## DATASHEET - FBSMV-63/2/01-S/A



Residual-current circuit breaker trip block for FAZ, 63A, 2pole, 100mA, type S/A



FBSMV-63/2/01-S/A Part no. 170159 Catalog No. Alternate Catalog FBSMV-63/2/01-S/A

Similar to illustration

Delivery program			
Basic function			Add-on residual current protection unit
Number of poles			2 pole
Application			Switchgear for industrial and advanced commercial applications
Rated current	In	Α	63
Rated short-circuit strength	I <sub>cn</sub>	kA	same as connected FAZ up to max. 10
Rated fault current	$I_{\Delta N}$	Α	0.1
Туре			Type S/A
Tripping		s	selective switch off
Product range			FBSmV
Sensitivity			AC and pulsating DC current sensitive
Impulse withstand current			surge-proof 5 kA
Contact sequence			2 4 T-/ H

### **Technical data**

FI	cf	vi	•	•

Climatic proofing

Rated frequency	f	Hz	50
Sensitivity			AC and pulsating DC current sensitive
Rated current	In	Α	63
Mechanical			
Standard front dimension		mm	45
Device height		mm	90
Built-in width		mm	70 (2TE)
Mounting			Permanent screw connection with FAZ
Degree of Protection			IP20, IP40 with suitable enclosure
Terminals top and bottom			Lift terminals
Terminal protection			DGUV VS3, EN 50274
Thickness of busbar material		mm	0.8 - 2
Admissible ambient temperature range		°C	-25 - +40
Permissible storage and transport temperatures		°C	-35 - +60

#### **Design verification as per IEC/EN 61439**

3			
echnical data for design verification			
Rated operational current for specified heat dissipation	In	Α	63
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	17
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	40

25-55°C/90-95% relative humidity according to IEC 60068-2

	Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C
IEC/EN 61439 design verification	
10.2 Strength of materials and parts	
10.2.2 Corrosion resistance	Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures	Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat	Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects	Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation	Meets the product standard's requirements.
10.2.5 Lifting	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact	Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions	Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances	Meets the product standard's requirements.
10.5 Protection against electric shock	Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections	Is the panel builder's responsibility.
10.8 Connections for external conductors	Is the panel builder's responsibility.
10.9 Insulation properties	
10.9.2 Power-frequency electric strength	Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material	Is the panel builder's responsibility.
10.10 Temperature rise	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

#### **Technical data ETIM 7.0**

Circuit breakers and fuses (EG000020) / Residual current circuit breaker (RCCB) (EC000003)

Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / Residual current circuit breaker (RCCB) (ecl@ss10.0.1-27-14-22-01 [AAB906014])

