DATASHEET - FRCMM-63/2/01-G/F

Residual current circuit breaker (RCCB), 63A, 2p, 100mA, type G/F



Part no.
EL Number (Norway)

FRCMM-63/2/01-G/F 187374 1605260

Deductore	
Product name	Eaton Moeller series xEffect - FRCmM Type F RCCB
Part no.	FRCMM-63/2/01-G/F
EAN	4015081824328
Product Length/Depth	80 millimetre
Product height	76 millimetre
Product width	35 millimetre
Product weight	0.202 kilogram
Compliances	RoHS conform
Certifications	IEC/EN 62423 EN45545-2 IEC 61373 IEC/EN 61008
Product Tradename	xEffect - FRCmM Type F
Product Type	RCCB
Product Sub Type	None
Application	Switchgear for industrial and advanced commercial applications xEffect - Switchgear for industrial and advanced commercial applications
Number of poles	Two-pole
Tripping time	10 ms delayed
Amperage Rating	63 A
Rated short-circuit strength	10 kA with back-up fuse
Fault current rating	100 mA
Sensitivity type	Pulse-current sensitive
Impulse withstand current	3 kA (8/20 µs) surge-proof
Туре	FRCmM Residual current circuit breakers Type G/F (ÖVE E 8601)
Voltage rating (IEC/EN 60947-2)	240 V AC
Rated operational voltage (Ue) - max	240 V
Rated insulation voltage (Ui)	440 V
Rated impulse withstand voltage (Uimp)	4 kV 4 kV (1.2/50 μs)
Rated fault current - min	0.1 A
Rated fault current - max	0.1 A
Frequency rating	50 Hz / 60 Hz
Short-circuit rating	63 A (max. admissible back-up fuse)
Leakage current type	Other
Rated residual making and breaking capacity	630 A
Admissible back-up fuse overload - max	63 A gG/gL
Rated short-time withstand current (Icw)	10 kA
Surge current capacity	3 kA
Test circuit range	184 V AC - 250 V AC
Pollution degree	2
Radiation resistance	Frequency mix (10 Hz, 50 Hz, 1000 Hz) enhanced sensitivity
Lifespan, electrical	4000 operations
Frame	45 mm
Width in number of modular spacings	2

Built-in width (number of units)	35 mm (2 SU)
Built-in depth	70.5 mm
Mounting Method	Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715 DIN rail
Mounting position	As required
Degree of protection	IP20, IP40 with suitable enclosure IP20
Status indication	White / blue
Terminals (top and bottom)	Twin-purpose terminals
Terminal capacity (solid wire)	1.5 mm ² - 35 mm ²
Connectable conductor cross section (solid-core) - min	1.5 mm ²
Connectable conductor cross section (solid-core) - max	35 mm ²
Terminal capacity (stranded cable)	16 mm² (2x)
Connectable conductor cross section (multi-wired) - min	1.5 mm ²
Connectable conductor cross section (multi-wired) - max	16 mm ²
Terminal capacity (cable)	M5 (with cross-recessed screw as defined in EN ISO 4757-Z2, PZ2)
Terminal protection	Finger and hand touch safe, DGUV VS3, EN 50274
Contact position indicator color	Red / green
Tightening torque	2 Nm - 2.4 Nm
Busbar material thickness	0.8 mm - 2 mm
Lifespan, mechanical	20000 operations
Permitted storage and transport temperature - min	-35 °C
Permitted storage and transport temperature - max	60 °C
Climatic proofing	25-55 °C / 90-95% relative humidity according to IEC 60068-2
Rated operational current for specified heat dissipation (In)	63 A
Heat dissipation per pole, current-dependent	6.75 W
Equipment heat dissipation, current-dependent	13.5 W
Static heat dissipation, non-current-dependent	0 W
Heat dissipation capacity	0 W
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	40 °C
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 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 is 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.

