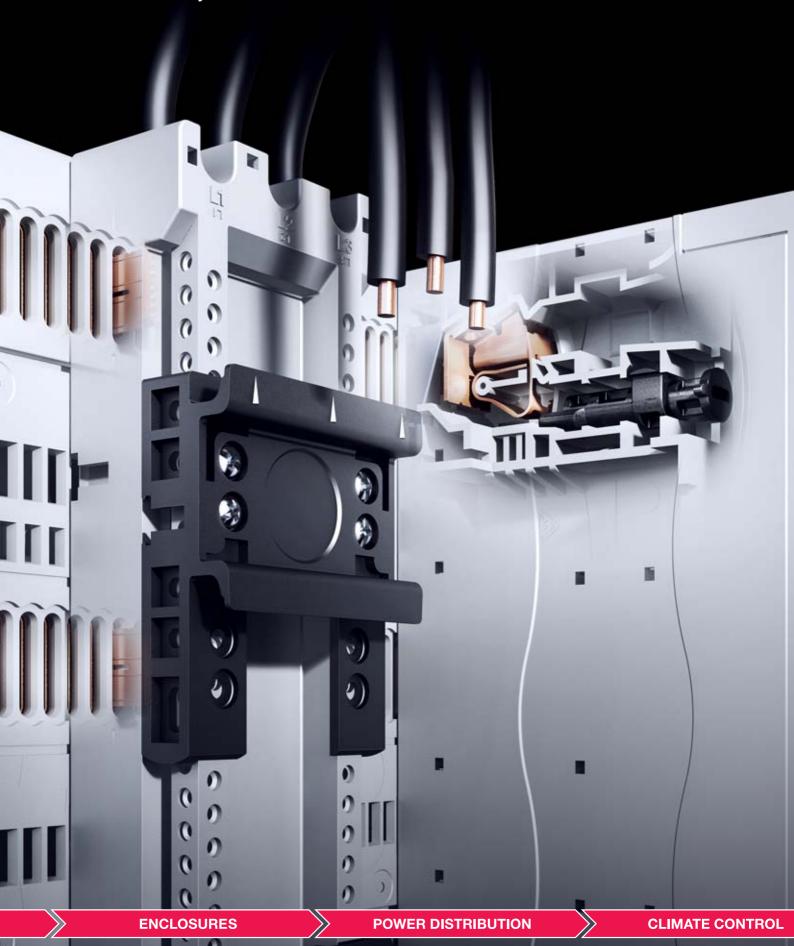
The contact pitch pattern of the RiLine Compact system allows the assemblies to be positioned anywhere, in line with requirements.



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Rittal RiLine Compact

Safe adaptor connection

The RiLine Compact adaptors support fast connection of cables and devices. What's more, the busbar connection adaptor with spring terminal block offers screw-free connecting with a contact point that is completely maintenance-free.

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



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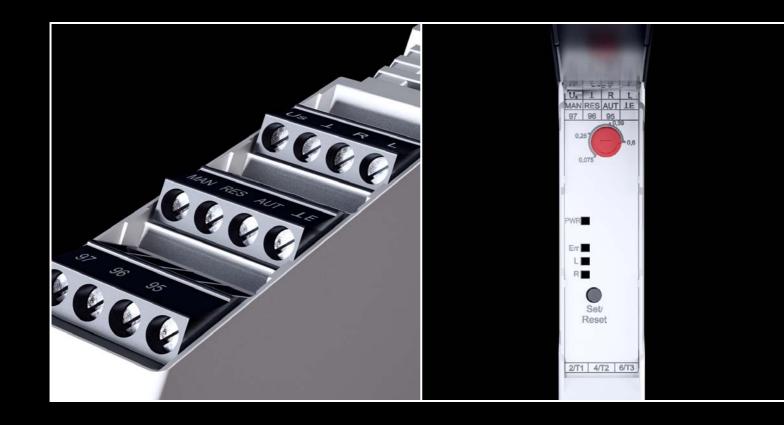
FRIEDHELM LOH GROUP

CLIMATE CONTROL

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.

