



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             |     | 0.4...0.63 |
| Rated current ( $I_n$ )                   | A   | 0.63       |
| Magnetic tripping                         |     | 13 x $I_n$ |

Power dissipation per pole

|     |   |      |
|-----|---|------|
| min | W | 0.79 |
| max | W | 1.95 |

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

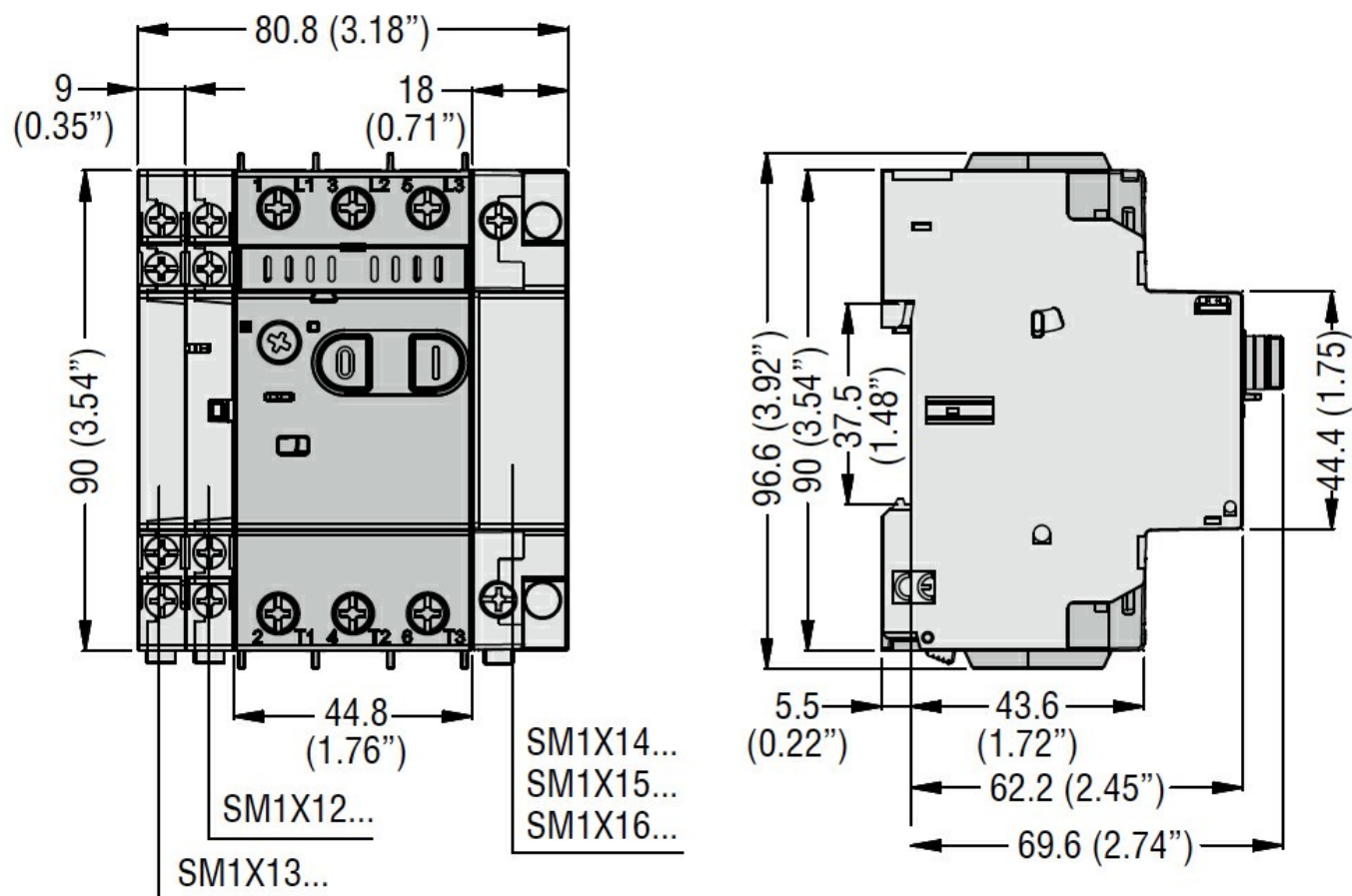
Conductor section

AWG/Kcmil

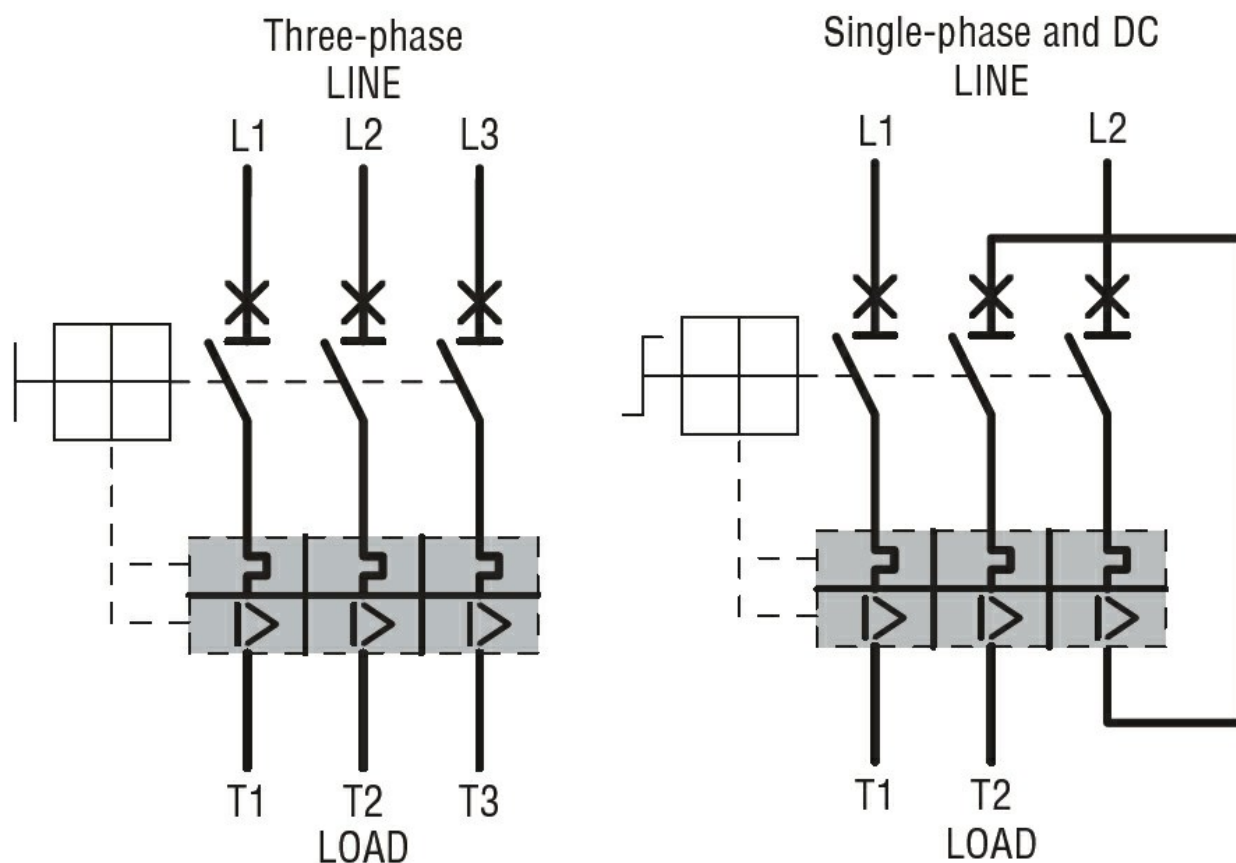
|     |    |
|-----|----|
| min | 16 |
| max | 8  |

|                                                       |                  |                      |                          |
|-------------------------------------------------------|------------------|----------------------|--------------------------|
| 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 on front            |
| Cable stripping lenght                                |                  |                      |                          |
|                                                       | main circuit     | mm                   | 12                       |
| 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 allowable | Vertical plan<br>Any |                          |
| Fixing                                                |                  |                      | Screw / DIN rail<br>35mm |
| Weight                                                |                  | g                    | 280                      |
| UL technical data                                     |                  |                      |                          |
| Motor Disconnect                                      |                  |                      |                          |
|                                                       | at 240V          | kA                   | 50                       |
|                                                       | at 480V          | kA                   | 50                       |
|                                                       | at 600V          | kA                   | 50                       |
|                                                       | protection       | Fuse or CB           |                          |
| Group Motor Installation                              |                  |                      |                          |
|                                                       | at 240V          | kA                   | 50                       |
|                                                       | at 480V          | kA                   | 50                       |
|                                                       | at 600V          | kA                   | 50                       |
|                                                       | 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