Specifications







Eaton 274040

Eaton Moeller series xPole - PFIM Type AC, A, U, R RCCB. PFIM-MB, 2 pole, In: 40 A, Icn: 10 kA, IΔN: 0.03 A, residential and commercial

General specifications	
PRODUCT NAME	Eaton Moeller series xPole - PFIM Type AC, A, U, R RCCB
CATALOG NUMBER	274040
MODEL CODE	PFIM-40/2/003-A-MB
EAN	4015082740405
PRODUCT LENGTH/DEPTH	76 mm
PRODUCT HEIGHT	80 mm
PRODUCT WIDTH	35 mm
PRODUCT WEIGHT	0.22 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	IEC/EN 61008

Additional information

ACCESSORIES REQUIRED	Z-HK 248432
FEATURES	Residual current circuit breaker Additional equipment possible
FITTED WITH:	Interlocking device
SPECIAL FEATURES	• Maximum operating temperature is 60 °C: Starting at 40 °C, the max. permissible continuous current decreases by 2.5% for every 1 °C • Tripping signal contact for subsequent installation Z-NHK 248434
USED WITH	KLV-TC-2 276240 (Compact enclosure) Z-FW/LP 248296 (Remote control and automatic switching device) Z-RC/AK-2MU 285385 (sealing cover set)

Delivery program

AMPERAGE RATING	40 A
APPLICATION	• Residual current circuit breaker for industrial and advanced commercial applications • xEffect - Switchgear for industrial and advanced commercial applications
FAULT CURRENT RATING	30 mA
IMPULSE WITHSTAND CURRENT	Partly surge-proof 250 A
NUMBER OF POLES	Two-pole
RATED SHORT-CIRCUIT STRENGTH	10 kA
SENSITIVITY TYPE	Pulse-current sensitive
TRIPPING TIME	Non-delayed
TYPE	• PFIM-MB • Residual current circuit breakers • Type A

Design verification as per IEC/EN 61439

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.
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.

Design verification as per IEC/EN 61439 - technical data

AMBIENT OPERATING TEMPERATURE - MAX	60 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	5.8 W
HEAT DISSIPATION CAPACITY	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT	0 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	40 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT	0 W

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.

Technical data - electrical

ADMISSIBLE BACK-UP FUSE OVERLOAD - MAX	25 A gG/gL
FREQUENCY RATING	50 Hz
LEAKAGE CURRENT TYPE	A
LIFESPAN, ELECTRICAL	4000 operations
POLLUTION DEGREE	2
RATED FAULT CURRENT - MAX	0.03 A
RATED FAULT CURRENT - MIN	0.03 A
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	4 kV
RATED INSULATION VOLTAGE (UI)	440 V
RATED OPERATIONAL VOLTAGE (UE) - MAX	230 V
RATED RESIDUAL MAKING AND BREAKING CAPACITY	500 A
RATED SHORT-TIME WITHSTAND CURRENT (ICW)	10 kA
SHORT-CIRCUIT RATING	63 A (max. admissible back-up fuse)
SURGE CURRENT CAPACITY	0.25 kA
TEST CIRCUIT RANGE	196 V AC - 264 V AC
VOLTAGE RATING	230 V AC

Technical data - mechanical

BUILT-IN DEPTH	70.5 mm
BUILT-IN WIDTH (NUMBER OF UNITS)	35 mm (2 SU)
BUSBAR MATERIAL THICKNESS	0.8 mm - 2 mm
CLIMATIC PROOFING	25-55 °C / 90-95% relative humidity according to IEC 60068-2
CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MAX	16 mm²
CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MIN	1.5 mm²
CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MAX	35 mm²
CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MIN	1.5 mm²
DEGREE OF PROTECTION	IP20 IP20, IP40 with suitable enclosure
FRAME	45 mm
LIFESPAN, MECHANICAL	20000 operations
MOUNTING METHOD	Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715 DIN rail
PERMITTED STORAGE AND TRANSPORT TEMPERATURE - MAX	60 °C
PERMITTED STORAGE AND TRANSPORT TEMPERATURE - MIN	-35 °C
TERMINAL CAPACITY (SOLID WIRE)	1.5 mm² - 35 mm²
TERMINAL CAPACITY (STRANDED CABLE)	16 mm² (2x)
TERMINAL PROTECTION	Finger and hand touch safe, DGUV VS3, EN 50274
TERMINALS (TOP AND BOTTOM)	Open mouthed/lift terminals
WIDTH IN NUMBER OF	2

MODULAR SPACINGS

Resources

APPLICATION NOTES	eaton-rcd-application-guide-br019003en-en-us.pdf
CATALOGUES	eaton-xpole-protective-devices-catalog-ca019014en-en-us.pdf
DECLARATIONS OF CONFORMITY	eaton-rccb-declaration-of-conformity-uk251421en.pdf eaton-rccb-declaration-of-conformity-eu250135en.pdf
ECAD MODEL	ETN.PFIM-40_2_003-A-MB.edz
INSTALLATION INSTRUCTIONS	eaton-mcb-rccb-rcbo-g9-il019140zu.pdf
PEP ECO-PASSPORT	eaton-residual-current-circuit-breakers-pep-eato-00111-v0101-en.pdf

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	

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