



Circuit-breaker; 80 A; 1p; Type B characteristic

Part no. **mMCT-B80/1**  
 Catalog No. **129646**

## Delivery program

|   |          |    |  |
|---|----------|----|--|
| Basic function                                  |          |    | Miniature circuit-breakers                                     |
| Number of poles                                 |          |    | 1 pole   |
| Tripping characteristic                         |          |    | B  |
| Application                                     |          |    | Switchgear for industrial and advanced commercial applications |
| Rated current                                   | $I_n$    | A  | 80   |
| Rated switching capacity acc. to IEC/EN 60947-2 | $I_{cu}$ | kA | 20   |
| Product range                                   |          |    | mMCT   |

## Technical data

### Electrical

|   |            |    |         |
|---|------------|----|---------|
| Rated switching capacity acc. to IEC/EN 60947-2 | $I_{cu}$   | kA | 20      |
| Rated insulation voltage                        | $U_i$      | V  | 440     |
| Rated impulse withstand voltage                 | $U_{imp}$  | kV | 4       |
| lifespan  |            |    |         |
| Electrical                                      | Operations |    | ≥ 10000 |
| Mechanical                                      | Operations |    | ≥ 20000 |

### References

|   |  |  |                     |
|---|--|--|---------------------|
| Auxiliary switch for subsequent installation        |  |  | ZP-IHK 286052       |
| Tripping signal contact for subsequent installation |  |  | ZP-NHK 248437       |
| Switching interlock                                 |  |  | Z-IS/SPE-1TE 274418 |

### Mechanical

|                              |  |    |   |
|------------------------------|--|----|---|
| Standard front dimension     |  | mm | 45  |
| Device height                |  | mm | 80  |
| Mounting                     |  |    | Quick attachment with 3 latch positions for top-hat rail IEC/EN 60715 |
| Degree of Protection         |  |    | IP20  |
| Thickness of busbar material |  | mm | 0.8 - 2   |

## Design verification as per IEC/EN 61439

|   |            |    |     |
|---|------------|----|-----|
| Technical data for design verification                                      |            |    |     |
| Rated operational current for specified heat dissipation                    | $I_n$      | A  | 80  |
| Heat dissipation per pole, current-dependent                                | $P_{vid}$  | W  | 0   |
| Equipment heat dissipation, current-dependent                               | $P_{vid}$  | W  | 7.1 |
| Static heat dissipation, non-current-dependent                              | $P_{vs}$   | W  | 0   |
| Heat dissipation capacity   | $P_{diss}$ | W  | 0   |
| Operating ambient temperature min.  |            | °C | -30 |
| Operating ambient temperature max.  |            | °C | 55  |
| linear, per +1 °C, results in a 0.5% reduction of current carrying capacity |            |    |     |

## 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) (ecI@ss10.0.1-27-14-19-01 [AAB905014]) |  |  |   |
| Release characteristic  |  |  | B |
| Number of poles (total)   |  |  | 1 |

|   |                 |          |
|---|-----------------|----------|
| Number of protected poles   |                 | 1        |
| Rated current   | A               | 80       |
| 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              | 20       |
| Rated short-circuit breaking capacity $I_{cu}$ IEC 60947-2 at 400 V | kA              | 20       |
| 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                                 |                 | 1.5      |
| 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 |