RCD/MCB combination, 20 A, 300 mA, MCB trip characteristic: B, 1p+N, RCD trip characteristic: AC $\,$

Part no. FRBMM-B20/1N/03-G 170557

Similar to illustration

General specifications	- A III
Product name	Eaton Moeller series xEffect - FRBm6/M RCBO - residual-current circuit breake with overcurrent protection
Part no.	FRBMM-B20/1N/03-G
EAN	4015081673384
Product Length/Depth	80 millimetre
Product height	75 millimetre
Product width	35 millimetre
Product weight	0.189 kilogram
Compliances	RoHS conform CE Marked
Certifications	CE IEC 61373 EN45545-2
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
Productrange	FRBmM
Basic function	Combined RCD/MCB devices
Number of poles	Single-pole + N
Number of poles (protected)	1
Number of poles (total)	2
Tripping characteristic	В
Release characteristic	В
Amperage Rating	20 A
Rated current	20 A
Fault current rating	0.3 A
Sensitivity type	AC current sensitive
Туре	RCBO
Fechnical Data - Electrical	
Voltage type	AC
Voltage rating	240 V - 240 V
Rated operational voltage (Ue) - max	240 V
Rated insulation voltage (Ui)	500 V
• • •	
Rated impulse withstand voltage (Uimp)	4 kV
Rated fault currents of product range	10, 30, 100, 300 MilliAmpere
Impulse withstand current	Surge-proof, 3 kA
Frequency rating	50 Hz
Leakage current type	AC 2010
Rated switching capacity	10 kA
Rated switching capacity (IEC/EN 61009)	10 kA
Rated short-circuit breaking capacity (EN 60947-2)	15 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)	15 kA

