



Motor protective circuit breaker  
SM1P

Product designation

Product type designation

**Electrical features**

|                                      |     |            |
|--------------------------------------|-----|------------|
| Number of poles                      | nr. | 3          |
| Magnetic protection                  |     | yes        |
| Thermal protection                   |     | yes        |
| Phase failure detection              |     | yes        |
| Rated insulation voltage Ui IEC/EN   | V   | 690        |
| Rated impulse withstand voltage Uimp | kV  | 6          |
| Rated frequency                      | Hz  | 50/60      |
| Thermal trip adjustment range        |     | 0.25...0.4 |
| Rated current (In)                   | A   | 0.4        |
| Magnetic tripping                    |     | 13 x In    |
| Total power dissipation              | W   | 1.99       |

Operational short-circuit current breaking capacity (Ics) at AC

|      |    |     |
|------|----|-----|
| 230V | kA | 100 |
| 400V | kA | 100 |
| 440V | kA | 100 |
| 500V | kA | 100 |
| 690V | kA | 100 |

Maximum short-circuit current breaking capacity (Icu) at AC

|      |    |     |
|------|----|-----|
| 230V | kA | 100 |
| 400V | kA | 100 |
| 440V | kA | 100 |
| 500V | kA | 100 |
| 690V | kA | 100 |

Tripping class

10A

IEC Utilization category

A

**Operations**

|                 |        |        |
|-----------------|--------|--------|
| Mechanical life | cycles | 100000 |
| Electrical life | cycles | 100000 |

**Mechanical features**

Tightening torque for terminals

|     |      |     |
|-----|------|-----|
| min | Nm   | 2.5 |
| max | Nm   | 3   |
| min | lbin | 1.8 |
| max | lbin | 2.2 |

Max number of wires simultaneously connectable

nr. 2

Conductor section

AWG/Kcmil

|     |    |
|-----|----|
| min | 16 |
| max | 8  |

Flexible w/o lug conductor section

|     |                 |   |
|-----|-----------------|---|
| min | mm <sup>2</sup> | 1 |
|-----|-----------------|---|

Flexible c/w lug conductor section

|     |                 |   |
|-----|-----------------|---|
| min | mm <sup>2</sup> | 1 |
|-----|-----------------|---|

Flexible with insulated spade lug conductor section

|     |                 |   |
|-----|-----------------|---|
| min | mm <sup>2</sup> | 1 |
|-----|-----------------|---|

Screwdriver

PH2

Power terminal protection according to IEC/EN 60529

IP20

Cable stripping length

main circuit mm 1

**Ambient conditions**

Temperature

Operating temperature

|     |    |     |
|-----|----|-----|
| min | °C | -20 |
| max | °C | 60  |

Storage temperature

|     |    |     |
|-----|----|-----|
| min | °C | -50 |
| max | °C | 80  |

Compensation temperature

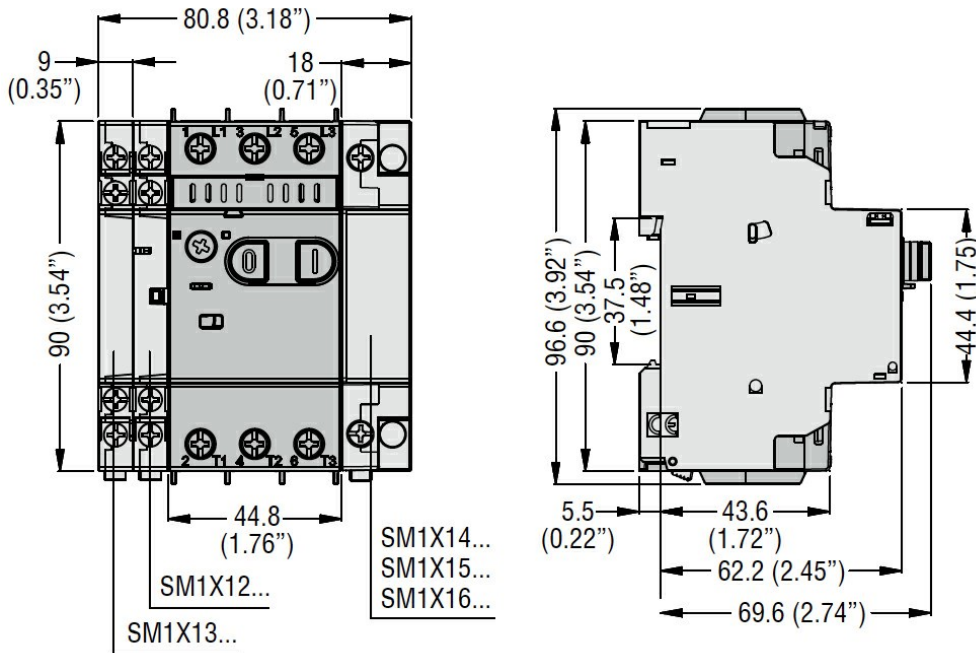
|     |    |     |
|-----|----|-----|
| min | °C | -20 |
| max | °C | 50  |

