



## Eaton 190815

Eaton Moeller series xEffect - FAZ-NA, FAZ-RT MCB. Miniature circuit breaker (MCB), 13 A, 4p, characteristic: C, NA

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<b>PRODUCT NAME</b>	Eaton Moeller series xEffect - FAZ-NA, FAZ-RT MCB
<b>CATALOG NUMBER</b>	190815
<b>PRODUCT LENGTH/DEPTH</b>	105 mm
<b>PRODUCT HEIGHT</b>	75.5 mm
<b>PRODUCT WIDTH</b>	70.8 mm
<b>PRODUCT WEIGHT</b>	0.483 kg
<b>COMPLIANCES</b>	RoHS conform
<b>CERTIFICATIONS</b>	Specially designed for North America, suitable as BCPD North America (UL listed, CSA certified) IEC 60947-2 CSA (File No. 204453) UL 489 CE marking UL (Category Control Number DIVQ) CSA-C22.2 No. 5-09 CSA (Class No. 1432-01) IEC/EN 60947-2 UL (File No. E235139) UL 489, CSA C22.2 No. 5 EN45545-2 IEC 61373

**USED WITH**

FAZ-XAA-NA110-415V AC 102036 (Shunt trip release) FAZ-XAA-NA12-110V AC 102037 (Shunt trip release)  
FAZ-NA  
Miniature circuit breaker FAZ-XAA-NA110-415V AC 102036 (Shunt trip release)  
FAZ-XAA-NA12-110V AC 102037 (Shunt trip release)

**AMPERAGE RATING**

13 A

**VOLTAGE RATING**

277 V AC / 480 V AC

**FEATURES**

Additional equipment possible

**ACCESSORIES REQUIRED**

Z-IHK-NA 113895

**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.

**CHARACTERISTIC CURVE**

[eaton-xeffect-faz-na,-mcb-dimensions-004.jpg](#)

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[eaton-xpole-mmc4-6-m-mcb-wiring-diagram-006.jpg](#)

<b>10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION</b>	Meets the product standard's requirements.
<b>10.2.5 LIFTING</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.2.6 MECHANICAL IMPACT</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.2.7 INSCRIPTIONS</b>	Meets the product standard's requirements.
<b>10.3 DEGREE OF PROTECTION OF ASSEMBLIES</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.4 CLEARANCES AND CREEPAGE DISTANCES</b>	Meets the product standard's requirements.
<b>10.5 PROTECTION AGAINST ELECTRIC SHOCK</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS</b>	Does not apply, since the entire switchgear needs to be evaluated.
<b>10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS</b>	Is the panel builder's responsibility.
<b>10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS</b>	Is the panel builder's responsibility.
<b>10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH</b>	Is the panel builder's responsibility.
<b>10.9.3 IMPULSE WITHSTAND VOLTAGE</b>	Is the panel builder's responsibility.
<b>10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL</b>	Is the panel builder's responsibility.
<b>FITTED WITH:</b>	Z-IS/SPE-1TE 274418
<b>FRAME</b>	45 mm
<b>POLLUTION DEGREE</b>	2
<b>LIFESPAN, MECHANICAL</b>	10000 operations
<b>MOUNTING METHOD</b>	Top-hat rail IEC/EN 60715
<b>DEGREE OF PROTECTION</b>	IP20 IP40 (when fitted) IP20 (IEC) UL/CSA Type: -
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	4 kV
<b>ADMISSIBLE BACK-UP FUSE - MAX</b>	125 A gL/gG
<b>BREAKING CAPACITY</b>	10 kA (UL489)
<b>TERMINAL PROTECTION</b>	Finger and hand touch

