



SWITCHGEAR

ORIA PRS

RBK pro

Fuse switch disconnectors

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







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. They are conforming to EN 60947-1, EN 60947-3, IEC 60947-1, IEC 60947-3 standards. They are intended for installation in low voltage distribution boards, cable and metering cabinets.

CONSTRUCTION

- thermoplastic parts of RBK fuse switch disconnectors are made of fibre glass strengthened polyamide with halogen free flame retardant added and have highest possible flammability class – V0,
- RBK fuse switch disconnectors consist of following parts:
 - three pole main base with spring-loaded contacts designed for connection of circular or sector-shaped conductors, conductors with lug terminals or bars,
 - removable cover with fuse links,
- arc chutes with steel deionization plates over top contacts,
- silver plated contacts providing low power loss.

MOUNTING

- on mounting plate
 - RBK 00 pro, RBK 1 pro, RBK 2 pro, RBK 3,
- on double DIN rail
 - RBK 00 pro,
- on to busbar systems:
 - 60 mm busbar system,
 - RBK 00 pro-S, RBK 1pro-S, RBK 2pro-S – installation on to busbar system with hooked clamps,
 - 100 mm busbar system,
 - RBK 2-S, RBK 1 pro-S – installation on to bus bar system with hooked clamps.

OPERATING CONDITIONS

- to be installed in the room free of any dust, aggressive or explosive gases,
- altitude up to 2000 meters above sea level,
- outdoor – in cabinets with protection degree > IP 34,
- ambient temperature from -25 °C to +55 °C,
- relative humidity of the air should not be higher than 50% at temperature of +40°.

FUNCTIONALITY:

- making and breaking operations should be done with determined movement,
- possible connection of circular or sector-shaped conductors with bare ends (V-terminals, 2V-terminals) or conductors with lug terminals (screw terminals),
- voltage test performed through test holes in fuse link cover,
- fuse links state monitoring.

CONFORMITY WITH STANDARDS EN 60947-1, EN 60947-3, IEC 60947-1, IEC 60947-3

Table 72. RBK FUSE SWITCH DISCONNECTORS TECHNICAL DATA

Parameters		RBK 000 pro RBK 000 pro-S					RBP 000 pro RBP 000 pro-S			RBK 00 pro RBK 00 pro-S			RBK 00 pro-V 120			RBK 1 pro		RBK 1 pro-S			RBK 2 pro RBK 2 pro-S		
Rated thermal current $I_{th}^{1)}$	A	160					125			160			160			250		250			400		
Rated voltage U_n	V	690					690			690			690			690		690			690		
Utilization category	-	AC-23B	AC-22B	AC-22B	AC-21B	DC-21B	AC-22B	AC-23B	DC-21B	AC-23B	DC-21B	DC-22B	AC-23B	AC-22B	DC-22B	AC-23B	DC-22B	AC-23B	AC-22B	DC-22B ²⁾	AC-23B	DC-21B	DC-22B
Rated switching current I_e	A	100	100	160	160	160	125	125	125	160	160	160	160	160	160	250	250	250	250	250	400	400	400
Rated switching voltage U_e	V	400	690	400	690	250	690	400	440	690	440	250	400	690	250	690	250	400	690	250	690	440	220
Rated short circuit withstand current	690 V	100					80			80			100			80		80			80		
	400 V						100			100			100			100		100			100		
Rated short circuit making current	690 V	25					80			80			100			80		80			80		
	400 V	80					100			100			100			100		100			100		
	500 V						100			100			100			100		100			100		
Rated insulation voltage U_i	V	1000					1000			1000			1000			1000		1000			1000		
Rated impulse withstand voltage U_{imp}	kV	8					6			8			8			8		8			12		
Rated frequency	Hz	50-60					50-60			50-60			50-60			50-60		50-60			50-60		
Mechanical durability	Number of cycles	2000					1600			1600			1600			1600		1600			1000		
Electrical durability		300					200			200			200			200		200			200		
IP degree of protection	IP	20					30			20			20			30		30			20		
Weight	kg	~0,6 ~0,9					~0,5 ~0,7			~0,7 ~0,90			~0,9			~2		~2,5			~3 ~4,50		
Size of fuse links	-	000					000			00			00			1		1			2		

Parameters			RBK 3 pro			RBK 3 pro-S		
Rated thermal current $I_{th}^{1)}$		A	630			630		
Rated voltage U_n		V	690			690		
Utilization category		-	AC-23B	AC-22B	DC-21B	AC-23B	AC-22B	AC-21B
Rated switching current I_e		A	630	630	630	630	630	630
Rated switching voltage U_e		V	400	690	440	400	500	690
Rated short circuit withstand current	690 V	kA	80			80		
	500 V		120			120		
Rated short circuit making current	690 V	kA	80			80		
	500 V		120			120		
Rated insulation voltage U_i		V	1000			1000		
Rated impulse withstand voltage U_{imp}		kV	12			12		
Rated frequency		Hz	50-60		50-60	50-60		
Mechanical durability	Number of cycles		1000			1000		
Electrical durability			200			200		
IP degree of protection		IP	IP 20			IP 20		
Weight		kg	~5			~5,9		
Size of fuse links		-	3			3		

¹⁾ I_{th} - thermal current of fuse switch disconnectors without external enclosure, installed outdoors (In case of the installation of fuse switch disconnectors in enclosures then load factor should be considered)

²⁾ for 60 mm busbar system

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 $I_{th} = 1000$ A when connected on to busbars 50x10 mm

utilization category AC-21

RBK 000 pro (160 A, 690 V)

Table 73. TECHNICAL DATA

Parameters		RBK 000 pro / RBK 000 pro-S				
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	690 V	25				
	500 V	80				
	400V					
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				
IP degree of protection		IP 20				
Size of fuse links		000				

Accessories on page 121

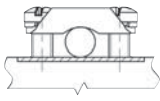
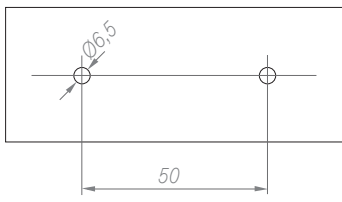
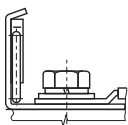


RBK 000 pro
for installation on mounting plate

Table 74. VERSIONS

RBK 000/160 A		Cable terminal	Article No.
For installation on mounting plate			
RBK 000 pro	for connection of round conductors	S-bridge clamps	63-823191-011
RBK 000 pro-E	for connection of round conductors, possible installation on DIN rail	S-bridge clamps	63-823191-051
RBK 000 pro-M	for connection of round conductors with lug terminals	M8 screws	63-823191-021
RBK 000 pro-M-E	for connection of round conductors with lug terminals, possible installation on DIN rail	M8 screws	63-823191-061
RBK 000 pro-W	for connection of round conductors, lengthened terminal shrouds	S-bridge clamps	63-823191-071
RBK 000 pro-W-M	for connection of round conductors with lug terminals, lengthened terminal shrouds	M8 screws	63-823191-081
For installation on to 60 mm busbar system			
RBK 000 pro-SD	Cable terminal – bottom, for connection of round conductors	S-bridge clamps	63-823234-031
RBK 000 pro-SG	Cable terminal – top, for connection of round conductors	S-bridge clamps	63-823234-011
RBK 000 pro-SD-M	Cable terminal – bottom, for connection of conductors with lug terminals	M8 screws	63-823234-041
RBK 000 pro-SG-M	Cable terminal – top, for connection of conductors with lug terminals	M8 screws	63-823234-021

