Specifications

Eaton 190822

Eaton Moeller series xEffect - FAZ-NA, FAZ-RT MCB. Miniature circuit breaker (MCB), 35 A, 4p, characteristic: C, NA

General specifications	
PRODUCT NAME	Eaton Moeller series xEffect - FAZ-NA, FAZ-RT MCB
CATALOG NUMBER	190822
MODEL CODE	FAZ-C35/4-NA
EAN	4015081929924
PRODUCT LENGTH/DEPTH	105 mm
PRODUCT HEIGHT	75.5 mm
PRODUCT WIDTH	70.8 mm
PRODUCT WEIGHT	0.508 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	Specially designed for North America, suitable as BCPD UL 489 CSA (Class No. 1432-01) UL 489, CSA C22.2 No. 5 UL (Category Control Number DIVQ) CE marking UL (File No. E235139) IEC 60947-2 CSA (File No. 204453) North America (UL listed, CSA certified) CSA-C22.2 No. 5-09 IEC/EN 60947-2 EN45545-2 IEC 61373

Powering Business Worldwide

Delivery program

APPLICATION	• Feeder circuits, branch circuits • Switchgear for export to North America (UL-listed) • xEffect - Switchgear for industrial and advanced commercial applications
NUMBER OF POLES	Four-pole
NUMBER OF POLES (TOTAL)	4
NUMBER OF POLES (PROTECTED)	4
TRIPPING CHARACTERISTIC	C
RELEASE CHARACTERISTIC	C
AMPERAGE RATING	35 A
TYPE	• FAZ-NA • Miniature circuit breaker

Technical data - electrical

VOLTAGE TYPE	AC
VOLTAGE RATING	277 V AC / 480 V AC
VOLTAGE RATING AT DC	60 V DC
VOLTAGE RATING (IEC/EN 60947-2)	440 V
VOLTAGE RATING (UL)	240 V
RATED OPERATIONAL VOLTAGE (UE) - MAX	240 V
RATED INSULATION VOLTAGE (UI)	440 V
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	4 kV
FREQUENCY RATING - MIN	50 Hz
FREQUENCY RATING - MAX	60 Hz
RATED SWITCHING CAPACITY (IEC/EN 60947-2)	15 kA
OPERATIONAL SWITCHING CAPACITY	7.5 kA
BREAKING CAPACITY	10 kA (UL489)
RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 60898) AT 230 V	10 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 60898) AT 400 V	15 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2) AT 230 V	10 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2) AT 400 V	14 kA
ADMISSIBLE BACK-UP FUSE - MAX	125 A gL/gG
SELECTIVITY CLASS	3
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	2
LIFESPAN, ELECTRICAL	min. 1500 operations min. 6000 operations (UL)
DIRECTION OF INCOMING SUPPLY	As required

Technical data - mechanical

FRAME	45 mm
ENCLOSURE WIDTH	105 mm
WIDTH IN NUMBER OF MODULAR SPACINGS	4
BUILT-IN DEPTH	60 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: - IP40 (when fitted) IP20 IP20 (IEC)
TERMINALS (TOP AND BOTTOM)	Lift terminal / ring-tongue
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 CAPACITY OF SCREW TERMINALS FOR MAIN CABLE	10 mm^2 (2x)
TERMINAL CAPACITY (CONTROL CABLE)	25 mm^2 (1x)
TERMINAL PROTECTION	Finger and hand touch safe, DGUV VS3, EN 50274
CONTACT POSITION INDICATOR COLOR	Red / green
TIGHTENING TORQUE	UL: 2.4 Nm (21 lb-in) for AWG 18 - AWG 12 Max. 2.4 Nm UL: 4 Nm (36 lb-in) for AWG 6 UL: 2.8 Nm (25 lb-in) for

Design verification as per IEC/EN - technical data

RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	35 A
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT	0 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
AMBIENT OPERATING TEMPERATURE (UL) - MIN	-5 °C
AMBIENT OPERATING TEMPERATURE (UL) - MAX	40 °C

	AWG 10 - AWG 8
LIFESPAN, MECHANICAL	10000 operations

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	Is the panel builder's responsibility.

Additional information

ACCESSORIES REQUIRED	Z-IHK-NA 113895
CURRENT LIMITING CLASS	3
FEATURES	Additional equipment possible
FITTED WITH:	Z-IS/SPE-1TE 274418
FUNCTIONS	Current limiting circuit breaker
INTERNAL RESISTANCE AT ROOM TEMPERATURE (SINGLE-POLE, 50 HZ)	2.5 mΩ
SPECIAL FEATURES	• Ambient temperature hint: a 1 °C increase results in a 0.5% linear reduction of current carrying capacity • Tripping signal contact for subsequent installation Z-NHK 248434
SUITABLE FOR	Flush-mounted installation
USED WITH	FAZ-XAA-NA110-415V AC 102036 (Shunt trip release) FAZ-XAA-NA12-110V AC 102037 (Shunt trip release) Miniature circuit breaker FAZ-NA FAZ-XAA-NA110-415V AC 102036 (Shunt trip release) FAZ-XAA-NA12-110V AC 102037 (Shunt trip release)

INSULATING MATERIAL	
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.

Resources

BROCHURES	eaton-pdd-railrolling-stock-brochure-br011002en-en-us.pdf
CATALOGUES	eaton-xeffect-faz-na-rt-mcb-catalog-ca003032en-en-us.pdf
CHARACTERISTIC CURVE	eaton-mcb-xeffect-faz-na,-characteristic-curve-002.eps eaton-xeffect-faz-na,-mcb-3d-drawing-007.jpg eaton-xeffect-faz-na,-mcb-characteristic-curve-002.jpg eaton-xeffect-faz-na,-mcb-3d-drawing-003.jpg eaton-xeffect-faz-na,-mcb-dimensions-004.jpg eaton-xeffect-faz-na,-mcb-characteristic-curve.jpg eaton-mcb-xeffect-faz-na,-characteristic-curve.eps
DECLARATIONS OF CONFORMITY	DA-DC-03_FAZ-B-C-D DA-DC-03_FAZ-NA
DRAWINGS	eaton-xeffect-faz-na,-mcb-dimensions.jpg
ECAD MODEL	ETN.FAZ-C35_4-NA.edz
INSTALLATION INSTRUCTIONS	IL019133ZU
MCAD MODEL	DA-CS-faz_na_4p DA-CD-faz_na_4p
WIRING DIAGRAMS	eaton-xpole-mmc4-6-m-mcb-wiring-diagram-006.jpg

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	

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