RBK

fuse switch disconnectors

RBK fuse switch disconnectors are designed for distribution of electricity and protection of electrical equipment against short-circuits and overloads with industrial fuse links.


RBK 2
APATOR
L1
L2
L3

APPLICATIONS

RBK fuse switch disconnectors are designed for distribution of electricity and protection of electrical equipment against short-circuits and overloads with industrial fuse links.

CONSTRUCTION

RBK fuse switch disconnectors consist of following parts:

- three pole main base with spring-loaded contacts designed for connection of circular or sector-shaped cables, cables with lug terminals or busbars
- detachable cover with fuse links
- top protective contact cover with arc chutes, bottom protective contact cover

Thermoplastic parts of RBK fuse switch disconnectors are made of fibre glass strenghtened, flame retardant polyamide and polycarbonate. Silver plated contacts provide low power loss. Depending on clamp type, RBK fuse switch disconnectors enable user to connect circular or sector-shaped cables,cables with lug terminals or busbars.

MOUNTING

- on mounting plate
  - RBK 000, RBK 00, RBK 00 Pro
- on DIN rail
  - RBK 000/160 A
- on double DIN rail
  - RBK 00 Pro
- on to busbar systems
  - 60 mm busbar system RBK 000-S, RBK 00 Pro-S, RBK 1-S, RBK 2-S, RBK 3-S
  - 100 mm busbar system RBK 2-S

Fuse switch disconnector	mounting on to		
	mounting plate RBK	busbar system RBK-S	
		60 mm	100 mm
RBK 000/RBK 000-S	2 x M6 screw	hooked clamps	-
RBK 00/RBK 00-S	4 x M6 screw	hooked clamps	-
RBK 00 Pro/RBK 00 Pro-S	2 x M6 screw, 4 x M6 screw	hooked clamps	-
RBK 1/RBK 1-S	4 x M8 screw	adapter with 3 x M10 screw	-
RBK 2/RBK 2-S	4 x M8 screw, 4 x M10 screw	hooked clamps	hooked clamps
RBK 3/RBK 3-S	4 x M8 screw	adapter with 3 x M10 screw	-

OPERATING CONDITIONS

- to be installed in the room free of any dust, aggressive or explosive gases
- for moderate, marine and tropical climate
- altitude up to 2000 meters above sea level
- outdoor – in cabinets with protection degree > IP 34
- ambient temperature from -25°C to +55°C – but in case of use of disconnectors in temperature from +41°C to +45°C current value Ith should be reduced by 5% and within temperature range of +46°C to +55°C current value I_{th} should be reduced by 10% ,
- for outdoors installation RBK fuse switch disconnectors should be mounted in cabinets with protection degree IP34 or higher

CONFORMITY WITH STANDARDS

PN-EN 60947-1 PN-EN 60947-3 PN-HD 60269-2

Table 43. TECHNICAL DATA

TYPE	Rated thermal current $I_{th}=I_n$ [1]	Rated voltage U_n	Utilization category	Rated switching current I_e	Rated switching voltage U_e	Rated short-circuit making current	Rated insulation voltage U_i	Rated power dissipation	Rated impulse withstand voltage $U_{imp.}$	Rated short-circuit withstand current	Rated frequency	Mechanical durability	Electrical durability	Protection degree IP	Weight	Size of fuse links PN/IEC
	A	V	-	A	V	kA	V	W	kV	kA	Hz	Number of cycles		IP	kg	-
RBK 000 RBK 000-S	160	690	AC-23B	100	400	25	1000	12	8	100	50-60	2000	300	20	~0,6 ~0,9	000
			AC-22B	100	690											
			AC-22B	160	400											
			AC-21B	160	690											
			DC-21B	160	250											
RBK 00	160	690	AC-22B	160	690	100[4]	1000	12	8	100[4]	50-60	1600	200	20	~0,65	00
RBK 00 pro RBK 00 pro-S	160	690	AC-23B	160	690	100[4]	1000	12	8	100[4]	50-60	1600	200	20	~0,7 ~0,90	00
			DC-21B	160	440											
			DC-22B	160	250											
RBK 1	250	690	AC-22B	250	690	100*	1000	32	8	100*	50-60	1600	200	30**	~2	1
RBK 1 pro	250	690	AC-23B	250	690	100*	1000	32	8	100*	50-60	1600	200	30**	~2	1
RBK 1 pro -S	250	690	AC-23B	250	400	100*	1000	32	8	100*	50-60	1600	200	30**	~2,5	1
			AC-22B	250	690											
			DC-22B	250	250	25				25	-					
RBK 2 RBK 2-S	400	690	AC-23B	400	690	100	1000	45	12	100	50-60	1000	200	20[3]	~3 ~4,50	2
			DC-21B	400	440											
			DC-22B	400	220											
RBK 3 RBK 3-S	630	690	AC-22B	630	690	25	1000	60	12	100	50-60	1000	200	20	~5,00 ~5,90	3
			DC-21B	630	250											

[1] I_{th} - thermal current of fuse switch disconnector without enclosure, installed outdoors
(In case of the installation of fuse switch disconnectors in enclosures then load factor should be considered)
[3] fuse switch disconnector with opened fuse links cover has protection degree IP 10
[4] for rated switching voltage U_e = 690 V, rated short-circuit making current equals 80 kA
* 100 kA for voltage 400V, 80 kA – for voltage 690V
** IP 30 from the front (in closed position), IP 20 (in opened position)

RBK 2 switch disconnector with solid links 400 A
rated short-time withstand current 1s I_{cw} = 13 kA
rated short-circuit making capacity I_{cm} = 8 kA
RBK 1000 - (RBK 3 switch disconnector with solid links 1000 A)
rated short-time withstand current 1s I_{cw} = 12,6 kA
rated short-circuit making capacity I_{cm} = 25,2 kA
rated thermal current Ith = 1000 A when connected on to busbars 50 x 10 mm
utilization category AC21

RBK 000 (160 A, 690 V)

Table 44. TECHNICAL DATA

Parameters			RBK 000				
Rated thermal current $I_{th} = I_n$		A	160				
Rated voltage U_n		V	690				
Utilization category		-	AC-23B	AC-22B	AC-22B	AC-21B	DC-21B
Rated switching voltage U_e		V	400	690	400	690	250
Rated switching current I_e		A	100	100	160	160	160
Rated short circuit making current		kA	25				
Rated short circuit withstand current		kA	100				
Rated insulation voltage U_i		V	1000				
Rated impulse withstand voltage U_{imp}		kV	8				
Rated power dissipation		W	12				
Rated frequency		Hz	50-60				
Mechanical durability	Number of cycles		2000				
Electrical durability			300				
Protection degree IP			IP 20				
Size of fuse links			000				

Accessories on page 70

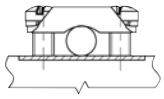
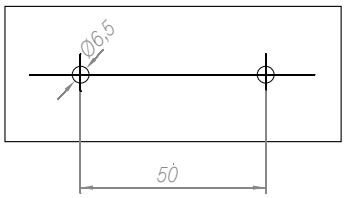
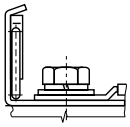
RBK 000
for installation
on mounting plate

Table 45. VERSIONS

RBK 000/160 A		Cable terminal	Article No.
RBK 000	for connection of cables with bare ends	S-bridge clamps	63-823191-011
RBK 000-E	for connection of cables with bare ends,for mounting on DIN rail,	S-bridge clamps	63-823191-051
RBK 000-O	for connection of cables with bare ends, cable terminal shrouds	S-bridge clamps	on request*
RBK 000-E-O	or connection of cables with bare ends, for mounting on DIN rail, cable terminal shrouds	S-bridge clamps	on request*
RBK 000-W	for connection of cables with bare ends, lenghtened cable terminal shrouds	S-bridge clamps	63-823191-071
RBK 000-SD	for installation on to 60 mm busbar system, bottom cable terminal connection	S-bridge clamps	63-823234-031
RBK 000-SG	for installation on to 60 mm busbar system, top cable terminal connection	S-bridge clamps	63-823234-011
RBK 000-SD-M	for installation on to 60 mm busbar system, bottom cable terminal connection	screw terminal M8	63-823234-041
RBK 000-SG-M	for installation on to 60 mm busbar system , top cable terminal connection	screw terminal M8	63-823234-021
RBK 000-M	for connection of cables with lug terminals	screw terminal M8	63-823191-021
RBK 000-M-E	for connection of cables with lug terminals, for mounting on DIN rail,	screw terminal M8	63-823191-061
RBK 000-M-O	for connection of cables with lug terminals, cable terminal shrouds	screw terminal M8	on request*
RBK 000-M-E-O	for connection of cables with lug terminals, for mounting on DIN rail, cable terminal shrouds	screw terminal M8	on request*
RBK 000-W-M	for connection of cables with lug terminals, lenghtened cable terminal shrouds	screw terminal M8	63-823191-081

* on customer's request, time of delivery: 2 weeks EXW Torun, Poland, Incoterms 2000

Table 46. RBK 000 TERMINAL CLAMPS

Article	Clamp	Drawing of clamp	Cross-section of cable conductors	Cu busbar	Tightening torque	Dimensions and spacing of holes for installation of RBK 000 on mounting plate
RBK 000	S-bridge clamp 2 x M5 x 16		Cu/Al cable 1,5÷35 mm²	maximum busbar width 15 mm	3 Nm*	
	M8 x 16 screw		cable with lug terminal up to 70 mm²		10 Nm*	

*using of tension wrench is recommended

RBK 000-E
for mounting on DIN rail

RBK 000-O
for installation on mounting plate,
with additional cable terminal shrouds

RBK 000-W
for installation on mounting plate,
with lenghtened cable terminal shrouds

RBK 000-SG (top cable terminal connection)
RBK 000-SD (bottom cable terminal connection)
for installation on to 60 mm busbar system

RBK 00 (160 A, 690 V)