Table 75. RBK 000 TERMINAL CLAMPS

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

For stranded conductors using cable ferrules is recommended
*using of tension wrench is recommended



RBK 000 pro-E
for mounting on DIN rail



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



RBK 000 pro-W
for installation on mounting plate
with extended terminal shrouds



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

**RBP 000 pro (125 A, 690 V)** for mounting

- on plate
- on double DIN rail

RBP 000 pro-S (125 A, 690 V) for installation onto 60 mm busbar system

- system of protective covers provides touch protection
- possible installation of distribution board's protective panel at depth of 32 mm or 70 mm
- built-in hooked clamps provide fast installation onto busbar system
- top/bottom cable terminal

Table 76. TECHNICAL DATA

Parametr		RBP 000 pro, RBP 000 pro-S			
Rated thermal current I _{th}		A	125		
Rated voltage U _n		V	690		
Utilization category		-	AC-21B*	AC-22B**	AC-23B DC-22B
Rated switching voltage U _e		V	690	690	400 250
Rated switching current I _e		A	125	125	125 100
Rated short circuit making current	690 V	kA	50*/35**		20
	500 V		50		
	400 V		80		
Rated short circuit withstand current	690 V	kA	80		20
	500 V				
	400 V				
Rated insulation voltage U _i		V	1000		
Rated impulse withstand voltage U _{imp}		kV	6		
Rated power dissipation		W	9		
Rated frequency		Hz	50-60		-
Mechanical durability		c.p	1600		
Electrical durability		c.t.	200		
IP degree of protection			IP 30		
Size of fuse links			000		

*- RBP 000 pro, **- RBP 000 pro-S





RBP 000 pro-S

Table 77. VERSIONS

RBP 000 pro		Cable terminal	Article No.
For mounting on plate			
RBP 000 pro	for connection of round conductors	frame clamps	63-823267-001
for mounting on double DIN rail			
RBP 00 pro-E-125 mm	double DIN rail with spacing of 125 mm	frame clamps	63-823267-002
RBP 000 pro-E-150 mm	double DIN rail with spacing of 150 mm	frame clamps	63-823267-003
RBK 000 pro-S			
For installation on to 60 mm busbar system			
RBP 000 pro-SG	cable terminal-top, for connection of conductors with bare ends	frame clamps	63-823427-001
RBP 000 pro-SD	cable terminal-bottom, for connection of conductors with bare ends	frame clamps	63-823427-002

Table 78. RBP 000 pro, RBP 000 pro-S TERMINAL CLAMPS

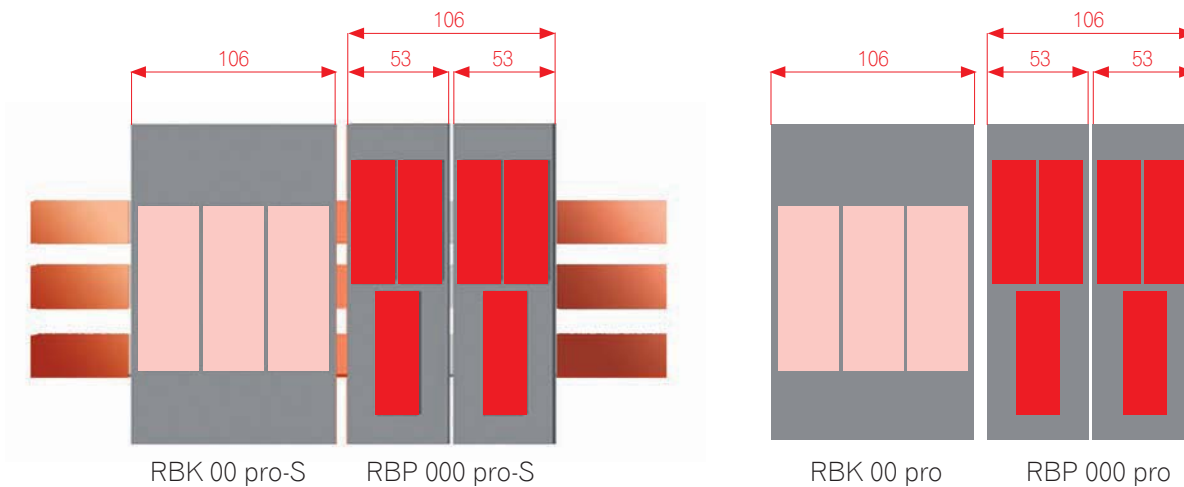
Description	Cable terminal	Drawing of clamp	Cross-section of conductors	Tightening torque
RBP 000 pro RBP 000 pro-S	frame clamps		2,5 - 50 mm ²	 6 Nm* 3 Nm*

For stranded conductors using cable ferrules is recommended

*using of tension wrench is recommended

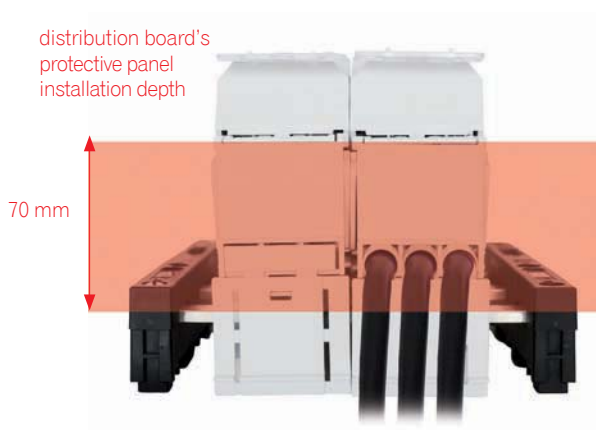
Saves space in the switchboard

RBP 000 pro-S (RBP 000 pro) width dimensions is equal to half the width of RBK 00 pro-S (RBK 00 pro), so we can install more disconnectors (keeping a certain width of the switchboard) to protect individual circuits in the switchboard.

