DATASHEET - PFIM-80/4/03-MW

Residual current circuit breaker (RCCB), 80A, 4p, 300mA, type AC

Part no. **PFIM-80/4/03-MW**
235420

Powering Business Worldwide™

General specifications

Product name	Eaton Moeller series xPole - PFIM Type AC, A, U, R RCCB
Part no.	PFIM-80/4/03-MW
EAN	4015082354206
Product Length/Depth	80 millimetre
Product height	76 millimetre
Product width	70 millimetre
Product weight	0.377 kilogram
Compliances	RoHS conform
Certifications	IEC/EN 61008
Product Tradename	xPole - PFIM Type AC, A, U, R
Product Type	RCCB
Product Sub Type	None

Delivery program

Application	Residual current circuit breaker for residential and commercial applications xPole - Switchgear for residential and commercial applications
Number of poles	Four-pole
Tripping time	Non-delayed
Amperage Rating	80 A
Rated short-circuit strength	10 kA
Fault current rating	300 mA
Sensitivity type	AC current sensitive
Impulse withstand current	Partly surge-proof 250 A
Type	PFIM Residual current circuit breakers Type AC

Technical Data - Electrical

Voltage rating	230 V AC / 400 V AC
Rated operational voltage (Ue) - max	400 V
Rated insulation voltage (Ui)	440 V
Rated impulse withstand voltage (Uimp)	4 kV
Rated fault current - min	0.3 A
Rated fault current - max	0.3 A
Frequency rating	50 Hz
Short-circuit rating	80 A (max. admissible back-up fuse)
Leakage current type	AC
Rated residual making and breaking capacity	800 A
Admissible back-up fuse overload - max	50 A gG/gL
Rated short-time withstand current (Icw)	10 kA
Surge current capacity	0.25 kA
Test circuit range	196 V AC - 456 V AC
Pollution degree	2
Lifespan, electrical	4000 operations

Technical Data - Mechanical

Frame	45 mm
Width in number of modular spacings	4
Built-in width (number of units)	70 mm (4 SU)
Built-in depth	70.5 mm
Mounting Method	DIN rail Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715

Degree of protection	IP20, IP40 with suitable enclosure IP20
Terminals (top and bottom)	Open mouthed/lift terminals
Terminal capacity (solid wire)	1.5 mm^2 - 35 mm^2
Connectable conductor cross section (solid-core) - min	1.5 mm^2
Connectable conductor cross section (solid-core) - max	35 mm^2
Terminal capacity (stranded cable)	16 mm^2 (2x)
Connectable conductor cross section (multi-wired) - min	1.5 mm^2
Connectable conductor cross section (multi-wired) - max	16 mm^2
Terminal protection	Finger and hand touch safe, DGUV VS3, EN 50274
Busbar material thickness	0.8 mm - 2 mm
Lifespan, mechanical	20000 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

Design verification as per IEC/EN 61439 - technical data

Rated operational current for specified heat dissipation (In)	80 A
Heat dissipation per pole, current-dependent	0 W
Equipment heat dissipation, current-dependent	11.4 W
Static heat dissipation, non-current-dependent	0 W
Heat dissipation capacity	0 W
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	60 °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.
10.2.4 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.
10.9.2 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

Accessories required	Z-HK 248432
Features	Additional equipment possible Residual current circuit breaker
Fitted with:	Interlocking device
Special features	Maximum operating temperature is 60 °C: Starting at 40 °C, the max. permissible continuous current decreases by 1.2% for every 1 °C Tripping signal contact for subsequent installation Z-NHK 248434
Used with	Type AC PFIM

			Residual current circuit breakers KLV-TC-4 276241 (Compact enclosure) Z-FW/LP 248296 (Remote control and automatic switching device) Z-RC/AK-4MU 101062 (sealing cover set)

Technical data ETIM 9.0

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@ss13-27-14-22-01 [AAB906019])

Number of poles		4
Rated voltage	V	400
Rated current	A	80
Rated fault current	A	0.3
Rated insulation voltage Ui	V	440
Rated impulse withstand voltage Uimp	kV	4
Power loss	W	11.4
Mounting method		DIN rail
Leakage current type		AC
Selective protection		No
Short-time delayed tripping		No
Short-circuit breaking capacity (Icw)	kA	10
Surge current capacity	kA	0.25
Voltage type		AC
With interlocking device		Yes
Frequency		50 Hz
Additional equipment possible		Yes
Degree of protection (IP)		IP20
Width in number of modular spacings		4
Built-in depth	mm	70.5
Ambient temperature during operating	°C	-25 - 60
Pollution degree		2
Connectable conductor cross section multi-wired	mm^2	1.5 - 16
Connectable conductor cross section solid-core	mm^2	1.5 - 35
RAL-number (similar)		7035
Explosion-proof		No