Table 47. TECHNICAL DATA

Parameters		RBK 00
Rated thermal current $I_{th} = I_n$	A	160
Rated voltage U_n	V	690
Utilization category	-	AC-22B
Rated switching voltage U_e	V	690
Rated switching current I_e	A	160
Rated short circuit making current	kA	100[1)]
Rated short circuit withstand current	kA	100[1)]
Rated insulation voltage U_i	V	1000
Rated impulse withstand voltage U_{imp}	kV	8
Rated power dissipation	W	12
Rated frequency	Hz	50-60
Mechanical durability	Number of cycles	1600
Electrical durability	Number of cycles	200
Protection degree IP		IP 20
Size of fuse links		00

Accessories on page 70

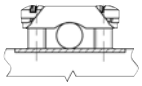
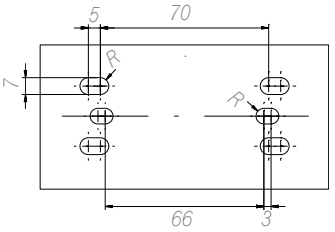
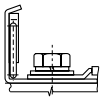
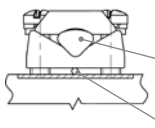
[1)] for rated switching voltage U_e = 690 V, rated short-circuit making current equals 80 kA

RBK 00
for installation
on mounting plate

Table 48. VERSIONS

RBK 00/160 A		Cable terminal	Article No.
RBK 00	for connection of cables with bare ends	S-bridge clamps	63-823333-011
RBK 00-M	for connection of cables with lug terminals	screw terminal M8	63-823333-021
RBK 00-V	for connection of sectorshaped cables	V-shaped clamp	63-823333-031
RBK 00-W	for connection of cables with bare ends, lenghtened cable terminal shroud	S-bridge clamps	63-823333-041
RBK 00-M-W	for connection of cables with lug terminals,lenghtened cable terminal shroud	screw terminal M8	63-823333-051
RBK 00-V-W	for connection of sectorshaped cables, lenghtened cable terminal shroud	V-shaped clamp	63-823333-061

Table 49. RBK 00 TERMINAL CLAMPS

Article	Clamp	Drawing of clamp	Cross-section of cable conductors	Cu busbar	Tightening torque	Dimensions and spacing of holes for installation of RBK 00 on mounting plate
RBK 00	S-bridge clamp 2 x M5 x 16		Cu/Al cable 4÷50 mm²	maximum busbar width 20 mm	3 Nm*	
	M8 x 16 screw		cable with lug terminal up to 70 mm²		10 Nm*	
	V-shaped clamp 2 x M5 x 20	 2) 4 mm² - 70 mm² 4 mm² - 95 mm² 1) 1,5 mm² - 2,5 mm²			3 Nm*	

*using of tension wrench is recommended

OELECTRONIC FUSE MONITORING MODULE - DESCRIPTION

- L1, L2, L3 diodes are flashing - all three phases are supplied, all fuse links are operational. Relay contacts: [21..22] - closed; [13..14] - opened
- L1, L2, L3 diodes are blinking - all three phases are supplied, fuse links operated Relay contacts: [21..22] - opened; [13..14] - closed
- L1, L2, L3 diodes are off - two or more phases are not supplied or fuse links are removed. Relay contacts: [21..22] - opened; [13..14] - closed

CAUTION!

Electronic fuse monitoring module is available for:

- RBK 00 (160 A)
- RBK 1 (250 A)
- RBK 2 (400 A)
- RBK 3 (630 A)

RBK 00-X
with electronic
fuse monitoring module

PARAMETERS

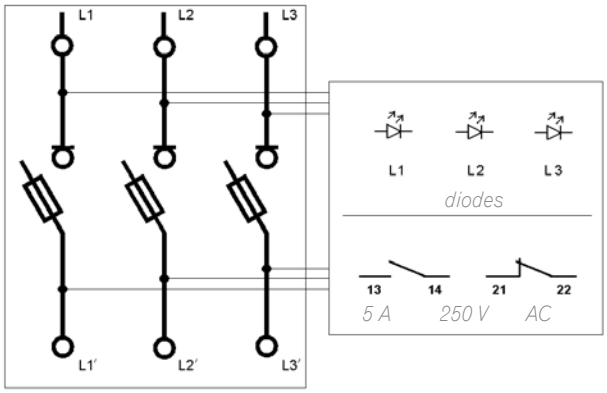
- operating voltage AC - 400÷ 690 V, 40÷ 60 Hz; DC - 110÷ 440 V
- relay parameters 5A , 250 V~

CAUTION!

For use only with fuse-links with non-isolated gripping lugs!

ELECTRONIC FUSE MONITORING MODULE VERSIONS ACCORDING TO RBK 00 CABLE TERMINAL TYPE

RBK 00-XT - for RBK 00 installed on mounting plate, power supply connected to top cable terminal
RBK 00-X - for RBK 00 installed on mounting plate, power supply connected to bottom cable terminal
RBK 00S-X - for RBK 00 installed on to 60 mm busbar system



fuse switch disconnector

electronic fuse monitoring module

RBK 00 PRO (160 A, 690 V)

Table 50. TECHNICAL DATA

Parameters			RBK 00 pro		
Rated thermal current $I_{th} = I_n$		A	160		
Rated voltage U_n		V	690		
Utilization category		-	AC-23B	DC-22B	DC-21B
Rated switching voltage U_e		V	690	250	440
Rated switching current I_e		A	160	160	160
Rated short circuit making current		kA	100[1)]		
Rated short circuit withstand current		kA	100[1)]		
Rated insulation voltage U_i		V	1000		
Rated impulse withstand voltage U_{imp}		kV	8		
Rated power dissipation		W	12		
Rated frequency		Hz	50-60		
Mechanical durability	Number of cycles		1600		
lectrical durability			200		
Stopień ochrony			IP 20		
Protection degree IP			00		

Accessories on page 70

[1)] for rated switching voltage U_e = 690 V, rated short-circuit making current equals 80 kA

RBK 00 pro

Table 51. VERSIONS

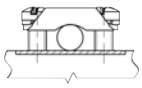
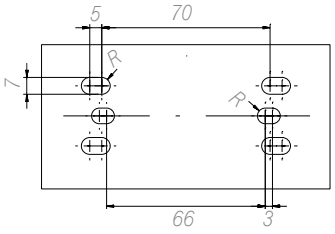
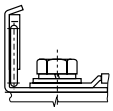
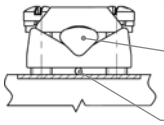
RBK 00 pro/160 A		Cable terminal	Article No.
RBK 00 pro	for connection of cables with bare ends	S-bridge clamps	63-823256-011
RBK 00 pro-M	for connection of cables with lug terminals	screw terminal M8	63-823256-021
RBK 00 pro-V	for connection of sectorshaped cables	V-shaped clamp	63-823256-031
RBK 00 pro-W	for connection of cables with bare ends, lenghtened cable terminal shroud	S-bridge clamps	63-823256-041
RBK 00 pro-M-W	for connection of cables with lug terminals, lenghtened cable terminal shroud	screw terminal M8	63-823256-051
RBK 00 pro-V-W	for connection of sectorshaped cables, lenghtened cable terminal shroud	V-shaped clamp	63-823256-061
RBK 00 pro-O	for connection of cables with bare ends, cable terminal shrouds	S-bridge clamps	on request*
RBK 00 pro-W-O	for connection of cables with bare ends, lenghtened cable terminal shrouds, cable terminal shrouds	S-bridge clamps	on request*
RBK 00 pro-SG	for installation on to 60 mm busbar system, top cable terminal connection	S-bridge clamps	63-823259-011
RBK 00 pro-SG-M	for installation on to 60 mm busbar system, top cable terminal connection	screw terminal M8	63-823259-021
RBK 00 pro-SG-V	for installation on to 60 mm busbar system, top cable terminal connection	V-shaped clamp	63-823259-051
RBK 00 pro-SD	for installation on to 60 mm busbar system, bottom cable terminal connection	S-bridge clamps	63-823259-031
RBK 00 pro-SD-M	for installation on to 60 mm busbar system, bottom cable terminal connection	screw terminal M8	63-823259-041
RBK 00 pro-SD-V	for installation on to 60 mm busbar system, bottom cable terminal connection	V-shaped clamp	63-823259-061
RBK 00 pro-E-125mm	for mounting on double DIN rail with spacing of 125 mm	S-bridge clamps screw terminal M8 V-shaped clamp	on request*
RBK 00 pro-E-150mm	for mounting on double DIN rail with spacing of 150 mm	S-bridge clamps screw terminal M8 V-shaped clamp	on request*

* on customer's request, time of delivery: 2 weeks EXW Torun, Poland, Incoterms 2000

RBK 00 pro-S

RBK 00 pro-W

Table 52. RBK 00 TERMINAL CLAMPS

Article	Clamp	Drawing of clamp	Cross-section of cable conductors	Cu busbar	Tightening torque	Dimensions and spacing of holes for installation of RBK 00 on mounting plate
RBK 00 pro	S-bridge clamp 2 x M5 x 16		Cu/Al cable 4 ÷ 50 mm²	maxi-mum busbar width 20 mm	3 Nm*	
	M8 x 16 screw		cable with lug terminal up to 70 mm²		10 Nm*	
	V-shaped clamp 2 x M5 x 20		2) 4 mm² - 70 mm² 4 mm² - 95 mm² 1) 1,5 mm² - 2,5 mm²		3 Nm*	

*using of tension wrench is recommended

RBK 1 (250 A, 690 V)

Table 53. TECHNICAL DATA

Parameters			RBK 1	RBK 1 pro	RBK 1 pro -S		
Rated thermal current $I_{th} = I_n$		A	250	250	250		
Rated voltage U_n		V	690	690	690		
Utilization category		-	AC-22B	AC-23B	AC-23B	AC-22B	DC-22B
Rated switching voltage U_e		V	690	690	400	690	250
Rated switching current I_e		A	250	250	250		
Rated short circuit making current		kA	100*	100*	100*		25
Rated short circuit withstand current		kA	100*	100*	100*		25
Znamionowe napięcie izolacji U_i		V	1000	1000	1000		
Rated impulse withstand voltage U_{imp}		kV	8	8	8		
Rated power dissipation		W	32	32	32		
Rated frequency		Hz	50-60	50-60	50-60		-
Mechanical durability	Number of cycles		1600	1600	1600		
Electrical durability	Number of cycles		200	200	200		
Protection degree IP		-	30**	30**	30**		
Size of fuse links		-	1	1	1		
Weight		kg	~2	~2	~2,5		