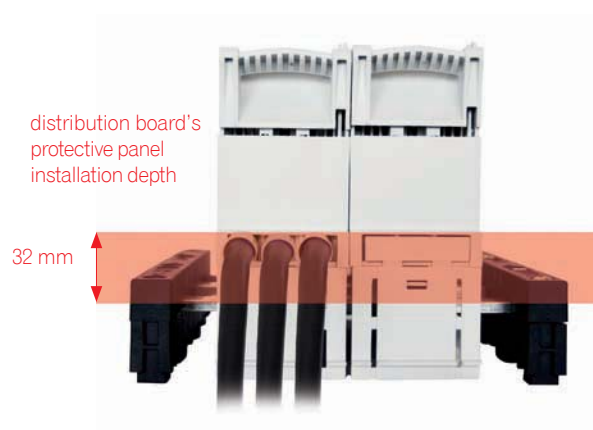


Fuse switch disconnectors RBP 000 pro-S are designed for installation of distribution board's protective panels at two depths:

covering system at 70 mm depth



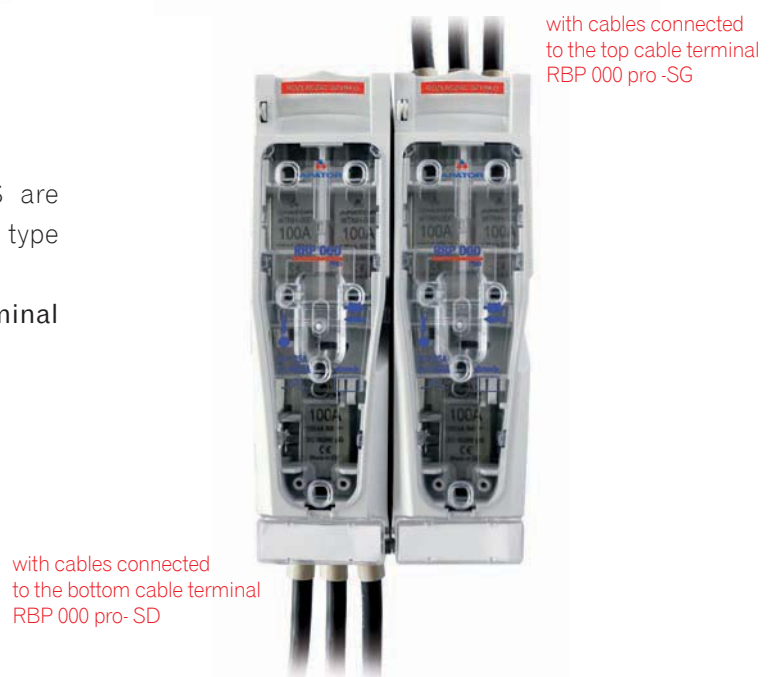
covering system at 32 mm depth



Fuse switch disconnectors RBP 000 pro-S are manufactured in two versions depending on type of cable terminal

RBP 000 pro-SD-with bottom cable terminal

RBP 000 pro-SG-with top cable terminal





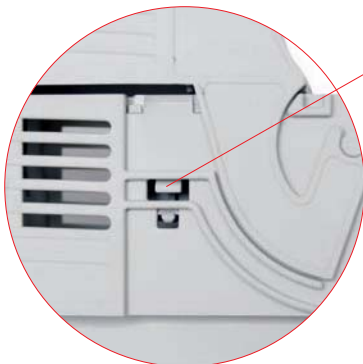
Fuse switch disconnecter RBP 000 pro-S has special cavity in it's main base encasing busbar system's support.



Cavity
for busbar
system's
support



It is possible to install **microswitch indicating** position open/close fuse switch disconnectors.



hole for leading
of wires connected
to microswitch



Fuse switch disconnecter RBP 000 pro - E 125 mm
for mounting on double DIN rail



RBP 000 pro
mounting on plate

RBK 00 pro (160 A, 690 V)

Table 79. TECHNICAL DATA

Parameters			RBK 00 pro		
Rated thermal current I _{th}		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	690 V	kA	80	20	
	400 V		100		
Rated short circuit withstand current	690 V	kA	80	20	
	400 V		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	1600		
Electrical durability			200		
IP degree of protection			IP 20		
Size of fuse links			00		

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RBK 00 pro

RBK 00 pro

Table 80. VERSIONS

RBK 00 pro/160 A		Cable terminal	Article No.
For installation on mounting plate			
RBK 00 pro	for connection of round conductors	S-bridge clamps	63-823256-011
RBK 00 pro-M	for connection of conductors with lug terminals	M8 screws	63-823256-021
RBK 00 pro-V	for connection of sector-shaped conductors	V-shape clamps	63-823256-031
RBK 00 pro-W	for connection of round conductors, lengthened terminal shrouds	S-bridge clamps	63-823256-041
RBK 00 pro-M-W	for connection of conductors with lug terminals, lengthened terminal shrouds	M8 screws	63-823256-051
RBK 00 pro-V-W	for connection of sector-shaped conductors, lengthened terminal shrouds	V-shape clamps	63-823256-061
for mounting on double DIN rail			
RBK 00 pro-E-125mm	double DIN rail with spacing of 125 mm	S-bridge clamps/ M8 screws/ V-shape clamps	On request*
RBK 00 pro-E-150mm	double DIN rail with spacing of 150 mm	S-bridge clamps/ M8 screws/ V-shape clamps	On request*



Table 81. RBK 00 pro TERMINAL CLAMPS

Description	Clamp	Drawing of clamp	Cross-section of conductors	Cu bar	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 conductor 4÷50 mm ²	maximum bar width 20 mm	3 Nm*	
	M8 x 16 screw		conductor with lug terminal up to 70 mm ²		10 Nm*	
	V-shape clamp 2 x M5 x 20	 2) 4 mm ² - 70 mm ² 4 mm ² - 95 mm ² 1) 1,5 mm ² - 2,5 mm ²			3 Nm*	

For stranded conductors using cable ferrules is recommended
*using of tension wrench is recommended

RBK 00 pro



RBK 00 pro-W



Fuse switch disconnecter RBK 00 pro with additional terminal shrouds



Fuse switch disconnecter RBK 00 pro for mounting on double DIN rail

FUSE SWITCH DISCONNECTORS FOR INSTALLATION ONTO 60 mm BUSBAR SYSTEM RBK 00 pro-S

- system of protective covers provides touch protection
- possible installation of distribution board's protective panel at depth of 32 mm or 70 mm
- built-in hooked clamps provide fast installation onto busbar system
- top/bottom cable terminal

Table 82. TECHNICAL DATA

Parameter		RBK 00 pro-S		
Rated thermal current I _{th}	A	160		
Rated voltage U _n	V	690		
Utilization category	-	AC-23B	AC-22B	DC-22B
Rated switching voltage U _e	V	400	690	250
Rated switching current I _e	A	160	160	160
Rated short circuit making current	kA	100		20
Rated short circuit withstand current	kA	100		20
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		200		
IP degree of protection		IP 20		
Size of fuse links		00		



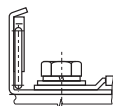

RBK 00 pro-S

RBK 00 pro-S

Table 83. VERSIONS

RBK 00 pro-S		Cable terminal	Article No.
For installation on to 60 mm busbar system			
RBK 00 pro-SG-M	cable terminal – top, for connection of conductors with lug terminals	M8 screws	63-823259-121
RBK 00 pro-SD-M	cable terminal – bottom, for connection of conductors with lug terminals	M8 screws	63-823259-141
RBK 00 pro-SG-R	cable terminal-top, for connection of conductors with bare ends	frame clamps	63-823259-151
RBK 00 pro-SD-R	cable terminal-bottom, for connection of conductors with bare ends	frame clamps	63-823259-161

