

Specifications



Eaton 170959

Eaton Moeller series xEffect - FRBM4 RCBO - residual-current circuit breaker with overcurrent protection. RCD/MCB, 25A, 300mA, 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
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CATALOG NUMBER	170959
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MODEL CODE	FRBM4-C25/3N/03-A
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EAN	4015081670864
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PRODUCT LENGTH/DEPTH	80 mm
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PRODUCT HEIGHT	75.5 mm
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PRODUCT WIDTH	70 mm
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PRODUCT WEIGHT	0.461 kg
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COMPLIANCES	RoHS conform
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CERTIFICATIONS	CE EN45545-2 IEC 61373
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GLOBAL CATALOG	170959
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PRODUCT TYPE	RCBO - Residual-current circuit breaker with overcurrent protection
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Powering Business Worldwide

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	0.3 A
HEAT DISSIPATION CAPACITY	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT	0 W
NUMBER OF POLES (PROTECTED)	4
NUMBER OF POLES (TOTAL)	4

Resources

BROCHURES	eaton-pdd-railrolling-stock-brochure-br011002en-en-us.pdf
DECLARATIONS OF CONFORMITY	eaton-rcbo-residual-current-circuit-breaker-with-overcurrent-protection-declaration-of-conformity-eu250101en.pdf eaton-rcbo-residual-current-circuit-breaker-with-overcurrent-protection-declaration-of-conformity-uk251478en.pdf
DRAWINGS	eaton-xeffect-frbm6m-dimensions-004.jpg eaton-xeffect-frbm6m-characteristic-curve-002.jpg eaton-xeffect-frbm6m-wiring-diagram-002.jpg
ECAD MODEL	ETN.FRBM4-C25_3N_03-A.edz
INSTALLATION INSTRUCTIONS	eaton-mcb-rccb-rcbo-g9-il019140zu.pdf
MCAD MODEL	eaton-rcbo-mcad-drawings-frbm-3n-rcbo.dwg eaton-rcd-with-overcurrent-protection-3d-models-frbm-3n-rcbo.stp
PEP ECO-PASSPORT	eaton-rcd-with-overcurrent-protection-pep-eato-00113-v0101-en.pdf
SPECIFICATIONS AND DATASHEETS	Eaton Specification Sheet - 170959
WIRING DIAGRAMS	eaton-xeffect-rcbo-mrb-wiring-diagram.eps

RATED OPERATIONAL VOLTAGE (UE) - MAX	415 V
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 CONDUCTOR CROSS SECTION (MULTI-WIRED) - MAX	25 mm ²
RATED SHORT-CIRCUIT BREAKING CAPACITY (EN 61009)	4.5 kA
RATED SHORT-CIRCUIT BREAKING CAPACITY (EN	4.5 kA

61009-1)	
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:



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