Accessories on page 70

RBK 1
for installation
on mounting plate

* 100 kA for the voltage of 400V, 80kA –for the voltage of 690V
** IP 30 from the front part of fuse switch disconnector (fuse switch disconnector is closed), IP 20 fuse switch disconnector is open

Table 54. VERSIONS

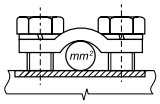
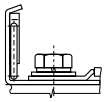
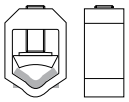
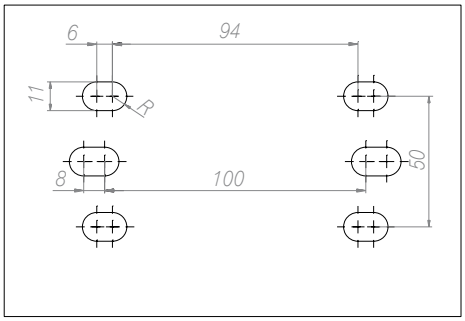
RBK 1/250 A			
Fuse switch disconnectors for fixing onto mounting plate	**Cable terminals**	**Code**	**Article No.**
For round conductors	bridge	RBK 1	63-811779-011
For conductors with cable lug screw	screw	RBK 1-M	63-811779-021
For V-shaped conductors	V-clamp	RBK 1-V	63-811779-031
For round conductors,top clamps - V clamp, bottom clamps - bridge	V clamp / Bridge	RBK 1 VG	63-811784-051
For round conductors, top clamps - V clamp, bottom clamps - screw	V clamp / Screw	RBK 1 VG-M	63-811784-061
For round conductors, top clamps – bridge, bottom clamps - V clamp	bridge / V clamp	RBK 1 VD	63-811784-071
For round conductors, top clamps – screw, bottom clamps - V clamp	screw / V clamp	RBK 1 VD-M	63-811784-081
RBK 1 pro/250 A			
Fuse switch disconnectors for fixing onto mounting plate	**Cable terminals**	**Code**	**Article No.**
For round conductors	bridge	RBK 1 pro	63-811748-011
For conductors with cable lug screw	screw	RBK 1 pro-M	63-811748-021
For V-shaped conductors	V-clamp	RBK 1 pro-V	63-811748-031
With additional cover shields	bridge or screw or V-clamp	RBK 1 pro-O	on request*)
For round conductors, top clamps - V clamp, bottom clamps - bridge	V clamp / bridge	RBK 1 pro VG	63-811784-011
For round conductors, top clamps - V clamp, bottom clamps - screw	V clamp / screw	RBK 1 pro VG-M	63-811784-021
For round conductors, top clamps – bridge, bottom clamps - V clamp	bridge / V clamp	RBK 1 pro VD	63-811784-031
For round conductors, top clamps – screw, bottom clamps - V clamp	screw / V clamp	RBK 1 pro VD-M	63-811784-041

* on customer's request, time of delivery: 2 weeks EXW Torun, Poland, Incoterms 2000

RBK 1 pro-S			
Fuse switch disconnectors for installation onto bus bar systems	Cable terminals	Code	Article No.
bus bar systems 60 mm			
Top cable terminal	bridge	RBK 1 pro-SG 60	63-811750-011
Bottom cable terminal	bridge	RBK 1 pro-SD 60	63-811750-021
Top cable terminal for cable lug	screw	RBK 1 pro-SG-M 60	63-811750-051
Bottom cable terminal for cable lug	screw	RBK 1 pro-SD-M 60	63-811750-061
Top cable terminal	V-clamp	RBK 1 pro-SG-V 60	63-811750-091
Bottom cable terminal	V-clamp	RBK 1 pro-SD-V 60	63-811750-101
bus bar systems 100 mm			
Top cable terminal	bridge	RBK 1 pro-SG 100	63-811750-031
Bottom cable terminal	bridge	RBK 1 pro-SD 100	63-811750-041
Top cable terminal for cable lug	screw	RBK 1 pro-SG-M 100	63-811750-071
Bottom cable terminal for cable lug	screw	RBK 1 pro-SD-M 100	63-811750-081
Top cable terminal	V-clamp	RBK 1 pro-SG-V 100	63-811750-111
Bottom cable terminal	V-clamp	RBK 1 pro-SD-V 100	63-811750-121

* on customer's request, time of delivery: 2 weeks EXW Torun, Poland, Incoterms 2000

Table 55. RBK 1 TERMINAL CLAMPS

Article	RBK 1 pro, RBK 1	RBK 1 pro-M, RBK 1-M	RBK 1 pro-V, RBK 1-V
Clamp	S-bridge clamp 2 x M8 x 30	M10 x 25 screw	V-terminal clamp 50-240 SW
Zdjęcia zacisku			
Drawing of clamp			
Cross-section of cable conductors	Cu/Al cable 35 ÷ 120 mm²	cable with lug terminal up to 120 mm²	V-terminal clamp to direct fixing of conductor with bare end with cross-section: 35 - 95 mm² ** 35 - 120 mm² 50 - 185 mm² ** 50 - 240 mm²
Cu busbar	maximum busbar width 35 mm		
Tightening torque	10 Nm*	20 Nm*	30 Nm*
Dimensions and spacing of holes for installation of RBK 1, RBK 1 pro on mounting plate			

*it is recommended to use dynamometric spanner
**it is recommended to use bush terminals in case of multi wire cables

RBK 1, RBK 1 pro
for installation on mounting plate
cable terminals:
- M10 screw terminals
- S-bridge clamps
- V-shaped terminals

RBK 1-SG*(top cable terminal)
RBK 1-SD*(bottom cable terminal)
for installation on to 60 mm busbar system
top/bottom cable terminals:
- M10 screw terminals
- S-bridge clamps
- V-shaped terminals

RBK 1 pro - O
for installation on mounting plate
with additional cable terminal shrouds
cable terminals:
- M10 screw terminals
- S-bridge clamps
- V-shaped terminals

RBK 1 VD-M
for installation on mounting plate
photo of RBK 1 VD-M without cover
and cable terminal shrouds
top cable terminal:
- M10 screw terminals
bottom cable terminal:
- V-shaped terminals

RBK 1 VG-M
top cable terminal:
- V-shaped terminals
bottom cable terminal:
- M10 screw terminals

RBK 2 (400 A, 690 V)

Table 56. TECHNICAL DATA

Parameters			RBK 2		
Rated thermal current $I_{th} = I_n$		A	400		
Rated voltage U_n		V	690		
Utilization category		-	AC-23B	DC-21B	DC-22B
Rated switching voltage U_e		V	690	440	220
Rated switching current I_e		A	400	400	400
Rated short circuit making current		kA	100		
Rated short circuit withstand current		kA	100		
Rated insulation voltage U_i		V	1000		
Rated impulse withstand voltage U_{imp}		kV	12		
Rated power dissipation		W	45		
Rated frequency		Hz	50-60		
Mechanical durability	Number of cycles		100		
Electrical durability			200		
Protection degree IP			IP 20, IP 10 in opened position		
Size of fuse links			2		

Accessories on page 70

RBK 2
for installation
on mounting plate

Table 57. VERSIONS

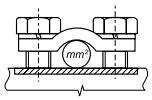
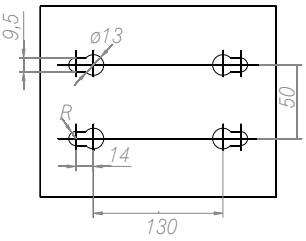
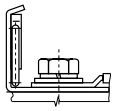
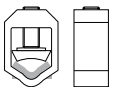
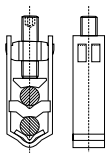
RBK 2/400 A		Cable terminal	Article No.
RBK 2	for connection of circular cables with bare ends	S-bridge clamp	63-811685-011
RBK 2-V	for connection of sector-shaped cables with bare ends	V-terminal clamp	63-811685-071
RBK 2-2V	for connection of sector-shaped cables with bare ends	double V-terminal clamp	63-811685-081
RBK 2-M	for connection of cables with lug terminals	screw terminal M10	63-811685-061
RBK 2-M-SD 60	for installation on to 60 mm busbar system, bottom cable terminal connection	screw terminal M10	63-811686-061
RBK 2-M-SG 60	for installation on to 60 mm busbar system, top cable terminal connection	screw terminal M10	on request *
RBK 2-M-SD 100	for installation on to 100 mm busbar system, bottom cable terminal connection	screw terminal M10	on request *
RBK 2-M-SG 100	for installation on to 100 mm busbar system, top cable terminal connection	screw terminal M10	on request *
RBK 2-V-SD 60	for installation on to 60 mm busbar system, bottom cable terminal connection	V-terminal clamp	63-811686-101
RBK 2-V-SG 60	for installation on to 60 mm busbar system, top cable terminal connection	V-terminal clamp	on request *
RBK 2-V-SD 100	for installation on to 100 mm busbar system, bottom cable terminal connection	V-terminal clamp	on request *
RBK 2-V-SG 100	for installation on to 100 mm busbar system, top cable terminal connection	V-terminal clamp	on request *
RBK 2-2V-SD 60	for installation on to 60 mm busbar system, bottom cable terminal connection	double V-terminal clamp	on request *
RBK 2-2V-SG 60	for installation on to 60 mm busbar system, top cable terminal connection	double V-terminal clamp	on request *
RBK 2-2V-SD 100	for installation on to 100 mm busbar system, bottom cable terminal connection	double V-terminal clamp	on request *
RBK 2-2V-SG 100	for installation on to 100 mm busbar system, top cable terminal connection	double V-terminal clamp	on request *