Features	Additional equipment possible Residual current circuit breaker
Fitted with:	Interlocking device
Functions	Short-time delayed tripping
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 1.8% for every 1 °C

Technical data ETIM 8.0

Circuit breakers and fuses (EG000020) / Residual current circuit breaker (RCCB) (EC000003)

Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / Residual current circuit breaker (RCCB) (ecl@ss10.0.1-27-14-22-01 [AAB906014])

And voltage V 40 Rated voltage A 5 Rated insulation voltage Uimp V 40 Rated insulation voltage Uimp V 40 Mounting method V 40 Selective protection V 40 Short-incult breaking capacity (Icw) V 40 Surge current capacity V 40 Voltage type V 40 Strict-incult breaking capacity (Icw) V V Voltage type V V V Additional equipment possible V V V Dagree of motodular spacings V V V Additional equipment during operating V V V Additional equipment possible V V V V Barbert type equipment during operating V V V V Additional equipment possible V V V V V V Barbert type equipment during operating V V			
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Retaining withstand voltage Uimp KV 4 Mounting method ID Nail Leakage current type Other Selective protection No Short-time delayed tripping KA No Sourcent capacity (Icw) KA ID Nail Voltage type Source Contended Source Contende Source Contended Source Contende S	Rated fault current	А	0.1
Monting methodIV railLeakage current typeOhraSelective protectionVShort-time delayed trippingKAShort-circuit breaking capacity (low)KASurge current capacityKAVoltage typeCWith inclocking deviceKAFrequencyKAAdditional equipment possibleMWith in number of modular spacingsMWith in number of modular spacingsMMittenterting operatingMMittenterting operatingMMittenterting operatingMDisting defineMMittenterting operatingMShort-time operatingMMittenterting operatingMShort-time operatingShort-time operatingShort-time operatingMShort-time operatingShort-time operatingShort-time operatingMShort-time operatingShort-time operatingShort-time operatingShort-time operatingShort-time operatingShort-time operatingShort-time operatingShort-time operatingShort-time operating	Rated insulation voltage Ui	V	440
Leakage current type Dher Selective protection No Short-time delayed tripping Yes Short-time delayed tripping KA Stort-circuit breaking capacity (low) KA Surge current capacity KA Voltage type AC With interlocking device Yes Frequency Yes Additional equipment possible Yes Degree of protection (IP) Yes With intemperature during operating Yes Ambient temperature during operating Yes Pollution degree Yes Pollution degree Yes Concentable conductor cross section multi-wired Yes Manient temperature during operating Yes Pollution degree Y	Rated impulse withstand voltage Uimp	kV	4
Short-time delayed tripping No Short-time delayed tripping Yes Short-circuit breaking capacity (lcw) KA 1 Surge current capacity KA 3 Vitage type KA 3 With interlocking device KA 50/60 Hz Frequency 50/60 Hz 50/60 Hz Additional equipment possible Yes 1 Degree of protection (IP) Yes 1 With in number of modular spacings mm 10 Buil-in depth mm 50/50 Hz Ambient temperature during operating mm 51/50 Pollution degree 2 61/50 Connectable conductor cross section solid-core mm ^a 51/50	Mounting method		DIN rail
Short-time delayed tripping Image: Image	Leakage current type		Other
Short-circuit breaking capacity (Icw) KA 0 Surge current capacity KA 0 Surge current capacity KA 0 Voltage type KA 0 Voltage type KA 0 With interlocking device KA 0 Frequency KA 0 Additional equipment possible KA 0 Degree of protection (IP) KA 5000 Hz With in number of modular spacings MA 10 Built-in depth Ma 70.5 Anbient temperature during operating Ma 52.40 Pollution degree Ma 15.16 Connectable conductor cross section solid-core ma 15.33	Selective protection		No
Surge current capacitykA3Voltage typeCACWith interlocking deviceSofo HzFrequencySofo HzAdditional equipment possibleSofo HzDegree of protection (IP)P20With in number of modular spacingsmmBuilt-in depthmmAbient temperature during operating°CPollution degree°CPollution degreeSofo AzConnectable conductor cross section polit-overmm²Sonectable conductor cross section solit-overmm²Sonectable conductor cross section solit-overmm²Sone conductor cross section solit-overmm²Sone conductor cross section solit-overmm²Sone conductor cross section solit-overSone conductor conductor cross section solit-over	Short-time delayed tripping		Yes