Table 84. RBK 00 pro-S TERMINAL CLAMPS

Description	Clamp	Drawing of clamp	Cross-section of conductors	Cu bar	Tightening torque
RBK 00 pro-SGM RBK 00 pro-SDM	M8 x 16 screw		conductor with lug terminal up to 70 mm ²	maximum bar width 20 mm	10 Nm*
RBK 00 pro-SGR RBK 00 pro-SDR	frame clamps		4 ÷ 95 mm ²	-	6 Nm* 3 Nm*

For stranded conductors using cable ferrules is recommended

*using of tension wrench is recommended

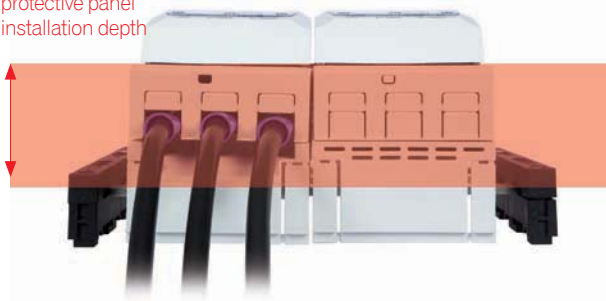


Fuse switch disconnectors RBK 00pro-S are designed for installation of distribution board's protective panels at two depths:

covering system at 70 mm depth

distribution board's
protective panel
installation depth

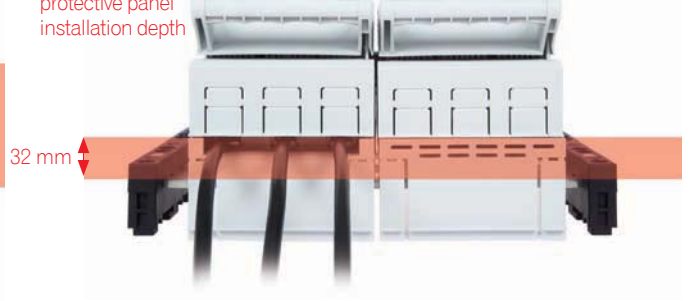
70 mm



covering system at 32 mm depth

distribution board's
protective panel
installation depth

32 mm



Fuse switch disconnectors RBK 00 pro-S are manufactured in two versions depending on type of cable terminal
RBK 00 pro-SD-with bottom cable terminal RBK 00 pro-SG-with top cable terminal



with cables connected
to the top cable terminal
RBK 00 pro-SG

with cables connected
to the bottom cable terminal
RBK 00 pro-SD

Fuse switch disconnector RBK 00 pro-S has special cavity in it's main base encasing busbar system's support.



Cavity
for busbar
system's
support

Cable terminals:

M8 screw terminal (RBK 00 pro-SDM, RBK 00 pro-SGM)



Frame clamp (RBK 00 pro-SDR, RBK 00 pro-SGR)



It is possible to install **microswitch indicating** position in fuse switch disconnectors RBK 00 pro-S



hole for leading
of wires connected
to microswitch



RBK 00 pro-V120 (160 A, 690 V)

Table 85. TECHNICAL DATA

Parameters		RBK 00 pro-V120		
Rated thermal current I _{th}	A	160		
Rated voltage U _n	V	690		
Utilization category	-	AC-23B	AC-22B	DC-22B
Rated switching voltage U _e	V	400	690	250
Rated switching current I _e	A	160	160	160
Rated short circuit making current	kA	100		20
Rated short circuit withstand current	kA	100		20
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		200		
IP degree of protection		IP 20		
Size of fuse links		00		

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[Accessories on page 122](#)


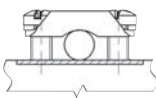

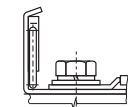

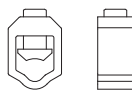





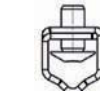





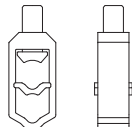





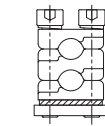




RBK 00 pro-V120

Table 86. VERSIONS

RBK 00 pro-V120		Article No.
For installation on mounting plate		
RBK 00 pro-V120	for connection of conductors with bare ends (top terminals- S-bridge clamps, bottom terminals – V-clamps)	63-823341-011
RBK 00 pro-V120 - M	for connection of conductors with bare ends (top terminals- M8 screws, bottom terminals – V-clamps)	63-823341-021
RBK 00 pro-P	for connection of conductors with bare ends (top terminals- S-bridge clamps, bottom terminals – Prism clamps)	63-823341-031
RBK 00 pro-P-M	for connection of conductors with bare ends (top terminals- M8 screws, bottom terminals – Prism clamps)	63-823341-041
RBK 00 pro 2 x V120	for connection of conductors with bare ends (top terminals- S-bridge clamps, bottom terminals – double V-clamps)	63-823341-051
RBK 00 pro 2 x V120-M	for connection of conductors with bare ends (top terminals- M8 screws, bottom terminals – double V-clamps)	63-823341-061

Table 87. RBK 00 pro-V120 TERMINAL CLAMPS

Clamp		Picture of a clamp	Drawing of clamp	Cross-section of conductors	Cu bar	Tightening torque
terminals on the consumer side	S-bridge clamp 2 x M5 x 16			Cu/Al conductor 4÷50 mm²	maximum bar width 20 mm	3 Nm*
	M8 x 16 screw			conductor with lug terminal up to 70 mm²		10 Nm*
cable terminals	V-clamp			 25 ÷ 120 mm²  **	-	20 Nm*
				 16 ÷ 95 mm²  **		
	HM 10-120			 10 - 70 mm² 		15 Nm*
				 25 - 120 mm²  25 - 95 mm²		
	Double V-clamp			 2 x (25 ÷ 120 mm²)  **		20 Nm*
				 2 x (16 ÷ 95 mm²)  **		
	Prism clamp			 2 x (10 ÷ 70 mm²)		5,5 Nm*
				 2 x (10 ÷ 50 mm²)		

For stranded conductors using cable ferrules is recommended

*using of tension wrench is recommended

**for stranded conductors using cable ferrules is recommended



NEW FEATURES OF CABLE TERMINALS

- connection of one or two sector-shaped conductors with cross-section up to 120 mm²
- connection of two round conductors with bare ends and cross-section up to 70 mm²