* on customer's request, time of delivery: 2 weeks EXW Torun, Poland, Incoterms 2000

RBK 2/400 A		Cable terminal	Article No.
RBK 2-XT	with electronic fuse monitoring module, for installation on mounting plate, power supply connected to top cable terminal	S-bridge clamps screw terminal M10 V-terminal clamp double V-terminal clamp	on request*
RBK 2-X	with electronic fuse monitoring module, for installation on mounting plate, power supply connected to bottom cable terminal	S-bridge clamps screw terminal M10 V-terminal clamp double V-terminal clamp	on request*
RBK 2-S-X	with electronic fuse monitoring module, for installation on to busbar system	S-bridge clamps screw terminal M10 V-terminal clamp double V-terminal clamp	on request*
RBK 2-O	or connection of cables with bare ends, cable terminal shrouds	S-bridge clamps screw terminal M10 V-terminal clamp double V-terminal clamp	on request*

* on customer's request, time of delivery: 2 weeks EXW Torun, Poland, Incoterms 2000

Table 58. RBK 2 TERMINAL CLAMPS

Article	Clamp	Drawing of clamp	Cross-section of cable conductors	Cu busbar	Tightening torque	Dimensions and spacing of holes for installation of RBK 2 on mounting plate
RBK 2	S-bridge clamp 2 x M8 x 30		Cu/Al cable 50 ÷ 185 mm²	maxi-mum busbar width 35 mm	10 Nm*	
	M10 x 30 screw		cable with lug terminal up to 240 mm²		20 Nm*	
	V-terminal clamp 50-240 SW		V-terminal clamp to direct fixing of conductor with bare end with cross-section: 35 - 95 mm² 35 - 120 mm² 50 - 185 mm² 50 - 240 mm²		30 Nm*	
	double V-terminal clamp HS2/50-240		V-terminal clamp to direct fixing of conductor with bare end with cross-section: 35 - 150 mm² 35 - 185 mm² 50 - 185 mm² 50 - 240 mm²		40 Nm*	

*using of tension wrench is recommended

RBK 2-V
for installation on mounting plate, cable terminal: V-terminal clamps

RBK 2-2V
for installation on mounting plate, cable terminal: double V-terminal clamps

RBK 2-SG* -for installation on to busbar systems, top cable terminal: V-shaped clamps/screw terminals M10
RBK 2-SD* -for installation on to busbar systems, bottom cable terminal: V-shaped clamps/screw terminals M10

RBK 2-2V-SG* -for installation on to busbar systems, top cable terminal: double V-terminal clamps
RBK 2-2V-SD* -for installation on to busbar systems, bottom cable terminal: double V-terminal clamps

RBK 2-V-SG* -for installation on to busbar systems, top cable terminal: V-terminal clamps
RBK 2-V-SD* -for installation on to busbar systems, bottom cable terminal: V-terminal clamps

RBK 3 (630 A, 690 V)

Table 59. TECHNICAL DATA

Parameters			RBK 3	
Rated thermal current $I_{th} = I_n$		A	630	
Rated voltage U_n		V	690	
Utilization category		-	AC-22B	DC-21B
Rated switching voltage U_e		V	690	250
Rated switching current I_e		A	630	630
Rated short circuit making current		kA	25	
Rated short circuit withstand current		kA	100	
Rated insulation voltage U_i		V	1000	
Rated impulse withstand voltage U_{imp}		kV	12	
Rated power dissipation		W	60	
Rated frequency		Hz	50-60	
Mechanical durability	Number of cycles		1000	
Trwałość łączeniowa			200	
Protection degree IP			IP 20	
Size of fuse links			1	

Accessories on page 70

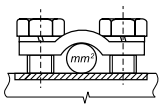
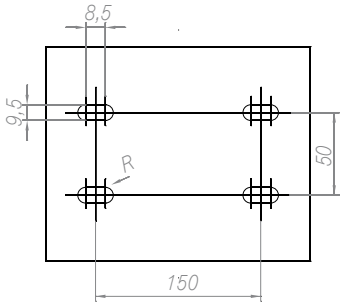
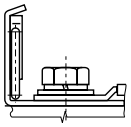
RBK 3
for installation
on mounting plate

Table 60. VERSIONS

RBK 3/630 A		Cable terminal	Article No.
RBK 3	for connection of cables with bare ends	S-bridge clamps	63-811501-021
RBK 3-M	for connection of cables with lug terminals	screw terminal M12	63-811501-041
RBK 3-S	for installation on to 60mm busbar system, top/bottom cable terminal connection	screw terminal M12	63-811502-021

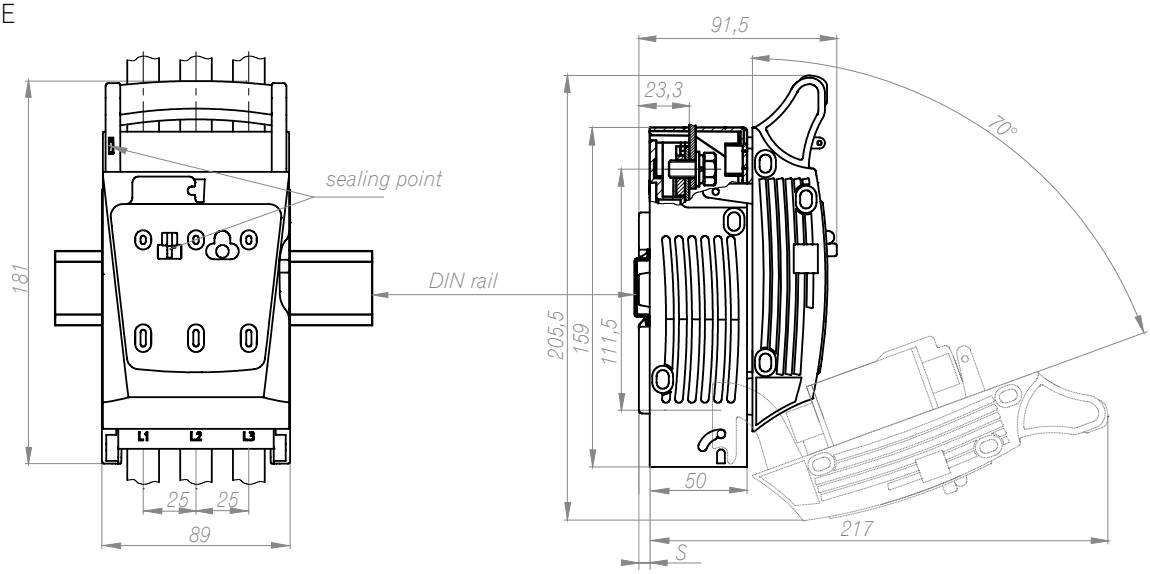
* on customer's request, time of delivery: 2 weeks EXW Torun, Poland, Incoterms 2000

Table 61. RBK 3 TERMINAL CLAMPS

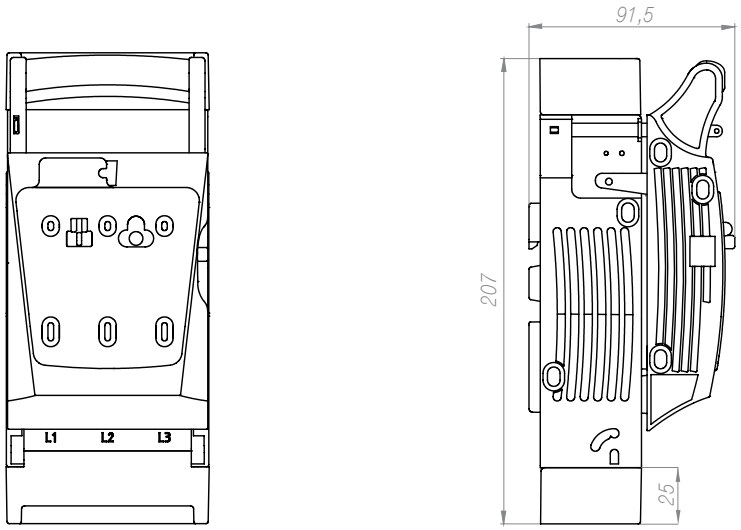
Article	Clamp	Drawing of clamp	Cross-section of cable conductors	Szyna Cu	Tightening torque	Dimensions and spacing of holes for installation of RBK 3 on mounting plate
RBK 3	S-bridge clamp 2 x M8 x 35		Cu/Al cable 50 ÷ 185 mm²	maximum busbar width 35 mm	10 Nm*	
	M12 x 30 screw		cable with lug terminal up to 240 mm²		20 Nm*	

