



Motor protection  
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 $U_i$ IEC/EN     | V   | 690        |
| Rated impulse withstand voltage $U_{imp}$ | kV  | 6          |
| Rated frequency                           | Hz  | 50/60      |
| Thermal trip adjustment range             |     | 0.1...0.16 |
| Rated current ( $I_n$ )                   | A   | 0.16       |
| Magnetic tripping                         |     | 10 x $I_n$ |
| Power dissipation per pole                | min | W 0.81     |
|   | max | W 2.07     |

Operational short-circuit current breaking capacity ( $I_{cs}$ ) at AC

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

Maximum short-circuit current breaking capacity ( $I_{cu}$ ) 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 | 22   |
| max | lbin | 26.5 |

Max number of wires simultaneously connectable

Nr. 2

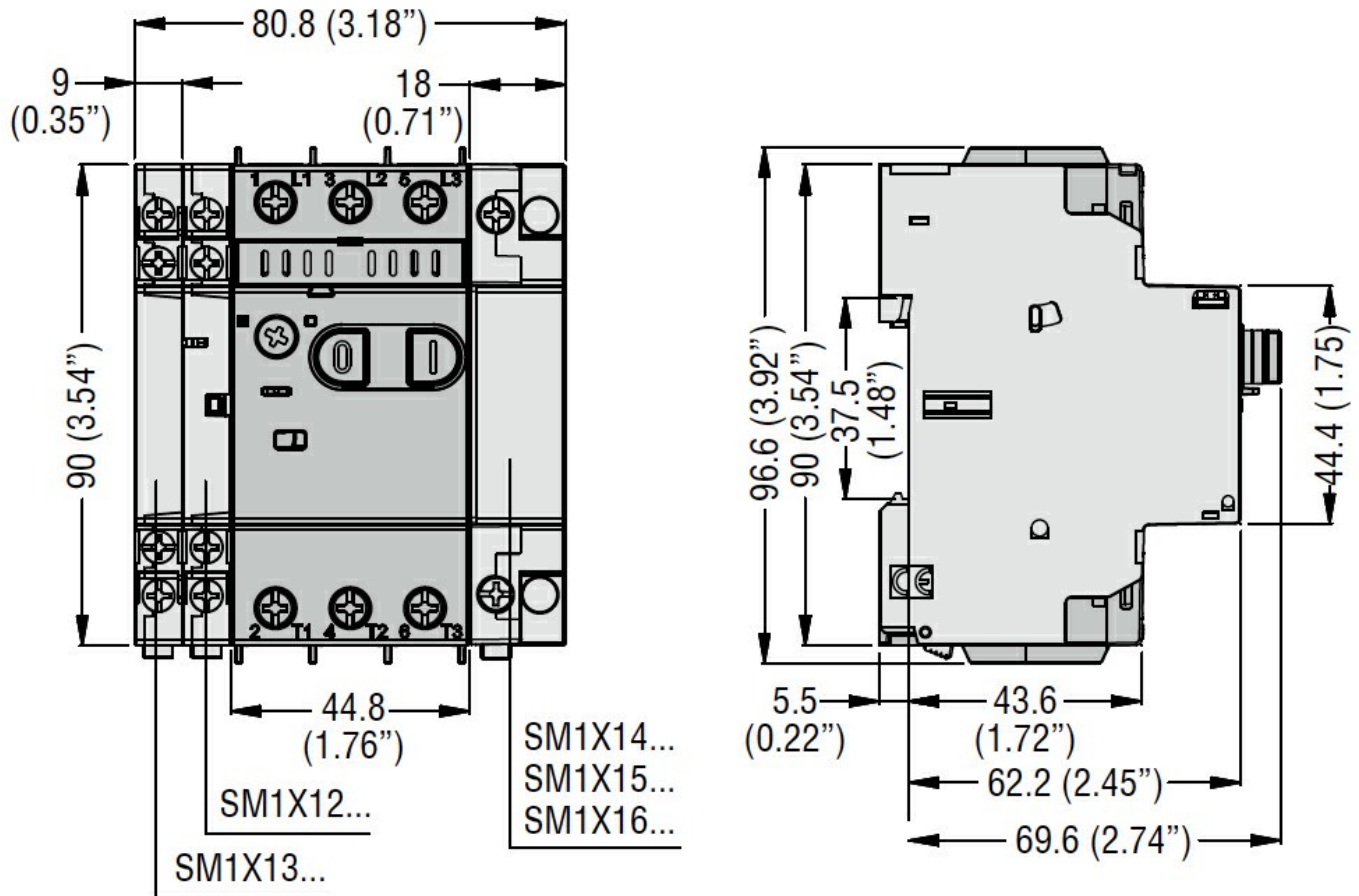
Conductor section

AWG/Kcmil

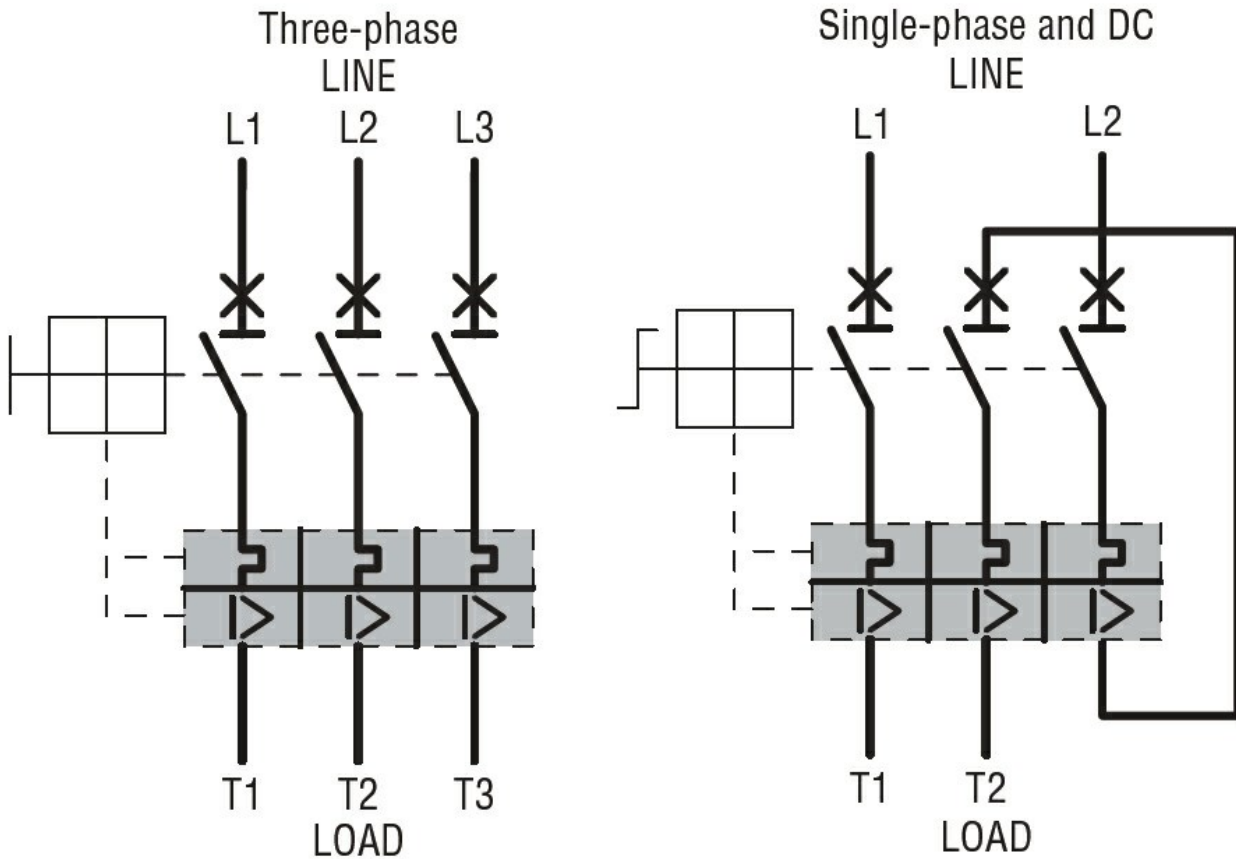
|     |    |
|-----|----|
| min | 16 |
| max | 8  |

|   |                                     |                 |                       |
|---|-------------------------------------|-----------------|-----------------------|
| Flexible w/o lug conductor section                    |                                     |                 |                       |
|   | min                                 | mm <sup>2</sup> | 1                     |
|   | max                                 | mm <sup>2</sup> | 10                    |
| Flexible c/w lug conductor section                    |                                     |                 |                       |
|   | min                                 | mm <sup>2</sup> | 1                     |
|   | max                                 | mm <sup>2</sup> | 10                    |
| Flexible with insulated spade lug conductor section   |                                     |                 |                       |
|   | min                                 | mm <sup>2</sup> | 1                     |
|   | max                                 | mm <sup>2</sup> | 10                    |
| Screwdriver   |                                     |                 | PH2                   |
| Power terminal protection according to IEC/EN 60529   |                                     |                 | IP20                  |
| Cable stripping length                                |                                     |                 |                       |
|   | main circuit                        | mm              | 12                    |
| <b>Ambient conditions</b>                             |                                     |                 |                       |
