



Residual-current circuit breaker trip block for PLS. 40A, 4 p, 1000mA, type S



Part no. **PBSM-404/1-S-MW**
 Catalog No. **262588**

Similar to illustration

Delivery program

| | | | |
|------------------------------|----------------|------|--|
| Basic function | | | Add-on residual current protection unit |
| Number of poles | | | 4 pole |
| Application | | | Switchgear for residential and commercial applications |
| Rated current | I_n | A | 40 |
| Rated short-circuit strength | I_{cn} | kA | same as connected PLS up to max. 10 |
| Rated fault current | $I_{\Delta N}$ | A | 1 |
| Type | | | Type S |
| Tripping | | s... | selective switch off |
| Product range | | | PBSM |
| Sensitivity | | | AC current sensitive |
| Impulse withstand current | | | surge-proof 5 kA |

Technical data

Electrical

| | | | |
|---------------------------------|------------|----|----------------------|
| Rated frequency | f | Hz | 50 |
| Sensitivity | | | AC current sensitive |
| Rated current | I_n | A | 40 |
| Rated impulse withstand voltage | U_{imp} | kV | 4 |
| lifespan | | | |
| Electrical | Operations | | ≥ 4000 |
| Mechanical | Operations | | ≥ 20000 |

Mechanical

| | | | |
|--|--|----|---|
| Standard front dimension | | mm | 45 |
| Device height | | mm | 90 |
| Built-in width | | mm | 125 (4TE) |
| Mounting | | | fix mounted onto PLS |
| Degree of Protection | | | IP40, IP54 (with moisture-proof enclosure) |
| Terminals top and bottom | | | Lift terminals |
| Terminal protection | | | BGV A3, ÖVE-EN 6 |
| Thickness of busbar material | | mm | 0.8 - 2 |
| Permissible storage and transport temperatures | | °C | -35 - +60 |
| Climatic proofing | | | 25-55°C/90-95% relative humidity according to IEC 60068-2 |

Design verification as per IEC/EN 61439

| | | | |
|--|------------|----|---|
| Technical data for design verification | | | |
| Rated operational current for specified heat dissipation | I_n | A | 40 |
| Heat dissipation per pole, current-dependent | P_{vid} | W | 0 |
| Equipment heat dissipation, current-dependent | P_{vid} | W | 22 |
| 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 |
| | | | Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C |
| IEC/EN 61439 design verification | | | |

| | | |
|--|--|--|
| 10.2 Strength of materials and parts | | |
| 10.2.2 Corrosion resistance | | Meets the product standard's requirements. |
| 10.2.3.1 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) / Residual current circuit breaker (RCCB) (EC000003)

Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / Residual current circuit breaker (RCCB)
(ecl@ss10.0.1-27-14-22-01 [AAB906014])

| | | |
|---|-----------------|-----------|
| Number of poles | | 4 |
| Rated voltage | V | 400 |
| Rated current | A | 40 |
| Rated fault current | mA | 1000 |
| Rated insulation voltage U_i | V | 440 |
| Rated impulse withstand voltage U_{imp} | kV | 4 |
| Mounting method | | DIN rail |
| Leakage current type | | AC |
| Selective protection | | Yes |
| Short-time delayed tripping | | No |
| Short-circuit breaking capacity (I_{cw}) | kA | 0 |
| Surge current capacity | kA | 6 |
| Frequency | | 50 Hz |
| Additional equipment possible | | Yes |
| With interlocking device | | Yes |
| Degree of protection (IP) | | IP20 |
| Width in number of modular spacings | | 7.14 |
| Built-in depth | mm | 70 |
| Ambient temperature during operating | °C | -25 - 40 |
| Pollution degree | | 2 |
| Connectable conductor cross section multi-wired | mm ² | 0.75 - 16 |
| Connectable conductor cross section solid-core | mm ² | 0.75 - 16 |