

# Specifications



## Eaton 278601

Eaton Moeller series xEffect - FAZ MCB.  
Miniature circuit breaker (MCB), 25 A, 1p,  
characteristic: K

### General specifications

PRODUCT NAME	Eaton Moeller series xEffect - FAZ MCB
CATALOG NUMBER	278601
MODEL CODE	FAZ-K25/1
EAN	4015082786014
PRODUCT LENGTH/DEPTH	80 mm
PRODUCT HEIGHT	75.5 mm
PRODUCT WIDTH	17.7 mm
PRODUCT WEIGHT	0.115 kg
COMPLIANCES	UL CSA09 (with supplementary protector only) RoHS conform
CERTIFICATIONS	UL (Category Control Number QVNU2, QVNU8) North America (UL recognized, CSA certified) IEC/EN 60947-2 CSA (Class No. 3215-30) UL (File No. E177451) IEC/EN 60898 UL 1077 CE marking CSA-C22.2 No. 235 CSA (File No. 204453) EN45545-2 IEC 61373
GLOBAL CATALOG	278601

## Product specifications

<b>USED WITH</b>	Miniature circuit breaker FAZ
<b>AMPERAGE RATING</b>	25 A
<b>VOLTAGE RATING</b>	240 V AC
<b>FEATURES</b>	Additional equipment possible
<b>10.10 TEMPERATURE RISE</b>	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
<b>10.11 SHORT-CIRCUIT RATING</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.12 ELECTROMAGNETIC COMPATIBILITY</b>	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
<b>10.13 MECHANICAL FUNCTION</b>	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
<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

## Resources

<b>CATALOGS</b>	<a href="#">eaton-xeffect-industrial-switchgear-range-catalog-ca003002en-en-us.pdf</a>
<b>CHARACTERISTIC CURVE</b>	<a href="#">eaton-mcb-xeffect-faz-characteristic-curve.eps</a>
	<a href="#">eaton-xeffect-faz-mcb-characteristic-curve-002.jpg</a>
	<a href="#">eaton-mcb-characteristic-xeffect-faz-characteristic-curve-002.eps</a>
	<a href="#">eaton-mcb-characteristic-xeffect-faz-characteristic-curve-005.eps</a>
	<a href="#">eaton-mcb-current-xeffect-faz-characteristic-curve-002.eps</a>
	<a href="#">eaton-mcb-tripping-characteristic-xeffect-faz-characteristic-curve-002.eps</a>
	<a href="#">eaton-mcb-xeffect-faz-characteristic-curve-003.eps</a>
	<a href="#">eaton-mcb-current-xeffect-faz-characteristic-curve.eps</a>
	<a href="#">eaton-mcb-xeffect-faz-characteristic-curve-002.eps</a>
<b>DECLARATIONS OF CONFORMITY</b>	<a href="#">DA-DC-03 FAZ-B-C-D</a>
<b>DRAWINGS</b>	<a href="#">eaton-xeffect-faz-mcb-dimensions.jpg</a>
	<a href="#">eaton-mcb-xeffect-faz-dimensions.eps</a>
	<a href="#">eaton-xeffect-faz-mcb-3d-drawing-004.jpg</a>
	<a href="#">eaton-xeffect-faz-mcb-3d-drawing-013.jpg</a>
	<a href="#">eaton-mcb-faz-xeffect-faz-3d-drawing.eps</a>
<b>ECAD MODEL</b>	<a href="#">DA-CE-ETN.FAZ-K25_1</a>

	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>FRAME</b>	45 mm
<b>POLLUTION DEGREE</b>	2
<b>MOUNTING METHOD</b>	Top-hat rail IEC/EN 60715
<b>DEGREE OF PROTECTION</b>	IP40 (when fitted) IP20 (IEC) IP20 UL/CSA Type: -
<b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT</b>	2.6 W
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	4 kV
<b>ADMISSIBLE BACK-UP FUSE - MAX</b>	125 A gL/gG
<b>BUSBAR MATERIAL THICKNESS</b>	0.8 mm - 2 mm
<b>TERMINAL PROTECTION</b>	Finger and hand touch safe, DGUV VS3, EN 50274
<b>TERMINALS (TOP AND BOTTOM)</b>	Twin-purpose terminals

<b>INSTALLATION INSTRUCTIONS</b>	<a href="#">eaton-rccb-rcbo-g9-il019140zu.pdf</a>
<b>MCAD MODEL</b>	<a href="#">faz_1p.stp faz_1p.dwg</a>
<b>PEP ECO-PASSPORT</b>	<a href="#">EATO-00047-V01.01-EN</a>
<b>WIRING DIAGRAMS</b>	<a href="#">eaton-mcb-xeffect-faz-wiring-diagram.eps</a> <a href="#">eaton-xpole-mmc4-6-m-mcb-wiring-diagram-002.jpg</a>

<b>TRIPPING CHARACTERISTIC</b>	K
<b>VOLTAGE RATING (UL CSA 13)</b>	277 V AC; 48 V DC
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	75 °C
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-25 °C
<b>BUILT-IN DEPTH</b>	70.5 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>	80 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>DIRECTION OF INCOMING SUPPLY</b>	As required
<b>WIDTH IN NUMBER OF MODULAR SPACINGS</b>	1
<b>VOLTAGE RATING AT DC</b>	60 V DC (per pole)
<b>VOLTAGE TYPE</b>	AC
<b>MOUNTING POSITION</b>	As required
<b>OVERVOLTAGE CATEGORY</b>	III
<b>NUMBER OF POLES</b>	Single-pole
<b>LIFESPAN, ELECTRICAL</b>	10000 operations

<b>RELEASE CHARACTERISTIC</b>	K
<b>TYPE</b>	<ul style="list-style-type: none"> <li>• FAZ</li> <li>• Miniature circuit breaker</li> </ul>
<b>SPECIAL FEATURES</b>	Ambient temperature hint: a 1 °C increase results in a 0.5% linear reduction of current carrying capacity
<b>APPLICATION</b>	<ul style="list-style-type: none"> <li>• Branch circuits, not as BCPD</li> <li>• Switchgear for industrial and advanced commercial applications</li> <li>• xEffect - Switchgear for industrial and advanced commercial applications</li> </ul>
<b>MOUNTING WIDTH</b>	17.5 mm
<b>SELECTIVITY CLASS</b>	3
<b>MOUNTING WIDTH PER POLE</b>	17.5 mm
<b>NUMBER OF POLES (PROTECTED)</b>	1
<b>NUMBER OF POLES (TOTAL)</b>	1
<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>	25 A
<b>RATED OPERATIONAL VOLTAGE (UE) - MAX</b>	230 V
<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>RATED SWITCHING CAPACITY (IEC/EN 60947- 2)</b>	10 kA
<b>STATIC HEAT DISSIPATION, NON- CURRENT-DEPENDENT</b>	0 W
<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>POWER LOSS</b>	2.6 W

<b>PROJECT NAME:</b>
<b>PROJECT NUMBER:</b>
<b>PREPARED BY:</b>
<b>DATE:</b>



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