

**Digital residual current circuit-breaker, all-current sensitive, 63 A, 4p,
300 mA, type S/B+**

Part no. **FRCDM-63/4/03-S/B+**
167890
EL Number **1664185**
(Norway)

Product name	Eaton Moeller series xEffect - FRCdM Type B, B+, Bfq RCCB
Part no.	FRCDM-63/4/03-S/B+
EAN	4015081644667
Product Length/Depth	80 millimetre
Product height	71 millimetre
Product width	70 millimetre
Product weight	0.32 kilogram
Compliances	RoHS conform
Certifications	VDE 0664-400 EN45545-2 IEC 61373 IEC/EN 61008 IEC/EN 62423
Product Tradename	xEffect - FRCdM Type B, B+, Bfq
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	Four-pole
Tripping time	Selective switch off 40 ms delayed - selective switch off
Amperage Rating	63 A
Rated short-circuit strength	10 kA
Fault current rating	300 mA
Sensitivity type	All current sensitive
Impulse withstand current	5 kA (8/20 µs) surge-proof
Type	FRCdM Residual current circuit-breakers, digital Type S/B+
Voltage rating (IEC/EN 60947-2)	240 V AC / 415 V AC
Voltage rating - min	50
Voltage rating - max	456
Rated operational voltage (Ue) - max	415 V
Rated insulation voltage (Ui)	440 V
Rated impulse withstand voltage (Uimp)	4 kV
Rated fault current - min	0.3 A
Rated fault current - max	0.3 A
Frequency rating	50 Hz
Short-circuit rating	63 A (max. admissible back-up fuse)
Leakage current type	B+
Rated residual making and breaking capacity	630 A
Admissible back-up fuse	63 A gG/gL
Admissible back-up fuse overload - max	63 A gG/gL
Rated short-time withstand current (Icw)	10 kA
Surge current capacity	5 kA
Test circuit range	196 V AC - 456 V AC
Pollution degree	2

Lifespan, electrical			4000 operations
Rated switching capacity (resistive load) of auxiliary contact at 30 V DC			2 A
Rated switching capacity (resistive load) of auxiliary contact at 240 V AC			0.25 A
Switching duty with resistive load of auxiliary contact - max			60 W
Switching voltage at AC of auxiliary contact - max			240 V
Switching voltage at DC of auxiliary contact - max			220 V
Switching current of auxiliary contact - max			2 A
Switching capacity of auxiliary contact - min			10 µA, 10 mV DC
Terminal capacity of auxiliary contact			0.25 mm ² - 1.5 mm ²
Frame			45 mm
Width in number of modular spacings			4
Built-in width (number of units)			70 mm (4 SU)
Built-in depth			70.5 mm
Mounting Method			DIN rail Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715
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 mm ² (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			0 W
Equipment heat dissipation, current-dependent			10 W
Static heat dissipation, non-current-dependent			0 W
Heat dissipation capacity			10 W
Ambient operating temperature - min			-25 °C
Ambient operating temperature - max			60 °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'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.
Features			Selective protection Residual current circuit-breakers, digital Additional equipment possible
Fitted with:			Interlocking device
Special features			Current test marks as per inscription Dry auxiliary contact: > 100,000 electrical switching operations per minute at 2 A 30 VDC resistive load Dry auxiliary contact: > 5 x 100,000 electrical switching operations per minute at 1 A 30 VDC resistive load Maximum operating temperature is 60 °C in accordance with the de-rating table
Used with			FRCdM Residual current circuit-breakers, digital Type S/B+

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) (ecI@ss10.0.1-27-14-22-01 [AAB906014])			
Number of poles			4
Rated voltage		V	415
Rated current		A	63
Rated fault current		A	0.3
Rated insulation voltage Ui		V	440
Rated impulse withstand voltage Uimp		kV	4
Mounting method			DIN rail
Leakage current type			B+
Selective protection			Yes
Short-time delayed tripping			No
Short-circuit breaking capacity (Icw)		kA	10
Surge current capacity		kA	5
Voltage type			AC
With interlocking device			Yes
Frequency			50 Hz
Additional equipment possible			Yes
Degree of protection (IP)			IP20
Width in number of modular spacings			4
Built-in depth		mm	70.5
Ambient temperature during operating		°C	-25 - 60
Pollution degree			2
Connectable conductor cross section multi-wired		mm ²	1.5 - 16
Connectable conductor cross section solid-core		mm ²	1.5 - 35
Explosion-proof			No