*using of tension wrench is recommended

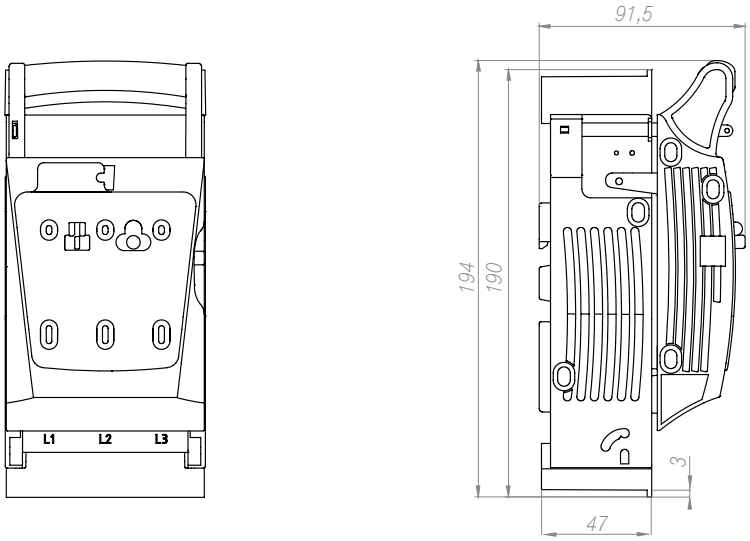
RBK 000
RBK 000-E



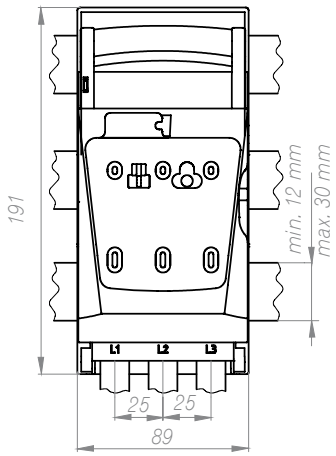
RBK 000-O

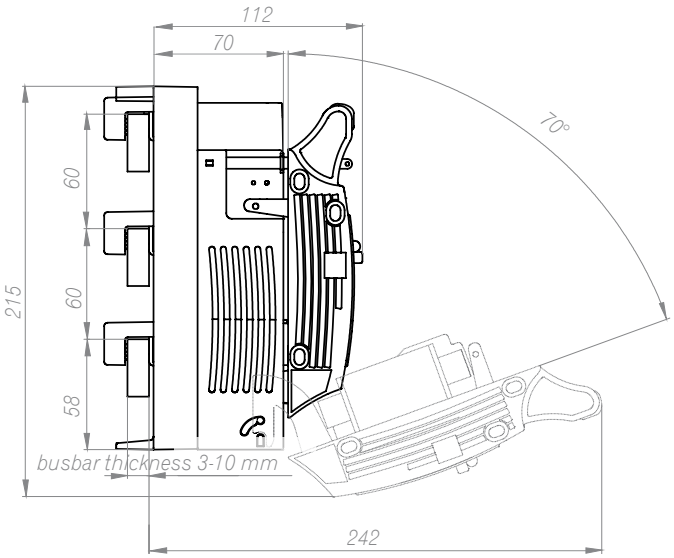


RBK 000-W

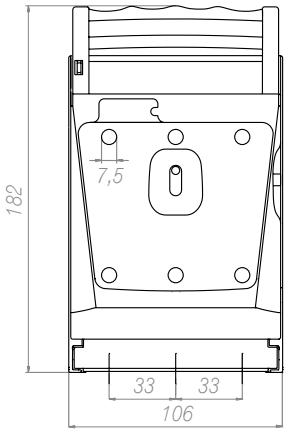


RBK 000-SG - top cable terminal
RBK 000-SD - bottom cable terminal

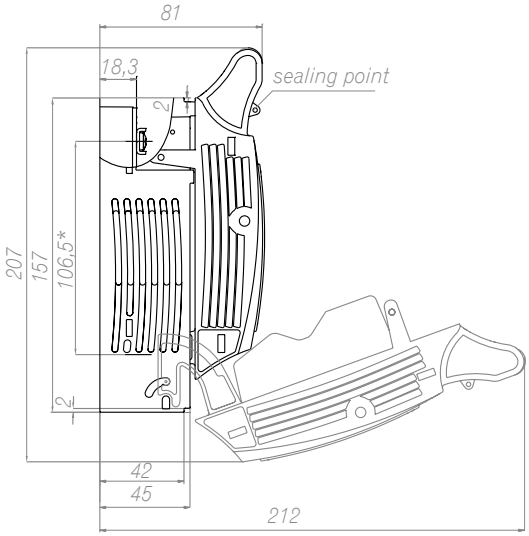




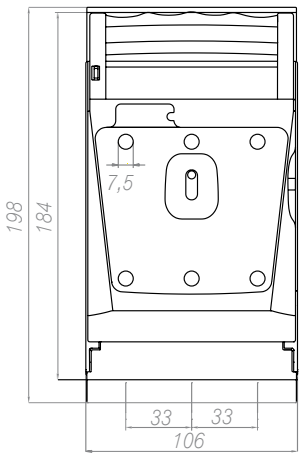
RBK 00 / RBK 00 pro



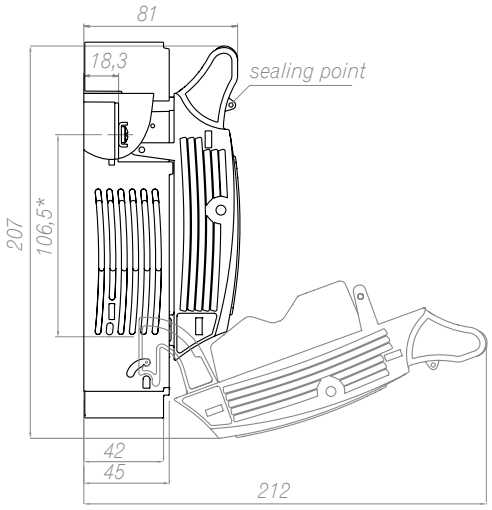
*122.5 mm for M screw terminal (for busbar and lug terminal)



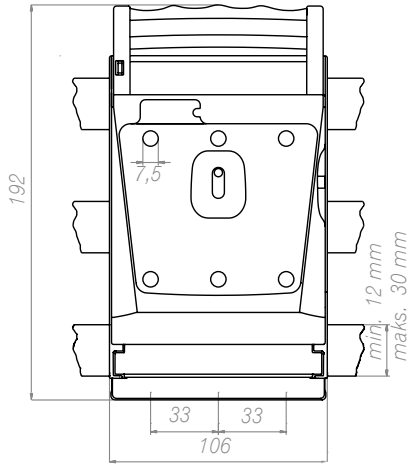
RBK 00-W / RBK 00 pro-W,

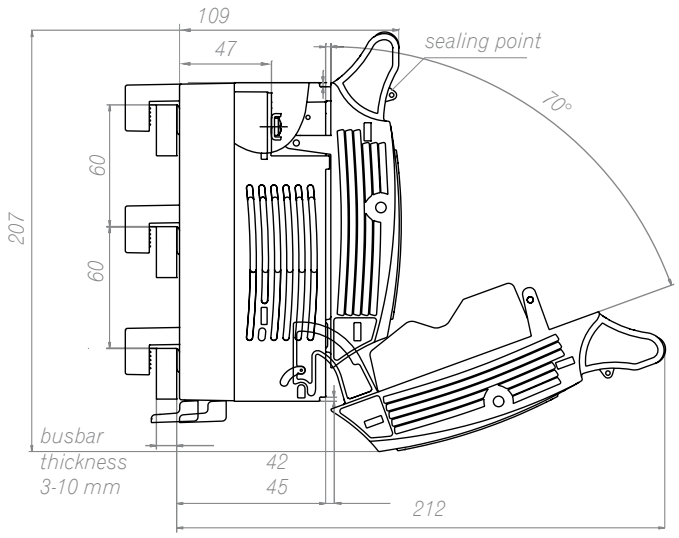


*122.5 mm for M screw terminal (for busbar and lug terminal)

