# **DATASHEET - PLSM-D1,6-MW**



# Miniature circuit breaker (MCB), 1,6A, 1p, type D characteristic

Part no. PLSM-D1,6-MW Catalog No. 242216



Similar to illustration

**Delivery program** 

| Donvoly program                                      |                 |    |  |  |
|--|-----------------|----|--|--|
| Basic function                                       |                 |    | Miniature circuit-breakers                             |  |
| Number of poles                                      |                 |    | 1 pole   |  |
| Tripping characteristic                              |                 |    | D  |  |
| Application  |                 |    | Switchgear for residential and commercial applications |  |
| Rated current  | In              | Α  | 1.6  |  |
| Rated switching capacity according to IEC/EN 60898-1 | I <sub>cn</sub> | kA | 10   |  |
| Product range  |                 |    | PLSM   |  |

## **Technical data**

### **Electrical**

|--|

## **Design verification as per IEC/EN 61439**

| Design vernication as per IEG/EN 01439  |                   |    |   |
|---|-------------------|----|---|
| Fechnical data for design verification  |                   |    |   |
| Rated operational current for specified heat dissipation  | I <sub>n</sub>    | Α  | 1.6   |
| Heat dissipation per pole, current-dependent  | P <sub>vid</sub>  | W  | 0   |
| Equipment heat dissipation, current-dependent   | $P_{\text{vid}}$  | W  | 1.3   |
| Static heat dissipation, non-current-dependent  | $P_{vs}$          | W  | 0   |
| Heat dissipation capacity   | P <sub>diss</sub> | W  | 0   |
| Operating ambient temperature min.  |                   | °C | -25   |
| Operating ambient temperature max.  |                   | °C | 75  |
|   |                   |    | linear, per +1 °C, results in a 0.5% reduction of current carrying capacity |
| EC/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.                         |

Connectable conductor cross section solid-core

| Technical data ETIM 7.0   |  |     |          |  |  |
|---|--|-----|----------|--|--|
| Circuit breakers and fuses (EG000020) / Miniature circuit breaker (MCB) (EC000042)  |  |     |          |  |  |
| Electric engineering, automation, process control engineering / Electrical installation, device / Miniature circuit breaker system (MCB) / Miniature circuit breaker (MCB) (ecl@ss10.0.1-27-14-19-01 [AAB905014]) |  |     |          |  |  |
| Release characteristic  |  |     | D        |  |  |
| Number of poles (total)   |  |     | 1        |  |  |
| Number of protected poles   |  |     | 1        |  |  |
| Rated current   |  | Α   | 1.6      |  |  |
| Rated voltage   |  | V   | 230      |  |  |
| Rated insulation voltage Ui   |  | V   | 440      |  |  |
| Rated impulse withstand voltage Uimp  |  | kV  | 4        |  |  |
| Rated short-circuit breaking capacity Icn EN 60898 at 230 V   |  | kA  | 10       |  |  |
| Rated short-circuit breaking capacity Icn EN 60898 at 400 V   |  | kA  | 10       |  |  |
| Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V  |  | kA  | 0        |  |  |
| Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V  |  | kA  | 0        |  |  |
| Voltage type  |  |     | AC       |  |  |
| Frequency   |  | Hz  | 50 - 60  |  |  |
| Current limiting class  |  |     | 3        |  |  |
| Suitable for flush-mounted installation   |  |     | No       |  |  |
| Concurrently switching N-neutral  |  |     | No       |  |  |
| Over voltage category   |  |     | 3        |  |  |
| Pollution degree  |  |     | 2        |  |  |
| Additional equipment possible   |  |     | Yes      |  |  |
| Width in number of modular spacings   |  |     | 1        |  |  |
| Built-in depth  |  | mm  | 70.5     |  |  |
| Degree of protection (IP)   |  |     | IP20     |  |  |
| Ambient temperature during operating  |  | °C  | -25 - 55 |  |  |
| Connectable conductor cross section multi-wired   |  | mm² | 1 - 25   |  |  |

mm²

1 - 25