

Eaton 170982

Eaton Moeller series xEffect - FRBm6/M RCBO - residual-current circuit breaker with overcurrent protection. RCD/MCB, 10A, 10mA, MCB trip type C, 1-phase+N, RCCB trip type: AC

General specifications

PRODUCT NAME	Eaton Moeller series xEffect - FRBm6/M RCBO - residual-current circuit breaker with overcurrent protection
CATALOG NUMBER	170982
EAN	4015081675036
PRODUCT LENGTH/DEPTH	80 mm
PRODUCT HEIGHT	75 mm
PRODUCT WIDTH	35 mm
PRODUCT WEIGHT	0.21 kg
COMPLIANCES	CE Marked RoHS conform
CERTIFICATIONS	CE EN45545-2 IEC 61373
MODEL CODE	FRBMM-C10/1N/001

Delivery program

APPLICATION	Switchgear for industrial and advanced commercial applications
PRODUCT RANGE	FRBmM
BASIC FUNCTION	Combined RCD/MCB devices
NUMBER OF POLES	Single-pole + N
NUMBER OF POLES (PROTECTED)	1
NUMBER OF POLES (TOTAL)	2
RELEASE CHARACTERISTIC	C
RATED CURRENT	10 A
FAULT CURRENT RATING	0.01 A
SENSITIVITY TYPE	AC current sensitive
TYPE	RCBO

Technical data - electrical

VOLTAGE TYPE	AC
VOLTAGE RATING	240 V - 240 V
RATED OPERATIONAL VOLTAGE (UE) - MAX	240 V
RATED INSULATION VOLTAGE (UI)	500 V
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	4 kV
RATED FAULT CURRENTS OF PRODUCT RANGE	10, 30, 100, 300 MilliAmpere
IMPULSE WITHSTAND CURRENT	Partly surge-proof, 250 A
FREQUENCY RATING	50 Hz
LEAKAGE CURRENT TYPE	AC
RATED SWITCHING CAPACITY	10 kA
RATED SWITCHING CAPACITY (IEC/EN 61009)	10 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 60947-2)	15 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 61009)	10 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 61009-1)	10 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2)	15 kA
SURGE CURRENT CAPACITY	0.25 kA
DISCONNECTION CHARACTERISTIC	Undelayed
TRIPPING	Non-delayed
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	2

Technical data - mechanical

WIDTH IN NUMBER OF MODULAR SPACINGS	2
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BUILT-IN DEPTH	75.5 mm
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MOUNTING METHOD	DIN rail
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DEGREE OF PROTECTION	IP20
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CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MIN	1 mm ²
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CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MAX	25 mm ²
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CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MIN	1 mm ²
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CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MAX	25 mm ²
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Design verification as per IEC/EN 61439 - technical data

RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	10 A
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EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	2.3 W
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HEAT DISSIPATION CAPACITY	0 W
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AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
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AMBIENT OPERATING TEMPERATURE - MAX	40 °C
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Design verification as per IEC/EN 61439

10.2.2 CORROSION RESISTANCE	Meets the product standard's requirements.
10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES	Meets the product standard's requirements.
10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT	Meets the product standard's requirements.
10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS	Meets the product standard's requirements.
10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION	Meets the product standard's requirements.
10.2.5 LIFTING	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 MECHANICAL IMPACT	Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 INSCRIPTIONS	Meets the product standard's requirements.
10.3 DEGREE OF PROTECTION OF ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.
10.4 CLEARANCES AND CREEPAGE DISTANCES	Meets the product standard's requirements.
10.5 PROTECTION AGAINST ELECTRIC SHOCK	Does not apply, since the entire switchgear needs to be evaluated.
10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS	Does not apply, since the entire switchgear needs to be evaluated.
10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS	Is the panel builder's responsibility.
10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS	Is the panel builder's responsibility.
10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH	Is the panel builder's responsibility.
10.9.3 IMPULSE WITHSTAND VOLTAGE	Is the panel builder's responsibility.
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	Is the panel builder's responsibility.
10.10 TEMPERATURE RISE	The panel builder is responsible for the

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BROŞURI	xEffect_FR_RCCB_FAZ%20MCB.pdf
CATALOAGE	eaton-xeffect-frbm6-rcbo-catalog-ca003015en-en-us.pdf eaton-xeffect-frbm6m-dimensions.jpg eaton-xeffect-frbm6m-wiring-diagram.jpg
DESENE	eaton-xeffect-frbm6m-3d-drawing-006.jpg eaton-xeffect-frbm6m-characteristic-curve.jpg

	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.

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATA:



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