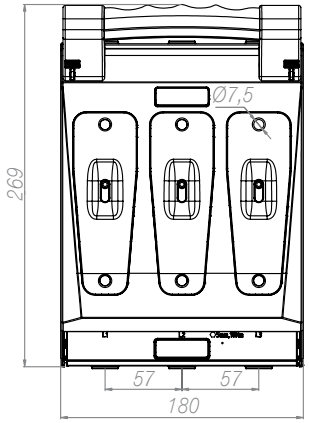


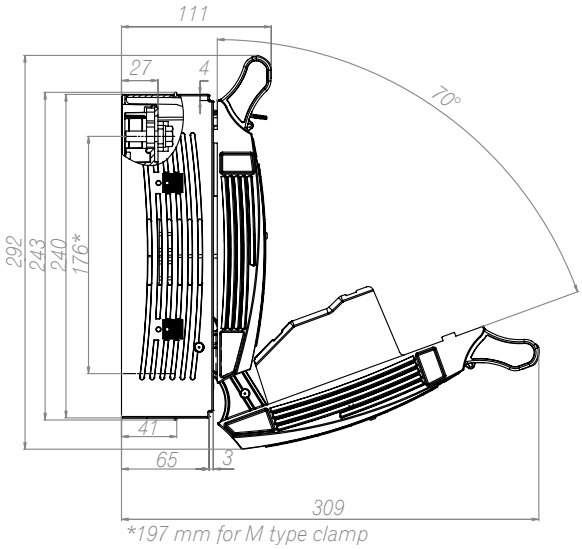
RBK 00 pro-S



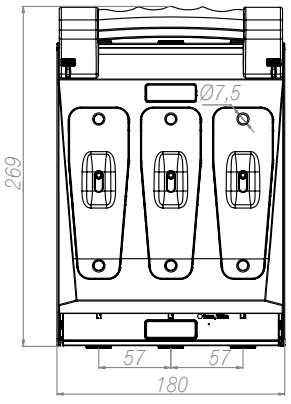


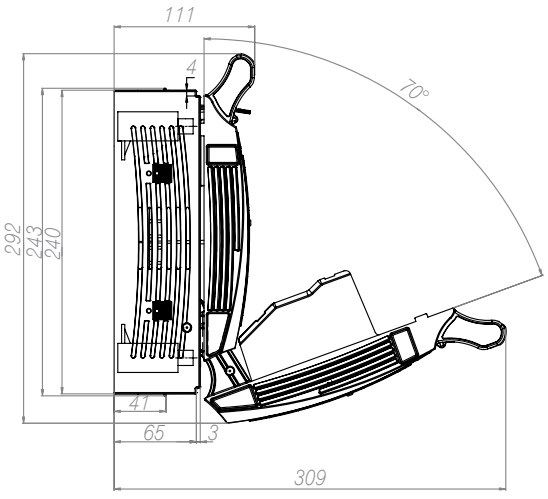
RBK 1, RBK 1 pro



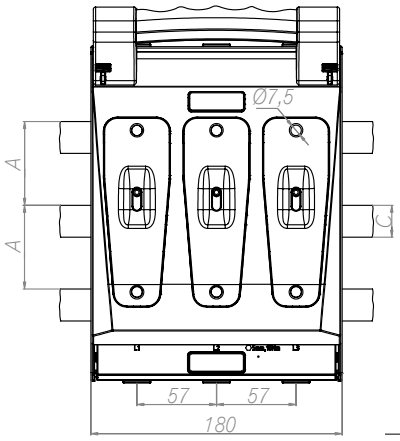


RBK 1 pro-V



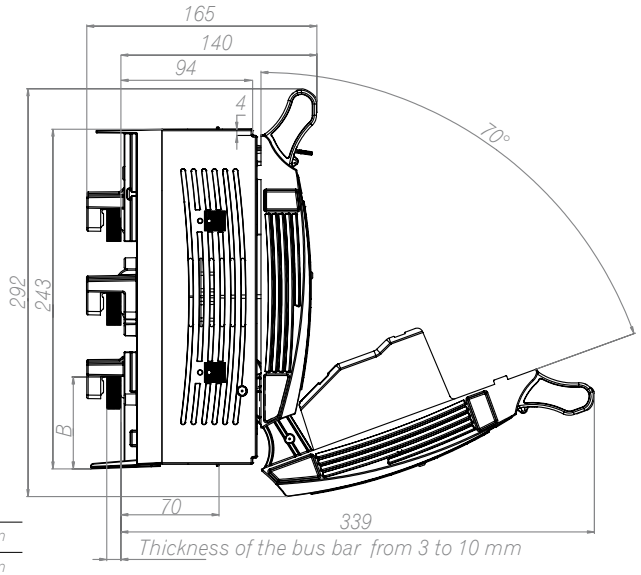


RBK 1 pro-SD, RBK 1 pro-SG

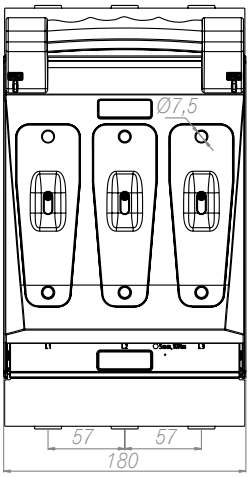


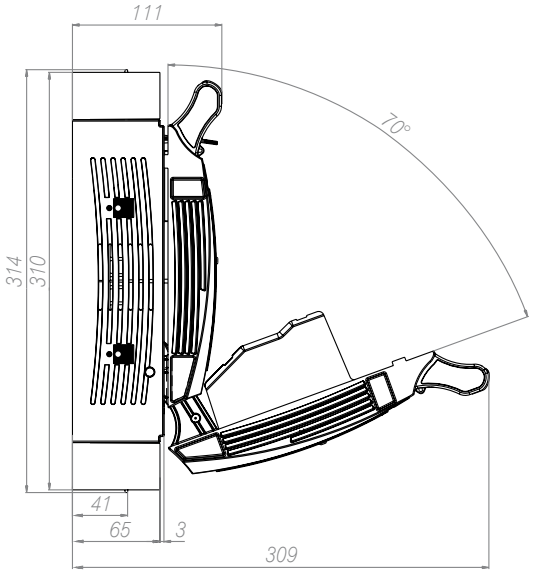
A	B	C
60 mm	66 mm	max 30 mm
100 mm	27-66 mm	max 60 mm

