



Motor protection  
circuit breaker  
SM2R

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		34...50
Rated current ( $I_n$ )	A	50
Magnetic tripping		13 x $I_n$
Power dissipation per pole		

max W 7

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

230V	kA	100
400V	kA	50
440V	kA	27
500V	kA	8
690V	kA	5

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

230V	kA	100
400V	kA	50
440V	kA	35
500V	kA	10
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	3.3
max	lbin	3.3

Max number of wires simultaneously connectable

Nr. 2

Conductor section

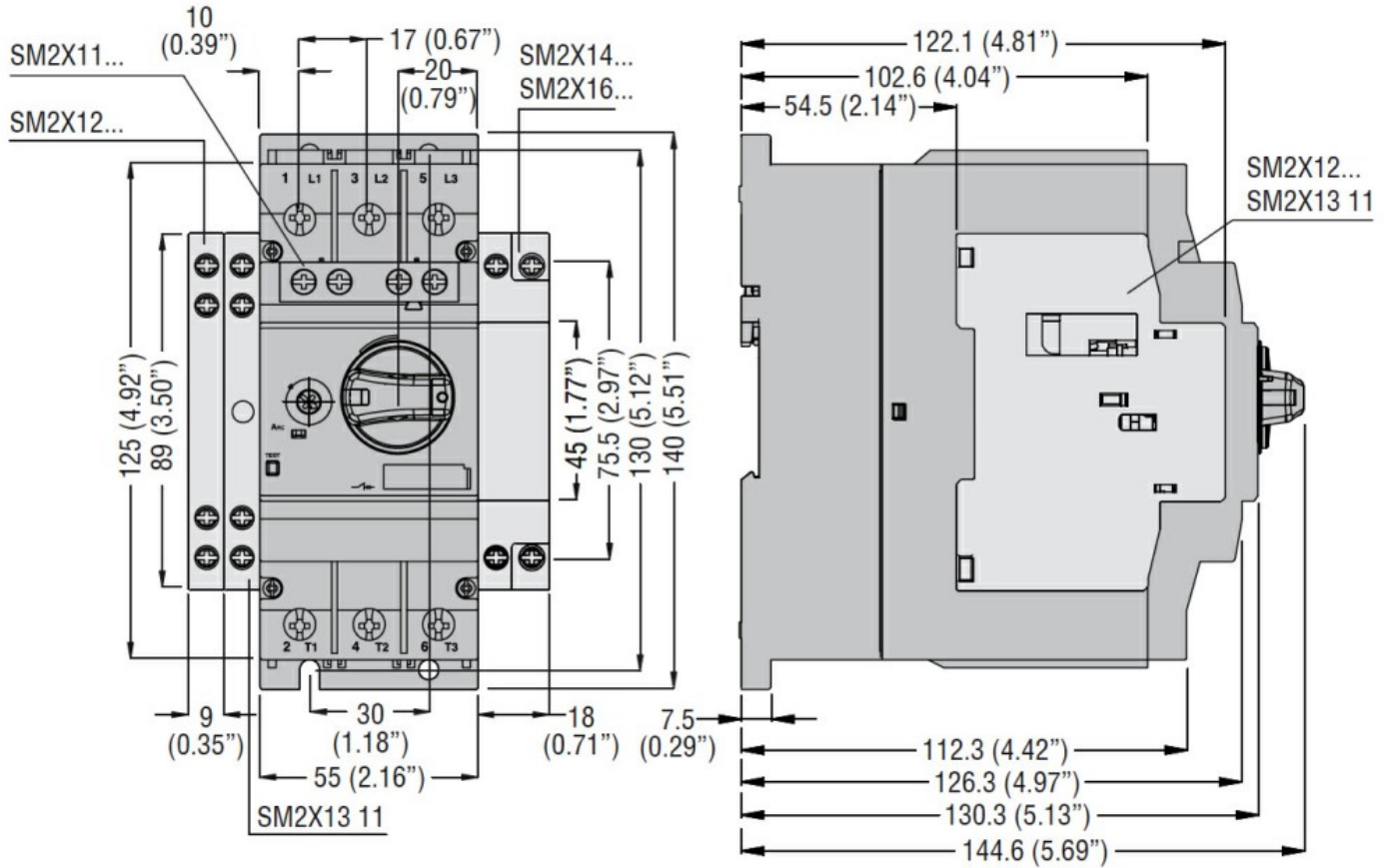
AWG/Kcmil

min	18
max	3

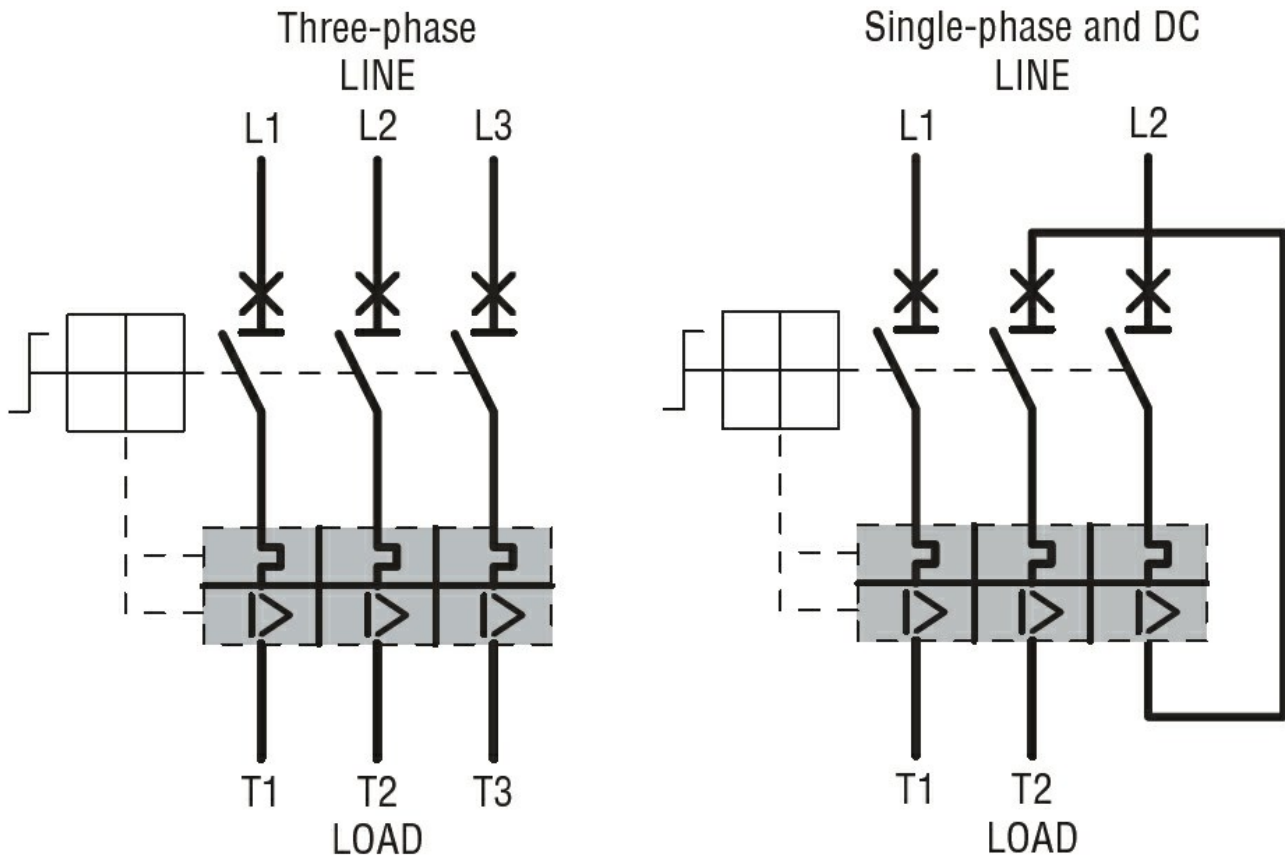
Flexible w/o lug conductor section

	min	mm <sup>2</sup>	0.75
	max	mm <sup>2</sup>	25
Flexible c/w lug conductor section			
	min	mm <sup>2</sup>	0.75
	max	mm <sup>2</sup>	25
Flexible with insulated spade lug conductor section			
	min	mm <sup>2</sup>	0.75
	max	mm <sup>2</sup>	25
Screwdriver			PZ2
Power terminal protection according to IEC/EN 60529			IP20
Cable stripping length			
	main circuit	mm	1
<b>Ambient conditions</b>			
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 1000
<b>UL technical data</b>			
Motor Disconnect			
	at 480V	kA	50
	at 600V	kA	10
	protection		Fuse or CB
Group Motor Installation			
	at 480V	kA	50
	at 600V	kA	10
	protection		Fuse or CB
Tap Conductor Protection			
	at 480Y/277V	kA	50
	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	50
Maximum UL/CSA horsepower ratings single-phase			
	110V-120V	HP	3
	220V-240V	HP	10
Maximum UL/CSA horsepower ratings three-phase, 3-pole			
	200V-208V	HP	15
	220V-240V	HP	15
	440V-480V	HP	30
	550V-600V	HP	40

Dimensions [mm (in)]



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