

Eaton 170590

Eaton Moeller series xEffect - FRBm6/M
RCBO - residual-current circuit breaker with
overcurrent protection. RCD/MCB, 10A,
300mA, MCB trip type D, 1-ph+N, RCCB trip
type: AC

PRODUCT NAME	Eaton Moeller series xEffect - FRBm6/M RCBO - residual-current circuit breaker with overcurrent protection
CATALOG NUMBER	170590
PRODUCT LENGTH/DEPTH	80 mm
PRODUCT HEIGHT	75 mm
PRODUCT WIDTH	35 mm
PRODUCT WEIGHT	0.187 kg
COMPLIANCES	CE Marked RoHS conform
CERTIFICATIONS	CE EN45545-2 IEC 61373

VOLTAGE RATING	240 V - 240 V
SURGE CURRENT CAPACITY	0.25 kA
VOLTAGE TYPE	AC
WIDTH IN NUMBER OF MODULAR SPACINGS	2
FEATURES	Concurrently switching N-neutral
OPERATING AMBIENT TEMPERATURE - MAX	40 °C
OPERATING AMBIENT TEMPERATURE - MIN	-25 °C
PRODUCT RANGE	FRBmM
RATED CURRENT	10 A
RATED FAULT CURRENTS OF PRODUCT RANGE	10, 30, 100, 300 MilliAmpere
RATED SWITCHING CAPACITY (IEC/EN 61009)	10 kA
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT	0 W
TRIPPING CHARACTERISTIC	D
BUILT-IN DEPTH	75.5 mm
CURRENT LIMITING CLASS	3
RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 60947-2)	15 kA
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)	1
NUMBER OF POLES (TOTAL)	2
RATED OPERATIONAL VOLTAGE (UE) - MAX	240 V

xEffect FR RCCB FAZ%20MCB.pdf
eaton-xeffect-frbm6-rcbo-catalog-ca003015en-en-us.pdf
eaton-xeffect-frbm6m-3d-drawing-007.jpg
eaton-xeffect-frbm6m-wiring-diagram.jpg
eaton-xeffect-frbm6m-dimensions.jpg
eaton-xeffect-frbm6m-characteristic-curve.jpg

RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2)	15 kA
RATED SWITCHING CAPACITY	10 kA
BASIC FUNCTION	Combined RCD/MCB devices
MOUNTING METHOD	DIN rail
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	AC
RELEASE CHARACTERISTIC	D
SENSITIVITY TYPE	AC 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 mm ²
CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MIN	1 mm ²
CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MAX	25 mm ²
RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 61009)	10 kA
RATED SHORT-CIRCUIT	10 kA

BREAKING CAPACITY (EN 61009-1)	
NUMBER OF POLES	Single-pole + N
DISCONNECTION CHARACTERISTIC	Undelayed
TYPE	RCBO
APPLICATION	Switchgear for industrial and advanced commercial applications

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
:



Eaton House
30 Pembroke Road
Dublin 4,
Eaton.com

© 2025

Follow us on social media to get the latest product and support information.

