

## Residual-current circuit breaker trip block for AZ, 80A, 4p, 500mA, type AC

 Part no. **FBH MV-80/4/05**  
**170253**

<b>General specifications</b>		
Product name		Eaton Moeller series xEffect - FBHmV RCCB add-on unit
Part no.		FBH MV-80/4/05
EAN		4015081667550
Product Length/Depth		94.5 millimetre
Product height		80 millimetre
Product width		90 millimetre
Product weight		0.489 kilogram
Compliances		RoHS conform
Certifications		IEC 61373 EN45545-2 IEC/EN 60947-2
Product Tradename		FBHmV
Product Type		RCCB add-on unit
Product Sub Type		None
<b>Delivery program</b>		
Application		Switchgear for industrial and advanced commercial applications xEffect - Switchgear for industrial and advanced commercial applications
Number of poles		Four-pole
Tripping time		Non-delayed
Amperage Rating		80 A
Rated short-circuit strength		Same as connected AZ
Fault current rating		500 mA
Sensitivity type		AC current sensitive
Impulse withstand current		Partly surge-proof 250 A
Type		Ambient temperature hint: Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C
<b>Technical Data - Electrical</b>		
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		0.5 A
Rated fault current - max		0.5 A
Frequency rating		50 Hz
Leakage current type		AC
Rated short-time withstand current (Icw)		0 kA 10 kA
Surge current capacity		0.25 kA
Pollution degree		2
Lifespan, electrical		1500 operations
<b>Technical Data - Mechanical</b>		
Frame		45 mm
Width in number of modular spacings		5.5
Built-in width (number of units)		95 mm (5.5 SU)
Built-in depth		70 mm
Mounting Method		DIN rail Screwed onto AZ 2-, 3-, 4-pole; Z-BHASA
Degree of protection		IP20, IP40 with suitable enclosure

		IP20
Terminals (top and bottom)		Lift terminals
Connectable conductor cross section (solid-core) - min		2.5 mm <sup>2</sup>
Connectable conductor cross section (solid-core) - max		50 mm <sup>2</sup>
Connectable conductor cross section (multi-wired) - min		2.5 mm <sup>2</sup>
Connectable conductor cross section (multi-wired) - max		50 mm <sup>2</sup>
Terminal protection		Finger and hand touch safe, DGUV VS3, EN 50274
Lifespan, mechanical		10000 operations
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
<b>Design verification as per IEC/EN 61439 - technical data</b>		
Rated operational current for specified heat dissipation (I <sub>n</sub> )		80 A
Heat dissipation per pole, current-dependent		0 W
Equipment heat dissipation, current-dependent		7 W
Heat dissipation capacity		0 W
Ambient operating temperature - min		-25 °C
Ambient operating temperature - max		40 °C
<b>Design verification as per IEC/EN 61439</b>		
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.
<b>Additional information</b>		
Features		Add-on residual current protection unit Additional equipment possible
Fitted with:		Interlocking device
Special features		Add-on residual current protection unit FBHmV Type AC
Used with		Type AC FBHmV Add-on residual current protection unit

## 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 (ec@ss13-27-14-22-10 [ACN357016])		
Nominal voltage	V	240 - 415
Nominal current	A	80

Rated fault current adjustable		No
Rated fault current	A	0.5 - 0.5
Max. delay time	ms	0
Delay adjustable		No
Number of poles		4
Leakage current type		AC
Surge current capacity	kA	0.25
Frequency		50 Hz
Rated insulation voltage Ui	V	440
Rated impulse withstand voltage Uimp	kV	4
Power loss	W	
Connectable conductor cross section solid-core	mm <sup>2</sup>	2.5 - 50
Connectable conductor cross section multi-wired	mm <sup>2</sup>	2.5 - 50
Anti-nuisance tripping version		No
With interlocking device		Yes
Degree of protection (IP)		IP20
Pollution degree		2
Ambient temperature during operating	°C	-25 - 40