Voltage type AC With interlocking device Frequency Frequency Sofo Hz Additional equipment possible Frequency Degree of protection (IP) IP20 With in number of modular spacings mm Built-in depth Sofo Hz Anbient temperature during operating Mm Pollution degree Sofo Max Connectable conductor cross section multi-wired mm ² Sofo Max Sofo Max Mark Sofo Max Sofo Max Sofo Max Mark Sofo Max Sofo Max Sofo Max Sofo M	Short-circuit breaking capacity (Icw)	kA	10
With interlocking device Yes Frequency 50/60 Hz Additional equipment possible Yes Degree of protection (IP) Yes With in number of modular spacings IP20 Built-in depth mm Ambient temperature during operating C Pollution degree 2 Connectable conductor cross section solid-core mm² Internet mm² Solid Solid	Surge current capacity	kA	3
FrequencySold and a point possibleSold b point possibleSold b point possibleAdditional equipment possibleSold b point possibleFeeSold b point possibleDegree of protection (IP)Sold b point possibleP20Sold b point possibleWith in number of modular spacingsSold b point possibleSold b point possibleP20Built-in depthMmSold b point possibleSold b point possibleSold b point possiblePollution degreeCSold b point possibleSold b point possibleSold b point possibleConnectable conductor cross section multi-wiredSold b point possibleSold b point possibleSold b point possibleConnectable conductor cross section solid-coreSold b point possibleSold b point possibleSold b point possibleConnectable conductor cross section solid-coreSold b point possibleSold b point possibleSold b point possibleConnectable conductor cross section solid-coreSold b point possibleSold b point possibleSold b point possibleConnectable conductor cross section solid-coreSold b point possibleSold b point possibleSold b point possibleConnectable conductor cross section solid-coreSold b point possibleSold b point possibleSold b point possibleConnectable conductor cross section solid-coreSold b point possibleSold b point possibleSold b point possibleConnectable conductor cross section solid-coreSold b point possibleSold b point possibleSold b point possibleSold b point possibleSold b point possible	Voltage type		AC
Additional equipment possible Fee Fee Degree of protection (IP) IP20 Width in number of modular spacings mm 7.5 Built-in depth C 2 Ambient temperature during operating C 2 Pollution degree C 2 Connectable conductor cross section multi-wired Imm ² 15.16	With interlocking device		Yes
Degree of protection (IP) IP20 Width in number of modular spacings Imm Buit-in depth Imm Ambient temperature during operating Imm Pollution degree Imm Connectable conductor cross section multi-wired Imm Imm Imm	Frequency		50/60 Hz
Width in number of modular spacingsImage: Space of the spa	Additional equipment possible		Yes
Built-in depthmm70.5Ambient temperature during operating°C-25 - 40Pollution degree°C2Connectable conductor cross section multi-wiredmm²1.5 - 16Connectable conductor cross section solid-coremm²1.5 - 35	Degree of protection (IP)		IP20
Ambient temperature during operating Pollution degree 25 - 40 Pollution degree 2 Connectable conductor cross section solid-core mm ² 1.5 - 16 Connectable conductor cross section solid-core mm ² 1.5 - 35	Width in number of modular spacings		2
Pollution degree 2 Connectable conductor cross section solid-core mm ² 1.5 - 16 Connectable conductor cross section solid-core mm ² 1.5 - 35	Built-in depth	mm	70.5
Connectable conductor cross section multi-wired mm ² 1.5 - 16 Connectable conductor cross section solid-core mm ² 1.5 - 35	Ambient temperature during operating	°C	-25 - 40
Connectable conductor cross section solid-core mm ² 1.5 - 35	Pollution degree		2
	Connectable conductor cross section multi-wired	mm²	1.5 - 16
Explosion-proof No	Connectable conductor cross section solid-core	mm²	1.5 - 35
	Explosion-proof		No