SPACE SAVING

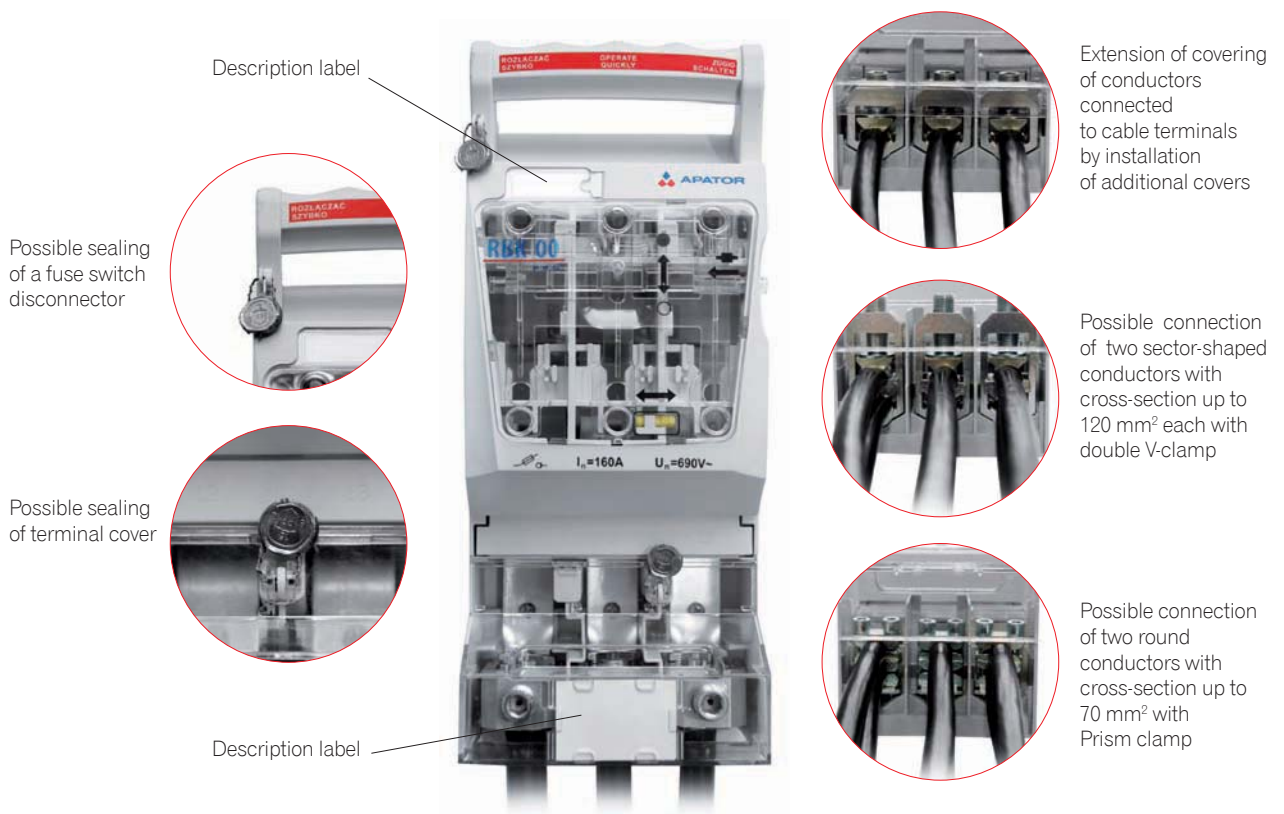
- possible reduction of external width of cable distribution cabinet to width of a fuse switch disconnecter

EFFICIENT CURRENT CIRCUIT

- no screw or riveted connection between contact and cable terminal (uniform design of current circuit ensures lower power loss and operating temperature)

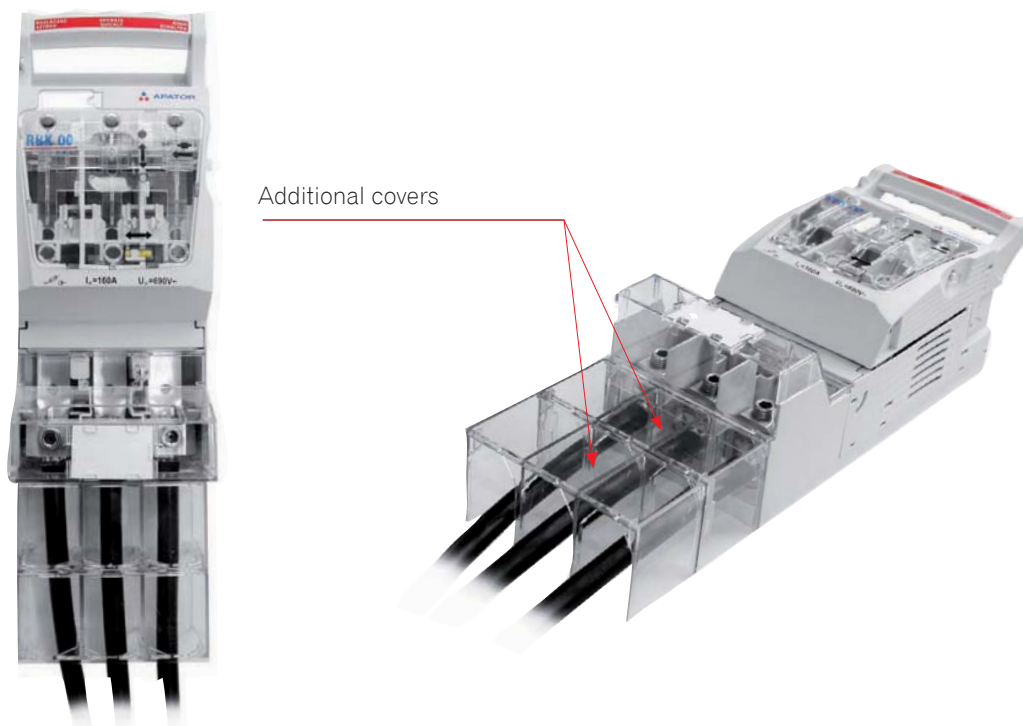
SAFETY

- fuse cover and cable terminal cover sealing
- extension of covering of conductors connected to cable terminals by installation of additional covers

