



**Miniature circuit breaker (MCB), 20A, 3p, C-Char, AC**



**Part no.** PLHT-C20/3  
**Catalog No.** 248033

**EL-Nummer (Norway)** 1609520

Similar to illustration

**Delivery program**

|   |          |    |  |
|---|----------|----|--|
| Basic function                                  |          |    | Miniature circuit-breakers                                     |
| Number of poles                                 |          |    | 3 pole   |
| Tripping characteristic                         |          |    | C  |
| Application                                     |          |    | Switchgear for industrial and advanced commercial applications |
| Rated current                                   | $I_n$    | A  | 20   |
| Rated switching capacity acc. to IEC/EN 60947-2 | $I_{cu}$ | kA | 25   |
| Product range                                   |          |    | PLHT   |

**Technical data**

**Electrical**

|   |          |    |    |
|---|----------|----|----|
| Rated switching capacity acc. to IEC/EN 60947-2 | $I_{cu}$ | kA | 25 |
|---|----------|----|----|

**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  | 16.3   |
| 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 | 55   |
|  |            |    | linear, per +1 °C, results in a 0.35% 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 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) / 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  |                 | C        |
| Number of poles (total)   |                 | 3        |
| Number of protected poles   |                 | 3        |
| Rated current   | A               | 20       |
| Rated voltage   | V               | 400      |
| Rated insulation voltage $U_i$                                      | V               | 440      |
| Rated impulse withstand voltage $U_{imp}$                           | kV              | 4        |
| Rated short-circuit breaking capacity $I_{cn}$ EN 60898 at 230 V    | kA              | 0        |
| Rated short-circuit breaking capacity $I_{cn}$ EN 60898 at 400 V    | kA              | 0        |
| Rated short-circuit breaking capacity $I_{cu}$ IEC 60947-2 at 230 V | kA              | 25       |
| Rated short-circuit breaking capacity $I_{cu}$ IEC 60947-2 at 400 V | kA              | 25       |
| 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                                 |                 | 4.5      |
| Built-in depth  | mm              | 75       |
| Degree of protection (IP)   |                 | IP20     |
| Ambient temperature during operating                                | °C              | -25 - 55 |
| Connectable conductor cross section multi-wired                     | mm <sup>2</sup> | 2.5 - 50 |
| Connectable conductor cross section solid-core                      | mm <sup>2</sup> | 2.5 - 50 |