

## Eaton 170166

Eaton Distribution parts. Residual-current circuit breaker trip block for FAZ, 40A, 4pole, 100mA, type S/A

<b>PRODUCT NAME</b>	Eaton Moeller series xEffect - FBSmV RCCB add-on unit
<b>CATALOG NUMBER</b>	170166
<b>PRODUCT LENGTH/DEPTH</b>	90 mm
<b>PRODUCT HEIGHT</b>	75 mm
<b>PRODUCT WIDTH</b>	125 mm
<b>PRODUCT WEIGHT</b>	0.298 kg
<b>COMPLIANCES</b>	RoHS conform
<b>CERTIFICATIONS</b>	EN45545-2 IEC 61373 IEC/EN 61009

<b>USED WITH</b>	Type S/A
	Add-on residual current protection unit FBSmV
<b>AMPERAGE RATING</b>	40 A
<b>FEATURES</b>	Additional equipment possible Selective protection Add-on residual current protection unit
<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

[eaton-pbsm-dimensions.jpg](#)

	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>	Interlocking device
<b>FRAME</b>	45 mm
<b>FREQUENCY RATING</b>	50 Hz
<b>POLLUTION DEGREE</b>	2
<b>MOUNTING METHOD</b>	Permanent screw connection with FAZ DIN rail
<b>CLIMATIC PROOFING</b>	25-55 °C / 90-95% relative humidity according to IEC 60068-2
<b>EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT</b>	22 W
<b>RATED IMPULSE WITHSTAND VOLTAGE (UIMP)</b>	4 kV
<b>RATED SHORT-TIME WITHSTAND CURRENT</b>	0 kA 10 kA

<b>(ICW)</b>	
<b>BUILT-IN WIDTH (NUMBER OF UNITS)</b>	125 mm (4 SU)
<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>	Lift terminals
<b>AMBIENT OPERATING TEMPERATURE - MAX</b>	40 °C
<b>AMBIENT OPERATING TEMPERATURE - MIN</b>	-25 °C
<b>BUILT-IN DEPTH</b>	70 mm
<b>CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MAX</b>	35 mm <sup>2</sup>
<b>CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MIN</b>	0.75 mm <sup>2</sup>
<b>CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MAX</b>	35 mm <sup>2</sup>
<b>CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MIN</b>	0.75 mm <sup>2</sup>
<b>FAULT CURRENT RATING</b>	100 mA
<b>HEAT DISSIPATION CAPACITY</b>	0 W
<b>HEAT DISSIPATION PER POLE, CURRENT- DEPENDENT</b>	0 W
<b>PERMITTED STORAGE AND TRANSPORT TEMPERATURE - MAX</b>	60 °C
<b>PERMITTED STORAGE AND TRANSPORT TEMPERATURE - MIN</b>	-35 °C
<b>DEGREE OF PROTECTION</b>	IP20 IP20, IP40 with suitable enclosure
<b>IMPULSE WITHSTAND CURRENT</b>	Surge-proof 5 kA
<b>NUMBER OF POLES</b>	Four-pole

<b>LEAKAGE CURRENT TYPE</b>	A
<b>TYPE</b>	Ambient temperature hint: Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C
<b>SPECIAL FEATURES</b>	<ul style="list-style-type: none"> <li>• Add-on residual current protection unit</li> <li>• FBSmV</li> <li>• Type S/A</li> </ul>
<b>APPLICATION</b>	<ul style="list-style-type: none"> <li>• Switchgear for industrial and advanced commercial applications</li> <li>• xEffect - Switchgear for industrial and advanced commercial applications</li> </ul>
<b>SENSITIVITY TYPE</b>	AC and pulsating DC current sensitive
<b>RATED FAULT CURRENT - MAX</b>	0.1 A
<b>RATED FAULT CURRENT - MIN</b>	0.1 A
<b>RATED INSULATION VOLTAGE (UI)</b>	440 V
<b>RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)</b>	40 A
<b>RATED OPERATIONAL VOLTAGE (UE) - MAX</b>	415 V
<b>STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT</b>	0 W
<b>SURGE CURRENT CAPACITY</b>	5 kA
<b>VOLTAGE RATING - MAX</b>	415 V
<b>VOLTAGE RATING - MIN</b>	240 V
<b>WIDTH IN NUMBER OF MODULAR SPACINGS</b>	7
<b>TRIPPING TIME</b>	Selective switch off 40 ms delayed - selective switch off
<b>RATED SHORT-CIRCUIT</b>	Same as connected FAZ up

<b>STRENGTH</b>	to max. 10 kA
<b>POWER LOSS</b>	8.9 W

**PROJECT NAME:**

**PROJECT NUMBER:**

**PREPARED BY:**

:



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