



RCD/RCB, 20A, 30mA, miniature circuit-breaker trip curve: B, 1pole+N, residual current circuit-breaker trip characteristic: AC



Part no. HNB-B20/1N/003
Catalog No. 195122

Delivery program

| | | | |
|--|----------------|----|--------------------------|
| Basic function | | | Combined RCD/RCB devices |
| Number of poles | | | 1 pole+N |
| Tripping characteristic | | | B |
| Rated current | I_n | A | 20 |
| Rated switching capacity according to IEC/EN 61009 | | kA | 6 |
| Rated fault current | $I_{\Delta N}$ | A | 0.03 |
| Type | | | Type AC |
| Product range | | | HNB |
| Impulse withstand current | | | Partly surge-proof 250 A |

Design verification as per IEC/EN 61439

| | | | |
|--|-----------|----|--|
| Technical data for design verification | | | |
| Rated operational current for specified heat dissipation | I_n | A | 20 |
| Equipment heat dissipation, current-dependent | P_{vid} | W | 5.4 |
| 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)

| | | | |
|--|--|-----------------|----------|
| Number of poles (total) | | | 2 |
| Number of protected poles | | | 1 |
| Rated voltage | | V | 230 |
| Rated insulation voltage U_i | | V | 500 |
| Rated impulse withstand voltage U_{imp} | | kV | 4 |
| Rated current | | A | 20 |
| Rated fault current | | A | 0.03 |
| Leakage current type | | | AC |
| Current limiting class | | | 3 |
| Rated short-circuit breaking capacity acc. EN 61009 | | kA | 6 |
| Rated short-circuit breaking capacity IEC 60947-2 | | kA | 0 |
| Rated short-circuit breaking capacity I_{cn} acc. EN 61009-1 | | kA | 6 |
| Disconnection characteristic | | | |
| Surge current capacity | | kA | 0.25 |
| Voltage type | | | AC |
| Frequency | | | 50 Hz |
| Release characteristic | | | B |
| Concurrently switching N-neutral | | | 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 | 69.5 |
| Suitable for flush-mounted installation | | | No |
| Anti- nuisance tripping version | | | No |
| Degree of protection (IP) | | | IP20 |
| Connectable conductor cross section solid-core | | mm ² | 1 - 25 |
| Connectable conductor cross section multi-wired | | mm ² | 1 - 25 |