DATASHEET - FBSMV-40/2/01-S

Residual-current circuit breaker trip block for FAZ, 40A, 2p, 100mA, type S

Part no. **FBSMV-40/2/01-S**
170240

General specifications	
Product name	Eaton Moeller series xEffect - FBSmV RCCB add-on unit
Part no.	FBSMV-40/2/01-S
EAN	4015081667437
Product Length/Depth	90 millimetre
Product height	75 millimetre
Product width	70 millimetre
Product weight	0.197 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	Two-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 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	240 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	AC
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	4
Built-in width (number of units)	70 mm (2 SU)
Built-in depth	70 mm
Mounting Method	Permanent screw connection with FAZ DIN rail
Degree of protection	IP20 IP20, IP40 with suitable enclosure

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

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		2
Leakage current type		AC
Surge current capacity	kA	5
Frequency		50 Hz
Rated insulation voltage Ui	V	440
Rated impulse withstand voltage Uimp	kV	4
Power loss	W	3.1
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

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