

SM1P0250

DISJONCTEUR/DÉMARREUR DE MOTEUR SM1P 1,6-2,5A



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 | | 1.6...2.5 |
| Rated current (I_n) | A | 2.5 |
| Magnetic tripping | | 13 x I_n |
| Power dissipation per pole | min max | W W |
| | | 0.67 1.63 |

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

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

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

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

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

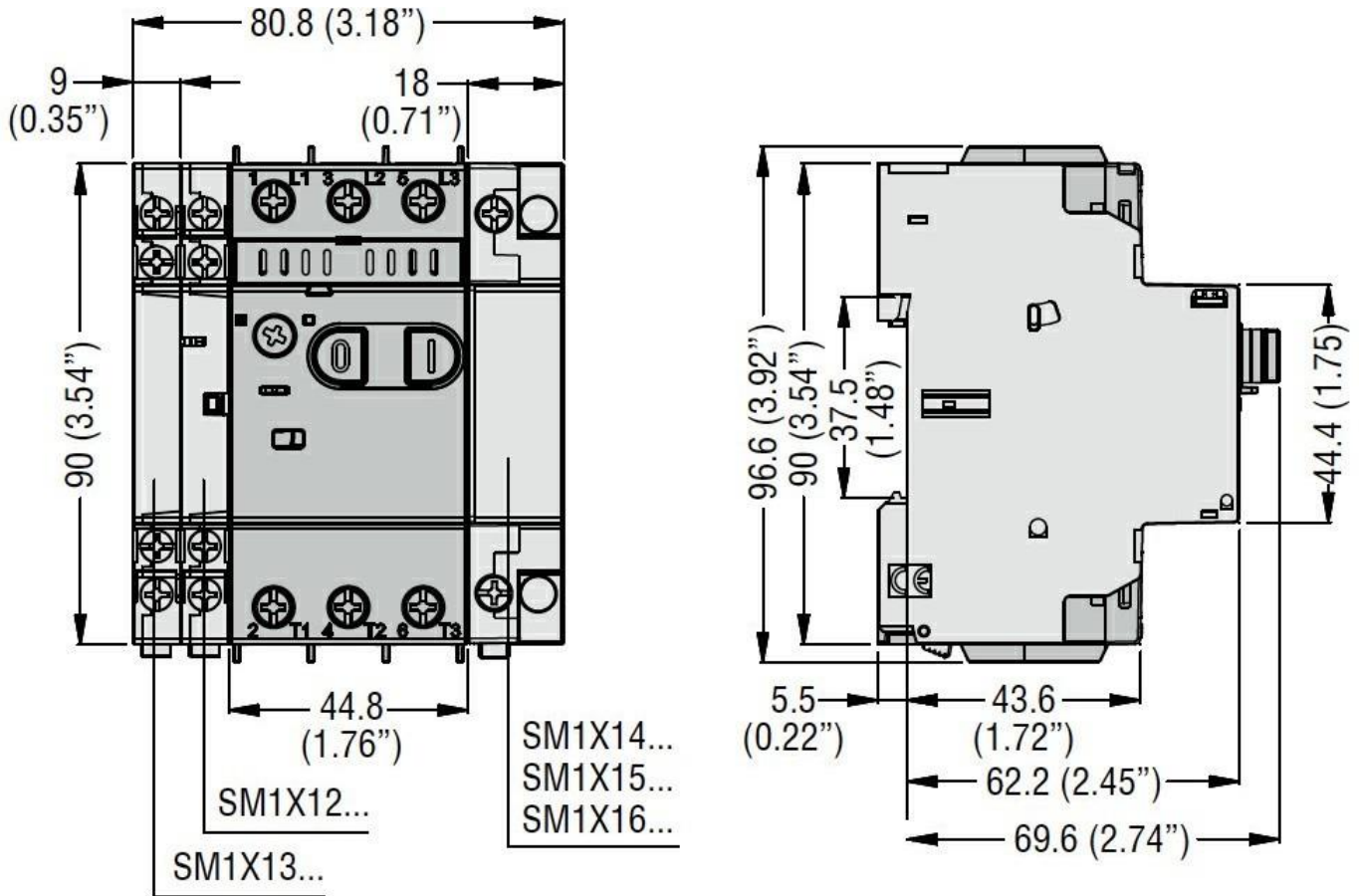
Conductor section

AWG/Kcmil

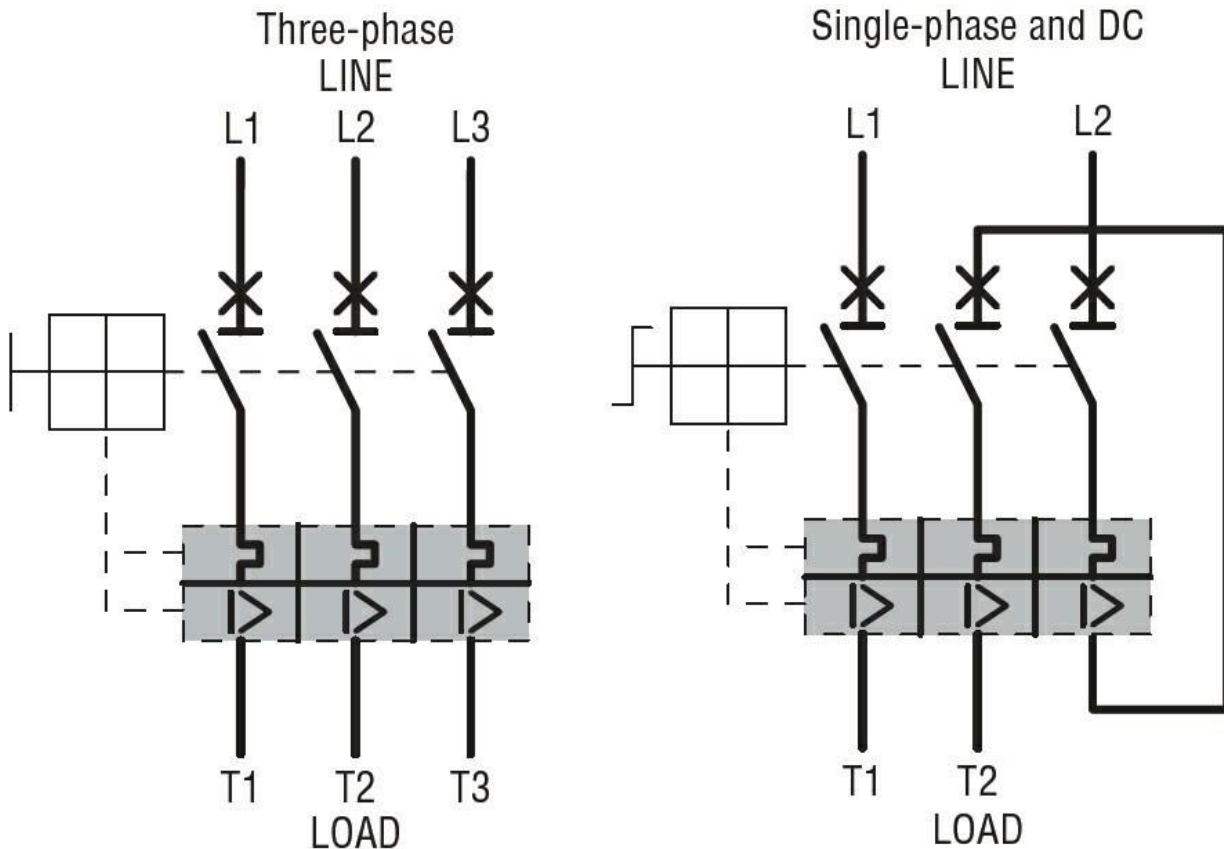
| | |
|-----|----|
| min | 16 |
| max | 8 |