M,S,V types of clamps

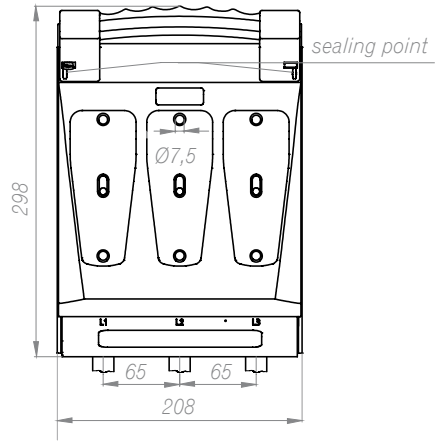


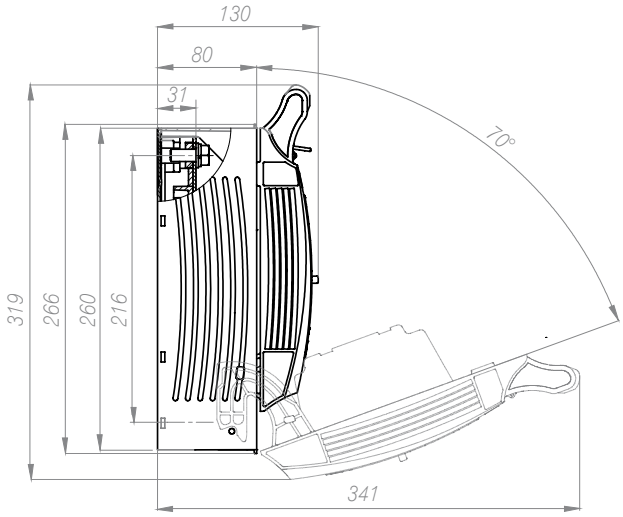
RBK 1 pro-O



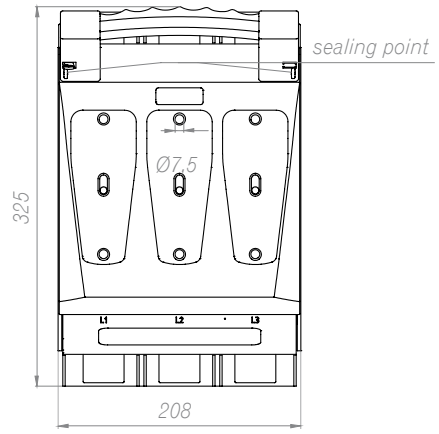


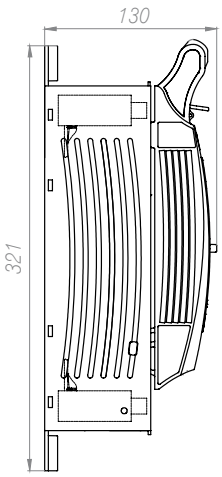
RBK 2



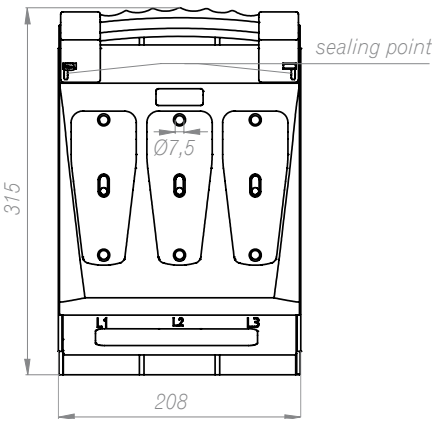


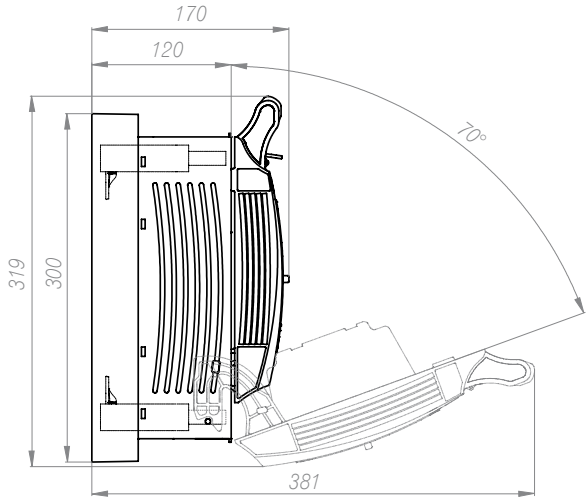
RBK 2-V



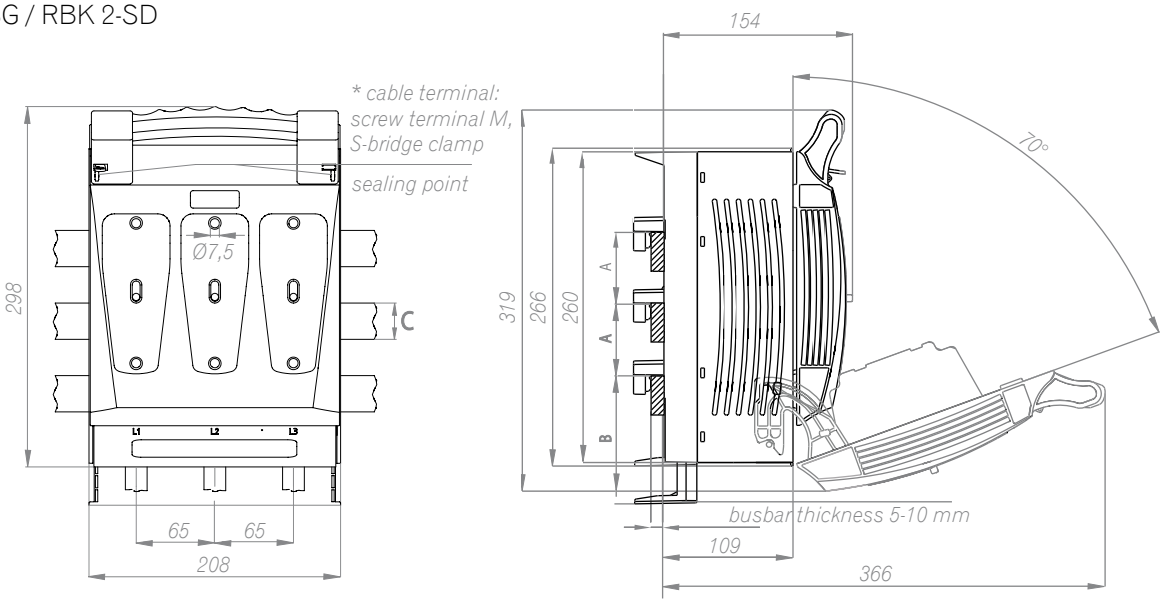


RBK 2-2V

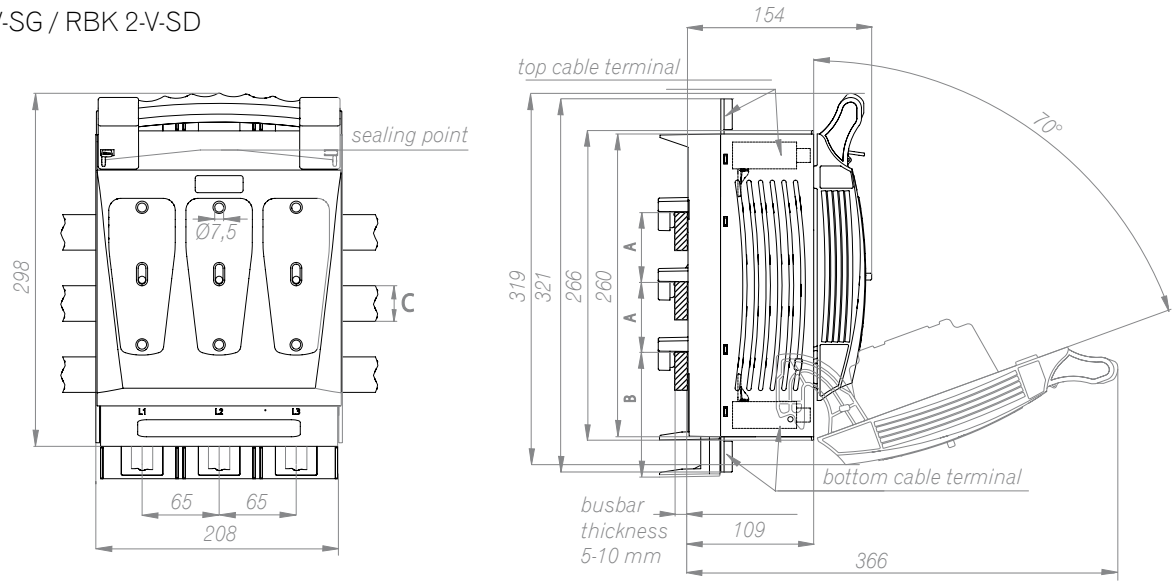




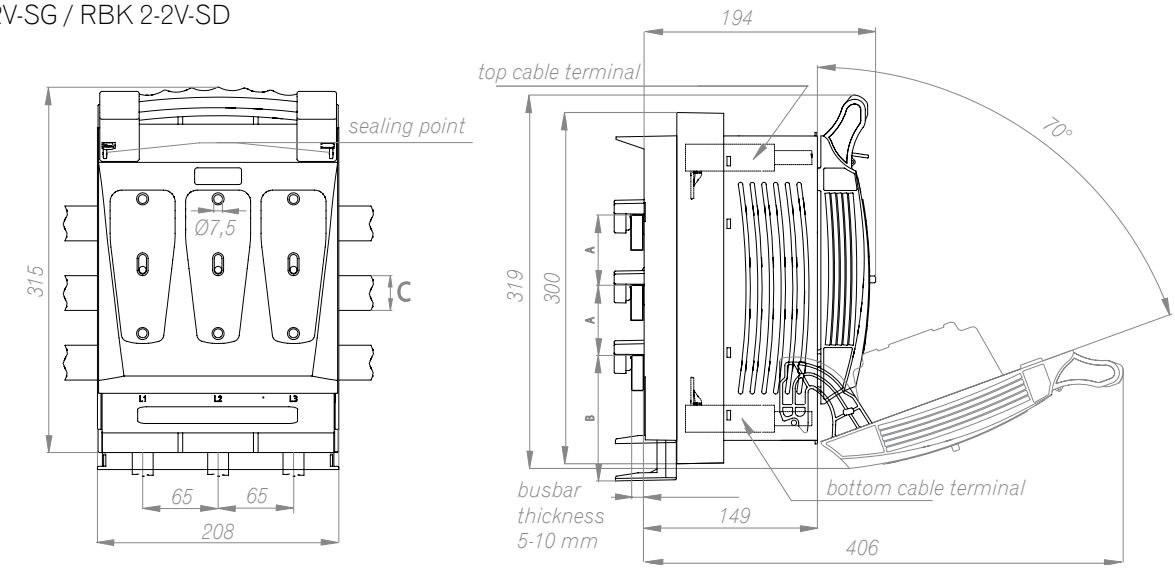
RBK 2-SG / RBK 2-SD



RBK 2-V-SG / RBK 2-V-SD

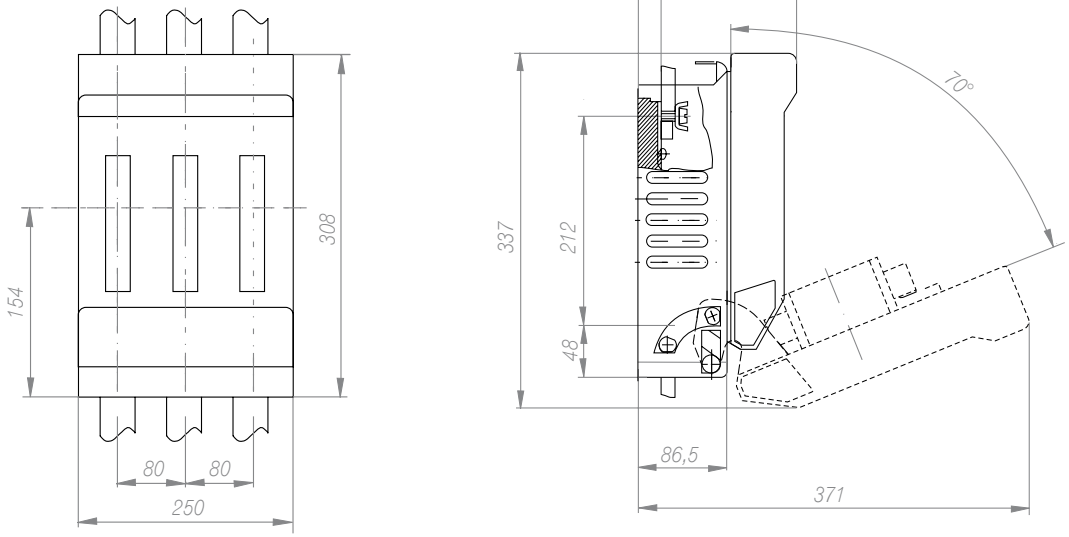


RBK 2-2V-SG / RBK 2-2V-SD

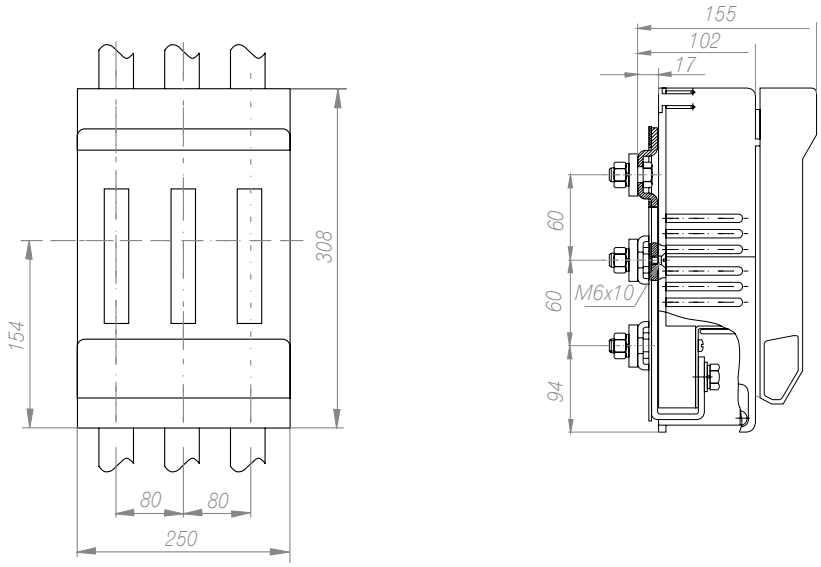


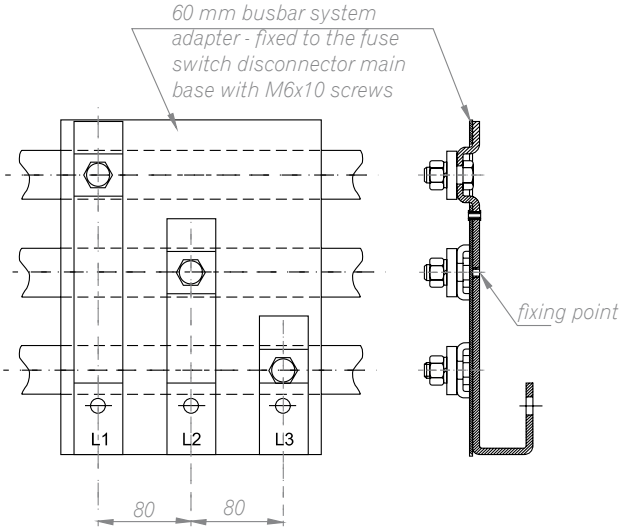
A	B	C
60 mm	75 mm	maks. 30 mm
100 mm	35-67 mm	maks. 60 mm

RBK 3

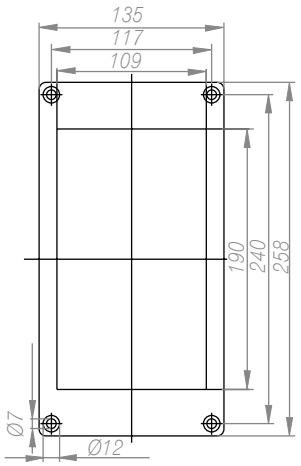

140
31-33
70°
337
212
48
308
154
80
80
250
86,5
371

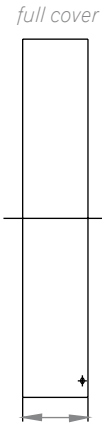
RBK 3-S

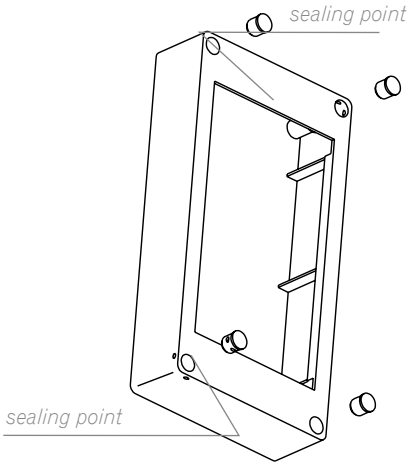

155
102
17
60
60
M6x10
94
308
154
80
80
250


60 mm busbar system
adapter - fixed to the fuse
switch disconnector main
base with M6x10 screws
fixing point
L1
L2
L3
80
80

