



**RCD/RCB, 20A, 300mA, miniature circuit-breaker trip curve C, 1pole+N, residual current circuit-breaker trip characteristic: A**

**Part no. PFL6-20/1N/C/03-A**  
**Catalog No. 165546**

Similar to illustration

### Design verification as per IEC/EN 61439

| Technical data for design verification   |            |    |  |
|--|------------|----|--|
| Rated operational current for specified heat dissipation   | $I_n$      | A  | 20   |
| Heat dissipation per pole, current-dependent   | $P_{vid}$  | W  | 0  |
| Equipment heat dissipation, current-dependent  | $P_{vid}$  | W  | 4.7  |
| 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   |
|  |            |    | 0  |
| 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) / Earth leakage circuit breaker (EC000905)   |  |   |     |
|--|--|---|-----|
| Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / MCB/RCCB combination (ecl@ss10.0.1-27-14-22-07 [AFZ810015]) |  |   |     |
| Number of poles (total)  |  |   | 2   |
| Number of protected poles  |  |   | 1   |
| Rated voltage  |  | V | 230 |

|  |                 |          |
|--|-----------------|----------|
| Rated insulation voltage $U_i$                                 | V               | 440      |
| Rated impulse withstand voltage $U_{imp}$                      | kV              | 4        |
| Rated current  | A               | 20       |
| Rated fault current  | A               | 0.3      |
| Leakage current type   |                 | A        |
| Current limiting class   |                 | 3        |
| Rated short-circuit breaking capacity acc. EN 61009            | kA              | 6        |
| Rated short-circuit breaking capacity IEC 60947-2              | kA              | 0        |
| Rated short-circuit breaking capacity $I_{cn}$ acc. EN 61009-1 | kA              | 6        |
| Disconnection characteristic                                   |                 |          |
| Surge current capacity   | kA              | 0.25     |
| Voltage type   |                 | AC       |
| Frequency  |                 | 50 Hz    |
| Release characteristic   |                 | C        |
| Concurrently switching N-neutral                               |                 | Yes      |
| With interlocking device                                       |                 | No       |
| Over voltage category  |                 | 3        |
| Pollution degree   |                 | 2        |
| Ambient temperature during operating                           | °C              | -25 - 40 |
| Width in number of modular spacings                            |                 | 2        |
| Built-in depth   | mm              | 69.5     |
| Suitable for flush-mounted installation                        |                 | No       |
| Anti-nuisance tripping version                                 |                 | No       |
| Degree of protection (IP)                                      |                 | IP20     |
| Connectable conductor cross section solid-core                 | mm <sup>2</sup> | 1 - 25   |
| Connectable conductor cross section multi-wired                | mm <sup>2</sup> | 1 - 25   |