| | | | |
|---|--------------|-----------------|------------------|
| Flexible w/o lug conductor section | | | |
| | min | mm ² | 1 |
| | max | mm ² | 10 |
| Flexible c/w lug conductor section | | | |
| | min | mm ² | 1 |
| | max | mm ² | 10 |
| Flexible with insulated spade lug conductor section | | | |
| | min | mm ² | 1 |
| | max | mm ² | 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 | | Vertical plan |
| | allowable | | 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 | - |
| | 220V-240V | HP | 1/6 |
| Maximum UL/CSA horsepower ratings three-phase, 3-pole | | | |
| | 200V-208V | HP | 1/2 |
| | 220V-240V | HP | 1/2 |
| | 440V-480V | HP | 1 |
| | 550V-600V | HP | 1.5 |

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

EC000074 -

ETIM 8.0

SM1P0400

DISJONCTEUR/DÉMARREUR DE MOTEUR SM1P 2,5-4A



Product designation

Product type designation

Motor protection
circuit breaker
SM1P

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 | | 2.5...4 |
| Rated current (I_n) | A | 4 |
| Magnetic tripping | | 13 x I_n |
| Power dissipation per pole | min | W 0.90 |
| | max | W 2.29 |

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

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

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

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

| | | |
|--------------------------|--|-----|
| Tripping class | | 10A |
| IEC Utilization category | | A |

Operations

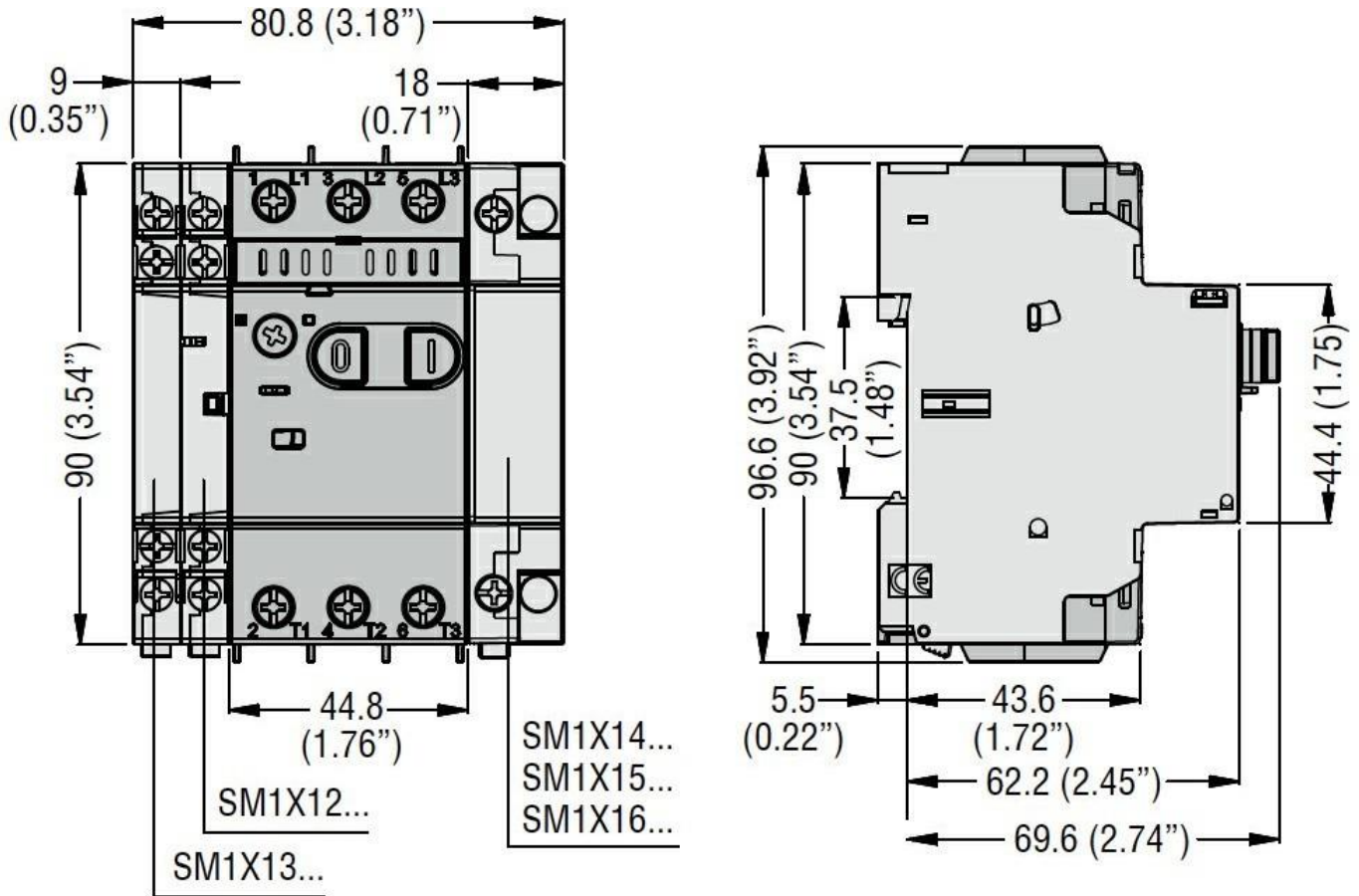
| | | |
|-----------------|--------|--------|
| Mechanical life | cycles | 100000 |
| Electrical life | cycles | 100000 |

