DATASHEET - PLS6-D4/3-MW



Miniature circuit breaker (MCB), 4A, 3p, type D characteristic

Powering Business Worldwide*

Part no. PLS6-D4/3-MW Catalog No. 242964

Similar to illustration

| Delivery program | | | |
|--|-----------------|----|--|
| Basic function | | | Miniature circuit-breakers |
| Number of poles | | | 3 pole |
| Tripping characteristic | | | D |
| Application | | | Switchgear for residential and commercial applications |
| Rated current | In | Α | 4 |
| Rated switching capacity according to IEC/EN 60898-1 | I _{cn} | kA | 6 |
| Product range | | | PLS6 |

Technical data

Electrical

|--|

Design verification as per IEC/EN 61439

| lesign verification as per IEC/EN 61439 | | | |
|---|-------------------|----|--|
| echnical data for design verification | | | |
| Rated operational current for specified heat dissipation | In | Α | 4 |
| Heat dissipation per pole, current-dependent | P _{vid} | W | 0 |
| Equipment heat dissipation, current-dependent | P _{vid} | W | 4.4 |
| 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 | 75 |
| | | | linear, per +1 °C, results in a 0.5% reduction of current carrying capacity |
| C/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

| Electric enjineering. automation, process control engineering / Electrical installation device / Service star engineering / Electrical installation / Service / Servic | Technical data ethivi 7.0 | | | | | |
|--|---|-----|----------|--|--|--|
| Company Comp | Circuit breakers and fuses (EG000020) / Miniature circuit breaker (MCB) (EC000042) | | | | | |
| Number of poles (total) 4 3 Number of protected poles 4 4 Rated current A 4 Rated voltage V 400 Rated insulation voltage Uim V 400 Rated insulation voltage Uimp KV 400 Rated short-circuit breaking capacity Ice IEN 60888 at 230 V KA 6 Rated short-circuit breaking capacity Ice IEC 60947-2 at 230 V KA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V KA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V KA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V KA 0 Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V KA 0 Voltage type KA 0 0 Current limiting class KA 0 0 Current limiting class KA 0 0 Current limiting class KA 0 0 Currently switching N-neutral KA 2 0 Over voltage category | 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]) | | | | | |
| Number of protected poles 3 Rated current A 4 Rated voltage V 400 Rated insulation voltage Ui V 440 Rated inpulse withstand voltage Uimp KA 4 Rated short-circuit breaking capacity Icn EN 60898 at 230 V KA 6 Rated short-circuit breaking capacity Icu EC 60947-2 at 230 V KA 6 Rated short-circuit breaking capacity Icu EC 60947-2 at 2400 V KA 0 Rated short-circuit breaking capacity Icu EC 60947-2 at 2400 V KA 0 Voltage type KA 0 0 Frequency KA 0 0 Current limiting class KA 0 0 Suitable for flush-mounted installation KA 0 0 Concurrently switching N-neutral KA 0 0 Over voltage category KA 3 0 Pollution degree KA 3 0 Additional equipment possible Yes 4 Width in number of modular spacings KA 7 <td>Release characteristic</td> <td></td> <td>D</td> | Release characteristic | | D | | | |
| Rated current A 4 Rated voltage V 400 Rated insulation voltage Ui V 440 Rated insulation voltage Uimp VV 40 Rated short-circuit breaking capacity Ion EN 60898 at 230 V KA 6 Rated short-circuit breaking capacity Ion EN 60898 at 400 V KA 6 Rated short-circuit breaking capacity Ion EN 60898 at 400 V KA 0 Rated short-circuit breaking capacity Ion EN 60898 at 400 V KA 0 Rated short-circuit breaking capacity Ion EN 608947-2 at 230 V KA 0 Rated short-circuit breaking capacity Ion EN 608947-2 at 2400 V KA 0 Voltage type AC C Current limiting class So - 60 So - 60 Current limiting class No No Suitable for flush-mounted installation No No Concurrently switching N-neutral Ye 3 Over voltage category Ye 3 Pollution degree Yes 3 Witch in number of modular spacings Ye Ye | Number of poles (total) | | 3 | | | |
| Rated voltage V 400 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 6 Rated short-circuit breaking capacity Icn EN 60898 at 400 V kA 6 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 kA 0 C Frequency AC AC Current limiting class But an interpretation of the flush-mounted installation Mo No Concurrently switching N-neutral No No No Over voltage category No No No Pollution degree Yes S Additional equipment possible Yes No Width in number of modular spacings mm 70.5 Built-in depth mm 70.5 Degree of protection (IP) mm 70.5 Amient temperature during operating | Number of protected poles | | 3 | | | |
| Rated insulation voltage Uin V 440 Rated insulation voltage Uinp kV 4 Rated short-circuit breaking capacity Icn EN 60898 at 230 V kA 6 Rated short-circuit breaking capacity Icn EN 60898 at 400 V kA 6 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 kA 0 Current limiting class kA 50-60 Suitable for flush-mounted installation kA No Concurrently switching N-neutral kA 3 Over voltage category kA 3 Pollution degree kA xS Additional equipment possible kS xS Writch in number of modular spacings xS xS Built-in depth xS xS Degree of protection (IP) xS xS Ambient temperature during operating xS xS Connectable conductor cross section multi-wired xS xS Connectable co | Rated current | Α | 4 | | | |
