NmRBM-16/2/B/01-A - RCD/MCB combination, 16 A, 100 mA, MCB trip characteristic: B, 2p, RCD trip characteristic: A

193781 NmRBM-16/2/B/01-A




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- Delivery program
- Technical data
- Design verification as per IEC/EN 61439
- Technical data ETIM 8.0

# 193781 NmRBM-16/2/B/01-A

RCD/MCB combination, 16 A, 100 mA, MCB trip characteristic: B, 2p, RCD trip characteristic: A

EL-Nummer (Norway) 1667508

RCD/MCB combination switch, NmRBM, 2-pole, tripping characteristic: B, rated current In: 16 A, rated switching capacity according to IEC/EN 61009: 10 kA, rated fault current: 0.1 A, pulse-current sensitive, partly surge-proof 250 A

## Delivery program

Basic function
Combined RCD/MCB devices
Number of poles
2 pole
Tripping characteristic
B
Application
Switchgear for residential and commercial applications
Rated current [$I_n$]
16 A
Rated switching capacity according to IEC/EN 61009
10 kA
Rated fault current [$I_{\Delta N}$]
0.1 A
Type

Type A
Tripping
non-delayed s…
Product range
NmRBM
Sensitivity
Pulse-current sensitive
Impulse withstand current
Partly surge-proof 250 A

## Technical data

Electrical
Standards
IEC/EN 61009
Rated operational voltage [$U_e$] [$U_e$]Rated operating voltage [$U_e$]
230 V AC
Rated frequency [f]
50 Hz
Limit values of the operating voltage
0.85 x 1.1 x Un V AC
Rated fault currents [$I_{\Delta n}$]
100 mA
Rated non-tripping current [IΔno]
0.5 x $I_{\Delta n}$
Sensitivity
Pulse-current sensitive
Sensitivity
DC and pulsed current
Rated switching capacity [$I_{cn}$]
10 kA
Rated current [$I_e$]
16 A
Rated impulse withstand voltage [$U_{imp}$]
4 (1.2/50 µs) kV
Characteristic
B
Selectivity Class
3
Mechanical
Standard front dimension
45 mm
Enclosure heightEnclosure width
80 mm
Mounting
Tristable slide catch enables removal from existing combination.
Terminals top and bottom
Twin-purpose terminals
Terminal protection
finger and hand touch safe, DGUV VS3, EN 50274
Degree of protectionSwitch
IP20
Degree of protectionIntegrated
IP40
Terminal cross-sectionSolid
1 - 25 $mm^2$
Admissible ambient temperature range
-25 … +40 °C
Climatic proofing
according to IEC 68-2 (25 - 55 °C, 90 - 95 % Humidity)
Thickness of busbar materialMaterial thickness
0.8 … 2 mm

## Design verification as per IEC/EN 61439

Technical data for design verification
Rated operational current for specified heat dissipation [$I_n$]
16 A
Equipment heat dissipation, current-dependent [$P_{vid}$]
5 W

Operating ambient temperature min.
-25 °C
Operating ambient temperature max.
+40 °C
IEC/EN 61439 design verification
10.2 Strength of materials and parts10.2.2 Corrosion resistance
Meets the product standard's requirements.
10.2 Strength of materials and parts10.2.3.1 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 heat
Meets the product standard's requirements.
10.2 Strength of materials and parts10.2.3.3 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 parts10.2.4 Resistance to ultra-violet (UV) radiation
Meets the product standard's requirements.
10.2 Strength of materials and parts10.2.5 Lifting
Does not apply, since the entire switchgear needs to be evaluated.
10.2 Strength of materials and parts10.2.6 Mechanical impact
Does not apply, since the entire switchgear needs to be evaluated.
10.2 Strength of materials and parts10.2.7 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 properties10.9.2 Power-frequency electric strength
Is the panel builder's responsibility.
10.9 Insulation properties10.9.3 Impulse withstand voltage
Is the panel builder's responsibility.
10.9 Insulation properties10.9.4 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 8.0

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
230 V
Rated insulation voltage Ui
250 V
Rated impulse withstand voltage Uimp
4 kV
Rated current
16 A
Rated fault current
0.1 A

Leakage current type
A
Current limiting class
3
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
B
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 solid-core
1 - 25 mm²
Connectable conductor cross section multi-wired
1 - 25 mm²

# Product photo

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  wa_sg86719_c
  Photo
- 
  wa_sg86719_l
  Photo
- 
  wa_sg86719_r
  Photo

# Declaration of Conformity

- DA-DC-03_NmRB-2
  Asset
  (PDF, 07/2021)

## EU

- DA-DC-03_NmRB.2_070218
  Asset
  (PDF)

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