Mechanical features

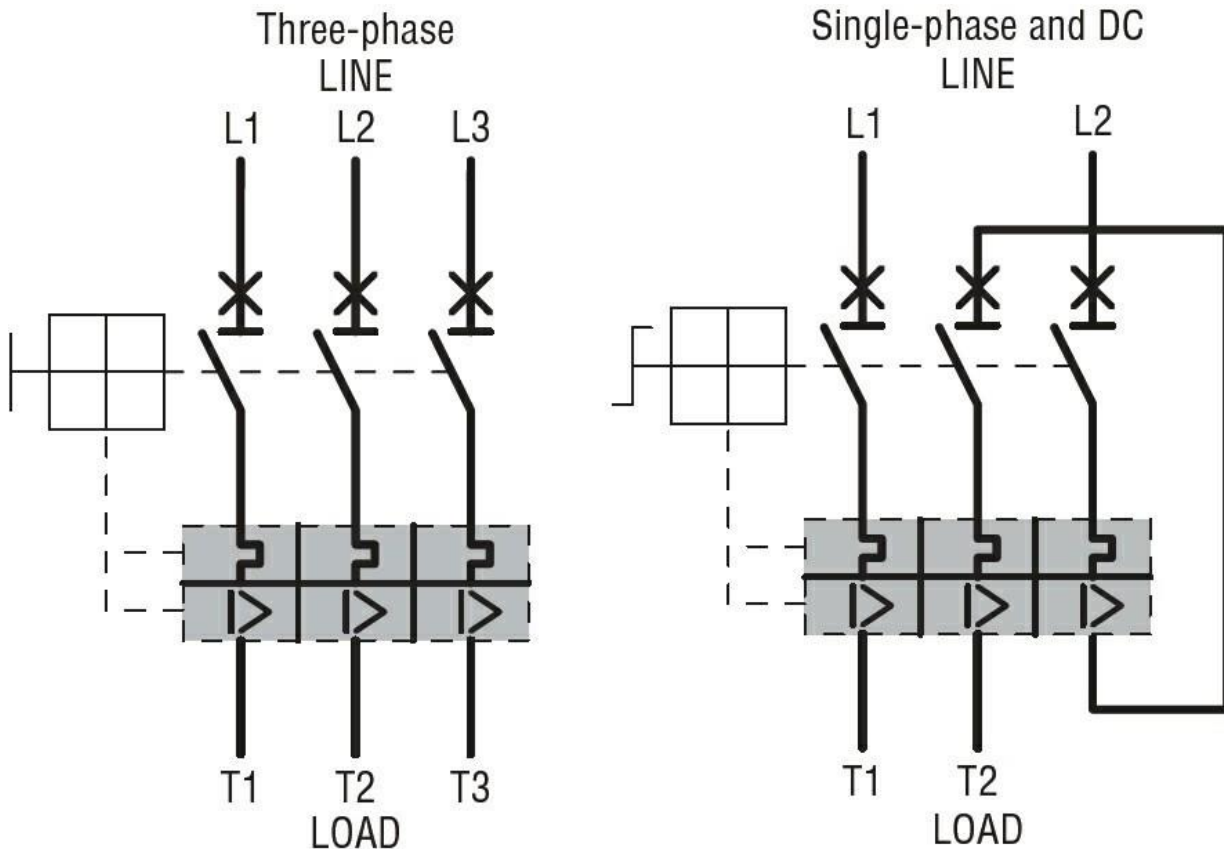
| | | |
|--|-----|-----------|
| Tightening torque for terminals | min | Nm 2.5 |
| | max | Nm 3 |
| | min | lbin 22 |
| | max | lbin 26.5 |
| Max number of wires simultaneously connectable | Nr. | 2 |
| Conductor section | | |
| | min | 16 |
| | max | 8 |