	safe, DGUV VS3, EN 50274
<b>TERMINALS (TOP AND BOTTOM)</b>	Lift terminal / ring-tongue
<b>TRIPPING CHARACTERISTIC</b>	C
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	75 °C
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-25 °C
<b>AMBIENT OPERATING TEMPERATURE (UL) - MAX</b>	40 °C
<b>BUILT-IN DEPTH</b>	60 mm
<b>CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MAX</b>	25 mm <sup>2</sup>
<b>CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MIN</b>	1 mm <sup>2</sup>
<b>CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MAX</b>	25 mm <sup>2</sup>
<b>CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MIN</b>	1 mm <sup>2</sup>
<b>CURRENT LIMITING CLASS</b>	3
<b>ENCLOSURE WIDTH</b>	105 mm
<b>FREQUENCY RATING - MAX</b>	60 Hz
<b>FREQUENCY RATING - MIN</b>	50 Hz
<b>HEAT DISSIPATION CAPACITY</b>	0 W
<b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT</b>	0 W
<b>INTERNAL RESISTANCE AT ROOM TEMPERATURE (SINGLE-POLE, 50 HZ)</b>	13 mΩ
<b>DIRECTION OF INCOMING SUPPLY</b>	As required
<b>WIDTH IN NUMBER OF MODULAR SPACINGS</b>	4
<b>VOLTAGE RATING (IEC/EN 60947-2)</b>	440 V
<b>VOLTAGE RATING (UL)</b>	480Y/277 V

<b>VOLTAGE RATING AT DC</b>	60 V DC
<b>AMBIENT OPERATING TEMPERATURE (UL) - MIN</b>	-5 °C
<b>VOLTAGE TYPE</b>	AC
<b>CONTACT POSITION INDICATOR COLOR</b>	Red / green
<b>MOUNTING POSITION</b>	As required
<b>OVERVOLTAGE CATEGORY</b>	III
<b>NUMBER OF POLES</b>	Four-pole
<b>FUNCTIONS</b>	Current limiting circuit breaker
<b>LIFESPAN, ELECTRICAL</b>	min. 6000 operations (UL) min. 1500 operations
<b>RELEASE CHARACTERISTIC</b>	C
<b>TYPE</b>	<ul style="list-style-type: none"> <li>• FAZ-NA</li> <li>• Miniature circuit breaker</li> </ul>
<b>SPECIAL FEATURES</b>	<ul style="list-style-type: none"> <li>• Ambient temperature hint: a 1 °C increase results in a 0.5% linear reduction of current carrying capacity</li> <li>• Tripping signal contact for subsequent installation Z-NHK 248434</li> </ul>
<b>APPLICATION</b>	<ul style="list-style-type: none"> <li>• Feeder circuits, branch circuits</li> <li>• Switchgear for export to North America (UL-listed)</li> <li>• xEffect - Switchgear for industrial and advanced commercial applications</li> </ul>
<b>MOUNTING WIDTH</b>	17.7 mm
<b>SELECTIVITY CLASS</b>	3
<b>MOUNTING WIDTH PER POLE</b>	17.7 mm
<b>NUMBER OF POLES (PROTECTED)</b>	4
<b>NUMBER OF POLES</b>	4

<b>(TOTAL)</b>	
<b>OPERATIONAL SWITCHING CAPACITY</b>	7.5 kA
<b>RATED INSULATION VOLTAGE (UI)</b>	440 V
<b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b>	13 A
<b>RATED OPERATIONAL VOLTAGE (UE) - MAX</b>	240 V
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC/EN 60898-1) - ICN AT 230 V</b>	10 kA
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC/EN 60898-1)- ICN AT 400 V</b>	15 kA
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2)- ICU AT 230 V</b>	10 kA
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2)- ICU AT 400 V</b>	14 kA
<b>RATED SWITCHING CAPACITY (IEC/EN 60947-2)</b>	15 kA
<b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT</b>	0 W
<b>SUITABLE FOR</b>	Flush-mounted installation
<b>TERMINAL CAPACITY (CONTROL CABLE)</b>	25 mm <sup>2</sup> (1x)
<b>TERMINAL CAPACITY OF SCREW TERMINALS FOR MAIN CABLE</b>	10 mm <sup>2</sup> (2x)
<b>TIGHTENING TORQUE</b>	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
<b>POWER LOSS</b>	10 W

