DATASHEET - FRBMM-B25/1N/003-G/A

RCD/MCB combination, 25 A, 30 mA, MCB trip characteristic: B, 1p+N, RCD trip characteristic: A

Part no.

FRBMM-B25/1N/003-G/A 170529

Similar to illustration

General specifications	
Product name	Eaton Moeller series xEffect - FRBm6/M RCBO - residual-current circuit breaker with overcurrent protection
Part no.	FRBMM-B25/1N/003-G/A
EAN	4015081671298
Product Length/Depth	80 millimetre
Product height	75 millimetre
Product width	35 millimetre
Product weight	0.214 kilogram
Compliances	RoHS conform CE Marked
Certifications	IEC 61373 EN45545-2 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
Product range	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	25 A
Rated current	25 A
Fault current rating	0.03 A
Sensitivity type	Pulse-current sensitive
Туре	RCBO
Technical 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	A
Rated switching capacity	10 KA
Rated switching capacity (IEC/EN 61009)	10 kA
Rated short-circuit breaking capacity (EN 60947-2)	10 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)	10 kA

Surge current capacity	3 kA	
Disconnection characteristic	Short-time delayed	
Tripping	Short time-delayed	
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 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	
Design verification as per IEC/EN 61439 - technical data		
Rated operational current for specified heat dissipation (In)	25 A	
Heat dissipation per pole, current-dependent	0 W	
Equipment heat dissipation, current-dependent	5 W	
Static heat dissipation, non-current-dependent	0 W	
Heat dissipation capacity	0 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	i.
10.2.3.1 Verification of thermal stability of enclosures	Meets the product standard's requirements	i.
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	i.
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 tem provide heat dissipation data for the device	
10.11 Short-circuit rating	Is the panel builder's responsibility. The spo observed.	ecifications for the switchgear must b
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The spo observed.	ecifications for the switchgear must b
10.13 Mechanical function	The device meets the requirements, provide leaflet (IL) is observed.	ed the information in the instruction
Additional information		
Current limiting class	3	
Features	Anti-nuisance tripping version Concurrently switching N-neutral	

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			
Rated voltage	V	240			
Rated insulation voltage Ui	V	500			
Rated impulse withstand voltage Uimp	kV	4			

