DATASHEET - FRBMM-C20/2/003-A-120

RCD/MCB combination, 20 A, 30 mA, MCB trip characteristic: C, 2p, RCD trip characteristic: A, 120V

Part no. FRBMM-C20/2/003-A-120
171792

Similar to illustration

General specifications	
Product name	Eaton Moeller series xEffect - FRBm6/M RCBO - residual-current circuit breaker with overcurrent protection
Part no.	FRBMM-C20/2/003-A-120
EAN	4015081683260
Product Length/Depth	80 millimetre
Product height	75.5 millimetre
Product width	35 millimetre
Product weight	0.25 kilogram
Compliances	RoHS conform CE Marked
Certifications	EN45545-2 IEC 61373 CE
Product Tradename	xEffect - FRBm6/M
Product Type	RCBO - Residual-current circuit breaker with overcurrent protection
Product Sub Type	None
Delivery program	
Application	Switchgear for industrial and advanced commercial applications
Basic function	Combined RCD/MCB devices
Number of poles	Two-pole
Number of poles (protected)	2
Number of poles (total)	2
Release characteristic	C
Amperage Rating	20 A
Rated current	20 A
Fault current rating	0.03 A
Type	RCBO
Technical Data - Electrical	
Voltage type	AC
Voltage rating	120 V
Rated operational voltage (Ue) - max	120 V
Rated insulation voltage (Ui)	500 V
Rated impulse withstand voltage (Uimp)	4 kV
Frequency rating	50 Hz
Leakage current type	A
Rated short-circuit breaking capacity (EN 60947-2)	0 kA
Rated short-circuit breaking capacity (EN 61009)	10 kA
Rated short-circuit breaking capacity (EN 61009-1)	10 kA
Rated short-circuit breaking capacity (IEC 60947-2)	0 kA
Surge current capacity	0.25 kA
Disconnection characteristic	Undelayed
Pollution degree	2
Technical Data - Mechanical	
Width in number of modular spacings	2
Built-in depth	75.5 mm
Degree of protection	IP20

Connectable conductor cross section (solid-core) - min	1 mm²
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
Design verification as per IEC/EN 61439 - technical data	
Rated operational current for specified heat dissipation (In)	20 A
Equipment heat dissipation, current-dependent	5.9 W
Ambient operating temperature - max	40 °C
Ambient operating temperature - min	-25 °C
Design verification as per IEC/EN 61439	
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.
10.2.3.3 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 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.
10.6 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.
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.
Additional information	
Current limiting class	3

Technical data ETIM 9.0

Circuit breakers and fuses (EG000020) / Earth leakage circuit breaker (EC000905)

Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / MCB/RCCB combination (ecl@ss13-27-14-22-07 [AFZ810020])

Number of poles (total)		2
Number of protected poles		2
Rated voltage	V	120
Rated insulation voltage Ui	V	500
Rated impulse withstand voltage Uimp	kV	4
Rated current	A	20
Rated fault current	A	0.03
Leakage current type		A
Current limiting class		3
Power loss	W	
Rated short-circuit breaking capacity according to EN 61009	kA	10
Rated short-circuit breaking capacity according to IEC 60947-2	kA	0
Rated short-circuit breaking capacity Icn according to EN 61009-1	kA	10
Disconnection characteristic		Undelayed
Surge current capacity	kA	0.25
Voltage type		AC
Frequency		50 Hz

Release characteristic			C
Concurrently switching neutral conductor			No
With interlocking device			No
Over voltage category			3
Pollution degree			2
Ambient temperature during operating		°C	-25 - 40
Width in number of modular spacings			2
Built-in depth		mm	75.5
Flush-mounted installation			No
Anti-nuisance tripping version			No
Degree of protection (IP)			IP20
Connectable conductor cross section solid-core		mm^2	1 - 25
Connectable conductor cross section multi-wired		mm^2	1 - 25

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