

# Product datasheet

Specifications



24647-SE

## M9 - C60H - MCB - 1P - 20A - B Curve

M9F13120

### Main

|                           |                                                                                                                                                                                                                                                      |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                     | M9                                                                                                                                                                                                                                                   |
| Product name              | C60                                                                                                                                                                                                                                                  |
| Product or component type | Miniature circuit-breaker                                                                                                                                                                                                                            |
| Device short name         | C60H                                                                                                                                                                                                                                                 |
| Device application        | Distribution                                                                                                                                                                                                                                         |
| Poles description         | 1P                                                                                                                                                                                                                                                   |
| Number of protected poles | 1                                                                                                                                                                                                                                                    |
| [In] rated current        | 20A at 30°C conforming to IEC 60898-1                                                                                                                                                                                                                |
| Network type              | AC<br>DC                                                                                                                                                                                                                                             |
| Trip unit technology      | Thermal-magnetic                                                                                                                                                                                                                                     |
| Curve code                | B                                                                                                                                                                                                                                                    |
| Breaking capacity         | 20 kA Icu at $\leq 60$ V DC conforming to IEC/EN 60947-2<br>15 kA Icu at 230...240 V AC conforming to IEC/EN 60947-2<br>3 kA Icu at 400...415 V AC conforming to IEC/EN 60947-2<br>10000 A Icn at 230/400 V AC 50/60 Hz conforming to IEC/EN 60898-1 |
| Utilization category      | Category A conforming to EN/IEC 60947-2                                                                                                                                                                                                              |
| Suitability for isolation | Yes. Conforming to IEC 60947-2                                                                                                                                                                                                                       |
| Standards                 | IEC 60947-2<br>IEC 60898-1                                                                                                                                                                                                                           |

### Complementary

|                                |                                                                                                                    |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Network frequency              | 50/60 Hz                                                                                                           |
| [Ue] rated operational voltage | $\leq 60$ V DC<br>230...240 V AC 50/60 Hz<br>230/400 V AC 50/60 Hz<br>400...415 V AC 50/60 Hz<br>440 V AC 50/60 Hz |
| Limitation class               | 3 conforming to IEC 60898                                                                                          |

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|                                        |                                                                                                                                                                                                                                                                            |            |                         |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------|
| [Ui] rated insulation voltage          | 500 V AC 50/60 Hz conforming to IEC/EN 60947-2                                                                                                                                                                                                                             |            |                         |
| Magnetic tripping limit                | IEC 60898-1:                                                                                                                                                                                                                                                               | 3...5 x In |                         |
|                                        | IEC 60947-2:                                                                                                                                                                                                                                                               | in a.c.    | 4 x In ( $\pm 20\%$ )   |
|                                        |                                                                                                                                                                                                                                                                            | in d.c.    | 5.7 x In ( $\pm 20\%$ ) |
| [Ics] rated service breaking capacity  | 20 kA 100% of Icu at $\leq 60$ V DC conforming to IEC/EN 60947-2<br>7.5 kA 50% of Icu at 240 V AC conforming to IEC/EN 60947-2<br>2.25 kA 50% of Icu at 415 V AC conforming to IEC/EN 60947-2<br>10000 A 100% of Icn at 230/400 V AC 50/60 Hz conforming to IEC/EN 60898-1 |            |                         |
| [Uimp] rated impulse withstand voltage | 6 kV conforming to IEC/EN 60947-2                                                                                                                                                                                                                                          |            |                         |
| Contact position indicator             | Yes                                                                                                                                                                                                                                                                        |            |                         |
| Control type                           | Toggle                                                                                                                                                                                                                                                                     |            |                         |
| Local signalling                       | ON/OFF indication                                                                                                                                                                                                                                                          |            |                         |
| Mounting mode                          | Clip-on                                                                                                                                                                                                                                                                    |            |                         |
| Mounting support                       | 35 mm symmetrical DIN rail                                                                                                                                                                                                                                                 |            |                         |
| 9 mm pitches                           | 2                                                                                                                                                                                                                                                                          |            |                         |
| Height                                 | 81 mm                                                                                                                                                                                                                                                                      |            |                         |
| Width                                  | 18 mm                                                                                                                                                                                                                                                                      |            |                         |
| Depth                                  | 72 mm                                                                                                                                                                                                                                                                      |            |                         |
| Product weight                         | 120 gr                                                                                                                                                                                                                                                                     |            |                         |
| Color                                  | Grey                                                                                                                                                                                                                                                                       |            |                         |
| Mechanical durability                  | 20,000 cycles                                                                                                                                                                                                                                                              |            |                         |
| Electrical durability                  | 10,000 cycles                                                                                                                                                                                                                                                              |            |                         |
| Provision for padlocking               | Padlockable                                                                                                                                                                                                                                                                |            |                         |
| Connections - terminals                | Tunnel type terminal (top or bottom) 1...10 mm <sup>2</sup> - rigid                                                                                                                                                                                                        |            |                         |
|                                        | Tunnel type terminal (top or bottom) 1...10 mm <sup>2</sup> - flexible                                                                                                                                                                                                     |            |                         |
|                                        | Tunnel type terminal (top or bottom) 1...10 mm <sup>2</sup> - flexible with ferrule                                                                                                                                                                                        |            |                         |
| Wire stripping length                  | 14 mm top or bottom connection                                                                                                                                                                                                                                             |            |                         |
| Tightening torque                      | 2.5 N.m top or bottom                                                                                                                                                                                                                                                      |            |                         |
| Earth-leakage protection               | Separate add-on block                                                                                                                                                                                                                                                      |            |                         |

## Environment

|                                       |                                                  |
|---------------------------------------|--------------------------------------------------|
| Heat dissipation                      | 3 W at 240 V - 20 A                              |
| IP degree of protection               | IP20 conforming to IEC 60529                     |
|                                       | IP40 (modular enclosure) conforming to IEC 60529 |
| Pollution degree                      | 3 conforming to IEC/EN 60947-2                   |
| Overvoltage category                  | IV                                               |
| Tropicalization                       | 2 conforming to IEC 60068-1                      |
| Relative humidity                     | 95% at 55 °C                                     |
| Ambient air temperature for operation | -30...70 °C                                      |
| Ambient air temperature for storage   | -40...80 °C                                      |

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## Ordering and shipping details

|      |               |
|------|---------------|
| GTIN | 6267377146470 |
|------|---------------|

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit type of package 1       | BB1     |
| Number of units in package 1 | 12      |
| Package 1 height             | 7.8 cm  |
| Package 1 width              | 8.7 cm  |
| Package 1 length             | 22 cm   |
| Package 1 weight             | 1.5 kg  |
| Unit type of package 2       | GB1     |
| Number of units in package 2 | 120     |
| Package 2 height             | 31.5 cm |
| Package 2 width              | 26.5 cm |
| Package 2 length             | 28 cm   |
| Package 2 weight             | 16.5 kg |

## Contractual warranty

|           |          |
|-----------|----------|
| Guarantee | Lifetime |
|-----------|----------|