DATASHEET - FBSMV-40/4/01-S/A

Residual-current circuit breaker trip block for FAZ, 40A, 4pole, 100mA, type S/A

Part no. **FBSMV-40/4/01-S/A**
170166

General specifications	
Product name	Eaton Moeller series xEffect - FBSmV RCCB add-on unit
Part no.	FBSMV-40/4/01-S/A
EAN	4015081666751
Product Length/Depth	90 millimetre
Product height	75 millimetre
Product width	125 millimetre
Product weight	0.298 kilogram
Compliances	RoHS conform
Certifications	IEC/EN 61009 EN45545-2 IEC 61373
Product Tradename	FBSmV
Product Type	RCCB add-on unit
Product Sub Type	None
Delivery program	
Application	xEffect - Switchgear for industrial and advanced commercial applications Switchgear for industrial and advanced commercial applications
Number of poles	Four-pole
Tripping time	40 ms delayed - selective switch off Selective switch off
Amperage Rating	40 A
Rated short-circuit strength	Same as connected FAZ up to max. 10 kA
Fault current rating	100 mA
Sensitivity type	AC and pulsating DC current sensitive
Impulse withstand current	Surge-proof 5 kA
Type	Ambient temperature hint: Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C
Technical Data - Electrical	
Voltage rating - min	240 V
Voltage rating - max	415 V
Rated operational voltage (Ue) - max	415 V
Rated insulation voltage (Ui)	440 V
Rated impulse withstand voltage (Uimp)	4 kV
Rated fault current - min	0.1 A
Rated fault current - max	0.1 A
Frequency rating	50 Hz
Leakage current type	A
Rated short-time withstand current (Icw)	10 kA 0 kA
Surge current capacity	5 kA
Pollution degree	2
Technical Data - Mechanical	
Frame	45 mm
Width in number of modular spacings	7
Built-in width (number of units)	125 mm (4 SU)
Built-in depth	70 mm
Mounting Method	DIN rail Permanent screw connection with FAZ
Degree of protection	IP20, IP40 with suitable enclosure IP20

Terminals (top and bottom)	Lift terminals
Connectable conductor cross section (solid-core) - min	0.75 mm^2
Connectable conductor cross section (solid-core) - max	35 mm^2
Connectable conductor cross section (multi-wired) - min	0.75 mm^2
Connectable conductor cross section (multi-wired) - max	35 mm^2
Terminal protection	Finger and hand touch safe, DGUV VS3, EN 50274
Busbar material thickness	0.8 mm - 2 mm
Permitted storage and transport temperature - min	-35 °C
Permitted storage and transport temperature - max	60 °C
Climatic proofing	25-55 °C / 90-95% relative humidity according to IEC 60068-2

Design verification as per IEC/EN 61439 - technical data

Rated operational current for specified heat dissipation (In)	40 A
Heat dissipation per pole, current-dependent	0 W
Equipment heat dissipation, current-dependent	22 W
Heat dissipation capacity	0 W
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	40 °C

Design verification as per IEC/EN 61439

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 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects	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.
10.6 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.
10.9.2 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.

Additional information

Features	Add-on residual current protection unit Selective protection Additional equipment possible
Fitted with:	Interlocking device
Special features	Type S/A FBSmV Add-on residual current protection unit
Used with	FBSmV Add-on residual current protection unit Type S/A

Technical data ETIM 9.0

Circuit breakers and fuses (EG000020) / Residual current circuit breaker (RCCB) module (EC002297)

Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / Residual current circuit breaker (RCCB) module (ecl@ss13-27-14-22-10 [ACN357016])

Nominal voltage	V	240 - 415
Nominal current	A	40

Rated fault current adjustable			No
Rated fault current		A	0.1 - 0.1
Max. delay time		ms	40
Delay adjustable			No
Number of poles			4
Leakage current type			A
Surge current capacity		kA	5
Frequency			50 Hz
Rated insulation voltage Ui		V	440
Rated impulse withstand voltage Uimp		kV	4
Power loss		W	8.9
Connectable conductor cross section solid-core		mm^2	0.75 - 35
Connectable conductor cross section multi-wired		mm^2	0.75 - 35
Anti-nuisance tripping version			No
With interlocking device			Yes
Degree of protection (IP)			IP20
Pollution degree			2
Ambient temperature during operating		°C	-25 - 40

© 04/2023 by Eaton Industries GmbH