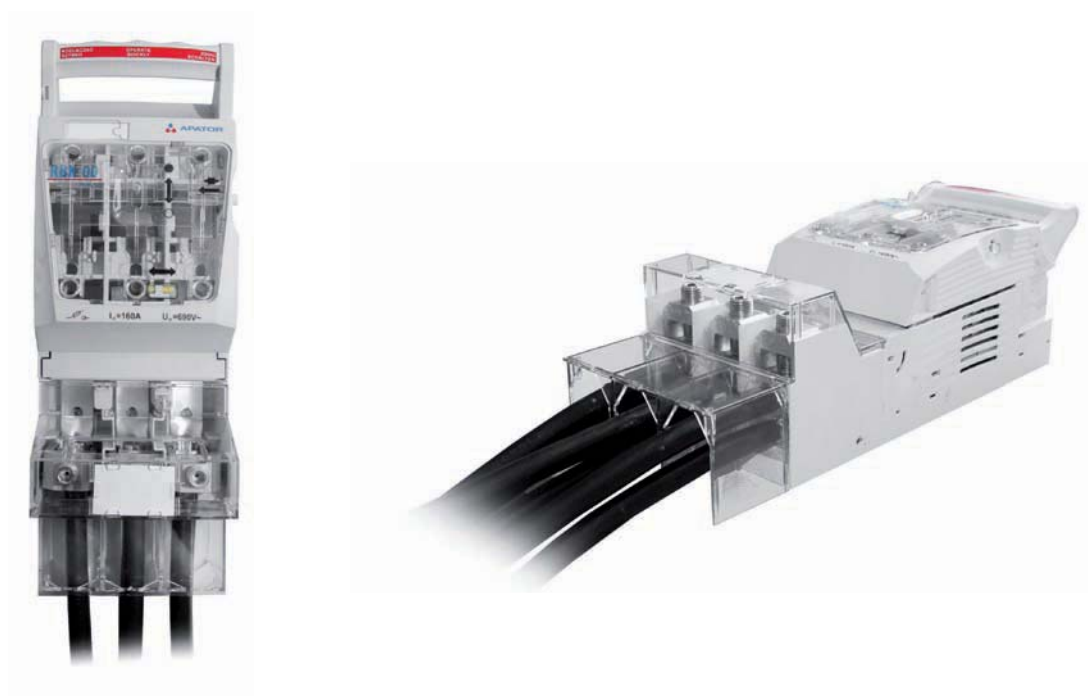


EXTENDED COVERING OF CONDUCTORS CONNECTED TO CABLE TERMINAL

For extension of covering of conductors connected to cable terminals, for example: to fully cover cables in cable distribution cabinet, any required number of additional covers could be installed (article number of additional extending cover: 51-930849-011) . Cover length - 50 mm.



RBK 00 pro-V120 with V-clamp for connection of sector-shaped conductors with cross-section up to 120 mm²



RBK 00 pro-V120 with double V-clamp for connection of two sector-shaped conductors with cross-section up to 120 mm² each

RBK 1 pro (250 A, 690 V)

Table 88. TECHNICAL DATA

Parameters			RBK 1 pro		RBK 1 pro -S				
Rated thermal current $I_{th}=I_n$			A		250		250		
Rated voltage U_n			V		690		690		
Utilization category			-		AC-23B	DC-22B	AC-23B	AC-22B	DC-22B*
Rated switching voltage U_e			V		690	250	400	690	250*
Rated switching current I_e			A		250	250	250		
Rated short circuit making current	690 V	kA	80	25	80			25*	
	400 V		100		100				
Rated short circuit withstand current	690 V	kA	80	25	80			25*	
	400 V		100		100				
Rated insulation voltage U_i			V		1000		1000		
Rated impulse withstand voltage U_{imp}			kV		8		8		
Rated power dissipation			W		32		32		
Rated frequency			Hz		50-60	-	50-60		-
Mechanical durability	Number of cycles		1600		1600				
Electrical durability			200		200				
IP degree of protection			-		30		30		
Size of fuse links			-		1		1		
Weight			kg		~2		~2,5		

Accessories on page 123

* for 60 mm busbar system






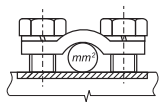
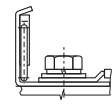
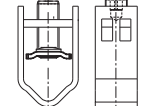




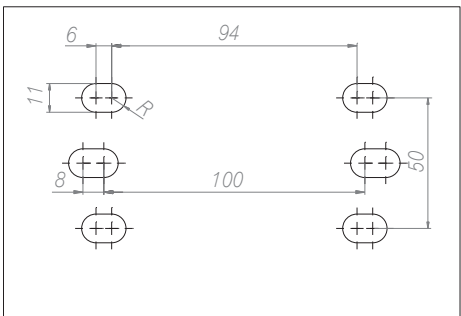
RBK 1 pro
for installation
on mounting plate

Table 89. VERSIONS

RBK 1 pro/250 A			
For installation on mounting plate	Cable terminals	Version	Article No..
For connection of round conductors	S-bridge clamps	RBK 1 pro	63-811748-011
For connection of conductors with lug terminals	Screws	RBK 1 pro-M	63-811748-021
For connection of sector-shaped conductors	V-clamps	RBK 1 pro-V	63-811748-031
For connection of round conductors, top terminals - V-terminals, bottom terminals - S-bridge terminals	V- clamps / S-bridge clamps	RBK 1 pro VG	63-811784-011
For connection of round conductors, top terminals - V-terminals, bottom terminals - screw terminals	V- clamps /screws	RBK 1 pro VG-M	63-811784-021
For connection of round conductors, top terminals - S-bridge terminals, bottom terminals - V-terminals	S-bridge clamps / V- clamps	RBK 1 pro VD	63-811784-031
For connection of round conductors, top terminals - screw terminals, bottom terminals - V-terminals	screw terminals / V- clamps	RBK 1 pro VD-M	63-811784-041
RBK 1 pro-S			
For installation on to busbar system	Cable terminals	Version	Article No..
60 mm busbar system			
Top cable terminals, for connection of round conductors	S-bridge clamps	RBK 1 pro-SG 60	63-811750-011
Bottom cable terminals, for connection of round conductors	S-bridge clamps	RBK 1 pro-SD 60	63-811750-021
Bottom cable terminals, for connection of sector-shaped conductors	V- clamps	RBK 1 pro-SD-V 100	63-811750-121
Bottom cable terminals, for connection of conductors withlug terminals	Screws	RBK 1 pro-SD-M 60	63-811750-061
Top cable terminals, for connection of sector-shaped conductors	V- clamps	RBK 1 pro-SG-V 60	63-811750-091
Bottom cable terminals, for connection of sector-shaped conductors	V- clamps	RBK 1 pro-SD-V 60	63-811750-101

RBK 1 pro-S			
For installation on to busbar system	Cable terminals	Version	Article No.
100 mm busbar system			
Top cable terminals, for connection of round conductors	S-bridge clamps	RBK 1 pro-SG 100	63-811750-031
Bottom cable terminals, for connection of round conductors	S-bridge clamps	RBK 1 pro-SD 100	63-811750-041
Top cable terminals, for connection of conductors with lug terminals	Screws	RBK 1 pro-SG-M 100	63-811750-071
Bottom cable terminals, for connection of conductors with lug terminals	Screws	RBK 1 pro-SD-M 100	63-811750-081
Top cable terminals, for connection of sector-shaped conductors	V-clamps	RBK 1 pro-SG-V 100	63-811750-111
Bottom cable terminals, for connection of sector-shaped conductors	V-clamps	RBK 1 pro-SD-V 100	63-811750-121

Table 90. RBK 1 pro TERMINAL CLAMPS

Description	RBK 1 pro	RBK 1 pro-M	RBK 1 pro-V
Clamp	S-bridge clamp 2xM8x30	M10x25 screw	V-clamp HS 35-300-C
Picture of a clamp			
Drawing of a clamp			
Cross-section of conductors	Cu/Al conductor 35 ÷ 120 mm ²	conductor with lug terminal up to 120 mm ²	V-clamp for direct fixing of conductor with bare end with cross-section of: 35 - 185 mm ²  35 - 240 mm ²  35 - 240 mm ²  35 - 300 mm ² 
Cu bar	maximum bar width 35 mm		
Tightening torque	10 Nm*	20 Nm*	40 Nm*
Dimensions and spacing of holes for installation of RBK 1 pro on mounting plate			