Rated current Feed A 9 Rated fault current I A 03 Lakage current type A A Ourrent timing class I A A Rated short-circuit breaking capacity according to EX 06000 I I A Rated short-circuit breaking capacity according to EX 06000 I I I Rated short-circuit breaking capacity factored to EX 06000 I I I Signe current capacity I I </th <th></th> <th></th> <th></th>			
Lakage current type Added Lakage current type 3 Current limiting class W 3 Power loss M 0 Reted short-circuit breaking capacity according to EN 61009 M 0 Rated short-circuit breaking capacity according to EN 61009-10 M 0 Stord-circuit breaking capacity according to EN 61009-10 M 0 Stord-circuit breaking capacity according to EN 61009-10 M 0 Stord-circuit breaking capacity according to EN 61009-10 M 0 Stord-circuit breaking capacity according to EN 61009-10 M 0 Stord-circuit breaking capacity according to EN 61009-10 M 0 Stord-circuit breaking capacity according to EN 61009-10 Mo 0 Stord-circuit breaking capacity according to EN 61009-10 Mo 0 Stord-circuit breaking capacity according to EN 61009-10 Mo 0 Stord-circuit breaking capacity according to EN 61009-10 Mo M Stord-circuit breaking capacity according to EN 61009-10 Mo M Stord-circuit breaking capacity according to EN 61009-10 Mo M	Rated current	А	25
Current limiting class Image: solution of the solution	Rated fault current	А	0.03
Power loss M M Rede short-circuit breaking capacity according to EC 60947-2 Ka 0 Rede short-circuit breaking capacity (according to EC 60947-2) Ka 0 Bated short-circuit breaking capacity (according to EC 60947-2) Ka 0 Disconnection characteristic Ka 0 Short-time delayed Surge current capacity Ka 3 Short-time delayed Voltage type Ka 0 Short-time delayed Frequency Ka 3 Short-time delayed Notage type Short-time delayed Short-time delayed Short-time delayed Notage type Short-time delayed Short	Leakage current type		A
Rade derivation circuit breaking capacity according to EN 61009 KA I Rade derivative breaking capacity according to EN 61009-10 KA I Disconnection characteristic Io Ioratime delayed Surge current capacity KA I Vidag type Io Ioratime delayed Frequency KA Ioratime delayed Rate abscharcteristic Ioratime delayed Ioratime delayed Rote scharcteristic Ioratime delayed Ioratime delayed <td>Current limiting class</td> <td></td> <td>3</td>	Current limiting class		3
Reted short-circuit breaking capacity lon according to EK 60947-2 KA 10 Reted short-circuit breaking capacity lon according to EK 60947-2 KA 10 Disconnection characteristic Sont-time delayed Sont-time delayed Surge current capacity KA 3 Voltage type Sont-time delayed Sont-time delayed Frequency Sont-time delayed Sont-time delayed Release characteristic Sont-time delayed Sont-time delayed Concurrently switching neutral conductor Sont-time delayed Sont-time delayed Viti hardocking device Sont-time delayed Sont-time delayed Pollution degree Sont-time delayed Sont-time delayed Viti hardocking device Sont-time delayed Sont-time delayed Sont-time delayed Sont-time delayed	Power loss	W	
Rated short-circuit breaking capacity Lon according to EN 61009-1 KA 10 Disconnection characteristic Soft-time delayed Soft-time delayed Surge current capacity KA 3 Voltage type A G Frequex Soft-time delayed Soft-time delayed Release characteristic Soft-time delayed Soft-time delayed Concurrent switching neutral conductor Soft-time delayed Soft-time delayed Voltage type Soft-time delayed Soft-time delayed	Rated short-circuit breaking capacity according to EN 61009	kA	A 10
Disconnection characteristic Some discontention characteristic	Rated short-circuit breaking capacity according to IEC 60947-2	kA	A 10
Surge current capacity KA 3 Voltage type KA 3 Frequency Coll Coll Release characteristic Strage type Strage type Concurrently switching neutral conductor Frequency Strage type With interlocking device Frequency Strage type Over voltage category Strage type Strage type Pollution degree Strage type Strage type With in number of modular spacings Strage type Strage type Built-in depth Strage type Strage type Anti-installation Strage type Strage type Anti-instance tripping version Strage type Strage type Degree of protection (IP) Strage type Strage type Concetable conductor cross section solid-core Strage type Strage type	Rated short-circuit breaking capacity Icn according to EN 61009-1	kA	A 10
Voltage type C Frequency 50 Hz Release characteristic 60 Hz Concurrently switching neutral conductor 8 With interlocking device No Over voltage category 60 Hz Pollution degree 3 Ambient temperature during operating 6 With interlocking device 2 Voltage category 5 Pollution degree 5 Rubient temperature during operating 6 Vith in number of modular spacings 7 Fush-mounted installation 7 Anti-nuisance tripping version 6 Degree of protection (IP) 7 Concettable conductor cross section solid-core 8	Disconnection characteristic		Short-time delayed
Frequency 50 Hz Release characteristic 60 Hz Concurrently switching neutral conductor 80 Hz With interlocking device 70 Pollution degree Over voltage category 60 PC Pollution degree 20 PC Mith interloc findular spacings 60 PC Built-in depth 75 S Fush-mounted installation 75 S Anti-nuisance tripping version 70 Polution degree Anti-nuisance tripping version 70 Polution degree Polute of protection (IP) 70 Polution Connectable conductor cross section solid-core 01 PM	Surge current capacity	kA	A 3
Release characteristic Image: Release characteristic <	Voltage type		AC
Concurrently switching neutral conductor Ford Ford With interlocking device No Over voltage category 3 Pollution degree Pollution degree Ambient temperature during operating Pol With in number of modular spacings Pol Built-in depth Pol Fush-mounted installation Pol Anti-nuisance tripping version Pol Degree of protection (IP) Pol Polnetable conductor cross section solid-core Pol Polnetable conductor Pol Polnetable conductor Pol Polnetable conductor Pol	Frequency		50 Hz
With interlocking device No Over voltage category 3 Pollution degree 2 Ambient temperature during operating C 2 With in number of modular spacings M 2 Built-in depth Mm 5 Fush-mounted installation Mm Voltage category Anti-nuisance tripping version Mm Voltage category Degree of protection (IP) Mm 120 Monter Category Mm 120 Market conductor cross section solid-core Mm 120	Release characteristic		В
Normalization Image: Constraint of the second sec	Concurrently switching neutral conductor		Yes
Pollution degree <td>With interlocking device</td> <td></td> <td>No</td>	With interlocking device		No
Ambient temperature during operatingPC25 - 40Width in number of modular spacings22Buit-in depthMm5.5Fush-mounted installationMmNoAnti-nuisance tripping versionMmYesDegree of protection (IP)Imm²125Connectable conductor cross section solid-coreMm²125	Over voltage category		3
Width in number of modular spacings Mode 2 Built-in depth mm 5.5 Flush-mounted installation FM No Anti-nuisance tripping version FM Yes Degree of protection (IP) Imm ² 125	Pollution degree		2
Built-in depth mm 75.5 Flush-mounted installation M M Anti-nuisance tripping version M M Degree of protection (IP) M M Connectable conductor cross section solid-core M mm ²	Ambient temperature during operating	°C	-25 - 40
Flush-mounted installation Mo Anti-nuisance tripping version Mo Degree of protection (IP) Mo Connectable conductor cross section solid-core mm ²	Width in number of modular spacings		2
Anti-nuisance tripping version Pres Degree of protection (IP) IP20 Connectable conductor cross section solid-core mm² 1-25	Built-in depth	mn	m 75.5
Degree of protection (IP) IP20 Connectable conductor cross section solid-core mm² 1 - 25	Flush-mounted installation		No
Connectable conductor cross section solid-core mm ² 1 - 25	Anti-nuisance tripping version		Yes
	Degree of protection (IP)		IP20
Connectable conductor cross section multi-wired mm ² 1 - 25	Connectable conductor cross section solid-core	mn	m ² 1 - 25
	Connectable conductor cross section multi-wired	mn	m ² 1 - 25