Rated voltage         V         240           Rated current         A         63           Rated fault current         mA         100           Rated insulation voltage Uin         V         440           Rated impulse withstand voltage Uimp         kV         4           Mounting method         V         4           Selective protection         V         4           Short-time delayed tripping         kA         0           Short-circuit breaking capacity (lcw)         kA         0           Surge current capacity         kA         5           Frequency         kA         5           Additional equipment possible         VS         5           With interlocking device         Yes         7           Degree of protection (IP)         P20         P20           With in number of modular spacings         M         4           Built-in depth         mm         70           Ambient temperature during operating         C         25-40           Pollution degree         25-40	(ecl@ss10.0.1-27-14-22-01 [AAB906014])		
As a ded current As a ded fault current As a ded fault current As a ded insulation voltage Ui As a ded insulation voltage Uinp As a descriver type As a des	Number of poles		2
Rated fault current         mA         100           Rated insulation voltage Ui         V         440           Rated impulse withstand voltage Uimp         kV         4           Mounting method         DIN rail           Leakage current type         A         2           Selective protection         Yes           Short-time delayed tripping         No         No           Short-circuit breaking capacity (lcw)         kA         0           Short-circuit preaking capacity (lcw)         kA         5           Surge current capacity         KA         5           Frequency         Ves         90 Hz           Additional equipment possible         Yes           With interlocking device         Yes         Yes           Degree of protection (IP)         IP20           With in number of modular spacings         Yes         Yes           Sull-in depth         mm         70           Ambient temperature during operating         "C         25 - 40           Pollution degree         25 - 40	Rated voltage	V	240
Rated insulation voltage Uimp Rated impulse withstand voltage Uimp Mounting method Leakage current type Selective protection Short-time delayed tripping Short-circuit breaking capacity (Icw) Short-circuit breaking capacity (Icw) Surge current capacity Frequency Additional equipment possible With interlocking device Degree of protection (IP) Width in number of modular spacings Built-in depth Ambient temperature during operating Pollution degree  V 4  44  A   DIN rail  A  A  A  B  C  Ves  So  So  So  So  So  So  So  So  So  S	Rated current	А	63
Rated impulse withstand voltage Uimp  Mounting method  Leakage current type  Selective protection  Short-time delayed tripping  Short-circuit breaking capacity (Icw)  Short-circuit breaking capacity (Icw)  Surge current capacity  Frequency  Additional equipment possible  With interlocking device  Degree of protection (IP)  Width in number of modular spacings  Built-in depth  Ambient temperature during operating  Pollution degree  With degree of protection (IP)  Ambient degree  Pollution degree  Rive  Pollution degree  Pollution	Rated fault current	mA	100
Mounting method Leakage current type  Selective protection  Short-time delayed tripping Short-circuit breaking capacity (Icw) Surge current capacity Frequency Additional equipment possible With interlocking device Degree of protection (IP) With interlocking device Degree of protection (IP) With in number of modular spacings Suilt-in depth Ambient temperature during operating Pollution degree  Pollution degree  DIN rail  A  A  A  A  A  A  A  B  A  A  A  A  A	Rated insulation voltage Ui	V	440
Leakage current type Selective protection Short-time delayed tripping Short-circuit breaking capacity (Icw) Surge current capacity Frequency Additional equipment possible With interlocking device Degree of protection (IP) Width in number of modular spacings Suilt-in depth Ambient temperature during operating Pollution degree  Additional equipment possible  Ambient temperature during operating  Additional equipment Pollution degree  Additional equipment possible  Additional equipment	Rated impulse withstand voltage Uimp	kV	4
Selective protection Short-time delayed tripping Short-circuit breaking capacity (Icw) Short-circuit breaking capacity (Icw) Surge current capacity Frequency Additional equipment possible With interlocking device Surge of protection (IP) Width in number of modular spacings Sulfit-in depth Ambient temperature during operating Selective protection Short-circuit breaking capacity (Icw) Short-circuit breaking cap	Mounting method		DIN rail
Short-time delayed tripping Short-circuit breaking capacity (Icw) Surge current capacity Frequency Additional equipment possible With interlocking device Degree of protection (IP) Width in number of modular spacings Built-in depth Mmm 70 Ambient temperature during operating Pollution degree  No No No Surge current capacity (Icw) NA Surge current capacity NA	Leakage current type		A
Short-circuit breaking capacity (Icw)  Surge current capacity  KA  5 Frequency Additional equipment possible With interlocking device Degree of protection (IP) Width in number of modular spacings  With indepth  mm  70 Ambient temperature during operating Pollution degree  KA  0  C  C  C  C  C  C  C  C  C  C  C  C	Selective protection		Yes
Surge current capacity  kA  5 Frequency  Additional equipment possible  With interlocking device  Degree of protection (IP)  Width in number of modular spacings  Ambient temperature during operating  Pollution degree  kA  5  Wes  Yes  Pollution degree  An   C  C  C  C  C  C  C  C  C  C  C  C  C	Short-time delayed tripping		No
Frequency Additional equipment possible With interlocking device With interlocking device Pollution degree  50 Hz  Yes  Yes  Yes  Yes  Pollution degree  70 Hz  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Ye	Short-circuit breaking capacity (Icw)	kA	0
Additional equipment possible  With interlocking device  Pegree of protection (IP)  Width in number of modular spacings  Ambient temperature during operating  Pollution degree  Yes  Yes  IP20  4  C  2  2  Pollution degree  Yes  Yes  Yes  Yes  Yes  Yes  Yes	Surge current capacity	kA	5
With interlocking device  Pegree of protection (IP)  Width in number of modular spacings  Width in number of modular spacings  Width in number of modular spacings  The spacing of the spa	Frequency		50 Hz
Degree of protection (IP)  Width in number of modular spacings  Built-in depth  mm  70  Ambient temperature during operating  °C  -25 - 40  Pollution degree  2	Additional equipment possible		Yes
Width in number of modular spacings  Built-in depth  mm 70  Ambient temperature during operating  °C -25 - 40  Pollution degree  2	With interlocking device		Yes
Built-in depth mm 70  Ambient temperature during operating °C -25 - 40  Pollution degree 2	Degree of protection (IP)		IP20
Ambient temperature during operating  °C -25 - 40  Pollution degree  2	Width in number of modular spacings		4
Pollution degree 2	Built-in depth	mm	70
	Ambient temperature during operating	°C	-25 - 40
Connectable conductor cross section multi-wired mm <sup>2</sup> 0.75 - 35	Pollution degree		2
	Connectable conductor cross section multi-wired	mm²	0.75 - 35
Connectable conductor cross section solid-core mm <sup>2</sup> 0.75 - 35	Connectable conductor cross section solid-core	mm²	0.75 - 35

# **Dimensions**

