



Product designation

Motor protection  
circuit breaker  
SM1P

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             |     | 9...14     |
| Rated current ( $I_n$ )                   | A   | 14         |
| Magnetic tripping                         |     | 13 x $I_n$ |

Power dissipation per pole

|     |   |      |
|-----|---|------|
| min | W | 1.13 |
| max | W | 2.73 |

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

|      |    |      |
|------|----|------|
| 230V | kA | 100  |
| 400V | kA | 12.5 |
| 440V | kA | 5    |
| 500V | kA | 5    |
| 690V | kA | 3    |

Maximum short-circuit current breaking capacity ( $I_{cu}$ ) at AC

|      |    |     |
|------|----|-----|
| 230V | kA | 100 |
| 400V | kA | 25  |
| 440V | kA | 10  |
| 500V | kA | 10  |
| 690V | kA | 3   |

Breaking capacity short-circuit current ( $I_{cn}$ ) at DC

|      |    |   |
|------|----|---|
| 150V | kA | 0 |
| 300V | kA | 0 |
| 450V | kA | 0 |

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 |

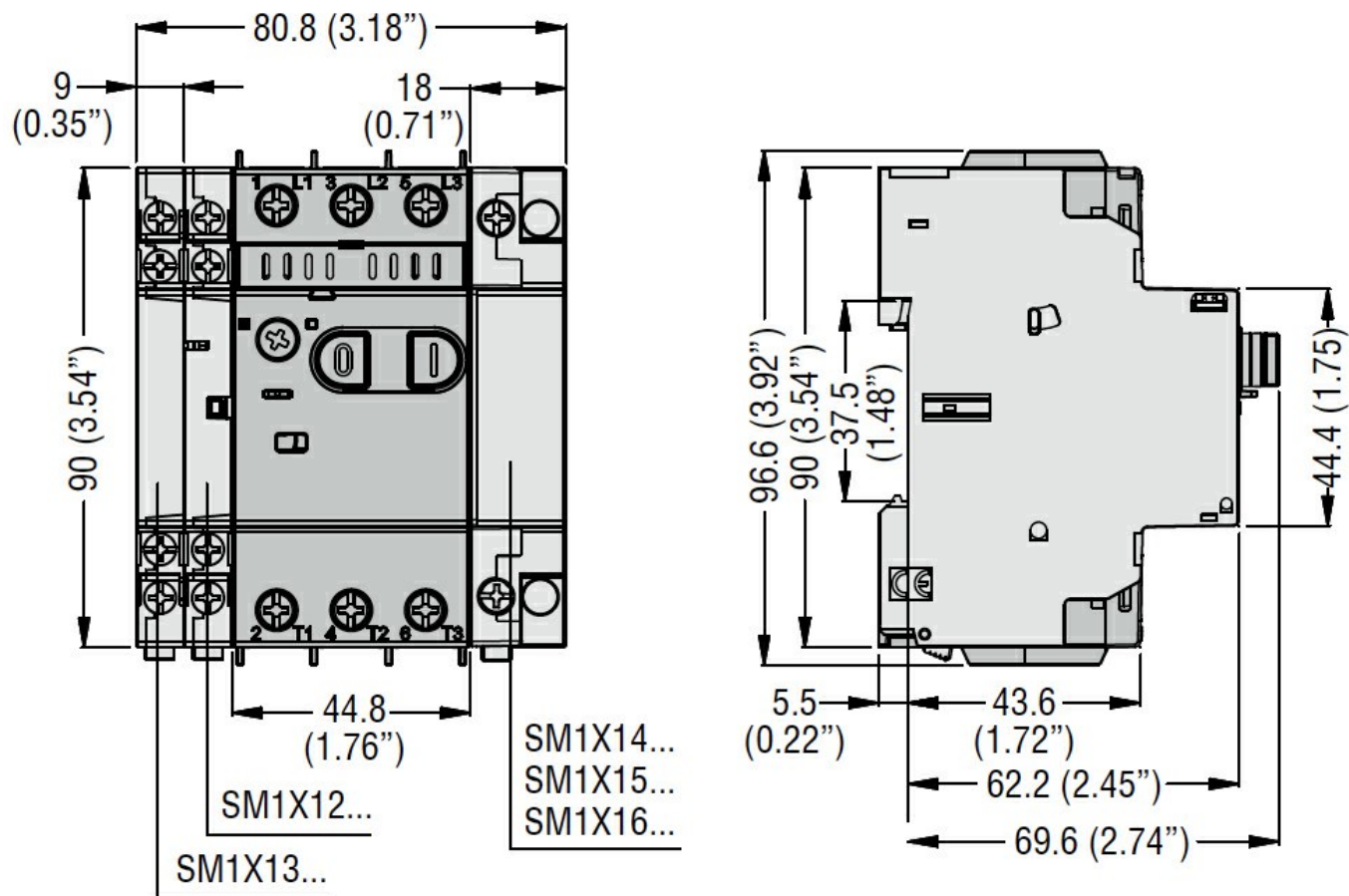
Max number of wires simultaneously connectable