For stranded conductors using cable ferrules is recommended

*using of tension wrench is recommended

**for stranded conductors using cable ferrules is recommended



RBK 1 pro
for installation on mounting plate



RBK 1 pro-SG
RBK 1 pro-SD
for installation on to busbar system



RBK 1 pro
for installation on mounting plate,
with additional terminal shrouds



RBK 1 pro VD-M
for installation on mounting plate,
picture of fuse switch disconnect
without fuse links cover and terminal shrouds,
top cable terminal - M screws,
bottom cable terminal - V-clamps,
(RBK 1 pro VG-M - bottom cable terminal - M screws,
top cable terminal - V-clamps)

RBK 2 pro (400 A, 690 V)

Table 91. TECHNICAL DATA

Parameters			RBK 2 pro		
Rated thermal current I_{th}		A	400		
Napięcie znamionowe 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	690 V	kA	80	15	20
	400 V		100		
Rated short circuit withstand current	690 V	kA	80	15	20
	400 V		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		
IP degree of protection			IP20		
Size of fuse links			2		
Accessories on page 123					

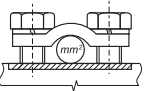
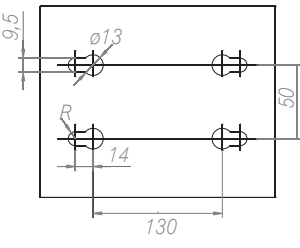
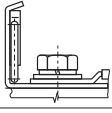
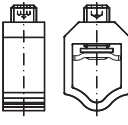




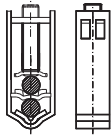




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RBK 2-V pro
for installation on mounting plate

Table 92. VERSIONS

RBK 2 pro/400 A		Cable terminal	Article No.
For installation on mounting plate			
RBK 2 pro	for connection of round conductors	S-bridge clamps	63-811685-011
RBK 2 pro-V	for connection of sector-shaped conductors	V-clamps	63-811685-071
RBK 2 pro-2V	for connection of sector-shaped conductors	double V-clamps	63-811685-081
RBK 2 pro-M	for connection of conductors with lug terminals	M10 screws	63-811685-061
RBK 2 pro-VG	for connection of sector-shaped / round conductors top terminals - V-clamps, bottom terminals - S-bridge clamps	V-clamps / S-bridge clamps	63-811685-201
RBK 2 pro-VG-M	for connection of sector-shaped conductors / conductors with lug terminals top terminals - V-clamps, bottom terminals - screw terminals	V-clamps / screws	63-811685-202
RBK 2 pro-VD	for connection of round / sector-shaped conductors top terminals - S-bridge clamps, bottom terminals - V-clamps	S-bridge clamps / V-clamps	63-811685-203
RBK 2 pro-VD-M	for connection of conductors with lug terminals / sector-shaped conductors top terminals - screw terminals, bottom terminals - V-clamps	screws / V-clamps	63-811685-204
For installation on to 60 mm busbar system			
RBK 2 pro-M-SD 60	Bottom cable terminals, for connection of conductors with lug terminals	M10 screws	63-811686-061
RBK 2 pro-M-SG 60	Top cable terminals, for connection of conductors with lug terminals	M10 screws	63-811686-051
RBK 2 pro-V-SD 60	Bottom cable terminals, for connection of sector-shaped conductors	V-clamps	63-811686-101
RBK 2 pro-V-SG 60	Top cable terminals, for connection of sector-shaped conductors	V-clamps	63-811686-091
RBK 2 pro-2V-SD 60	Bottom cable terminals, for connection of sector-shaped conductors	double V-clamps	63-811686-141
RBK 2 pro-2V-SG 60	Top cable terminals, for connection of sector-shaped conductors	double V-clamps	63-811686-131
For installation on to 100 mm busbar system			
RBK 2 pro-M-SD 100	Bottom cable terminals, for connection of conductors with lug terminals	M10 screws	63-811686-081
RBK 2 pro-M-SG 100	Top cable terminals, for connection of conductors with lug terminals	M10 screws	63-811686-071
RBK 2 pro-V-SD 100	Bottom cable terminals, for connection of sector-shaped conductors	V-clamps	63-811686-121
RBK 2 pro-V-SG 100	Top cable terminals, for connection of sector-shaped conductors	V-clamps	63-811686-111
RBK 2 pro-2V-SD 100	Bottom cable terminals, for connection of sector-shaped conductors	double V-clamps	63-811686-161
RBK 2 pro-2V-SG 100	Top cable terminals, for connection of sector-shaped conductors	double V-clamps	63-811686-151

Table 93. RBK 2 pro TERMINAL CLAMPS

Description	Clamp	Drawing of clamp	Cross-section of conductors	Cu bar	Tightening torque	Dimensions and spacing of holes for installation of RBK 2 on mounting plate
RBK 2 pro	S-bridge clamp 2 x M8 x 30		Cu/Al conductor 50 ÷ 185 mm ²	maxi- mum bar width 35 mm	10 Nm*	
	M10 x 30 screw		conductor with lug terminal up to 240 mm ²		20 Nm*	
	V-clamp 35-300SW-B		V-clamp for direct fixing of conductor with bare end with cross-section: 35 - 185 mm ²  35 - 240 mm ²  35 - 240 mm ²  35 - 300 mm ² 		30 Nm*	
	double V-clamp HS2/ 35-240-C		V-clamp for direct fixing of con- ductor with bare end with cross- section: 35 - 185 mm ²  35 - 240 mm ²  35 - 240 mm ²  35 - 300 mm ² 		40 Nm*	

For stranded conductors using cable ferrules is recommended
*using of tension wrench is recommended



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



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



RBK 2 pro-SG*
(top cable terminal: M10 screws)
RBK 2 pro-SD*
(bottom cable terminal: M10 screws)
for installation on to busbar systems



RBK 2 pro-2V-SG (top cable terminal: double V-clamp
RBK 2 pro-2V-SD (bottom cable terminal: doubleV-clamp)
for installation on to busbar systems



RBK 2 pro-V-SG (top cable terminal: V-clamp)
RBK 2 pro-V-SD (bottom cable terminal: V-clamp)
for installation on to busbar systems

RBK 3 pro (630 A, 690 V)

Table 94. TECHNICAL DATA

Parametr		RBK 3 pro							
		for installation on mounting plate			for installation on busbar system				
Rated thermal current I _{th}		A	630						
Rated voltage U _n		V	690						
Utilization category		-	AC-23B	AC-22B	DC-21B	AC-23B	AC-22B	AC-21B	
Rated switching voltage U _e		V	400	690	440	400	500	690	
Rated switching current I _e		A	630	630	630	630	630	630	
Rated short circuit making current	U _e =690 V	kA	80						
	U _e =500 V		120						
Rated short circuit withstand current	U _e =690 V	kA	80						
	U _e =500 V		120						
Rated insulation voltage U _i		V	1000						
Rated impulse withstand voltage U _{imp}		kV	12						
Rated frequency		Hz	50-60	-		50-60			
Mechanical durability	Number of cycles	1000							
Electrical durability		200							
IP degree of protection		IP 20							
Size of fuse links		3							

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RBK 3 pro
main version
for installation
on mounting plate

