

# Specifications

Photo is representative

## Eaton 176082

Eaton Moeller series xEffect - FAZ-DC MCB.  
Miniature circuit breaker (MCB), 20 A, 2p,  
characteristic: B, DC

### General specifications

<b>PRODUCT NAME</b>	Eaton Moeller series xEffect - FAZ-DC MCB
<b>CATALOG NUMBER</b>	176082
<b>MODEL CODE</b>	FAZ-B20/2-DC
<b>EAN</b>	4015081712786
<b>PRODUCT LENGTH/DEPTH</b>	80 mm
<b>PRODUCT HEIGHT</b>	75.5 mm
<b>PRODUCT WIDTH</b>	36 mm
<b>PRODUCT WEIGHT</b>	0.222 kg
<b>COMPLIANCES</b>	RoHS conform
<b>CERTIFICATIONS</b>	EN45545-2 IEC 61373
<b>GLOBAL CATALOG</b>	176082

## Product specifications

<b>USED WITH</b>	Miniature circuit breaker FAZ-DC
<b>AMPERAGE RATING</b>	20 A
<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 be evaluated.

## Resources

<b>BROCHURES</b>	<a href="#">eaton-pdd-railrolling-stock-brochure-br011002en-en-us.pdf</a>
<b>CATALOGS</b>	<a href="#">eaton-xeffect-faz-dc-mcb-catalog-ca003030en-en-us.pdf</a>
<b>CHARACTERISTIC CURVE</b>	<a href="#">eaton-xeffect-faz-dc-mcb-characteristic-curve.jpg</a> <a href="#">eaton-xeffect-faz-dc-mcb-characteristic-curve-002.jpg</a>
<b>DECLARATIONS OF CONFORMITY</b>	<a href="#">DA-DC-03_FAZ-DC</a> <a href="#">DA-DC-03_FAZ-B-C-D</a>
<b>DRAWINGS</b>	<a href="#">eaton-xeffect-faz-dc-mcb-dimensions-002.jpg</a>
<b>ECAD MODEL</b>	<a href="#">ETN.FAZ-B20_2-DC.edz</a>
<b>INSTALLATION INSTRUCTIONS</b>	<a href="#">eaton-rccb-rcho-g9-il019140zu.pdf</a>
<b>MCAD MODEL</b>	<a href="#">eaton-faz_mcb_2p-drawing.dwg</a> <a href="#">eaton-faz_mcb_2p-3d-model.stp</a>
<b>WIRING DIAGRAMS</b>	<a href="#">eaton-xeffect-faz-dc-mcb-wiring-diagram-002.jpg</a>

<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>POLLUTION DEGREE</b>	2
<b>DEGREE OF PROTECTION</b>	IP20
<b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT</b>	6.6 W
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	4 kV
<b>TRIPPING CHARACTERISTIC</b>	B
<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>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>WIDTH IN NUMBER OF MODULAR SPACINGS</b>	2
<b>VOLTAGE TYPE</b>	DC
<b>OVERVOLTAGE CATEGORY</b>	III
<b>NUMBER OF POLES</b>	Two-pole
<b>RELEASE CHARACTERISTIC</b>	B
<b>TYPE</b>	<ul style="list-style-type: none"> <li>• FAZ-DC</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>	Switchgear for DC applications
<b>NUMBER OF POLES (PROTECTED)</b>	2
<b>NUMBER OF POLES (TOTAL)</b>	2
<b>RATED INSULATION VOLTAGE (UI)</b>	440 V
<b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b>	20 A
<b>RATED OPERATIONAL VOLTAGE (UE) - MAX</b>	500 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>POWER LOSS</b>	5.8 W

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



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