DATASHEET - PFIM-40/2/003-A-MW



Residual current circuit breaker (RCCB), 40A, 2p, 30mA, type A

Part no. PFIM-40/2/003-A-MW

235427 1609314

EL Number

(Norway)

(Norway)	
General specifications	
Product name	Eaton Moeller series xPole - PFIM Type AC, A, U, R RCCB
Part no.	PFIM-40/2/003-A-MW
EAN	4015082354275
Product Length/Depth	80 millimetre
Product height	76 millimetre
Product width	35 millimetre
Product weight	0.193 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	xPole - Switchgear for residential and commercial applications Residual current circuit breaker for residential and commercial applications
Number of poles	Two-pole
Tripping time	Non-delayed
Amperage Rating	40 A
Rated short-circuit strength	10 kA
Fault current rating	30 mA
Sensitivity type	Pulse-current sensitive
Impulse withstand current	Partly surge-proof 250 A
Туре	Type A Residual current circuit breakers PFIM
Technical Data - Electrical	
Voltage rating	230 V AC
Rated operational voltage (Ue) - max	230 V
Rated insulation voltage (Ui)	440 V
Rated impulse withstand voltage (Uimp)	4 kV
Rated fault current - min	0.03 A
Rated fault current - max	0.03 A
Frequency rating	50 Hz
Short-circuit rating	63 A (max. admissible back-up fuse)
Leakage current type	A
Rated residual making and breaking capacity	500 A
Admissible back-up fuse overload - max	25 A gG/gL
Rated short-time withstand current (Icw)	10 kA
Surge current capacity	0.25 kA
Test circuit range	196 V AC - 264 V AC
Pollution degree	2
Lifespan, electrical	4000 operations
Fechnical Data - Mechanical	
Frame	45 mm
Width in number of modular spacings	2
Built-in width (number of units)	35 mm (2 SU)
Built-in depth	70.5 mm
Mounting Method	Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715

	DIN rail
Degree of protection	IP20, IP40 with suitable enclosure
T : 1 6 11 0 1	IP20
Terminals (top and bottom)	Open mouthed/lift terminals 1.5 mm² - 35 mm²
Terminal capacity (solid wire)	
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 mm² (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)	40 A
Heat dissipation per pole, current-dependent	0 W
Equipment heat dissipation, current-dependent	5.8 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 Additional information	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
	7 11/ 040422
Accessories required	Z-HK 248432
Features	Residual current circuit breaker Additional equipment possible
Fitted with:	Interlocking device
Special features	Tripping signal contact for subsequent installation Z-NHK 248434 Maximum operating temperature is 60 °C: Starting at 40 °C, the max. permissible continuous current decreases by 2.5% for every 1 °C

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)