Max altitude

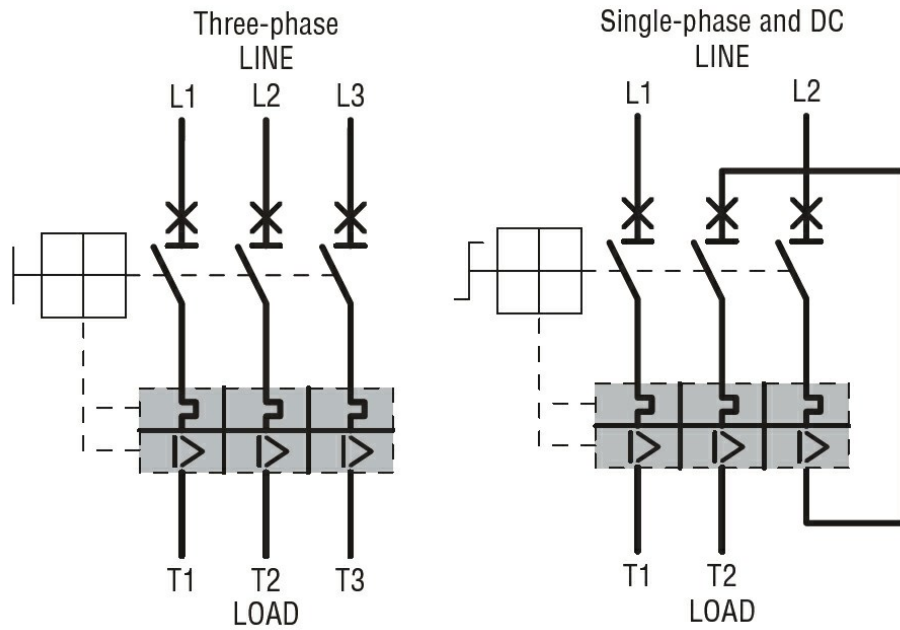
m 3000

|  |  |                              |
|--|--|------------------------------|
| Operating position   | normal<br>allowable  | Vertical plan<br>Any         |
| Fixing   |  | Screw / DIN rail 35mm        |
| Weight   | g  | 280                          |
| <b>UL technical data</b>   |  |                              |
| UL508 / UL60947-4-1 Manual Motor Controller - Short circuit current                                    |  |                              |
| Motor Disconnect   | at 240V<br>at 480V<br>at 600V<br>protection  | kA<br>kA<br>kA<br>Fuse or CB |
| Group Motor Installation   | at 240V<br>at 480V<br>at 600V<br>protection  | kA<br>kA<br>kA<br>Fuse or CB |
| Tap Conductor Protection   | at 480Y/277V<br>at 600Y/347V   | kA<br>kA                     |
| UL508 / UL 60947-4-1 Manual Self Protected Combination Motor Controller (Type E) Short circuit current |  |                              |
|  | UL508 / UL 60947-4-1 Manual Self Protected Combination Motor Controller (Type E) Short-circuit cur | 50                           |
|  | UL508 / UL 60947-4-1 Manual Self Protected Combination Motor Controller (Type E) Short-circuit cur | 50                           |
|  | UL508 / UL 60947-4-1 Manual Self Protected Combination Motor Controller (Type E) Short-circuit cur | 50                           |
| Maximum UL/CSA horsepower ratings single-phase   | at 110V-120V<br>at 220V-240V   | hp<br>hp                     |
| Maximum UL/CSA horsepower ratings three-phase, 3-pole  | at 200V-208V<br>at 220V-240V<br>at 440V-480V<br>at 550V-600V                                       | hp<br>hp<br>hp<br>hp         |

**Dimensions**



**Wiring diagrams**



**Certifications and compliance**

Certifications

CSA C22.2 n° 14  
IEC/EN 60947-1  
IEC/EN 60947-2  
IEC/EN 60947-4-1  
UL508

Compliance

cULus  
EAC

**ETIM 6 classification**