



Motor protective 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 U_i IEC/EN | V | 1000 |
| Rated impulse withstand voltage U_{imp} | kV | 6 |
| Rated frequency | Hz | 50/60 |
| Thermal trip adjustment range | | 80...100 |
| Rated current (I_n) | A | 100 |
| Magnetic tripping | | 13 x I_n |

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

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

Maximum short-circuit current breaking capacity (I_{cu}) 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 | Vertical plan |
| allowable | 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

| | |
|--|------------------------------|
| UL508 / UL 60947-4-1 Manual Self Protected Combination Motor Controller (Type E) | Short-circuit current at 240 |
| UL508 / UL 60947-4-1 Manual Self Protected Combination Motor Controller (Type E) | Short-circuit current at 480 |

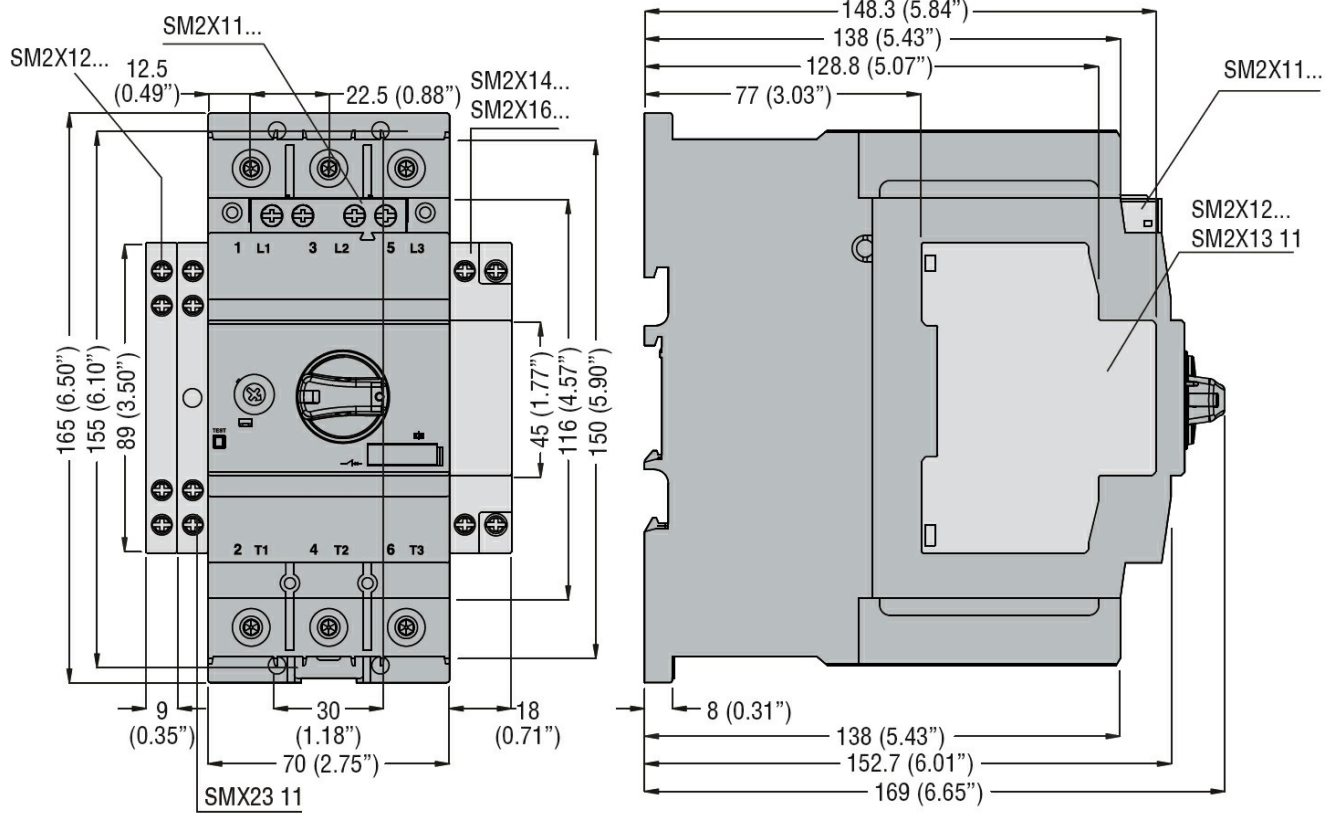
Maximum UL/CSA horsepower ratings single-phase

| | | |
|-----------|----|----|
| 110V-120V | hp | 10 |
| 220V-240V | hp | 20 |

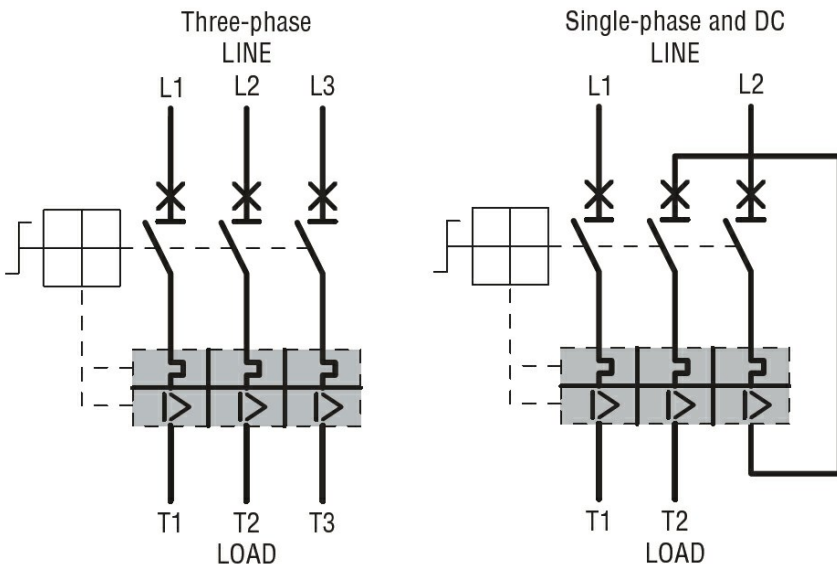
Maximum UL/CSA horsepower ratings three-phase, 3-pole

| | | |
|-----------|----|-----|
| 200V-208V | hp | 30 |
| 220V-240V | hp | 30 |
| 440V-480V | hp | 75 |
| 550V-600V | hp | 100 |

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