Rated voltage V 30 Rated current A 40 Rated fault current A 0.03 Rated insulation voltage Uimp V 44 Power loss VW 7.8 Mounting method Image: Company of the protection of the protec	(ecl@ss13-27-14-22-01 [AAB906019])		
Rated current A 40 Rated fault current A 0.03 Rated insulation voltage Ui V 440 Rated impulse withstand voltage Uimp kV 4 Power loss WY 7.8 Mounting method IV A Leakage current type No A Selective protection No A Short-time delayed tripping No A Short-circuit breaking capacity (low) kA 0 Surge current capacity kA 0.25 Voltage type AC AC With interlocking device Yes AC Frequency AC Yes Additional equipment possible Yes Pull Degree of protection (IP) Yes Pull Width in number of modular spacings mm 70.5 Pull Built-in depth mm 70.5 Ambient temperature during operating "C 25.6 Pull Connectable conductor cross section solid-core mm"	Number of poles		2
Rated fault current A 0.03 Rated insulation voltage Ui V 440 Rated impulse withstand voltage Uimp kV 4 Power loss W 7.8 Mounting method IV A Leakage current type A IV Selective protection No A Short-time delayed tripping No A Short-circuit breaking capacity (Icw) kA 10 Surge current capacity kA 0.25 Voltage type AC AC With interlocking device Yes 50 Hz Frequency Yes 1920 Additional equipment possible Yes 1920 Upgere of protection (IP) Yes 1920 With in number of modular spacings mm 70.5 Built-in depth mm 70.5 Ambient temperature during operating "C 25 - 60 Pollution degree 25 - 60 Connectable conductor cross section multi-wired mm* 15 - 16	Rated voltage	V	230
Rated insulation voltage Uinp V 440 Rated impulse withstand voltage Uinp kV 4 Power loss V 7.8 Mounting method IV 7.8 Leakage current type A IV Selective protection No A Short-time delayed tripping No No Short-circuit breaking capacity (lcw) KA 10 Surge current capacity KA 0.25 Voltage type KA 0.25 With interlocking device Yes 0.2 Frequency Ves 0.12 Additional equipment possible Yes 0.2 Degree of protection (IP) Yes 0.2 With in number of modular spacings Yes 0.2 Bull-in depth mm 70.5 Ambient temperature during operating "C 25 - 60 Pollution degree 25 - 60 25 - 60 Connectable conductor cross section multi-wired mm² 15 - 16 Connectable conductor cross section solid-core <th< td=""><td>Rated current</td><td>А</td><td>40</td></th<>	Rated current	А	40
Rated impulse withstand voltage Uimp kV 4 Power loss W 7.8 Mounting method W 7.8 Leakage current type A 1.1 Selective protection No 3.1 Short-time delayed tripping kA 10 Short-circuit breaking capacity (lcw) kA 10 Surge current capacity kA 10 Voltage type AC 2.2 With interlocking device Yes 12 Frequency Yes 12 Additional equipment possible Yes 12 Degree of protection (IP) Yes 12 Width in number of modular spacings Yes 12 Built-in depth mm 70.5 Ambient temperature during operating °C 25 - 60 Pollution degree 2 25 - 60 Connectable conductor cross section multi-wired mm² 15 - 16 Connectable conductor cross section solid-core mm² 15 - 35	Rated fault current	A	0.03
Power loss W 7.8 Mounting method W 7.8 Leakage current type A A Selective protection No No Short-circuit breaking capacity (Icw) KA 10 Surge current capacity KA 0.25 Voltage type AC Vers With interlocking device Yes Vers Frequency Vers Vers Additional equipment possible Yes Vers Degree of protection (IP) Yes Vers Width in number of modular spacings P20 Yes Built-in depth Mm 70.5 Anhient temperature during operating °C 25 - 60 Pollution degree Yes Yes Connectable conductor cross section multi-wired mm² 7.5 - 16 Connectable conductor cross section solid-core mm² 1.5 - 35 RAL-number (similar) mm² 7.5 - 35	Rated insulation voltage Ui	V	440
Mounting method Feet all and a courtent type A Selective protection No Short-time delayed tripping No Short-circuit breaking capacity (lcw) kA 10 Surge current capacity kA 0.25 Voltage type AC Yes With interlocking device Yes Yes Frequency 50 Hz Yes Additional equipment possible Yes Pegree of protection (IP) With in number of modular spacings 1920 Pegree of protection (IP) With in temperature during operating °C 25 - 60 Ambient temperature during operating °C 25 - 60 Pollution degree Image: Connectable conductor cross section multi-wired Image: Mining temperature during cross section solid-core Image: Mining temperature during cross	Rated impulse withstand voltage Uimp	kV	4
Leakage current type A Selective protection No Short-time delayed tripping No Short-circuit breaking capacity (lcw) kA 10 Surge current capacity kA 0.25 Voltage type AC Ves With interlocking device Yes 50 Hz Frequency Yes 50 Hz Additional equipment possible Yes 120 With in number of modular spacings 12 120 Built-in depth mm 70.5 Ambient temperature during operating °C 25 - 60 Pollution degree 2 25 - 60 Connectable conductor cross section multi-wired mm² 1.5 - 16 Connectable conductor cross section solid-core mm² 1.5 - 35 RH-number (similar) mm² 70.5	Power loss	W	7.8
Selective protection Mo Short-time delayed tripping No Short-circuit breaking capacity (Icw) kA 10 Surge current capacity kA 0.25 Voltage type AC Yes With interlocking device 50 Hz Yes Frequency 50 Hz Yes Additional equipment possible Yes 1P20 Width in number of modular spacings 1P20 1P20 Width in number of modular spacings 2 25 - 60 Built-in depth mm 70.5 Ambient temperature during operating °C -25 - 60 Pollution degree 15 - 16 Connectable conductor cross section multi-wired mm² 1.5 - 35 Connectable conductor cross section solid-core mm² 1.5 - 35 RAL-number (similar) 7035 7035	Mounting method		DIN rail