| Rated impulse withstand voltage Uimp Rated short-circuit breaking capacity Icn EN 60898 at 230 V Rated short-circuit breaking capacity Icn EN 60898 at 400 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 2400 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 2400 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 2400 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 2400 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 250 V Rated short-circuit breaking capacity Icn IEC 60947-2 at 2 | Rated voltage | V | 400 | | | |
| Rated short-circuit breaking capacity Icn EN 60898 at 230 V Rated short-circuit breaking capacity Icn EN 60898 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Frequency Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Conectable conductor cross section multi-wired MA 6 AC C AC AC No AC Voltage Category No Vos Sala Sala | Rated insulation voltage Ui | V | 440 | | | |
| Rated short-circuit breaking capacity Icn EN 60898 at 400 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Frequency Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired KA 0 C 0 C 25 - 55 C 25 - 55 C 125 C | Rated impulse withstand voltage Uimp | kV | 4 | | | |
| Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Requency Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired KA | Rated short-circuit breaking capacity Icn EN 60898 at 230 V | kA | 6 | | | |
| Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V Voltage type Frequency Hz 50 - 60 Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired kA C AC AC AC AC AC AC AC AC | Rated short-circuit breaking capacity Icn EN 60898 at 400 V | kA | 6 | | | |
| Voltage type Frequency Hz 50 - 60 Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired AC AC AC AC AC PO 40 50 - 60 No No No 2 40 70 40 70 70 70 1920 Connectable conductor cross section multi-wired AC AC AC PU 40 50 - 60 No No No No No 1 2 40 40 40 40 40 40 40 40 40 | Rated short-circuit breaking capacity Icu IEC 60947-2 at 230 V | kA | 0 | | | |
| Frequency Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Currently switching N-neutral No No Voe No No Voe No | Rated short-circuit breaking capacity Icu IEC 60947-2 at 400 V | kA | 0 | | | |
| Current limiting class Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired 3 3 3 3 4 7 7 8 8 | Voltage type | | AC | | | |
| Suitable for flush-mounted installation Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired No No Yes 3 70.5 Pegree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired No No No 1 Pes Tes Tes Tes Tes Tes Tes Tes | Frequency | Hz | 50 - 60 | | | |
| Concurrently switching N-neutral Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired No Yes 3 Pollution degree Yes 70.5 IP20 Ambient temperature during operating Connectable conductor cross section multi-wired No No No No 1 2 4 4 5 6 7 6 7 7 7 7 7 7 7 7 7 7 | Current limiting class | | 3 | | | |
| Over voltage category Pollution degree Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired 3 Pollution degree Yes 3 Pollution degree Protection (IP) IP20 Ambient temperature during operating C -25 - 55 Connectable conductor cross section multi-wired Pollution degree Protection (IP) IP20 I | Suitable for flush-mounted installation | | No | | | |
| Pollution degree 2 Additional equipment possible Yes Width in number of modular spacings 3 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 | Concurrently switching N-neutral | | No | | | |
| Additional equipment possible Width in number of modular spacings Built-in depth Degree of protection (IP) Ambient temperature during operating Connectable conductor cross section multi-wired Yes 3 Pun 70.5 Pp0 Pp0 -25 - 55 Connectable conductor cross section multi-wired mm² 1 - 25 | Over voltage category | | 3 | | | |
| Width in number of modular spacings 3 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 | Pollution degree | | 2 | | | |
| 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 | Additional equipment possible | | Yes | | | |
| Degree of protection (IP) Ambient temperature during operating °C -25 - 55 Connectable conductor cross section multi-wired mm² 1 - 25 | Width in number of modular spacings | | 3 | | | |
| Ambient temperature during operating °C -25 - 55 Connectable conductor cross section multi-wired mm² 1 - 25 | Built-in depth | mm | 70.5 | | | |
| Connectable conductor cross section multi-wired mm ² 1 - 25 | Degree of protection (IP) | | IP20 | | | |
| | Ambient temperature during operating | °C | -25 - 55 | | | |
| Connectable conductor cross section solid-core mm ² 1 - 25 | Connectable conductor cross section multi-wired | mm² | 1 - 25 | | | |
| | Connectable conductor cross section solid-core | mm² | 1 - 25 | | | |