| | | | |
|---|--------------|-----------------|--------------------------|
| Flexible w/o lug conductor section | | | |
| | min | mm ² | 1 |
| | max | mm ² | 10 |
| Flexible c/w lug conductor section | | | |
| | min | mm ² | 1 |
| | max | mm ² | 10 |
| Flexible with insulated spade lug conductor section | | | |
| | min | mm ² | 1 |
| | max | mm ² | 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 | | Vertical plan |
| | allowable | | 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 | 1/8 |
| | 220V-240V | HP | 1/3 |
| Maximum UL/CSA horsepower ratings three-phase, 3-pole | | | |
| | 200V-208V | HP | 3/4 |
| | 220V-240V | HP | 3/4 |
| | 440V-480V | HP | 2 |
| | 550V-600V | HP | 3 |

Dimensions



Wiring diagrams



SM1P0650

DISJONCTEUR/DÉMARREUR DE MOTEUR SM1P 4-6,5A



Product designation

Product type designation

Motor protection
circuit breaker
SM1P

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 | | 4...6.5 |
| Rated current (I_n) | A | 6.5 |
| Magnetic tripping | | 13 x I_n |
| Power dissipation per pole | min | W 0.75 |
| | max | W 1.99 |

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

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

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

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

| | | |
|--------------------------|--|-----|
| Tripping class | | 10A |
| IEC Utilization category | | A |