| 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 allowable                    |                 | Vertical plan Any     |
| Fixing  |                                     |                 | Screw / DIN rail 35mm |
| Weight  |                                     |                 | g 280                 |
| <b>UL technical data</b>                              |                                     |                 |                       |
| Motor Disconnect                                      |                                     |                 |                       |
|   | at 240V                             | kA              | 50                    |
|   | at 480V                             | kA              | 50                    |
|   | at 600V                             | kA              | 50                    |
|   | protection                          |                 | Fuse or CB            |
| UL technical data                                     |                                     |                 |                       |
|   | Group Motor Installation at 240V    | kA              | 50                    |
|   | Group Motor Installation at 480V    | kA              | 50                    |
|   | Group Motor Installation at 600V    | kA              | 50                    |
|   | Group Motor Installation protection |                 | Fuse or CB            |
| Tap Conductor Protection                              |                                     |                 |                       |
|   | at 480Y/277V                        | kA              | 50                    |
|   | at 600Y/347V                        | kA              | 50                    |
| Maximum UL/CSA horsepower ratings single-phase        |                                     |                 |                       |
|   | 110V-120V                           | HP              | -                     |
|   | 220V-240V                           | HP              | -                     |
| Maximum UL/CSA horsepower ratings three-phase, 3-pole |                                     |                 |                       |
|   | 200V-208V                           | HP              | -                     |
|   | 220V-240V                           | HP              | -                     |
|   | 440V-480V                           | HP              | -                     |
|   | 550V-600V                           | 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 classification**

ETIM 8.0

EC000074 -  
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circuit-breaker