



Motor protection
circuit breaker
SM3R

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 | 1000 |
| Rated impulse withstand voltage Uimp | kV | 6 |
| Rated frequency | Hz | 50/60 |
| Thermal trip adjustment range | | 70...90 |
| Rated current (In) | A | 90 |
| Magnetic tripping | | 13 x In |

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

| | | |
|------|----|-----|
| 230V | kA | 100 |
| 400V | kA | 38 |
| 440V | kA | 30 |
| 500V | kA | 6 |
| 690V | kA | 4 |

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

| | | |
|------|----|-----|
| 230V | kA | 100 |
| 400V | kA | 50 |
| 440V | kA | 40 |
| 500V | kA | 8 |
| 690V | kA | 5 |

Tripping class

10A

IEC Utilization category

A

Operations

| | | |
|-----------------|--------|-------|
| Mechanical life | cycles | 50000 |
| Electrical life | cycles | 25000 |

Mechanical features

Tightening torque for terminals

| | | |
|-----|------|-----|
| min | Nm | 4.5 |
| max | Nm | 4.5 |
| min | lbin | 4.4 |
| max | lbin | 4.4 |

Max number of wires simultaneously connectable

Nr. 2

Conductor section

AWG/Kcmil

| | |
|-----|----|
| min | 18 |
| max | 3 |

Flexible c/w lug conductor section

| | | |
|-----|-----------------|----|
| min | mm ² | 10 |
| max | mm ² | 50 |

Flexible with insulated spade lug conductor section

| | | | |
|---|--------------|-----------------|-----------|
| | min | mm ² | 10 |
| | max | mm ² | 50 |
| Screwdriver | | | Allen 4mm |
| 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 | +70 |

Storage temperature

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

Compensation temperature

| | | |
|-----|----|-----|
| min | °C | -50 |
| max | °C | +40 |

| | | | |
|--------------|--|---|------|
| Max altitude | | m | 3000 |
|--------------|--|---|------|

Operating position

| | |
|------------------|----------------------|
| normal allowable | Vertical plan Any |
|------------------|----------------------|

Fixing

Screw / DIN rail
35mm

| | | | |
|--------|--|---|------|
| Weight | | g | 2200 |
|--------|--|---|------|

UL technical data

Motor Disconnect

| | | |
|------------|----|------------|
| at 480V | kA | 40 |
| at 600V | kA | 10 |
| protection | | Fuse or CB |

Group Motor Installation

| | | |
|------------|----|------------|
| at 480V | kA | 40 |
| at 600V | kA | 10 |
| protection | | Fuse or CB |

Tap Conductor Protection

| | | |
|--------------|----|----|
| at 480Y/277V | kA | 40 |
| at 600Y/347V | kA | 10 |

UL508 / UL 60947-4-1 Manual Self Protected Combination Motor Controller (Type E) Short circuit current

| | | |
|--------------|----|-----|
| at 240V | kA | 100 |
| at 480Y/277V | kA | 40 |

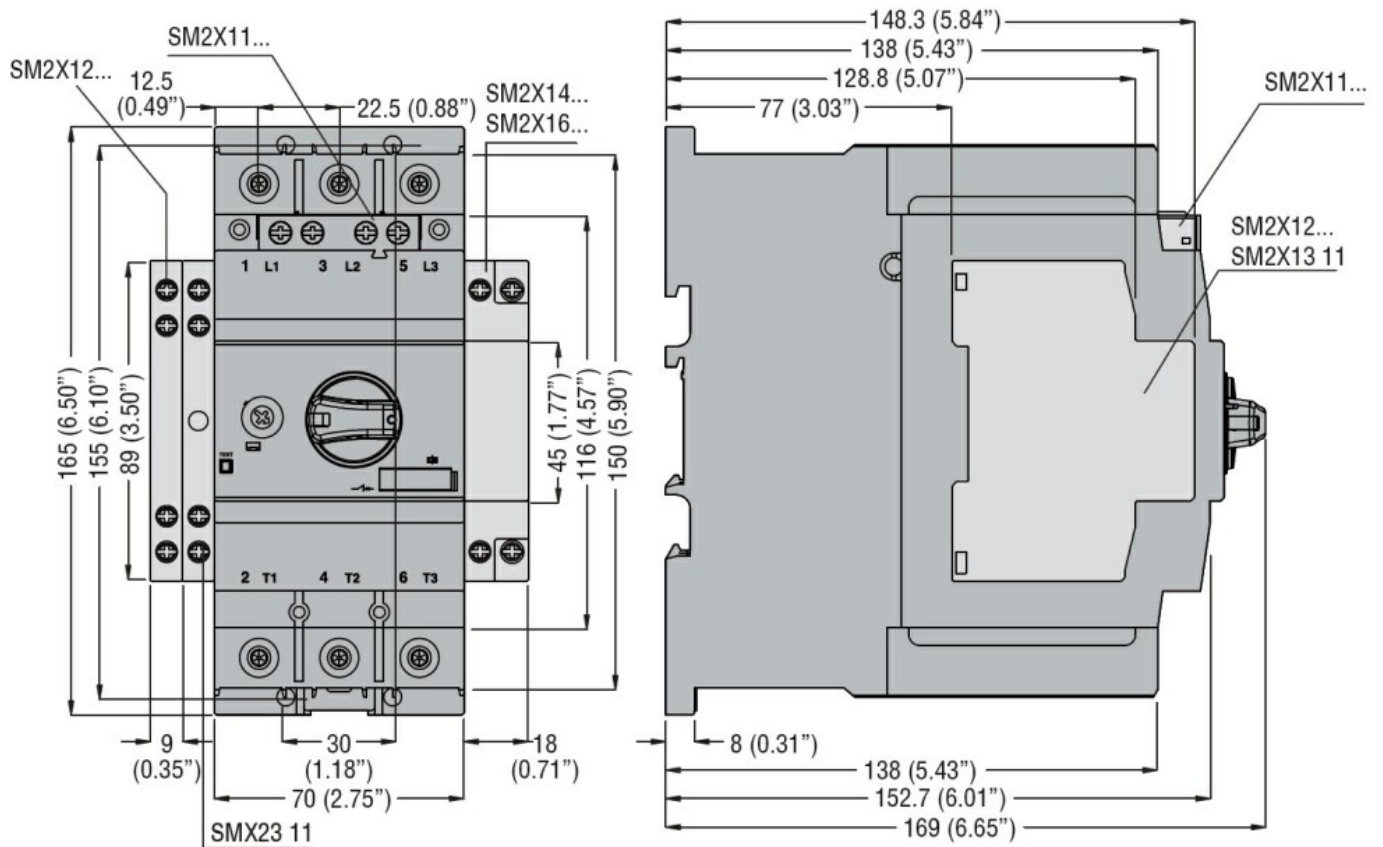
Maximum UL/CSA horsepower ratings single-phase

