

# DATASHEET - FRBMM-B40/1N/003-F



**RCD/MCB combination, 40 A, 30 mA, MCB trip characteristic: B, 1p+N,  
RCD trip characteristic: F**

**Part no. FRBmM-B40/1N/003-F  
193490**

Similar to illustration

General specifications		
Product name		Eaton Moeller series xEffect - FRBm6/M RCBO - residual-current circuit breaker with overcurrent protection
Part no.		FRBmM-B40/1N/003-F
EAN		9010238025738
Product Length/Depth		80 millimetre
Product height		75 millimetre
Product width		35 millimetre
Product weight		0.215 kilogram
Compliances		RoHS conform CE Marked
Certifications		EN45545-2 CE IEC 61373
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/RCBO devices
Number of poles		Single-pole + N
Number of poles (protected)		1
Number of poles (total)		2
Release characteristic		B
Rated current		40 A
Fault current rating		0.03 A
Type		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
Frequency rating		50 Hz
Leakage current type		A
Rated switching capacity (IEC/EN 60947-2)		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		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 mm <sup>2</sup>
Connectable conductor cross section (solid-core) - max		25 mm <sup>2</sup>
Connectable conductor cross section (multi-wired) - min		1 mm <sup>2</sup>
Connectable conductor cross section (multi-wired) - max		25 mm <sup>2</sup>
<b>Design verification as per IEC/EN 61439 - technical data</b>		
Rated operational current for specified heat dissipation (I <sub>n</sub> )		40 A
Ambient operating temperature - max		40 °C
Ambient operating temperature - min		-25 °C
<b>Additional information</b>		
Current limiting class		3
Features		Concurrently switching N-neutral Anti- nuisance tripping version

## 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 U <sub>i</sub>	V	500
Rated impulse withstand voltage U <sub>imp</sub>	kV	4
Rated current	A	40
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	10
Rated short-circuit breaking capacity I <sub>cn</sub> according to EN 61009-1	kA	10
Disconnection characteristic		Undelayed
Surge current capacity	kA	3
Voltage type		AC
Frequency		50 Hz
Release characteristic		B
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	mm <sup>2</sup>	1 - 25
Connectable conductor cross section multi-wired	mm <sup>2</sup>	1 - 25