Short-time delayed tripping Short-time delayed tripping Short-circuit breaking capacity (Icw) Surge current capacity Voltage type Voltage type With interlocking device Frequency Additional equipment possible Degree of protection (IP) Width in number of modular spacings Built-in depth Ambient temperature during operating Pollution degree Connectable conductor cross section multi-wired Connectable conductor cross section solid-core RAL-number (similar) No KA 10 Co Co Co Co Co Co Co Co Co C	Leakage current type		A
Short-circuit breaking capacity (Icw) Surge current capacity Voltage type With interlocking device Frequency Additional equipment possible Degree of protection (IP) Width in number of modular spacings Built-in depth Ambient temperature during operating Pollution degree Connectable conductor cross section multi-wired Connectable conductor cross section solid-core RAL-number (similar) KA 10 25 AC AC Yes 50 Hz Yes 1P20 2 2 2 2 2 2 2 2 3 3 3 5 6 7 15 3 5 6 7 7 7 7 7 7 7 7 7 7 7 7	Selective protection		No
Surge current capacity Voltage type Voltage type With interlocking device Frequency Additional equipment possible Degree of protection (IP) Width in number of modular spacings Built-in depth Ambient temperature during operating Pollution degree Connectable conductor cross section multi-wired Connectable conductor cross section solid-core RAL-number (similar) AD RAC AC AC Yes 1920 2 2 2 2 2 3 3 4 5 5 6 7 15 15 15 15 15 15 15 15 15	Short-time delayed tripping		No
Voltage type With interlocking device Frequency Additional equipment possible Degree of protection (IP) Width in number of modular spacings Built-in depth Ambient temperature during operating Pollution degree Connectable conductor cross section multi-wired RAL-number (similar) AC Yes So Hz Yes IP20 Yes 1P20 2 2 2 2 2 3 3 4 5 6 7 6 7 7 5 15 15 15 3 15 7 7 7 7 7 7 7 7 7 7 7 7 7	Short-circuit breaking capacity (Icw)	kA	10
With interlocking device Frequency Additional equipment possible Degree of protection (IP) Width in number of modular spacings Built-in depth Ambient temperature during operating Pollution degree Connectable conductor cross section multi-wired Connectable conductor cross section solid-core RAL-number (similar) Yes Yes Yes Yes 1P20 Yes 1P20 2 2 2 2 2 3 4 5 15 15 15 15 3 7 7035	Surge current capacity	kA	0.25
Frequency Additional equipment possible Degree of protection (IP) Width in number of modular spacings Built-in depth Ambient temperature during operating Pollution degree Connectable conductor cross section multi-wired RAL-number (similar) Frequency 70 Hz Pollution degree 2 Consectable conductor cross section solid-core RAL-number (similar) Frequency 70 Hz Pollution	Voltage type		AC
Additional equipment possible Degree of protection (IP) Width in number of modular spacings Built-in depth Ambient temperature during operating Pollution degree Connectable conductor cross section multi-wired Connectable conductor cross section solid-core RAL-number (similar) Yes Pl20 2 2 2 2 5 6 7 7 7 7 7 7 7 7 7 7 7 7	With interlocking device		Yes
Degree of protection (IP) Width in number of modular spacings Built-in depth Ambient temperature during operating Pollution degree Connectable conductor cross section multi-wired Connectable conductor cross section solid-core RAL-number (similar) IP20 2 2 1.5 - 16 2 7.5 - 16 7.5 - 16 7.5 - 35 7.5 - 35 7.5 - 35	Frequency		50 Hz
Width in number of modular spacings 2 Built-in depth mm 70.5 Ambient temperature during operating °C -25 - 60 Pollution degree 2 Connectable conductor cross section multi-wired mm² 1.5 - 16 Connectable conductor cross section solid-core mm² 1.5 - 35 RAL-number (similar) 7035	Additional equipment possible		Yes
Built-in depth mm 70.5 Ambient temperature during operating °C -25 - 60 Pollution degree 2 Connectable conductor cross section multi-wired mm² 1.5 - 16 Connectable conductor cross section solid-core mm² 1.5 - 35 RAL-number (similar) 7035	Degree of protection (IP)		IP20
Ambient temperature during operating °C -25 - 60 Pollution degree Connectable conductor cross section multi-wired mm² 1.5 - 16 Connectable conductor cross section solid-core mm² 1.5 - 35 RAL-number (similar) 7035	Width in number of modular spacings		2
Pollution degree 2 Connectable conductor cross section multi-wired mm² 1.5 - 16 Connectable conductor cross section solid-core mm² 1.5 - 35 RAL-number (similar) 7035	Built-in depth	mm	70.5
Connectable conductor cross section multi-wired mm² 1.5 - 16 Connectable conductor cross section solid-core mm² 1.5 - 35 RAL-number (similar) 7035	Ambient temperature during operating	°C	-25 - 60
Connectable conductor cross section solid-core mm² 1.5 - 35 RAL-number (similar) 7035	Pollution degree		2
RAL-number (similar) 7035	Connectable conductor cross section multi-wired	mm²	1.5 - 16
	Connectable conductor cross section solid-core	mm²	1.5 - 35
Explosion-proof No	RAL-number (similar)		7035
	Explosion-proof		No