



**RCD/RCB combination, 13 A, 30 mA, MCB trip characteristic: B, 1p+N,  
RCD trip characteristic: A**

**Part no. PKNM-13/1N/B/003-A-MW  
Catalog No. 236133**

Similar to illustration

## Delivery program

|  |                |      |  |
|--|----------------|------|--|
| Basic function                                     |                |      | Combined RCD/RCB devices                               |
| Number of poles                                    |                |      | 1 pole+N   |
| Tripping characteristic                            |                |      | B  |
| Application  |                |      | Switchgear for residential and commercial applications |
| Rated current                                      | $I_n$          | A    | 13   |
| Rated switching capacity according to IEC/EN 61009 |                | kA   | 10   |
| Rated fault current                                | $I_{\Delta N}$ | A    | 0.03   |
| Type   |                |      | Type A   |
| Tripping   |                | s... | non-delayed  |
| Product range                                      |                |      | PKNM   |
| Sensitivity  |                |      | Pulse-current sensitive                                |
| Impulse withstand current                          |                |      | Partly surge-proof 250 A                               |

## Technical data

### Electrical

|             |  |  |                         |
|-------------|--|--|-------------------------|
| Sensitivity |  |  | Pulse-current sensitive |
|-------------|--|--|-------------------------|

## Design verification as per IEC/EN 61439

|  |            |    |  |
|--|------------|----|--|
| Technical data for design verification   |            |    |  |
| Rated operational current for specified heat dissipation   | $I_n$      | A  | 13   |
| Heat dissipation per pole, current-dependent   | $P_{vid}$  | W  | 0  |
| Equipment heat dissipation, current-dependent  | $P_{vid}$  | W  | 3.4  |
| Static heat dissipation, non-current-dependent   | $P_{vs}$   | W  | 0  |
| Heat dissipation capacity  | $P_{diss}$ | W  | 0  |
| Operating ambient temperature min.   |            | °C | -25  |
| Operating ambient temperature max.   |            | °C | 40   |
|  |            |    | 0  |
| IEC/EN 61439 design verification   |            |    |  |
| 10.2 Strength of materials and parts   |            |    |  |
| 10.2.2 Corrosion resistance  |            |    |  |
| 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 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  |                 |  | 1         |
| Rated voltage  | V               |  | 230       |
| Rated insulation voltage $U_i$   | V               |  | 440       |
| Rated impulse withstand voltage $U_{imp}$  | kV              |  | 4         |
| Rated current  | A               |  | 13        |
| Rated fault current  | A               |  | 0.03      |
| Leakage current type   |                 |  | A         |
| Current limiting class   |                 |  | 3         |
| Rated short-circuit breaking capacity according to EN 61009  | kA              |  | 10        |
| Rated short-circuit breaking capacity according to IEC 60947-2   | kA              |  | 0         |
| Rated short-circuit breaking capacity $I_{cn}$ according to EN 61009-1   | kA              |  | 10        |
| Disconnection characteristic   |                 |  | Undelayed |
| Surge current capacity   | kA              |  | 0.25      |
| Voltage type   |                 |  | AC        |
| Frequency  |                 |  | 50 Hz     |
| Release characteristic   |                 |  | B         |
| Concurrently switching neutral conductor   |                 |  | 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              |  | 70        |
| Flush-mounted installation   |                 |  | No        |
| Anti-nuisance tripping version   |                 |  | No        |
| 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    |