

# Specifications

## Eaton 278908

Eaton Moeller series xEffect - FAZ MCB.  
Miniature circuit breaker (MCB), 8 A, 3p,  
characteristic: K

### General specifications

<b>PRODUCT NAME</b>	Eaton Moeller series xEffect - FAZ MCB
<b>CATALOG NUMBER</b>	278908
<b>MODEL CODE</b>	FAZ-K8/3
<b>EAN</b>	4015082789084
<b>PRODUCT LENGTH/DEPTH</b>	80 mm
<b>PRODUCT HEIGHT</b>	75.5 mm
<b>PRODUCT WIDTH</b>	54 mm
<b>PRODUCT WEIGHT</b>	0.333 kg
<b>COMPLIANCES</b>	UL CSA09 (with supplementary protector only) RoHS conform
<b>CERTIFICATIONS</b>	UL 1077 UL (Category Control Number QVNU2, QVNU8) IEC/EN 60898 CSA-C22.2 No. 235 CSA (Class No. 3215-30) CE marking CSA (File No. 204453) UL (File No. E177451) IEC/EN 60947-2 North America (UL recognized, CSA certified) EN45545-2 IEC 61373



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## Delivery Programme

### APPLICATION

- Branch circuits, not as BCPD
- Switchgear for industrial and advanced commercial applications
- xEffect - Switchgear for industrial and advanced commercial applications

<b>NUMBER OF POLES</b>	Three-pole
<b>NUMBER OF POLES (TOTAL)</b>	3
<b>NUMBER OF POLES (PROTECTED)</b>	3
<b>TRIPPING CHARACTERISTIC</b>	K
<b>RELEASE CHARACTERISTIC</b>	K
<b>AMPERAGE RATING</b>	8 A
<b>TYPE</b>	<ul style="list-style-type: none"> <li>• FAZ</li> <li>• Miniature circuit breaker</li> </ul>

## Technical data - electrical

<b>VOLTAGE TYPE</b>	AC
<b>VOLTAGE RATING</b>	240 V AC / 415 V AC
<b>VOLTAGE RATING AT DC</b>	60 V DC (per pole)
<b>VOLTAGE RATING (UL CSA 13)</b>	480 Y/277 V AC
<b>RATED OPERATIONAL VOLTAGE (UE) - MAX</b>	400 V
<b>RATED INSULATION VOLTAGE (UI)</b>	440 V
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	4 kV
<b>FREQUENCY RATING - MIN</b>	50 Hz
<b>FREQUENCY RATING - MAX</b>	60 Hz
<b>RATED SWITCHING CAPACITY (IEC/EN 60947-2)</b>	10 kA
<b>OPERATIONAL SWITCHING CAPACITY</b>	7.5 kA
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 60898) AT 230 V</b>	0 kA
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 60898) AT 400 V</b>	0 kA
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2) AT 230 V</b>	10 kA
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2) AT 400 V</b>	10 kA
<b>ADMISSIBLE BACK-UP FUSE - MAX</b>	125 A gL/gG
<b>SELECTIVITY CLASS</b>	3
<b>OVERVOLTAGE CATEGORY</b>	III
<b>POLLUTION DEGREE</b>	2
<b>LIFESPAN, ELECTRICAL</b>	10000 operations
<b>DIRECTION OF INCOMING SUPPLY</b>	As required

## Technical data - mechanical

<b>FRAME</b>	45 mm
<b>ENCLOSURE WIDTH</b>	80 mm
<b>WIDTH IN NUMBER OF MODULAR SPACINGS</b>	3
<b>BUILT-IN DEPTH</b>	70.5 mm
<b>MOUNTING WIDTH PER POLE</b>	17.5 mm
<b>MOUNTING WIDTH</b>	17.5 mm
<b>MOUNTING METHOD</b>	Top-hat rail IEC/EN 60715
<b>MOUNTING POSITION</b>	As required
<b>DEGREE OF PROTECTION</b>	IP40 (when fitted) IP20 UL/CSA Type: - IP20 (IEC)
<b>TERMINALS (TOP AND BOTTOM)</b>	Twin-purpose terminals
<b>CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - 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 (MULTI-WIRED) - MIN</b>	1 mm <sup>2</sup>
<b>CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MAX</b>	25 mm <sup>2</sup>
<b>TERMINAL CAPACITY OF SCREW TERMINALS FOR MAIN CABLE</b>	10 mm <sup>2</sup> (2x)
<b>TERMINAL CAPACITY (CONTROL CABLE)</b>	25 mm <sup>2</sup> (1x)
<b>TERMINAL PROTECTION</b>	Finger and hand touch safe, DGUV VS3, EN 50274
<b>BUSBAR MATERIAL THICKNESS</b>	0.8 mm - 2 mm

## Design verification as per IEC/EN 61439 - technical data

<b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b>	8 A
<b>HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT</b>	0 W
<b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT</b>	602 W
<b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT</b>	0 W
<b>HEAT DISSIPATION CAPACITY</b>	0 W
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-25 °C
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	75 °C

## Design verification as per IEC/EN 61439

<b>10.2.2 CORROSION RESISTANCE</b>	Meets the product standard's requirements.
<b>10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES</b>	Meets the product standard's requirements.
<b>10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT</b>	Meets the product standard's requirements.
<b>10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS</b>	Meets the product standard's requirements.
<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</b>	Is the panel builder's responsibility.

## Additional information

<b>CURRENT LIMITING CLASS</b>	3
<b>FEATURES</b>	Additional equipment possible
<b>SPECIAL FEATURES</b>	Ambient temperature hint: a 1 °C increase results in a 0.5% linear reduction of current carrying capacity
<b>USED WITH</b>	FAZ Miniature circuit breaker

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**INSULATING MATERIAL**

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**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.

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## Resources

**CATALOGUES** [eaton-xeffect-industrial-switchgear-range-catalog-ca003002en-en-us.pdf](#)

**CHARACTERISTIC CURVE**

[eaton-mcb-characteristic-xeffect-faz-characteristic-curve-005.eps](#)

[eaton-mcb-characteristic-xeffect-faz-characteristic-curve-002.eps](#)

[eaton-mcb-xeffect-faz-characteristic-curve-003.eps](#)

[eaton-mcb-current-xeffect-faz-characteristic-curve.eps](#)

[eaton-mcb-current-xeffect-faz-characteristic-curve-002.eps](#)

[eaton-mcb-xeffect-faz-characteristic-curve-002.eps](#)

[eaton-mcb-tripping-characteristic-xeffect-faz-characteristic-curve-002.eps](#)

[eaton-mcb-xeffect-faz-characteristic-curve.eps](#)

**DECLARATIONS OF CONFORMITY** [DA-DC-03\\_FAZ-B-C-D](#)

**DRAWINGS**

[eaton-mcb-xeffect-faz-dimensions-003.eps](#)

[eaton-mcb-faz-xeffect-faz-3d-drawing-003.eps](#)

**ECAD MODEL** [DA-CE-ETN.FAZ-K8\\_3](#)

**INSTALLATION INSTRUCTIONS** [eaton-rccb-rcho-g9-il019140zu.pdf](#)

**MCAD MODEL** [faz\\_3p.stp](#) [faz\\_3p.dwg](#)

**PEP ECO-PASSPORT** [EATO-00047-V01.01-EN](#)

**WIRING DIAGRAMS** [eaton-mcb-xeffect-faz-wiring-diagram-003.eps](#)

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**PROJECT NAME:**

**PROJECT NUMBER:**

**PREPARED BY:**

**DATE:**

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