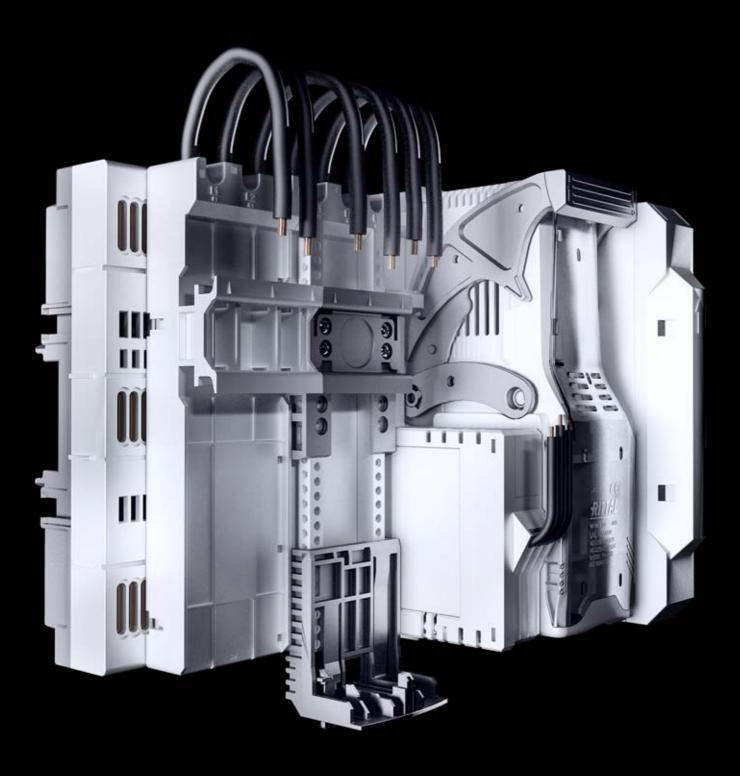


IT INFRASTRUCTURE



Guaranteed global use

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

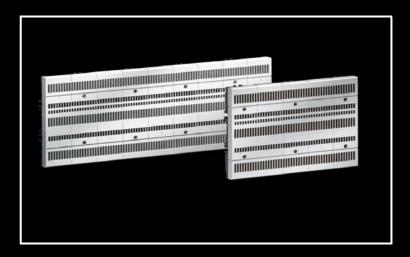


10 Rittal RiLine Compact

RiLine Compact Board

- Versions ranging from 225 mm to 1100 mm
- All-round contact hazard protection
- Up to 125 A or up to 160 A

From page 12



Adaptor

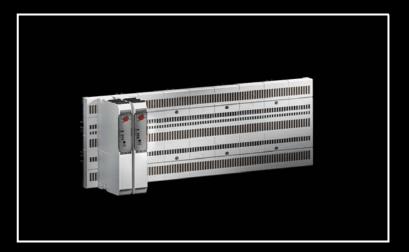
- Busbar connection adaptor with spring terminal block
- Basic and comfort adaptor
- Build width 22.5 mm with integral fuse holder

From page 13



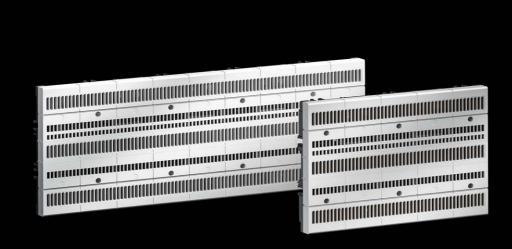
Motor controller

- For motor and reversing starters up to 4 kW
- With electronic overload protection From page 19



Rittal RiLine Compact 11

Boards



Connection adaptors Page 13 Component adaptors Page 14 NH fuse-switch disconnector Page 18 Motor controllers Page 19

Functions:

- Shock-hazard-protected busbar board for the safe accommodation and contacting of components, thanks to simple plug-in mounting
- Pre-punched pitch units in the board allow secure, fast positioning of components
- Reduces wiring work by contacting directly onto the board

Material:

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

Colour:

- RAL 7035

Protection category IP to IEC 60 529:

- IP20

Supply includes:

Integral busbars

Note:

 The technical data may vary for UL applications

Standards:

- UL 508
- IEC 61 439

Approvals:

