

# Specifications



Photo is representative



## Eaton 278554

Eaton Moeller series xEffect - FAZ MCB. FAZ, 1-pole, tripping characteristic: C, rated current In: 5 A

### General specifications

PRODUCT NAME	Eaton Moeller series xEffect - FAZ MCB
CATALOG NUMBER	278554
MODEL CODE	FAZ-C5/1
EAN	4015082785543
PRODUCT LENGTH/DEPTH	80 mm
PRODUCT HEIGHT	75.5 mm
PRODUCT WIDTH	17.7 mm
PRODUCT WEIGHT	0.111 kg
COMPLIANCES	UL CSA09 (with supplementary protector only) RoHS conform
CERTIFICATIONS	North America (UL recognized, CSA certified) IEC/EN 60947-2 UL (Category Control Number QVNU2, QVNU8) CE marking CSA (Class No. 3215-30) CSA (File No. 204453) CSA-C22.2 No. 235 IEC/EN 60898 UL (File No. E177451) UL 1077 EN45545-2 IEC 61373

## 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>	Single-pole
<b>NUMBER OF POLES (TOTAL)</b>	1
<b>NUMBER OF POLES (PROTECTED)</b>	1
<b>TRIPPING CHARACTERISTIC</b>	C
<b>RELEASE CHARACTERISTIC</b>	C
<b>AMPERAGE RATING</b>	5 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 (IEC/EN 60898-1)</b>	240 VAC
<b>VOLTAGE RATING (UL)</b>	277 V
<b>VOLTAGE RATING (UL CSA 13)</b>	277 V AC; 48 V DC
<b>RATED OPERATIONAL VOLTAGE (UE) - MAX</b>	230 V
<b>OPERATIONAL VOLTAGE (IEC/EN 60947-2) - MAX</b>	254 VAC
<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) AT MAX VOLTAGE RATING</b>	10 kA
<b>RATED SWITCHING CAPACITY (IEC/EN 60947-2)</b>	15 kA
<b>RATED SWITCHING CAPACITY (IEC/EN 60898-1)</b>	10 kA
<b>BREAKING CAPACITY</b>	10 kA (UL1077)
<b>RATED SERVICE SHORT-CIRCUIT BREAKING CAPACITY (IEC/EN 60898-1)</b>	7.5 kA
<b>RATED SERVICE SHORT-CIRCUIT BREAKING CAPACITY (IEC/EN 60947-2)</b>	7.5 kA
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 60898) AT 230 V</b>	10 kA
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 60898) AT 400 V</b>	10 kA
<b>RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC)</b>	15 kA

## Technical data - mechanical

**WIDTH IN NUMBER OF  
MODULAR SPACINGS** 1

**BUILT-IN DEPTH** 70.5 mm

**DEGREE OF PROTECTION** IP20  
IP20 (IEC)  
UL/CSA Type: -

**CONNECTABLE  
CONDUCTOR CROSS  
SECTION (SOLID-CORE) -  
MIN** 1 mm<sup>2</sup>

**CONNECTABLE  
CONDUCTOR CROSS  
SECTION (SOLID-CORE) -  
MAX** 25 mm<sup>2</sup>

**CONNECTABLE  
CONDUCTOR CROSS  
SECTION (MULTI-WIRED)  
- MIN** 1 mm<sup>2</sup>

**CONNECTABLE  
CONDUCTOR CROSS  
SECTION (MULTI-WIRED)  
- MAX** 25 mm<sup>2</sup>

**60947-2) AT 230 V**

**RATED SHORT-CIRCUIT  
BREAKING CAPACITY (IEC  
60947-2) AT 400 V** 15 kA

**OVERVOLTAGE  
CATEGORY** III

**POLLUTION DEGREE** 2

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

**RATED OPERATIONAL  
CURRENT FOR SPECIFIED  
HEAT DISSIPATION (IN)** 5 A

**HEAT DISSIPATION PER  
POLE, CURRENT-  
DEPENDENT** 0 W

**EQUIPMENT HEAT  
DISSIPATION, CURRENT-  
DEPENDENT** 1.9 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

<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-xeffect-faz-mcb-characteristic-curve.jpg](#)

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

**DRAWINGS** [eaton-xeffect-faz-mcb-dimensions.jpg](#)  
[eaton-xeffect-faz-mcb-3d-drawing-002.jpg](#)  
[eaton-xeffect-faz-mcb-3d-drawing-009.jpg](#)  
[eaton-xeffect-faz-mcb-3d-drawing-010.jpg](#)  
[eaton-mcb-faz-xeffect-faz-3d-drawing.eps](#)

**ECAD MODEL** [ETN.FAZ-C5\\_1](#)

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

**MCAD MODEL** [eaton-faz\\_mcb\\_1p-drawing.dwg](#)  
[eaton-faz\\_mcb\\_1p-3d-model.stp](#)

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

**WIRING DIAGRAMS** [eaton-xpole-mmc4-6-m-mcb-wiring-diagram-002.jpg](#)  
[eaton-mcb-xeffect-faz-wiring-diagram.eps](#)

**PROJECT NAME:**

**PROJECT NUMBER:**

**PREPARED BY:**

**DATE:**



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