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Eaton 170945

Eaton Moeller series xEffect - FRBm6/M RCBO - residual-current circuit breaker with overcurrent protection. RCD/MCB, 13A, 300mA, MCB trip type B, 3-phase+N, RCCB trip type: A

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PRODUCT NAME	Eaton Moeller series xEffect - FRBm6 RCBO - residual-current circuit breaker with overcurrent protection
CATALOG NUMBER	170945
PRODUCT LENGTH/DEPTH	80 mm
PRODUCT HEIGHT	75.5 mm
PRODUCT WIDTH	70 mm
PRODUCT WEIGHT	0.461 kg
COMPLIANCES	CE Marked RoHS conform
CERTIFICATIONS	CE EN45545-2 IEC 61373

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AMPERAGE RATING	13 A
VOLTAGE RATING	415 V - 415 V
SURGE CURRENT CAPACITY	0.25 kA
VOLTAGE TYPE	AC
WIDTH IN NUMBER OF MODULAR SPACINGS	4
FEATURES	Concurrently switching N-neutral

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.

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

Does not apply, since the

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[eaton-xeffect-frbm6m-characteristic-curve-002.jpg](#)

[eaton-xeffect-frbm6m-wiring-diagram-002.jpg](#)

[eaton-xeffect-frbm6m-dimensions-004.jpg](#)

IMPACT	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.
OPERATING AMBIENT TEMPERATURE - MAX	40 °C
OPERATING AMBIENT TEMPERATURE - MIN	-25 °C
PRODUCT RANGE	FRBm6
RATED CURRENT	13 A
RATED FAULT CURRENTS OF PRODUCT RANGE	30, 100, 300 MilliAmpere
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	13 A
RATED SWITCHING CAPACITY (IEC/EN 61009)	6 kA
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT	0 W
TRIPPING CHARACTERISTIC	B
BUILT-IN DEPTH	75.5 mm
CURRENT LIMITING CLASS	3
RATED SHORT-CIRCUIT BREAKING CAPACITY (EN)	0 kA

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AMBIENT OPERATING TEMPERATURE - MAX	40 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
FAULT CURRENT RATING	0.3 A
HEAT DISSIPATION CAPACITY	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT	0 W
NUMBER OF POLES (PROTECTED)	4
NUMBER OF POLES (TOTAL)	4
RATED OPERATIONAL VOLTAGE (UE) - MAX	415 V
RATED SWITCHING CAPACITY	6 kA
BASIC FUNCTION	Combined RCD/MCB devices
MOUNTING METHOD	DIN rail
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	10.2 W
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	4 kV
DEGREE OF PROTECTION	IP20
OPERATING AMBIENT TEMPERATURE HINT	Keep in mind the derating at temperatures higher than 40 °C
TRIPPING	Non-delayed
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	2
IMPULSE WITHSTAND CURRENT	Partly surge-proof, 250 A
LEAKAGE CURRENT TYPE	A
RELEASE CHARACTERISTIC	B
SENSITIVITY TYPE	Pulse-current sensitive
FREQUENCY RATING	50 Hz
RATED INSULATION VOLTAGE (UI)	500 V
CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MIN	1 mm ²

CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MAX 25 mm²

CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MIN 1 mm²

CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MAX 25 mm²

RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 61009) 6 kA

RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 61009-1) 6 kA

NUMBER OF POLES Three-pole + N

DISCONNECTION CHARACTERISTIC Undelayed

TYPE RCBO

APPLICATION Switchgear for industrial and advanced commercial applications

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