# **DATASHEET - PL6-C20/2**



## Miniature circuit breaker (MCB), 20 A, 2p, characteristic: C

Part no. PL6-C20/2 Catalog No. 286568



Similar to illustration

**Delivery program** 

| Basic function                                       |                 |    | Miniature circuit-breakers                             |
|------------------------------------------------------|-----------------|----|--------------------------------------------------------|
| Number of poles                                      |                 |    | 2 pole                                                 |
| Tripping characteristic                              |                 |    | С                                                      |
| Application                                          |                 |    | Switchgear for residential and commercial applications |
| Rated current                                        | In              | Α  | 20                                                     |
| Rated switching capacity according to IEC/EN 60898-1 | I <sub>cn</sub> | kA | 6                                                      |
| Product range                                        |                 |    | PL6                                                    |

### **Technical data**

#### Electrical

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

| esign verification as per IEC/EN 61439                                                                                 |                   |    |                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------|-------------------|----|--------------------------------------------------------------------------------------------------------------------------------|
| echnical data for design verification                                                                                  |                   |    |                                                                                                                                |
| Rated operational current for specified heat dissipation                                                               | In                | Α  | 20                                                                                                                             |
| Heat dissipation per pole, current-dependent                                                                           | $P_{\text{vid}}$  | W  | 0                                                                                                                              |
| Equipment heat dissipation, current-dependent                                                                          | P <sub>vid</sub>  | W  | 6.6                                                                                                                            |
| Static heat dissipation, non-current-dependent                                                                         | P <sub>vs</sub>   | 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                                                    |
| 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 wi 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**

| IECIIIICAI UALA LIIIVI 1.0                                                                                                   |                     |             |                                                             |
|------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|-------------------------------------------------------------|
| Circuit breakers and fuses (EG000020) / Miniature circuit breaker (MCB) (EC0000                                              | 42)                 |             |                                                             |
| Electric engineering, automation, process control engineering / Electrical installate (ecl@ss10.0.1-27-14-19-01 [AAB905014]) | ation, device / Mir | niature cir | cuit breaker system (MCB) / Miniature circuit breaker (MCB) |
| Release characteristic                                                                                                       |                     |             | С                                                           |
| Number of poles (total)                                                                                                      |                     |             | 2                                                           |
| Number of protected poles                                                                                                    |                     |             | 2                                                           |
| Rated current                                                                                                                |                     | Α           | 20                                                          |
| 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                                                                                                                 |                     |             | 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                                                                                          |                     |             | 2                                                           |
| Built-in depth                                                                                                               |                     | mm          | 70.5                                                        |
| Degree of protection (IP)                                                                                                    |                     |             | IP20                                                        |
| Ambient temperature during operating                                                                                         |                     | °C          | -25 - 75                                                    |
| Connectable conductor cross section multi-wired                                                                              |                     | mm²         | 1 - 25                                                      |
| Connectable conductor cross section solid-core                                                                               |                     | mm²         | 1 - 25                                                      |