

NmRBM-20/2/C/01-A - RCD/MCB combination, 20 A, 100 mA, MCB trip characteristic: C, 2p, RCD trip characteristic: A



193786 NmRBM-20/2/C/01-A



Overview



**Specifications** 



Resources







# J

### **DELIVERY PROGRAM**

Delivery program >

Technical data >

Basic function Combined RCD/MCB devices

Design verification as per IEC/EN 61439 >

Number of poles 2 pole

Tripping characteristic

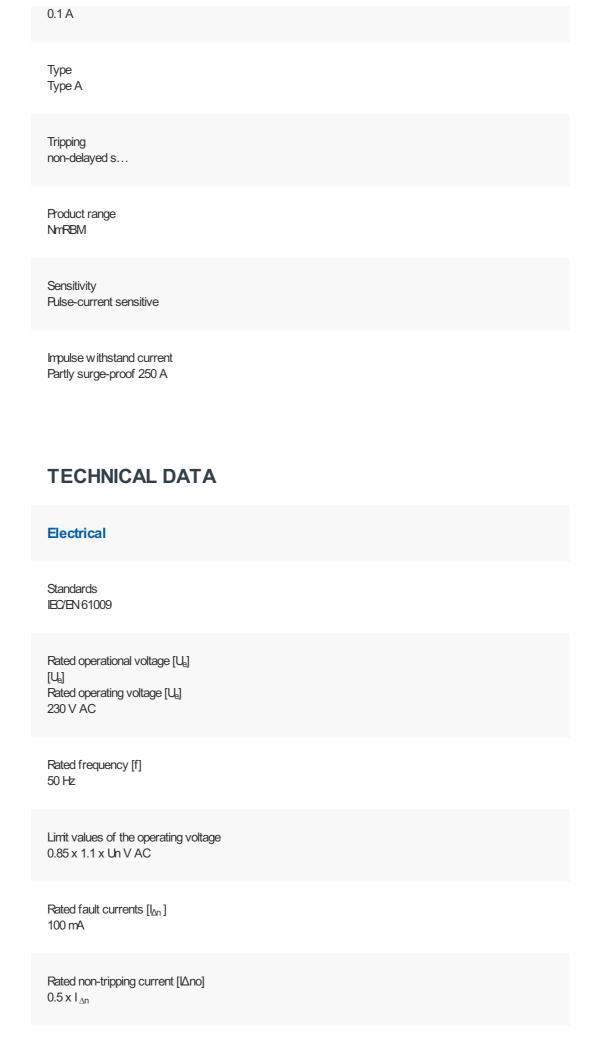
Technical data E∏M8.0 >

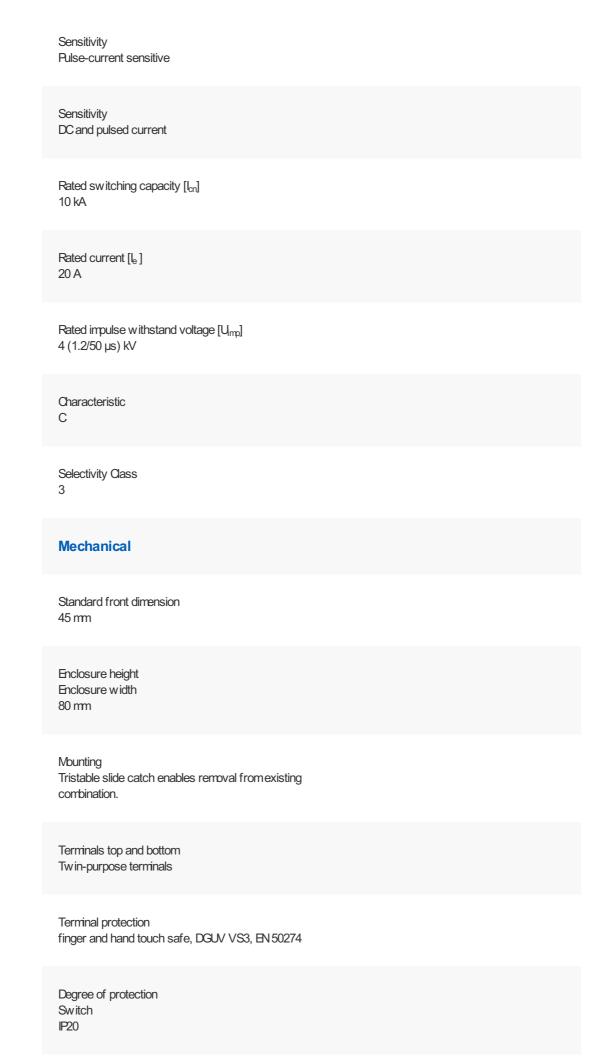
Application Switchgear for residential and commercial applications