– ÜL

RiLine Compact, 3-pole

Rated current max. A	Packs of	125	125	160	160	160	160	160	160	160	Page
Rated operating voltage V		690 (AC) 600 (DC)									
Number of poles		3-pole									
Max. pitch units @ 45 mm		5	9	-	-	-	-	-	-	-	
For mounting on support rails				-	-	-	-	-	-	-	
For mounting plate assembly											
Width mm		225	405	500	600	700	800	900	1000	1100	
Height mm		160	160	160	160	160	160	160	160	160	
Depth mm		45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	45.1	
Model No.	1 pc(s).	9635.000	9635.010	9635.020	9635.025	9635.030	9635.035	9635.040	9635.045	9635.050	
Also required											
Mounting adaptor	1 pc(s).	-	-	-	-	-	9635.091	9635.091	9635.091	9635.091	21

Connection adaptors



Boards Page 12 Component adaptors Page 14 NH fuse-switch disconnector Page 18 Motor controllers Page 19

Functions:

- To supply power to the board

Material:

- Polyamide
- Fire protection corresponding to UL 94

Colour: - RAL 7035

Note:

The technical data may vary for UL applications

Approvals:

Rated current max. 63 - 125 A, 3-pole

Rated current max. A	Packs of	63	125	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	
Connection type		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	
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 adaptors



Boards Page 12 Connection adaptors Page 13 NH fuse-switch disconnector Page 18 Motor controllers Page 19

Functions:

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

Material:

- Polyamide
- Fire protection corresponding to UL 94

Colour: - RAL 7035

Note:

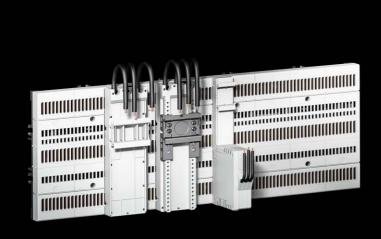
- Different adaptor versions are required depending on the preferred phase connection
- The technical data may vary for **UL** applications

Approvals:

Rated current max. 16 – 63 A, 1-pole

Design	Packs of	L1	L2	L3	L1	L2	L3	Page
Rated current max. A		16	16	16	63	63	63	
Rated operating voltage V, ~		690 (AC), 1~						
Number of poles		1-pole	1-pole	1-pole	1-pole	1-pole	1-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 quantity/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.	6 pc(s).	9635.371	9635.372	9635.373	9635.381	9635.382	9635.383	

Component adaptors



Boards Page 12 Connection adaptors Page 13 NH fuse-switch disconnector Page 18 Motor controllers Page 19

Functions:

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

Material:

- Polyamide
- Fire protection corresponding to UL 94

Colour: - RAL 7035

Note:

The technical data may vary for UL applications

Approvals:

Rated current max. 16 - 45 A, 3-pole

	,	0 po.o							
Design		With integral fuse holder	Basic	Basic	Comfort	Comfort	Comfort	Comfort	Page
Fuse type (class)		CC	-	-	-	-	_	-	
Rated current max. A		16	16	32	16	25	32	45	
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	AWG 14	AWG 12	AWG 10	AWG 8	
Connection cables, length mm		125	120	100	160	100	160	100	
Support rails quantity/height mm		1 / 10	1/10	1 / 10	1 / 10	1 / 10	1 / 10	1 / 10	
Support rail 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	20
Positioner		-	-	-	see page	see page	see page	see page	20
Extension module	8 pc(s).	-	-	-	9635.630	9635.630	9635.630	9635.630	20
Extension kit	4 pc(s).	-	_	_	9635.640	9635.640	9635.640	9635.640	21

Component support



Boards Page 12 Connection adaptors Page 13 NH fuse-switch disconnector Page 18 Motor controllers Page 19

Functions:

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

Material:

PolyamideFire protection corresponding to UL 94

Colour:

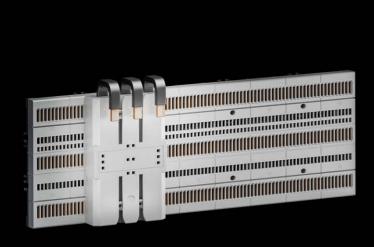
- RAL 7035

Approvals:

without contact system

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

Circuit-breaker component adaptors



Boards Page 12 Connection adaptors Page 13 NH fuse-switch disconnector Page 18 Motor controllers Page 19