| | | |
|-----------|----|----|
| 110V-120V | HP | 7½ |
| 220V-240V | HP | 20 |

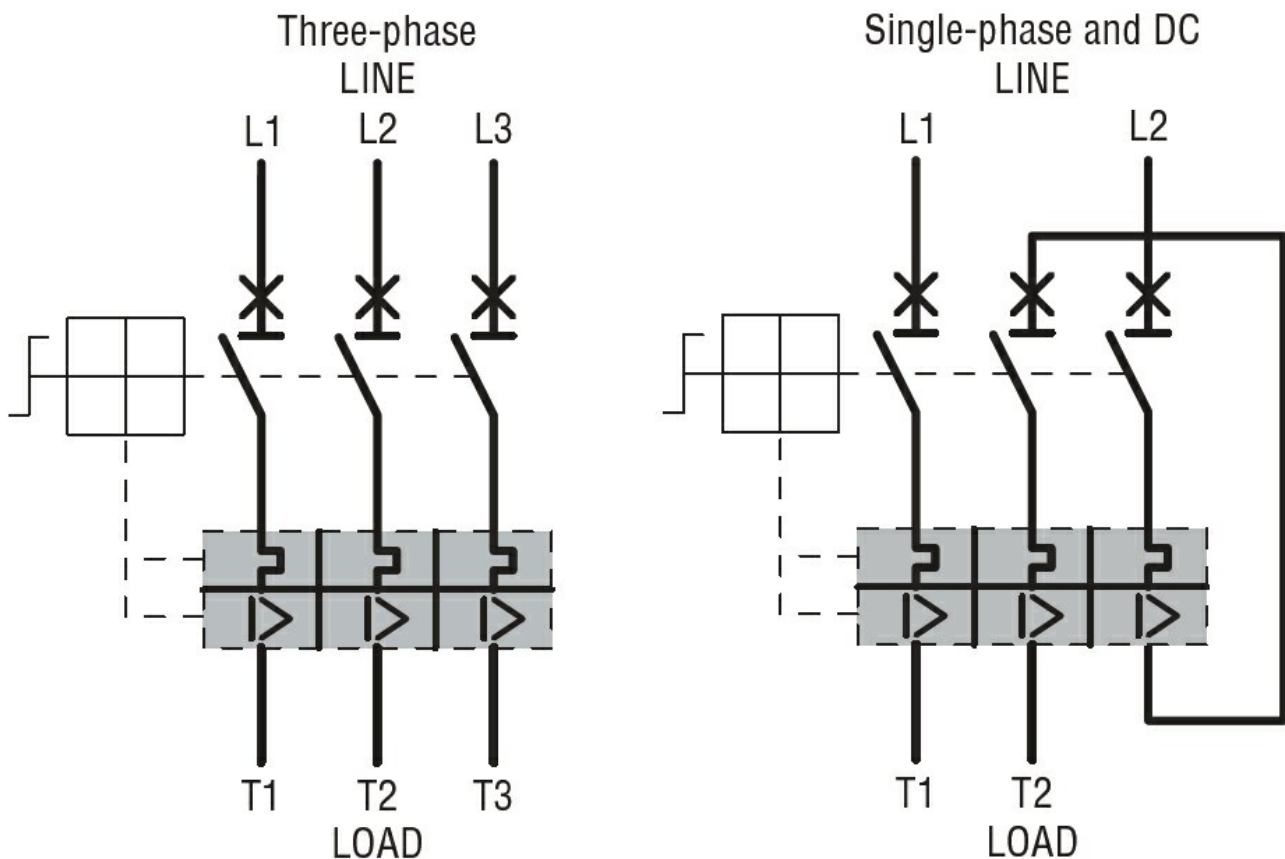
Maximum UL/CSA horsepower ratings three-phase, 3-pole

| | | |
|-----------|----|----|
| 200V-208V | HP | 25 |
| 220V-240V | HP | 30 |
| 440V-480V | HP | 60 |
| 550V-600V | HP | 75 |

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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