



Motor protective circuit breaker  
SM1R

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		2.5...4
Rated current ( $I_n$ )	A	4
Magnetic tripping		13 x $I_n$
Total power dissipation	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 10

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

230V	kA	100
400V	kA	100
440V	kA	100
500V	kA	100
690V	kA	10

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	1.8
max	lbin	2.2

Max number of wires simultaneously connectable

2

Conductor section

AWG/Kcmil

min	16
max	8

Flexible w/o lug conductor section

min	mm <sup>2</sup>	1
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Flexible c/w lug conductor section

min	mm <sup>2</sup>	1
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Flexible with insulated spade lug conductor section

min	mm <sup>2</sup>	1
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Screwdriver

PH2

Power terminal protection according to IEC/EN 60529

IP20

Cable stripping length

main circuit	mm	1
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**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
	Screw / DIN rail 35mm

Fixing

Weight

g 390

**UL technical data**

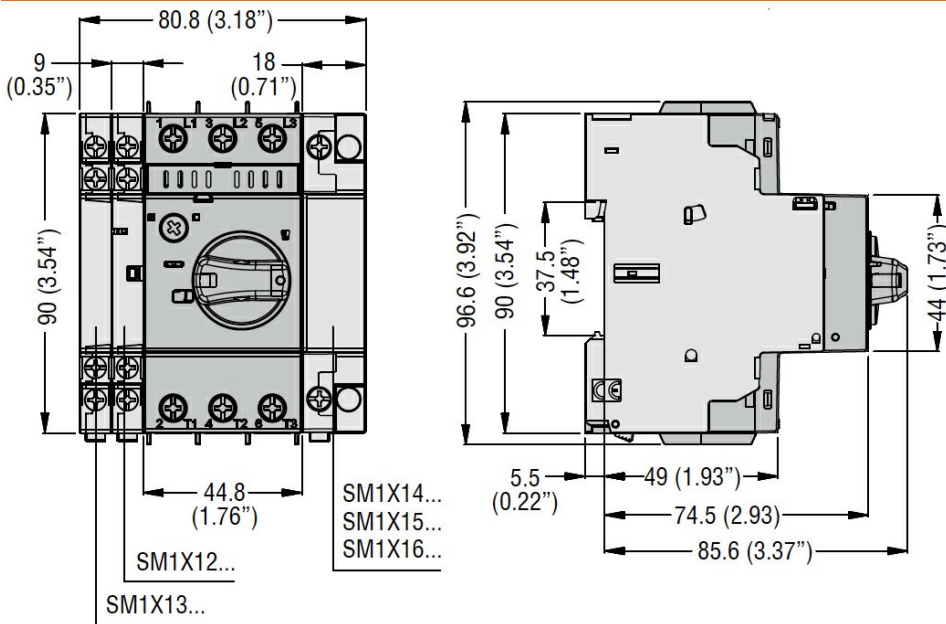
UL508 / UL60947-4-1 Manual Motor Controller - Short circuit current

Motor Disconnect

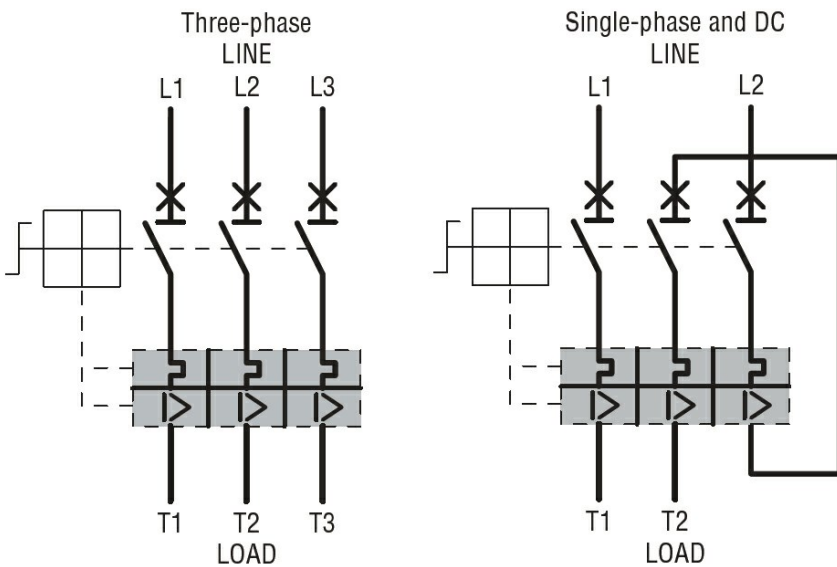
at 480V	kA	30
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Group Motor Installation	at 600V protection	kA	30 Fuse or CB
Tap Conductor Protection	at 480V	kA	30
	at 600V protection	kA	30 Fuse or CB
UL508 / UL 60947-4-1 Manual Self Protected Combination Motor Controller (Type E) Short circuit current	at 480Y/277V	kA	30
	at 600Y/347V	kA	30
Maximum UL/CSA horsepower ratings single-phase	at 110V-120V	hp	1/8
	at 220V-240V	hp	1/3
	at 200V-208V	hp	3/4
Maximum UL/CSA horsepower ratings three-phase, 3-pole	at 220V-240V	hp	3/4
	at 440V-480V	hp	2
	at 550V-600V	hp	3
	UL508 / UL 60947-4-1 Manual Self Protected Combination Motor Controller (Type E) Short-circuit current at 240	kA	30
UL508 / UL 60947-4-1 Manual Self Protected Combination Motor Controller (Type E) Short-circuit current at 480	kA	30	
UL508 / UL 60947-4-1 Manual Self Protected Combination Motor Controller (Type E) Short-circuit current at 600	kA	30	

**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 6 classification	