

Specifications



Photo is representative



Eaton 102090

Eaton Moeller series xEffect - FAZ-NA, FAZ-RT MCB. FAZ-NA, 1-pole, tripping characteristic: C, rated current I_n : 16 A, Switchgear for export to North America (UL-listed)

General specifications

PRODUCT NAME	Eaton Moeller series xEffect - FAZ-NA, FAZ-RT MCB
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CATALOG NUMBER	102090
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EAN	4015081019663
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PRODUCT LENGTH/DEPTH	105 mm
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PRODUCT HEIGHT	75.5 mm
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PRODUCT WIDTH	17.7 mm
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PRODUCT WEIGHT	0.121 kg
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COMPLIANCES	RoHS conform
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CERTIFICATIONS	UL (Category Control Number DIVQ) Specially designed for North America, suitable as BCPD IEC 60947-2 UL 489 UL (File No. E235139) UL 489, CSA C22.2 No. 5 CE marking CSA-C22.2 No. 5-09 CSA (Class No. 1432-01) CSA (File No. 204453) IEC/EN 60947-2 North America (UL listed, CSA certified) EN45545-2 IEC 61373
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Powering Business Worldwide

Delivery program

APPLICATION	<ul style="list-style-type: none">• Feeder circuits, branch circuits• Switchgear for export to North America (UL-listed)
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NUMBER OF POLES	Single-pole
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NUMBER OF POLES (TOTAL)	1
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NUMBER OF POLES (PROTECTED)	1
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TRIPPING CHARACTERISTIC	C
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RELEASE CHARACTERISTIC	C
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AMPERAGE RATING	16 A
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TYPE	<ul style="list-style-type: none">• FAZ-NA• Miniature circuit breaker
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Technical data - electrical

VOLTAGE TYPE	AC
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VOLTAGE RATING	277 V AC / 480 V AC
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VOLTAGE RATING AT DC	60 V DC
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VOLTAGE RATING (IEC/EN 60947-2)	254 V
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VOLTAGE RATING (UL)	277 V
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RATED OPERATIONAL VOLTAGE (UE) - MAX	240 V
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RATED INSULATION VOLTAGE (UI)	440 V
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RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	4 kV
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FREQUENCY RATING - MIN	50 Hz
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FREQUENCY RATING - MAX	60 Hz
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RATED SWITCHING CAPACITY (IEC/EN 60947-2)	15 kA
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BREAKING CAPACITY	14 kA (UL489)
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RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC/EN 60898-1) - ICN AT 230 V	0 kA
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RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC/EN 60898-1)- ICN AT 400 V	0 kA
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RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2)- ICU AT 230 V	15 kA
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RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2)- ICU AT 400 V	15 kA
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SELECTIVITY CLASS	3
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OVERVOLTAGE CATEGORY	III
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POLLUTION DEGREE	2
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LIFESPAN, ELECTRICAL	20000 operations
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DIRECTION OF INCOMING SUPPLY	As required
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Technical data - mechanical

FRAME	45 mm
ENCLOSURE WIDTH	105 mm
WIDTH IN NUMBER OF MODULAR SPACINGS	1
BUILT-IN DEPTH	70.5 mm
MOUNTING WIDTH PER POLE	17.7 mm
MOUNTING WIDTH	17.7 mm
MOUNTING METHOD	Top-hat rail IEC/EN 60715
MOUNTING POSITION	As required
DEGREE OF PROTECTION	UL/CSA Type: - IP20 IP20 (IEC) IP40 (when fitted)
TERMINALS (TOP AND BOTTOM)	Twin-purpose terminals
CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MIN	1 mm ²
CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MAX	25 mm ²
CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MIN	1 mm ²
CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MAX	25 mm ²
TERMINAL PROTECTION	Finger and hand touch safe, DGUV VS3, EN 50274
TIGHTENING TORQUE	UL: 2.4 Nm (21 lb-in) for AWG 18 - AWG 12 Max. 2.4 Nm UL: 2.8 Nm (25 lb-in) for AWG 10 - AWG 8 UL: 4 Nm (36 lb-in) for AWG 6

Design verification as per IEC/EN - technical data

RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	16 A
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT	0 W
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	2.1 W
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT	0 W
HEAT DISSIPATION CAPACITY	0 W
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT OPERATING TEMPERATURE - MAX	75 °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

Additional information

CURRENT LIMITING CLASS	3
FEATURES	Additional equipment possible
FUNCTIONS	Current limiting circuit breaker
SPECIAL FEATURES	Ambient temperature hint: a 1 °C increase results in a 0.5% linear reduction of current carrying capacity
USED WITH	Miniature circuit breaker FAZ-NA

	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.

Resources

BROCHURES	eaton-pdd-railrolling-stock-brochure-br011002en-en-us.pdf
CATALOGS	eaton-xeffect-faz-na-rt-mcb-catalog-ca003032en-en-us.pdf eaton-xeffect-faz-na,-mcb-3d-drawing-006.jpg eaton-mcb-xeffect-faz-na,-characteristic-curve-002.eps eaton-xeffect-faz-na,-mcb-characteristic-curve.jpg
CHARACTERISTIC CURVE	eaton-xeffect-faz-na,-mcb-3d-drawing-002.jpg eaton-mcb-xeffect-faz-na,-characteristic-curve.eps eaton-xeffect-faz-na,-mcb-dimensions-002.jpg eaton-xeffect-faz-na,-mcb-characteristic-curve-002.jpg
DECLARATIONS OF CONFORMITY	eaton-mcb-declaration-of-conformity-eu250394en.pdf
DRAWINGS	eaton-xeffect-faz-na,-mcb-dimensions.jpg eaton-mcb-xeffect-faz-na,-3d-drawing.eps
ECAD MODEL	ETN.FAZ-C16_1-NA
INSTALLATION INSTRUCTIONS	IL019133ZU
MCAD MODEL	eaton-non-selective-universal-mcb-mcad-3d-models-faz-na-rt-1p.stp faz_na_1p.stp faz_na_1p.dwg
WIRING DIAGRAMS	eaton-xpole-mmc4-6-m-mcb-wiring-diagram-002.jpg eaton-mcb-xeffect-faz-na,-wiring-diagram.eps

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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