



**Electronic RCD/MCB combination, 20 A, 30 mA, MCB trip characteristic: C, 2p, RCD trip characteristic: F**



**Part no. NDRBM-20/2/C/003-F-0L**  
**Catalog No. 300506**

### Delivery program

Basic function			Combined RCD/MCB device, digital
Number of poles			2 pole
Tripping characteristic			C
Application			Switchgear for residential and commercial applications
Rated current	$I_n$	A	20
Rated fault current	$I_{\Delta N}$	A	0.03
Type			Type F
Product range			NdRBM

### Technical data

#### Electrical

Rated fault currents	$I_{\Delta n}$	mA	30
Characteristic			C
Selectivity Class			3

#### Mechanical

Degree of protection			
Switch			IP20
Integrated			IP40
Admissible ambient temperature range		°C	-25 ... +40
Thickness of busbar material		mm	
Material thickness		mm	0.8 ... 2

### Design verification as per IEC/EN 61439

Technical data for design verification			
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	40
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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 Insulation properties			
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.

## Technical data ETIM 7.0

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@ss10.0.1-27-14-22-07 [AFZ810015])		
Number of poles (total)		2
Number of protected poles		2
Rated voltage	V	240
Rated insulation voltage Ui	V	250
Rated impulse withstand voltage Uimp	kV	4
Rated current	A	20
Rated fault current	A	0.03
Leakage current type		F
Current limiting class		3
Rated short-circuit breaking capacity acc. EN 61009	kA	10
Rated short-circuit breaking capacity IEC 60947-2	kA	0
Rated short-circuit breaking capacity Icn acc. EN 61009-1	kA	10
Disconnection characteristic		Short-time delayed
Surge current capacity	kA	3
Voltage type		AC
Frequency		50 Hz
Release characteristic		C
Concurrently switching N-neutral		No
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	70
Suitable for 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