Eaton 187809

Eaton Moeller series xEffect - FRCmM-125 Type B, Bfq and B+ RCCB. Residual current circuit-breaker, all-current sensitive, 80 A, 4p, 300 mA, type S/B

PRODUCT NAME	Eaton Moeller series xEffect - FRCmM-125 Type B, Bfq and B+ RCCB
CATALOG NUMBER	187809
PRODUCT LENGTH/DEPTH	76 mm
PRODUCT HEIGHT	80 mm
PRODUCT WIDTH	70 mm
PRODUCT WEIGHT	0.48 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	IEC/EN 61008 IEC/EN 62423

Powering Business Worldwide

USED WITH	Residual current circuit breakers FRCmM Type S/B
AMPERAGE RATING	80 A
FEATURES	Selective protection Residual current circuit breaker Additional equipment possible
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

MCAD MODEL	eaton-residual-current-circuit-breakers-3d-models-dfs-4.stp eaton-residual-current-circuit-breakers-drawings-dfs-4.dwg
	eaton-xeffect-frcmm-125-rccb-wiring-diagram.jpg eaton-xeffect-frcmm-125-rccb-wiring-diagram-003.jpg
	eaton-xeffect-frcmm-125-rccb-catalog-ca003020en-en-us.pdf eaton-xeffect-frcmm40-80-type-b-rccb-catalog-ca003021en-en-us.pdf
	eaton-frcm-dimensions.jpg eaton-circuit-breaker-xeffect-frcmm-125-rccb-dimensions.jpg

	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.
FITTED WITH:	Interlocking device
FRAME	45 mm
FREQUENCY RATING	50 Hz
POLLUTION DEGREE	2
MOUNTING METHOD	Quick attachment for top-hat rail IEC/EN 60715 DIN rail
CLIMATIC PROOFING	25-55 °C / 90-95% relative humidity according to IEC 60068-2
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	22.5 W
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	4 kV
RATED SHORT-TIME WITHSTAND CURRENT	10 kA

(ICW)	
ADMISSIBLE BACK-UP FUSE OVERLOAD - MAX	80 A gG/gL
BUILT-IN WIDTH (NUMBER OF UNITS)	70 mm (4 SU)
BUSBAR MATERIAL THICKNESS	0.8 mm - 2 mm
SHORT-CIRCUIT RATING	100 A (max. admissible back-up fuse)
STATUS INDICATION	Toggle-center postition
TERMINAL PROTECTION	Finger and hand touch safe, DGUV VS3, EN 50274
TERMINALS (TOP AND BOTTOM)	Twin-purpose terminals
TEST CIRCUIT RANGE	184 V AC - 440 V AC
AMBIENT OPERATING TEMPERATURE - MAX	75 °C
AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
BUILT-IN DEPTH	77.5 mm
CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MAX	16 mm^2
CONNECTABLE CONDUCTOR CROSS SECTION (MULTI-WIRED) - MIN	1.5 mm^2
CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MAX	50 mm^2
CONNECTABLE CONDUCTOR CROSS SECTION (SOLID-CORE) - MIN	1.5 mm^2
FAULT CURRENT RATING	300 mA
HEAT DISSIPATION CAPACITY	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT	0 W
CONTACT POSITION INDICATOR COLOR	Red / green
MOUNTING POSITION	As required
LIFESPAN, MECHANICAL	20000 operations
DEGREE OF PROTECTION	IP20 IP20, IP40 with suitable

	enclosure
IMPULSE WITHSTAND CURRENT	5 kA (8/20 µs) surge-proof
NUMBER OF POLES	Four-pole
LEAKAGE CURRENT TYPE	B
LIFESPAN, ELECTRICAL	4000 operations
TYPE	• FRCmM • Residual current circuit breakers • Type S/B
SPECIAL FEATURES	• Current test marks as per inscription • Maximum operating temperature is 75 °C: Starting at 40 °C, the max. permissible continuous current decreases by 1.2% for every 1 °C
APPLICATION	• Switchgear for industrial and advanced commercial applications • xEffect - Switchgear for industrial and advanced commercial applications
SENSITIVITY TYPE	All current sensitive
RATED FAULT CURRENT - MAX	0.3 A
RATED FAULT CURRENT - MIN	0.3 A
RATED INSULATION VOLTAGE (UI)	440 V
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	80 A
RATED OPERATIONAL VOLTAGE (UE) - MAX	240 V
RATED RESIDUAL MAKING AND BREAKING CAPACITY	800 A

STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT	0 W
SURGE CURRENT CAPACITY	5 kA
WIDTH IN NUMBER OF MODULAR SPACINGS	4
VOLTAGE RATING (IEC/EN 60947-2)	240 V AC / 415 V AC
VOLTAGE TYPE	AC
TERMINAL CAPACITY (SOLID WIRE)	1.5 mm^2 - 50 mm^2 1.5 mm^2 - 16 mm^2 (2x)
TRIPPING TIME	40 ms delayed - selective switch off Selective switch off
RATED SHORT-CIRCUIT STRENGTH	10 kA with back-up fuse
TERMINAL CAPACITY (STRANDED CABLE)	1.5 mm^2 - 16 mm^2 (2x) 1.5 mm^2 - 5 mm^2
RAL-NUMBER	7035
COLOR	Gray

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
:	

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