Operations

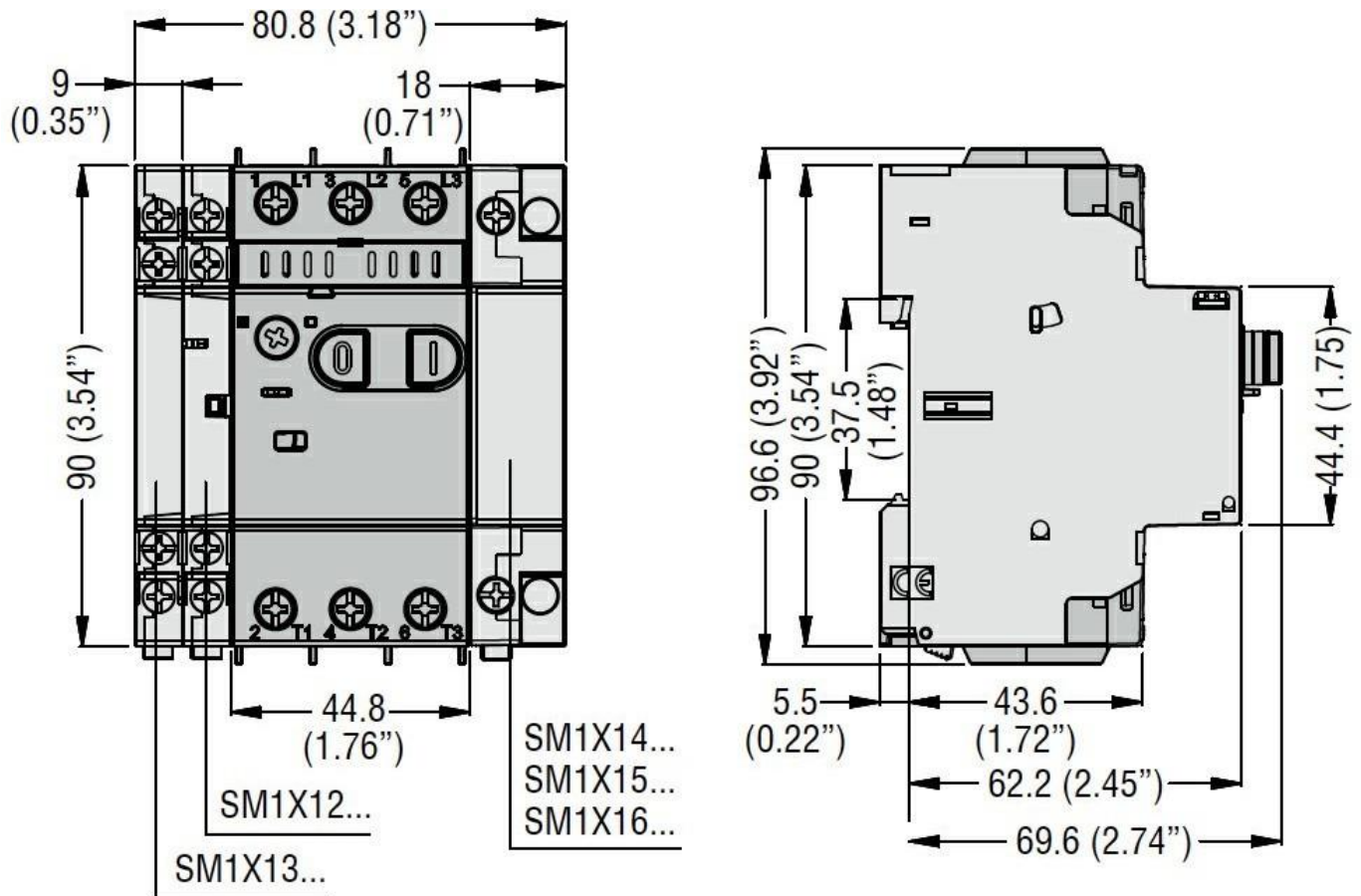
| | | |
|-----------------|--------|--------|
| Mechanical life | cycles | 100000 |
| Electrical life | cycles | 100000 |