Functions:

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

Material:

- Polyamide
- Fire protection corresponding to UL 94

Colour: - RAL 7035

Note:

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

Approvals:

Rated current max. 160 A, 3-pole

Rated current max. A	Packs of	160	160	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



Boards Page 12 Connection adaptors Page 13 Component adaptors Page 14 Motor controllers Page 19

Functions:

- To protect connected equipment
- Integral 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
- Contact tracks: Silver-plated hard copper

Colour:

- RAL 7035

Basis of test:

- IEC/DIN EN 60 947-3

Size 000

Size	Packs of	000	Page
Rated operating current max. A		125	
Rated operating voltage V, ~		690 (AC), 3~ 440 (DC), 3~	
Number of poles		3-pole	
Cable outlet		Top/bottom	
Connection type		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 controllers



Boards Page 12 Connection adaptors Page 12 Component adaptors Page 14 NH fuse switch disconnector Page 18

Functions:

- For controlling motors as direct or reversing starters with integral over-ride protection
 The hybrid technology used
- 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 thanks to the minimal build width

Material:

- Polyamide
- Fire protection corresponding to UL 94

Colour:

- RAL 7035

Note:

 The technical data may vary for UL applications

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

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

RiLine Compact

Accessories



Support rail

for Comfort component adaptor

For attaching equipment and reverser combinations.

- Polyamide
- Fire protection corresponding to UL 94

- RAL 9005

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



Positioner

for Comfort component adaptor

For attaching equipment and reverser combinations.

Material:

- PolyamideFire protection corresponding to UL 94

Colour:

- RAL 9005

Width mm	Height mm	For switchgear 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 adaptor

For attaching direct starters of varying lengths.

Material:

- Polyamide
- Fire protection corresponding to UL 94

Colour: - RAL 7035

Width mm	Height mm	Packs of	Model No.
45	40	8 pc(s).	9635.630

RiLine Compact

Accessories

Extension kit

for Comfort component adaptor

For attaching reverser combinations with 90 mm width.

Material:

- PolyamideFire protection corresponding to UL 94

Colour: - RAL 7035

Supply includes:

- 1 set consisting of
- 1 expansion module, 2 extension modules,
- 3 connection pins

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



Mounting adaptor

for board

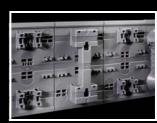
For mechanical attachment of boards from a width of 800 mm on the mounting plate.

Material:

- PolyamideFire protection corresponding to UL 94

Packs of	Model No.
1 pc(s).	9635.091





RiLine Compact

Assembly instructions

Board 125 A

Ordering information: Page 12 Assembly instructions: www.rittal.com/imf/none/3_6200/





Busbar connection adaptor 63 A

Ordering information: Page 13 Assembly instructions: www.rittal.com/imf/none/3_6201/





Component adaptor 16 - 63 A, single-pole

Ordering information: Page 14
Assembly instructions: www.rittal.com/imf/none/3_7367/





Component adaptor 16 – 45 A, 3-pole

Ordering information: Page 15
Assembly instructions: www.rittal.com/imf/none/3 6203/





Circuit-breaker component adaptor 160 A

Ordering information: Page 17 Assembly instructions: www.rittal.com/imf/none/3_8023/





Motor controller

Ordering information: Page 19 Assembly instructions (German only): www.rittal.com/imf/none/3_6838/





Board 160 A

Ordering information: Page 12 Assembly instructions: www.rittal.com/imf/none/3_9726/





Busbar connection adaptor 125 A

Ordering information: Page 13 Assembly instructions: www.rittal.com/imf/none/3_7297/





Component adaptor 16 A, 3-pole

Ordering information: Page 15 Assembly instructions: www.rittal.com/imf/none/3_6202/





Component support without contact system

Ordering information: Page 16 Assembly instructions: www.rittal.com/imf/none/3_7367/





NH fuse-switch disconnector

Ordering information: Page 18 Assembly instructions: www.rittal.com/imf/none/3_7660/





2 Rittal RiLine Compact

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ENCLOSURES