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NmRB4-20/3N/C/01-A - RCD/MCB combination, 20 A, 100 mA, MCB trip characteristic: C, 3p+N, RCD trip characteristic: A



193856 NmRB4-20/3N/C/01-A

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193856 NmRB4-20/3N/C/01-A

RCD/MCB combination, 20 A, 100 mA, MCB trip characteristic: C, 3p+N, RCD trip characteristic: A

EL-Nummer (Norway)

1667555

RCD/MCB combination switch, NmRB4, 3-pole+N, tripping characteristic: C, rated current I_n : 20 A, rated fault current: 0.1 A, rated switching capacity according to IEC/EN 60947-2 I_{cs}/I_{cu} : 3 kA/4.5 kA, rated switching capacity according to IEC/EN 61009: 4.5 kA



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• [Technical data ETIM 8.0](#)

Delivery program

Basic function

Combined RCD/MCB devices

Number of poles

3 pole+N

Tripping characteristic

C

Application

Switchgear for residential and commercial applications

Rated current [I_n]

20 A

Rated switching capacity acc. to IEC/EN 60947-2 [I_{cu}]

4.5 kA

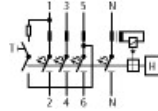
Rated switching capacity according to IEC/EN 61009

4.5 kA

Rated fault current [$I_{\Delta N}$]

0.1 A

Type
 Type A
 Tripping
 non-delayed s...
 Product range
 NmRB4
 Sensitivity
 Pulse-current sensitive
 Impulse withstand current
 Partly surge-proof 250 A
 Contact sequence



Technical data

Electrical
 Standards
 IEC/EN 61009
 Tripping
 non-delayed s...
 Rated operating voltage [U_e]
 230/400 V AC
 Limit values of the operating voltage
 $0.85 \times 1.1 \times U_n$ V AC
 Rated frequency [f]
 50 Hz
 Rated fault currents [$I_{\Delta n}$]
 100 mA
 Rated non-tripping current [$I_{\Delta no}$]
 $0.5 \times I_{\Delta n}$
 Sensitivity
 DC and pulsed current
 Rated switching capacity [I_{cn}]
 4.5 kA
 Rated current [I_e]
 20 A
 Rated impulse withstand voltage [U_{imp}]
 4 (1.2/50 μ s) kV
 Characteristic
 C
 Maximum max. as short-circuit protective device
 100 A gL
 Selectivity Class
 3
 LifespanElectrical
 > 4000 Operations
 LifespanMechanical
 > 20000 Operations
 Mechanical
 Standard front dimension
 45 mm
 Enclosure height
 80 mm
 Terminal protection
 finger and hand touch safe, DGUV VS3, EN 50274
 Mounting width
 70 (4 SU) mm
 Mounting
 Tristable slide catch enables removal from existing combination.
 Degree of protectionSwitch
 IP20
 Degree of protectionIntegrated
 IP40
 Terminals top and bottom
 Twin-purpose terminals
 Terminal capacitiesSolid
 1 - 25 mm²

Thickness of busbar material
0.8 ... 2 mm
Admissible ambient temperature range
-25 ... +40 °C
Climatic proofing
according to IEC 68-2 (25 - 55 °C, 90 - 95 % Humidity)

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_{ed}]
11.8 W
Operating ambient temperature min.
-25 °C
Operating ambient temperature max.
+40 °C
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 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 parts 10.2.3.2 Verification of resistance of insulating materials to normal heat
Meets 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
Meets the product standard's requirements.
10.2 Strength of materials and parts 10.2.5 Lifting
Does not apply, since the entire switchgear needs to be evaluated.
10.2 Strength of materials and parts 10.2.6 Mechanical impact
Does not apply, since the entire switchgear needs to be evaluated.
10.2 Strength of materials and parts 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 Insulation properties 10.9.3 Impulse withstand voltage
Is the panel builder's responsibility.
10.9 Insulation properties 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 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/ROCB combination (ec1@ss10.0.1-27-14-22-07 [AFZ810015])
Number of poles (total)

4
 Number of protected poles
 4
 Rated voltage
 400 V
 Rated insulation voltage U_i
 500 V
 Rated impulse withstand voltage U_{imp}
 4 kV
 Rated current
 20 A
 Rated fault current
 0.1 A
 Leakage current type
 A
 Current limiting class
 3
 Rated short-circuit breaking capacity according to EN 61009
 4.5 kA
 Rated short-circuit breaking capacity according to IEC 60947-2
 4.5 kA
 Rated short-circuit breaking capacity I_{cn} according to EN 61009-1
 4.5 kA
 Disconnection characteristic
 Undelayed
 Surge current capacity
 0.25 kA
 Voltage type
 AC
 Frequency
 50 Hz
 Release characteristic
 C
 Concurrently switching neutral conductor
 Yes
 With interlocking device
 No
 Over voltage category
 3
 Pollution degree
 2
 Ambient temperature during operating
 -25 - 40 °C
 Width in number of modular spacings
 4
 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



wa_sg90119_c
 Photo



[wa_sg90119_l](#)

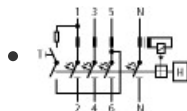
Photo



[wa_sg90119_r](#)

Photo

Wiring diagram



[1220SWM-26](#)

Line drawing

Declaration of Conformity

- [DA-DC-03_NrRB-3N](#)

Asset

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EU

- [DA-DC-03_NrRB.3](#)

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