Nr. 2

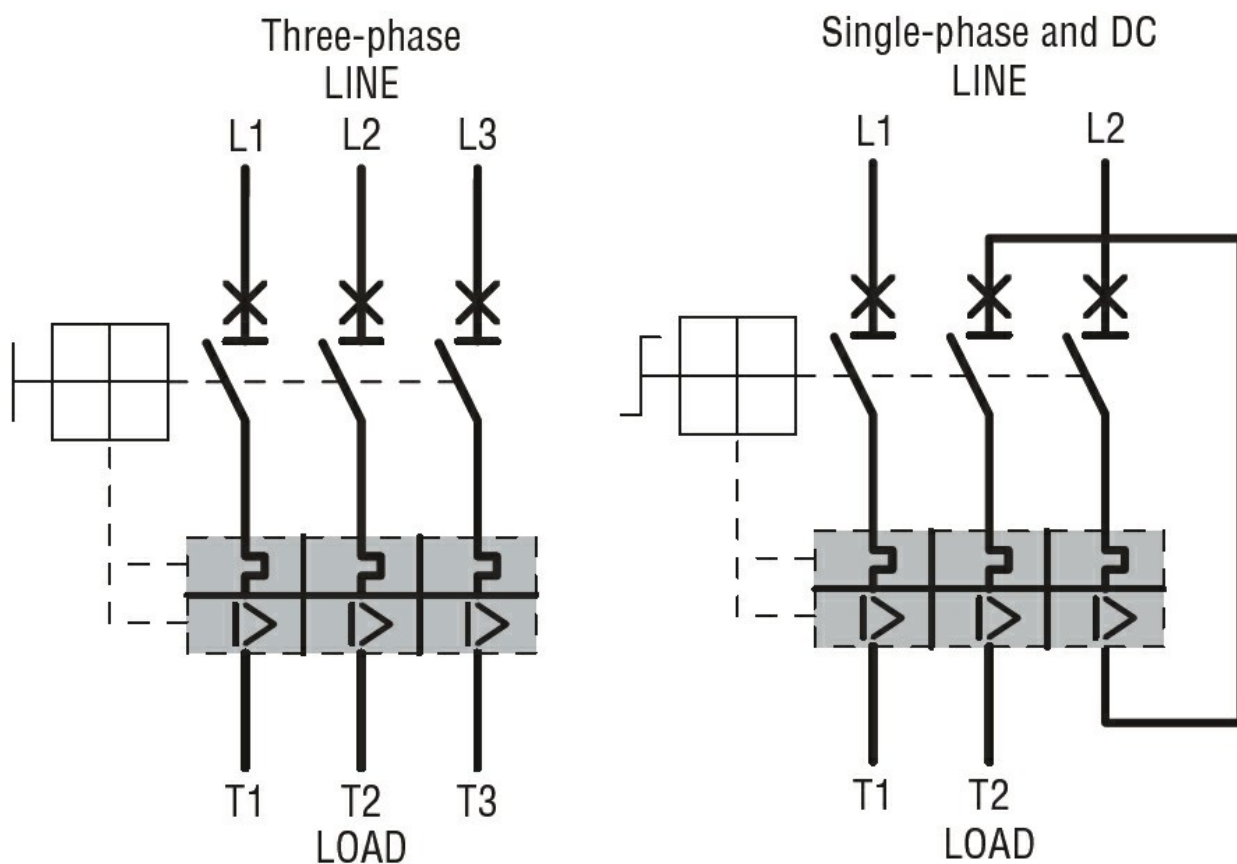
|                                                       |                  |                       |                    |
|-------------------------------------------------------|------------------|-----------------------|--------------------|
| Conductor section                                     |                  |                       |                    |
| 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 Any     |                    |
| Fixing                                                |                  | Screw / DIN rail 35mm |                    |
| Weight                                                |                  | g                     | 350                |
| UL technical data                                     |                  |                       |                    |
| Motor Disconnect                                      |                  |                       |                    |
|                                                       | at 240V          | kA                    | 30                 |
|                                                       | at 480V          | kA                    | 30                 |
|                                                       | at 600V          | kA                    | 30                 |
|                                                       | protection       | 100A class J          |                    |
| Group Motor Installation                              |                  |                       |                    |
|                                                       | at 240V          | kA                    | 30                 |
|                                                       | at 480V          | kA                    | 30                 |
|                                                       | at 600V          | kA                    | 30                 |
|                                                       | protection       | 100A class J          |                    |
| Tap Conductor Protection                              |                  |                       |                    |
|                                                       | at 480Y/277V     | kA                    | 50                 |
|                                                       | at 600Y/347V     | kA                    | 50                 |
| Maximum UL/CSA horsepower ratings single-phase        |                  |                       |                    |
|                                                       | 110V-120V        | HP                    | 3/4                |
|                                                       | 220V-240V        | HP                    | 2                  |
| Maximum UL/CSA horsepower ratings three-phase, 3-pole |                  |                       |                    |

|           |    |    |
|-----------|----|----|
| 200V-208V | HP | 3  |
| 220V-240V | HP | 3  |
| 440V-480V | HP | 10 |

## 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 -  
Motor protection  
circuit-breaker