

Specifications



Photo is representative

Eaton 171001

Eaton Moeller series xEffect - FRBM4 RCBO - residual-current circuit breaker with overcurrent protection. RCD/MCB, 25A, 30mA, MCB trip type C, 3-phase+N, RCCB trip type: A

General specifications

PRODUCT NAME	Eaton Moeller series xEffect - FRBM4 RCBO - residual-current circuit breaker with overcurrent protection
CATALOG NUMBER	171001
MODEL CODE	FRBM4-C25/3N/003-A
EAN	4015081671229
PRODUCT LENGTH/DEPTH	80 mm
PRODUCT HEIGHT	75.5 mm
PRODUCT WIDTH	70 mm
PRODUCT WEIGHT	0.445 kg
COMPLIANCES	CE Marked RoHS conform
CERTIFICATIONS	CE EN45545-2 IEC 61373
GLOBAL CATALOG	171001

Product specifications

AMPERAGE RATING	25 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
OPERATING AMBIENT TEMPERATURE - MAX	40 °C
OPERATING AMBIENT TEMPERATURE - MIN	-25 °C
PRODUCT RANGE	FRBm4
RATED CURRENT	25 A
RATED FAULT CURRENTS OF PRODUCT RANGE	30, 100, 300 MilliAmpere
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	25 A
RATED SWITCHING CAPACITY (IEC/EN 61009)	4.5 kA
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT	0 W
TRIPPING CHARACTERISTIC	C
BUILT-IN DEPTH	75.5 mm
CURRENT LIMITING CLASS	3
RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 60947-2)	0 kA
AMBIENT OPERATING TEMPERATURE - MAX	40 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
FAULT CURRENT RATING	0.03 A
HEAT DISSIPATION CAPACITY	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT	0 W
NUMBER OF POLES (PROTECTED)	4

Resources

BROCHURES	eaton-pdd-railrolling-stock-brochure-br011002en-en-us.pdf
CATALOGS	eaton-xeffect-frbm4-rcbo-catalog-ca003016en-en-us.pdf
DECLARATIONS OF CONFORMITY	DA-DC-03_FRBM-3 DA-DC-03_FRBm-3N 03_FRBM-3_191119
DRAWINGS	Dimension xEffect FRBm4/FRBm6 3N eaton-xeffect-frbm6m-wiring-diagram-002.jpg eaton-xeffect-frbm6m-dimensions-004.jpg eaton-xeffect-frbm6m-characteristic-curve-002.jpg
ECAD MODEL	ETN.FRBM4-C25_3N_003-A.edz
INSTALLATION INSTRUCTIONS	eaton-rccb-rcbo-g9-il019140zu.pdf
MCAD MODEL	eaton-rcd-with-overcurrent-protection-drawings-frbm-3n-rcbo.dwg eaton-rcd-with-overcurrent-protection-3d-models-frbm-3n-rcbo.stp
SPECIFICATIONS AND DATASHEETS	Eaton Specification Sheet - 171001
WIRING DIAGRAMS	Contact Sequence xEffect FRBm4/FRBm6 3N

NUMBER OF POLES (TOTAL)	4
RATED OPERATIONAL VOLTAGE (UE) - MAX	415 V
RATED SHORT-CIRCUIT BREAKING CAPACITY (IEC 60947-2)	0 kA
RATED SWITCHING CAPACITY	4.5 kA
BASIC FUNCTION	Combined RCD/MCB devices
MOUNTING METHOD	DIN rail
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	11.6 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	C
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 mm ²
CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MIN	1 mm ²
CONNECTABLE	25 mm ²

CONDUCTOR CROSS SECTION (MULTI-WIRED) - MAX	
RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 61009)	4.5 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 61009-1)	4.5 kA
NUMBER OF POLES	Three-pole + N
DISCONNECTION CHARACTERISTIC	Undelayed
TYPE	RCBO
APPLICATION	Switchgear for industrial and advanced commercial applications

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
DATE:



Eaton Corporation plc
Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com

© 2025 Eaton. All Rights Reserved.

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

