



Circuit-breaker; 50 A; 1p; Type D characteristic

Part no.

mMCT-D50/1

Catalog No.

152703

## Delivery program

|                                                 |          |    |                                                                |
|-------------------------------------------------|----------|----|----------------------------------------------------------------|
| Basic function                                  |          |    | Miniature circuit-breakers                                     |
| Number of poles                                 |          |    | 1 pole                                                         |
| Tripping characteristic                         |          |    | D                                                              |
| Application                                     |          |    | Switchgear for industrial and advanced commercial applications |
| Rated current                                   | $I_n$    | A  | 50                                                             |
| Rated switching capacity acc. to IEC/EN 60947-2 | $I_{cu}$ | kA | 25                                                             |
| Product range                                   |          |    | mMCT                                                           |

## Technical data

### Electrical

|                                                 |            |    |              |
|-------------------------------------------------|------------|----|--------------|
| Rated switching capacity acc. to IEC/EN 60947-2 | $I_{cu}$   | kA | 25           |
| Rated insulation voltage                        | $U_i$      | V  | 440          |
| Rated impulse withstand voltage                 | $U_{imp}$  | kV | 4            |
| lifespan                                        |            |    |              |
| Electrical                                      | Operations |    | $\geq 10000$ |
| Mechanical                                      | Operations |    | $\geq 20000$ |

### 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  | 50                                                                          |
| Heat dissipation per pole, current-dependent             | $P_{vid}$  | W  | 0                                                                           |
| Equipment heat dissipation, current-dependent            | $P_{vid}$  | W  | 5.1                                                                         |
| 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                                                                                                                                                                                            |  |  | D |
| Number of poles (total)                                                                                                                                                                                           |  |  | 1 |

|                                                                     |                 |          |
|---------------------------------------------------------------------|-----------------|----------|
| Number of protected poles                                           |                 | 1        |
| Rated current                                                       | A               | 50       |
| 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                                 |                 | 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 |