Table 95. VERSIONS

RBK 3 pro, RBK 3 pro-S for installation on 60 mm busbar system		Cable terminal	Article No.
RBK 3 pro	for connection of round conductors	S-bridge clamps	63-811761-011
RBK 3 pro-M	for connection of conductors with lug terminals	M12 screws	63-811761-021
RBK 3 pro-2xV	for connection of sector-shaped conductors	ingoings terminals two single V-clamps per phase	63-811761-031
RBK 3 pro-SD	bottom cable terminals, for connection of round conductors	S-bridge clamps	63-028802-001
RBK 3 pro-SG	top cable terminals, for connection of round conductors	S-bridge clamps	63-028802-002
RBK 3 pro-SD-M	bottom cable terminals, for connection of conductors with lug terminals	M12 screws	63-028802-003
RBK 3 pro-SG-M	top cable terminals, for connection of conductors with lug terminals	M12 screws	63-028802-004

Tabela 96. RBK 3 pro TERMINAL CLAMPS

Version	Clamp	Drawing of clamp	Cross-section of conductors	Cu bar	Tightening torque	Dimensions and spacing of holes for installation of RBK 3 on mounting plate
RBK 3 pro	S-bridge clamp 2 x M8 x 35		Cu/Al conductor 50 ÷ 185 mm ²	maximum bar width 35 mm	10 Nm*	
	M12 x 30 screw		conductor with lug terminal up to 240 mm ²		20 Nm*	
	V-clamp 35-300SW-B		V-clamp for direct fixing of two conductors with bare ends with cross-section of: 35 - 185 mm ² ● 35 - 240 mm ² ● 35 - 240 mm ² ◆ 35 - 300 mm ² ◆		30 Nm*	

For stranded conductors using cable ferrules is recommended

*using of tension wrench is recommended

RBK 4a (1250 A, 500 V; 1600 A, 400 V)

Table 97. TECHNICAL DATA

Parametr	RBK 4a		
Rated thermal current $I_{th}=I_n$	A	1250	1600
Utilization category	-	AC-22B	AC-21B
Rated switching voltage U_e	V	500	400
Rated switching current I_e	A	1250	1600
Rated short circuit withstand current	kA	50	
Rated insulation voltage U_i	V	800	
Rated impulse withstand voltage U_{imp}	kV	8	
Rated frequency	Hz	50-60	
Mechanical durability	c.p	600	
Electrical durability	c.f.	100	
IP degree of protection		IP 20	
Size of fuse links		4a	


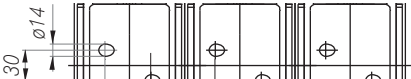


RBK 4a
for installation on mounting plate

Table 98. VERSIONS

RBK 4a		Weight	Cable terminal	Article No..
RBK 4a/1250/1	ONE POLE SWITCHING - each phase independently, for connection of conductors with lug terminals	4,2 kg	screws	63-946868-001
RBK 4a/1250/3	THREE POLE SWITCHING - all phases simultaneously, for connection of conductors with lug terminals	13,0 kg	screws	63-946868-002
RBK 4a/1600/1	ONE POLE SWITCHING - each phase independently, for connection of conductors with lug terminals	5,0 kg	screws	63-946869-001
RBK 4a/1600/3	THREE POLE SWITCHING - all phases simultaneously, for connection of conductors with lug terminals	14,0 kg	screws	63-946869-002

Tabela 99. RBK 4a TERMINAL CLAMPS

Version	Clamp	Drawing of clamp	Cross-section of conductors	Cu bar	Tightening torque	Dimensions and spacing of holes for installation of RBK 4a on mounting plate
RBK 4a 1250	M16 x 50 screw		conductor with lug terminal up to 800 mm ²	2 x 80 x 10	56 Nm*	
RBK 4a 1600	2 x M12 x 60 screw		conductor with lug terminal up to 800 mm ²			

*using of tension wrench is recommended

ELECTRONIC 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

PARAMETERS

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

CAUTION!

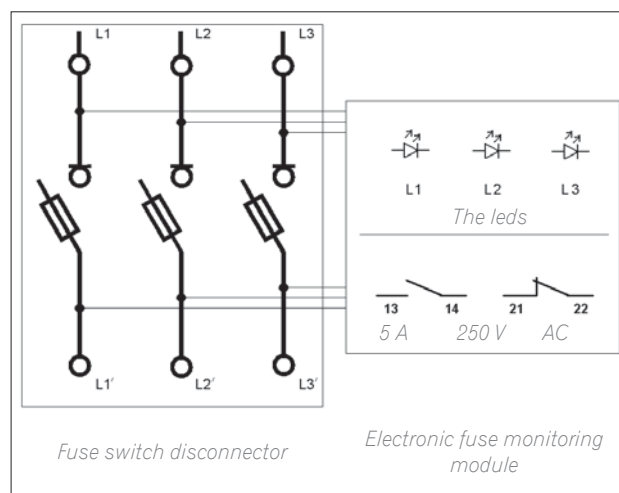
For use only with fuse-links with non-isolated gripping lugs!



RBK 00-X
with electronic fuse monitoring module

ELECTRONIC FUSE MONITORING MODULE VERSIONS ACCORDING TO POWER SUPPLY CONNECTION

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



disconnecter contact position during normal operation

Table 100. VERSIONS

Versions with electronic fuse monitoring module, cable terminals - S-bridge clamps		
RBK 00 pro-XT	For installation on mounting plate, power supply connected to top cable terminals	63-823304-011
RBK 00 pro-X	For installation on mounting plate, power supply connected to top bottom terminals	63-823304-021
RBK 00 pro-SG -X	For installation on to 60 mm busbar system, top cable terminals	63-823345-011
RBK 00 pro-SD-X	For installation on to 60 mm busbar system, bottom cable terminals	63-823345-021
RBK 1 pro-XT	For installation on mounting plate, power supply connected to top cable terminals	63-811785-011
RBK 1 pro-X	For installation on mounting plate, power supply connected to top bottom terminals	63-811785-021
RBK 1 pro-SG 60-X	For installation on to 60 mm busbar system, top cable terminals	63-811787-011
RBK 1 pro-SD 60-X	For installation on to 60 mm busbar system, bottom cable terminals	63-811787-021
RBK 1 pro-SG 100-X	For installation on to 100 mm busbar system, top cable terminals	63-811787-031
RBK 1 pro-SD 100-X	For installation on to 100 mm busbar system, bottom cable terminals	63-811787-041
RBK 2 pro-XT	For installation on mounting plate, power supply connected to top cable terminals	63-811786-011
RBK 2 pro-X	For installation on mounting plate, power supply connected to top bottom terminals	63-811786-021
RBK 2 pro-SG 60-X	For installation on to 60 mm busbar system, top cable terminals	63-811788-011
RBK 2 pro-SD 60-X	For installation on to 60 mm busbar system, bottom cable terminals	63-811788-021
RBK 2 pro-SG 100-X	For installation on to 100 mm busbar system, top cable terminals	63-811788-031
RBK 2 pro-SD 100-X	For installation on to 100 mm busbar system, bottom cable terminals	63-811788-041