



**Miniature circuit breaker (MCB), 80A, 1p, C-Char, AC**

**Part no. PLHT-C80  
247987**

| <b>General specifications</b>                                   |  |  |
|---|--|--|
| Product name  |  | Eaton Moeller series xPole - PLHT/-V MCB                       |
| Part no.  |  | PLHT-C80   |
| EAN   |  | 4015082479879  |
| Product Length/Depth  |  | 90 millimetre  |
| Product height  |  | 75 millimetre  |
| Product width   |  | 27 millimetre  |
| Product weight  |  | 0.224 kilogram   |
| Compliances   |  | RoHS conform   |
| Product Tradename   |  | xPole - PLHT/-V  |
| Product Type  |  | MCB  |
| Product Sub Type  |  | None   |
| <b>Delivery program</b>   |  |  |
| Application   |  | Switchgear for industrial and advanced commercial applications |
| Number of poles   |  | Single-pole  |
| Number of poles (total)   |  | 1  |
| Number of poles (protected)                                     |  | 1  |
| Tripping characteristic   |  | C  |
| Release characteristic  |  | C  |
| Amperage Rating   |  | 80 A   |
| Type  |  | Miniature circuit breaker<br>PLHT                              |
| <b>Technical Data - Electrical</b>                              |  |  |
| Voltage type  |  | AC   |
| Rated operational voltage (Ue) - max                            |  | 400 V  |
| Rated insulation voltage (Ui)                                   |  | 440 V  |
| Rated impulse withstand voltage (Uimp)                          |  | 4 kV   |
| Frequency rating - min  |  | 50 Hz  |
| Frequency rating - max  |  | 60 Hz  |
| Rated switching capacity (IEC/EN 60947-2)                       |  | 20 kA  |
| Rated short-circuit breaking capacity (EN 60898) at 230 V       |  | 0 kA   |
| Rated short-circuit breaking capacity (EN 60898) at 400 V       |  | 0 kA   |
| Rated short-circuit breaking capacity (IEC 60947-2) at 230 V    |  | 20 kA  |
| Rated short-circuit breaking capacity (IEC 60947-2) at 400 V    |  | 20 kA  |
| Overvoltage category  |  | III  |
| Pollution degree  |  | 2  |
| <b>Technical Data - Mechanical</b>                              |  |  |
| Width in number of modular spacings                             |  | 1.5  |
| Built-in depth  |  | 75 mm  |
| Degree of protection  |  | IP20   |
| Connectable conductor cross section (solid-core) - min          |  | 2.5 mm <sup>2</sup>  |
| Connectable conductor cross section (solid-core) - max          |  | 50 mm <sup>2</sup>   |
| Connectable conductor cross section (multi-wired) - min         |  | 2.5 mm <sup>2</sup>  |
| Connectable conductor cross section (multi-wired) - max         |  | 50 mm <sup>2</sup>   |
| <b>Design verification as per IEC/EN 61439 - technical data</b> |  |  |
| Rated operational current for specified heat dissipation (In)   |  | 80 A   |
| Heat dissipation per pole, current-dependent                    |  | 0 W  |
| Equipment heat dissipation, current-dependent                   |  | 7.14 W   |

|  |  |  |
|--|--|--|
| Static heat dissipation, non-current-dependent                                   |  | 0 W  |
| Heat dissipation capacity  |  | 0 W  |
| Ambient operating temperature - min  |  | -25 °C   |
| Ambient operating temperature - max  |  | 55 °C  |
| <b>Design verification as per IEC/EN 61439</b>                                   |  |  |
| 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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.   |
| 10.9.2 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.                         |
| <b>Additional information</b>  |  |  |
| Current limiting class   |  | 3  |
| Features   |  | Additional equipment possible  |
| Special features   |  | Ambient temperature hint: a 1 °C increase results in a 0.35% linear reduction of current carrying capacity                       |

## Technical data ETIM 9.0

|   |    |         |
|---|----|---------|
| Circuit breakers and fuses (EG000020) / Disjoncteur (EC000042)  |    |         |
| Electricité, Electronique, Automatisation et Commande / Installation électrique, appareillage / Système de disjoncteur modulaire (MCB) / Disjoncteur modulaire (MCB) (ecl@ss13-27-14-19-01 [AAB905019]) |    |         |
| Built-in depth  | mm | 75      |
| Release characteristic  |    | C       |
| Number of poles (total)   |    | 1       |
| Number of protected poles   |    | 1       |
| Rated current   | A  | 80      |
| Rated voltage   | V  | 400     |
| Rated insulation voltage Ui   | V  | 440     |
| Rated impulse withstand voltage Uimp  | kV | 4       |
| Rated short-circuit breaking capacity Icn according to EN 60898 at 230 V  | kA | 0       |
| Voltage type  |    | AC      |
| Rated short-circuit breaking capacity Icn according to EN 60898 at 400 V  | kA | 0       |
| Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 230 V   | kA | 20      |
| Rated short-circuit breaking capacity Icu according to IEC 60947-2 at 400 V   | kA | 20      |
| Frequency   | Hz | 50 - 60 |
| Power loss  | W  |         |
| Current limiting class  |    | 3       |
| Flush-mounted installation  |    | No      |

|   |  |                 |          |
|---|--|-----------------|----------|
| Concurrently switching neutral conductor        |  |                 | No       |
| Over voltage category                           |  |                 | 3        |
| Pollution degree                                |  |                 | 2        |
| Additional equipment possible                   |  |                 | Yes      |
| Width in number of modular spacings             |  |                 | 1.5      |
| 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 |
| Explosion-proof                                 |  |                 | No       |