provide heat dissipation data for the devices. 10.11 Short-circuit rating Is the panel builder's responsibility. The specifications for the switchgear mobserved. 10.12 Electromagnetic compatibility Is the panel builder's responsibility. The specifications for the switchgear mobserved.	Surge current capacity	10 kA
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Width in number of modular spacings Ballin depth Degree of protection Degree of protection Connectable conductor cross section (solid-core) - min Connectable conductor cross section (solid-core) - min Connectable conductor cross section (multi-wired) - min Connectable conductor cross section (multi-wired) - max 25 mm² Connectable conductor cross section (multi-wired) - max 28 mm² Design verification as per IEC/EN 61439 - tocknical data Rated appearational current for specified heat dissipation (in) Read dissipation project, current-dependent Guy Heat dissipation, current-dependent Guy Guy Heat dissipation, current-dependent Guy Guy Guy Heat dissipation, current-dependent Guy Guy Guy Guy Guy Guy Guy Gu	Pollution degree	2
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10.2.6 Mechanical impact 10.2.7 Inscriptions Meets the product standard's requirements. 10.3 Degree of protection of assemblies 10.4 Clearances and creepage distances Meets the product standard's requirements. 10.5 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function Additional information Current limiting class 2 Does not apply, since the entire switchgear needs to be evaluated. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Meets the product standard's requirements. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. Is the panel builder's responsibility. Is the panel builder's responsibility. The specifications for the switchgear needs to be evaluated. In the device meets the requirements, provided the information in the instruct leaflet (IL) is observed.	10.2.4 Resistance to ultra-violet (UV) radiation	Meets the product standard's requirements.
10.27 Inscriptions 10.3 Degree of protection of assemblies 10.4 Clearances and creepage distances 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.10 Temperature rise 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function Additional information Current limiting class Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. Is the panel builder is responsibility. Is the panel builder's responsibility. Is the panel builder's responsibility. Is the panel builder's responsibility. The specifications for the switchgear mobserved. In the device meets the requirements, provided the information in the instruct leaflet (IL) is observed.	10.2.5 Lifting	Does not apply, since the entire switchgear needs to be evaluated.
10.3 Degree of protection of assemblies 10.4 Clearances and creepage distances Meets the product standard's requirements. 10.6 Incorporation of switching devices and components 10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function Additional information Current limiting class Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Meets the product standard's requirements. Does not apply, since the entire switchgear needs to be evaluated. Is the panel builder's responsibility. Is the panel builder's responsibility. Is the panel builder is responsibility. The specifications for the switchgear nobserved. 10.12 Electromagnetic compatibility 10.13 Mechanical function Additional information Current limiting class 3	10.2.6 Mechanical impact	Does not apply, since the entire switchgear needs to be evaluated.
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10.7 Internal electrical circuits and connections 10.8 Connections for external conductors 10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.13 Mechanical function 10.14 Short-circuit imiting class 10.15 Internal electrical circuits and connections 10.16 Is the panel builder's responsibility. 10.17 Is the panel builder's responsibility. 10.18 Is the panel builder's responsibility. 10.19 Is the panel builder's responsibility. The specifications for the switchgear mobserved. 10.19 Is the panel builder's responsibility. The specifications for the switchgear mobserved. 10.19 Is the panel builder's responsibility. The specifications for the switchgear mobserved. 10.19 Is the panel builder's responsibility. The specifications for the switchgear mobserved. 10.19 Is the panel builder's responsibility. The specifications for the switchgear mobserved. 10.19 Is the panel builder's responsibility. The specifications for the switchgear mobserved. 10.19 Is the panel builder's responsibility. The specifications for the switchgear mobserved. 10.19 Is the panel builder's responsibility. The specifications for the switchgear mobserved. 10.19 Is the panel builder's responsibility. The specifications for the switchgear mobserved. 10.19 Is the panel builder's responsibility. The specifications for the switchgear mobserved.	10.4 Clearances and creepage distances	Meets the product standard's requirements.
10.8 Connections for external conductors 10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.13 Mechanical function 10.14 Short-circuit imiting class 10.15 Current limiting class 10.16 The panel builder's responsibility. The specifications for the switchgear mobserved. 10.15 The panel builder's responsibility. The specifications for the switchgear mobserved. 10.16 The panel builder's responsibility. The specifications for the switchgear mobserved. 10.17 The device meets the requirements, provided the information in the instruct leaflet (IL) is observed.	10.6 Incorporation of switching devices and components	Does not apply, since the entire switchgear needs to be evaluated.
10.9.2 Power-frequency electric strength 10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function Current limiting class 10.14 Steppen builder's responsibility. The specifications for the switchgear mobserved. 10.15 the panel builder's responsibility. The specifications for the switchgear mobserved. 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.14 Electromagnetic compatibility 10.15 Short-circuit rating 10.16 Short-circuit rating 10.17 Electromagnetic compatibility 10.18 Short-circuit rating 10.19 Electromagnetic compatibility 10.19 Short-circuit rating 10.10 Short-circuit rating 10.10 Short-circuit rating 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Short-circuit rating 10.14 Short-circuit rating 10.15 Short-circuit rating 10.16 Short-circuit rating 10.17 Short-circuit rating 10.18 Short-circuit rating 10.19 Short-circuit rating 10.19 Short-circuit rating 10.10 Short-circuit rating 10.10 Short-circuit rating 10.11 Short-circuit rating 10.12 Electromagnetic compatibility. The specifications for the switchgear mobserved. 10.12 Electromagnetic compatibility. The specifications for the switchgear mobserved. 10.13 Mechanical function 10.14 Short-circuit rating 10.15 Short-circuit rating 10.15 Short-circuit rating 10.16 Short-circuit rating 10.16 Short-circuit rating 10.17 Short-circuit rating 10.18 Short-circuit rating 10.19 Short-circuit rating 10.19 Short-circuit rating 10.10 Short-circuit rating 10.11 Short-circuit rating 10.12 Short-circuit rating 10.12 Short-circuit rating 10.13 Short-circuit rating 10.14 Short-circuit rating 10.15 Short-circuit rating 10.16 Short-circuit rating 10.16 Short-circuit rating 10.18 Short-circuit rating 10.19 Short-circuit rating 10.19 Short-circuit rating 10.10 Short-circuit rating 10.10 Short-circuit rating 10.10 Short-circuit rating 1	10.7 Internal electrical circuits and connections	Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage 10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function 10.13 Mechanical function Current limiting class 10.9.4 Testing of enclosures made of insulating material Is the panel builder's responsibility. The panel builder is responsibility. The panel builder is responsibility. The specifications for the switchgear mobserved. Is the panel builder's responsibility. The specifications for the switchgear mobserved. The device meets the requirements, provided the information in the instruct leaflet (IL) is observed.	10.8 Connections for external conductors	Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material 10.10 Temperature rise 10.11 Short-circuit rating 10.12 Electromagnetic compatibility 10.13 Mechanical function Additional information Current limiting class Is the panel builder's responsibility. The specifications for the switchgear mobserved. Is the panel builder's responsibility. The specifications for the switchgear mobserved. The device meets the requirements, provided the information in the instruct leaflet (IL) is observed.	10.9.2 Power-frequency electric strength	Is the panel builder's responsibility.
10.10 Temperature rise The panel builder is responsible for the temperature rise calculation. Eaton provide heat dissipation data for the devices. 10.11 Short-circuit rating Is the panel builder's responsibility. The specifications for the switchgear mobserved. 10.12 Electromagnetic compatibility Is the panel builder's responsibility. The specifications for the switchgear mobserved. 10.13 Mechanical function The device meets the requirements, provided the information in the instruct leaflet (IL) is observed. Additional information Current limiting class 3	10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
provide heat dissipation data for the devices. 10.11 Short-circuit rating	10.9.4 Testing of enclosures made of insulating material	Is the panel builder's responsibility.
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observed. 10.13 Mechanical function The device meets the requirements, provided the information in the instruct leaflet (IL) is observed. Additional information Current limiting class 3	10.11 Short-circuit rating	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
Additional information Current limiting class leaflet (IL) is observed. 3	10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
Current limiting class 3	10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
	Additional information	
Features Anti-nuisance tripping version	Current limiting class	3
Concurrently switching N-neutral	Features	

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	1			

Number of protected poles		1
Rated voltage	V	240
Rated insulation voltage Ui	V	500
Rated impulse withstand voltage Uimp	kV	4

Rated current	Α	20
Rated fault current	Α	0.3
Leakage current type		AC
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	15
Rated short-circuit breaking capacity Icn according to EN 61009-1	kA	10
Disconnection characteristic		Short-time delayed
Surge current capacity	kA	10
Voltage type		AC
Frequency		50 Hz
Release characteristic		В
Concurrently switching neutral conductor		Yes
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		Yes
Degree of protection (IP)		IP20
Connectable conductor cross section solid-core	mm²	1 - 25
Connectable conductor cross section multi-wired	mm²	1 - 25