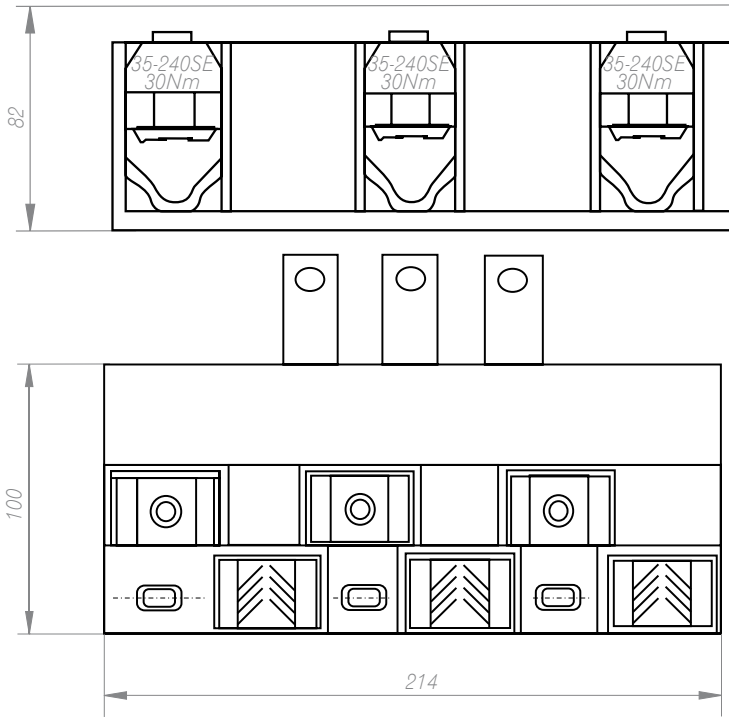
FULL COVER FOR RBK 00







TERMINAL ADAPTER FOR RBK 00, RBK1



RBK 00-W
with terminal adapter

CONFORMITY WITH STANDARDS

1. PN-EN 60947-7-2:2003
2. EN 60947-7-2:2002
3. IEC 60947-7-1:2002

COVERING OF RBK FUSE SWITCH DISCONNECTORS (REAR INSTALLATION)

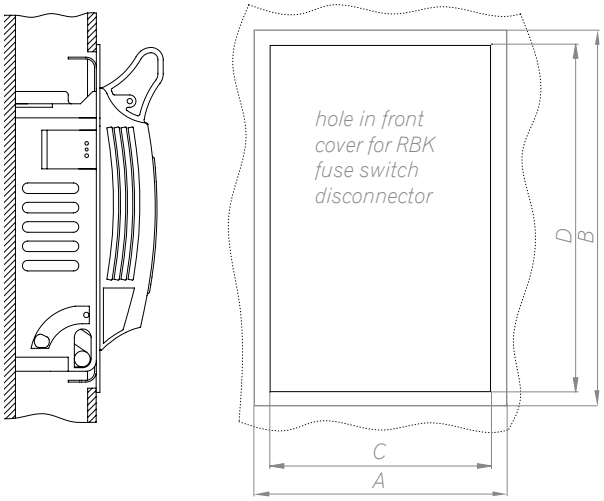
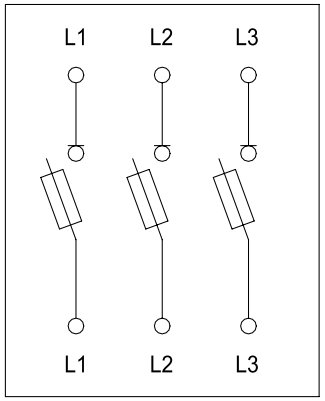


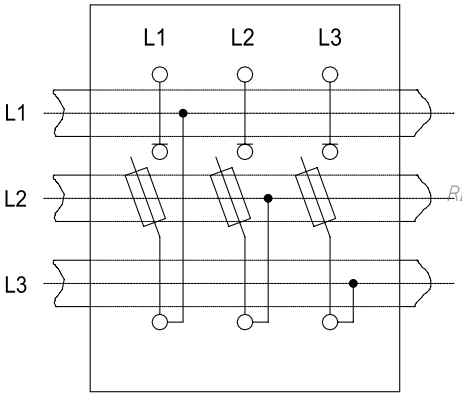
Table 62. FRONT COVER DIMENSIONS

Typ	A	B	C	D
RBK 000	104	166	94	156
RBK 000-S, RBK 000-W	104	205	94	195
RBK 00, RBK 00 pro, RBK 00 pro-S	120	207	110	197
RBK 00-W	120	207	110	182
RBK 1, RBK 1-S	198	262	186	250
RBK 2, RBK 2-S	230	285	209	255
RBK 2-V, RBK 2-2V	230	340	209	255
RBK 3, RBK 3-S	272	328	258	316

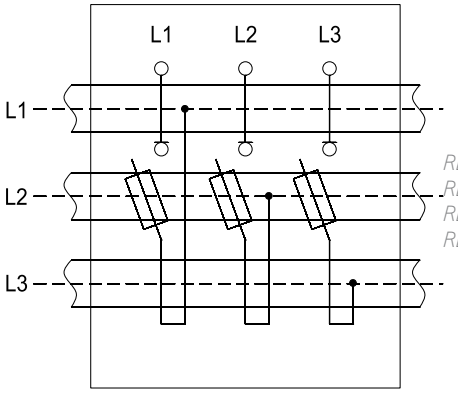
ELECTRICAL DIAGRAMS (RBK 1-S, RBK 3-S - POSSIBLE BOTTOM CABLE TERMINAL CONNECTION)



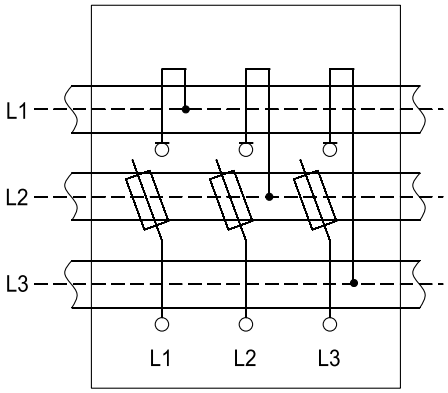
RBK 000
RBK 00
RBK 00 pro
RBK 1
RBK 2
RBK 3



RBK 3-S

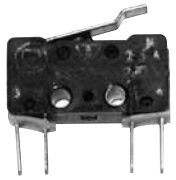
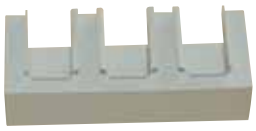
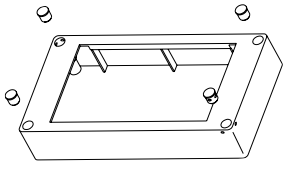


RBK 000-SG
RBK 00 proSG
RBK 1 pro-SG
RBK 2-SG



RBK 000-SD
RBK 00 pro-SD
RBK 1 pro-SD
RBK 2-SD
RBK 3-S

Table 63. ACCESORIES

Article number	Opis	Zdjęcie
1115296311T	Auxiliary contact for RBK 00, RBK 00 pro RBK 000 AC-15 U_e 230 V~ I_e = 2,5 A DC-13 U_e 230 V– I_e = 0,3 A	
1115296316	Auxiliary contact for RBK 1, RBK 2 AC-15 U_e 230 V~ I_e = 2,5 A DC-13 U_e 230 V– I_e = 0,3 A	
1115296037	Auxiliary contact for RBK 3 AC-15 U_e 110/230/400 V~ I_e = 1 A DC-13 U_e 48/110/220 V– I_e = 0,5 A Terminals: conductor cross-section: – wire- 1 x 0,5 = 1,0 mm^2 – stranded conductor- 1 x 0,5 = 0,75 mm^2	
51-930160-011	Cable terminal shroud „O" RBK 000-O	
51-930499-011	Cable terminal shroud „O" RBK 00 pro-O	
51-823278-011	Cable terminal shroud „O" RBK 1 pro-O	
51-822405-011	Cable terminal shroud „O" RBK 2-O	
1361399021T	Full cover for RBK 00	
on request 1119510039T 1119510038T on request	Terminal adapter for: - RBK 00-W + 3 V-terminal clamps - RBK 00-W + 3 V-terminal clamps + terminal shroud - RBK 1 + 3 V-terminal clamps - RBK 1 + 3 V-terminal clamps + terminal shroud	

UNIVERSAL EARTHING DEVICE FOR RBK 000, 00, 1, 2, 3

Catalogue Nr 1119510032T

DESCRIPTION

1. short-circuiting links
2. working pole
3. earth terminal
4. short-circuiting cable
5. earthing cable
6. cable connection point
7. case

EXAMPLE OF THE ORDER OF RBK 2 - V - SD - 100

Fuse switch disconnector	160 A	RBK 000, RBK 00, RBK 00 pro	
	250 A	RBK 1	
	400 A	**RBK 2**	**RBK 2**
	630 A	RBK 3	
Terminal clamps	**V**	**Typ V**	**V**
	2V	Typ 2V	
	M	screw terminal	
	S	S-bridge clamps	
For installation on to busbar system	**S**		**S**
Cable terminal	**D**	**bottom**	**D**
	G	top	
Busbar system	60 mm	60	
	100 mm	**100**	**100**