Rated current [In] 20 A

Rated switching capacity according to IEC/EN 61009 10 kA

Rated fault current [I<sub>ΔN</sub>]





Degree of protection Integrated IP40

Terminal cross-section Solid 1 - 25 mm<sup>2</sup>

Admissible ambient temperature range -25 ... +40 °C

Climatic proofing according to IEC 68-2 (25 - 55 °C, 90 - 95 % Humidity)

Thickness of busbar material Material thickness 0.8 ... 2 mm

## **DESIGN VERIFICATION AS PER IEC/EN 61439**

#### Technical data for design verification

Rated operational current for specified heat dissipation  $[I_n]$  20 A

Equipment heat dissipation, current-dependent  $[P_{\text{vid}}] \\ 5.9 \, \text{W}$ 

Operating ambient temperature min. -25  $^{\circ}\text{C}$ 

Operating ambient temperature max.  $+40 \, ^{\circ}\mathrm{C}$ 

#### IEC/EN 61439 design verification

10.2 Strength of materials and parts10.2.2 Corrosion resistanceMeets the product standard's requirements.

10.2 Strength of materials and parts 10.2.3.1 Verification of thermal stability of enclosures Meets the product standard's requirements.

10.2 Strength of materials and parts10.2.3.2 Verification of resistance of insulating materials to normal heatMeets the product standard's requirements.

10.2 Strength of materials and parts
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 Strength of materials and parts 10.2.4 Resistance to ultra-violet (UV) radiation Weets the product standard's requirements.

10.2 Strength of materials and parts10.2.5 LiftingDoes not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts10.2.6 Mechanical impactDoes not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts10.2.7 InscriptionsMeets the product standard's requirements.

10.3 Degree of protection of ASSEVBLIES 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 Insulation properties 10.9.3 Impulse withstand voltage Is the panel builder's responsibility.

10.9 Insulation properties10.9.4 Testing of enclosures made of insulating materialIs 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 8.0**

Circuit breakers and fuses (EC000020) / Earth leakage circuit breaker (EC000905)

Number of poles (total) 2
Number of protected poles 2
Rated voltage 230 V
Rated insulation voltage Ui 250 V
Rated impulse withstand voltage Ump 4 kV
Rated current 20 A
Rated fault current 0.1 A
Leakage current type A
Ourrent limiting class
Rated short-circuit breaking capacity according to EN 61009 10 kA
Rated short-circuit breaking capacity according to IEC 60947-2 0 kA
Rated short-circuit breaking capacity Icn according to EN 61009-1 10 kA
Disconnection characteristic Undelayed

Surge current capacity 0.25 kA
Voltage type AC
Frequency 50 Hz
Release characteristic C
Concurrently switching neutral conductor No
With interlocking device No
Over voltage category 3
Pollution degree 2
Ambient temperature during operating -25 - 40 °C
Width in number of modular spacings 2
Built-in depth 70 mm
Flush-mounted installation No
Anti-nuisance tripping version No
Degree of protection (IP) IP20

Connectable conductor cross section multi-wired 1 - 25 mm²



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