## DATASHEET - PL6-C20/3

## Miniature circuit breaker (MCB), 20A, 3 p, type C characteristic



Part no. Catalog No. PL6-C20/3 286602



Similar to illustration

| Delivery program                                                                                                       |                        |    |                                                                                  |
|------------------------------------------------------------------------------------------------------------------------|------------------------|----|----------------------------------------------------------------------------------|
| Basic function                                                                                                         |                        |    | Miniature circuit-breakers                                                       |
| Number of poles                                                                                                        |                        |    | 3 pole                                                                           |
| Tripping characteristic                                                                                                |                        |    | C                                                                                |
| Application                                                                                                            |                        |    | Switchgear for residential and commercial applications                           |
| Rated current                                                                                                          | I <sub>n</sub>         | А  | 20                                                                               |
| Rated switching capacity according to IEC/EN 60898-1                                                                   | I <sub>cn</sub>        | kA | 6                                                                                |
| Product range                                                                                                          |                        |    | PL6                                                                              |
| Fechnical data                                                                                                         |                        |    |                                                                                  |
| Rated switching capacity according to IEC/EN 60898-1                                                                   | I <sub>cn</sub>        | kA | 6                                                                                |
| Design verification as per IEC/EN 61439                                                                                |                        |    |                                                                                  |
| Fechnical data for design verification                                                                                 |                        |    |                                                                                  |
| Rated operational current for specified heat dissipation                                                               | I <sub>n</sub>         | А  | 20                                                                               |
| Heat dissipation per pole, current-dependent                                                                           | 'n<br>P <sub>vid</sub> | w  | 0                                                                                |
|                                                                                                                        |                        |    |                                                                                  |
| Equipment heat dissipation, current-dependent                                                                          | P <sub>vid</sub>       | W  | 9.8                                                                              |
| 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      |
| 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 wil |

| 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) / Miniature circuit breaker (MCB) (EC000042)

| Electric engineering, automation, process control engineering / Electrical installation, devi<br>(ecl@ss10.0.1-27-14-19-01 [AAB905014]) | ice / Miniature cir | rcuit breaker system (MCB) / Miniature circuit breaker (MCB) |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------|--|--|--|
| Release characteristic                                                                                                                  |                     | C                                                            |  |  |  |
| Number of poles (total)                                                                                                                 |                     | 3                                                            |  |  |  |
| Number of protected poles                                                                                                               |                     | 3                                                            |  |  |  |
| Rated current                                                                                                                           | А                   | 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                                                                                                     |                     | 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                                                       |  |  |  |
| Connectable conductor cross section solid-core                                                                                          | mm²                 | 1 - 25                                                       |  |  |  |
|                                                                                                                                         |                     |                                                              |  |  |  |