Mechanical features

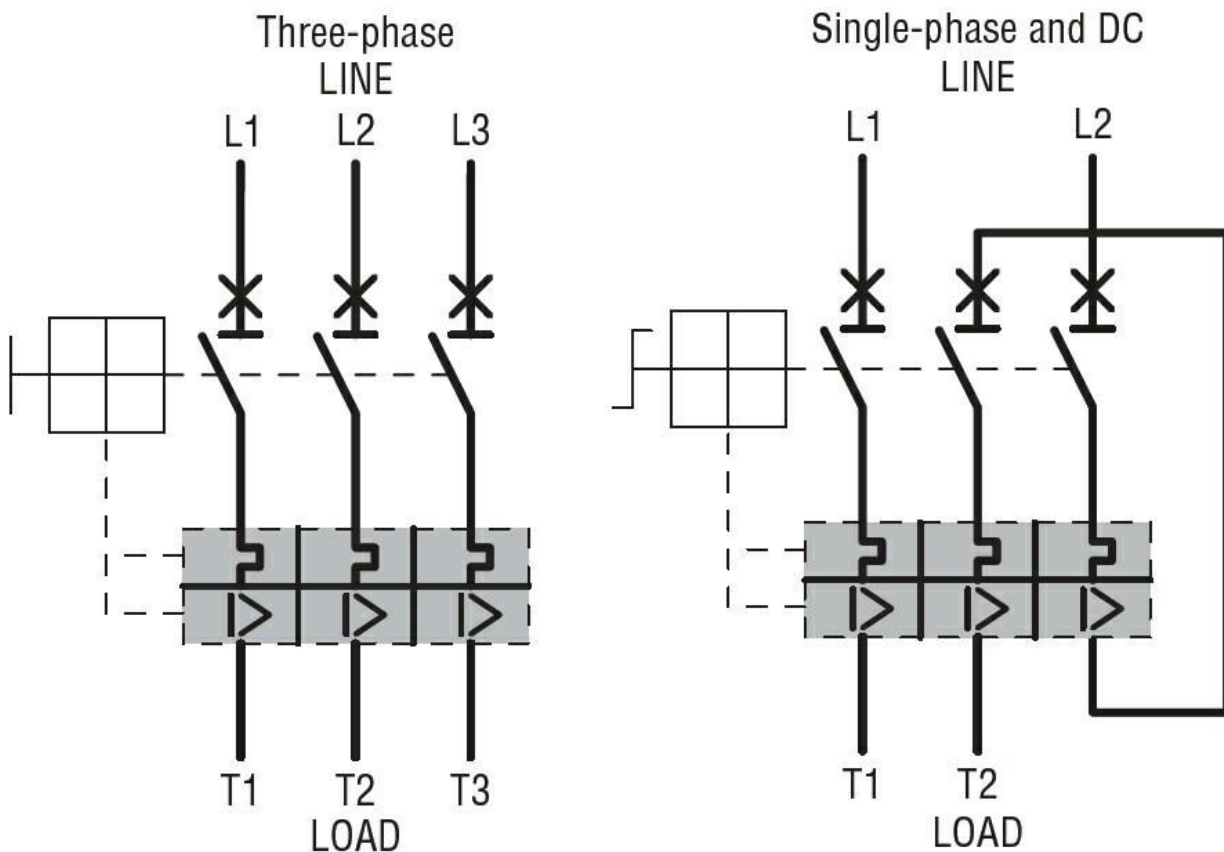
| | | | |
|--|-----|------|------|
| Tightening torque for terminals | | | |
| | min | Nm | 2.5 |
| | max | Nm | 3 |
| | min | lbin | 22 |
| | max | lbin | 26.5 |
| Max number of wires simultaneously connectable | | Nr. | 2 |
| Conductor section | | | |
| AWG/Kcmil | | | |
| | min | | 16 |
| | max | | 8 |

| | | | |
|---|--------------|-----------------|-----------------------|
| Flexible w/o lug conductor section | | | |
| | min | mm ² | 1 |
| | max | mm ² | 10 |
| Flexible c/w lug conductor section | | | |
| | min | mm ² | 1 |
| | max | mm ² | 10 |
| Flexible with insulated spade lug conductor section | | | |
| | min | mm ² | 1 |
| | max | mm ² | 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 | | Vertical plan |
| | allowable | | 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 | 1/4 |
| | 220V-240V | HP | 1/2 |
| Maximum UL/CSA horsepower ratings three-phase, 3-pole | | | |
| | 200V-208V | HP | 1.5 |
| | 220V-240V | HP | 1.5 |
| | 440V-480V | HP | 3 |
| | 550V-600V | HP | 5 |

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