Lovato electric
ENERGY AND AUTOMATION

SM1P0250

MOTOR PROTECTION CIRCUIT BREAKER, IEC BREAKING CAPACITY ICU 100KA AT 400V, 1.6...2.5A

Product designation			Motor protective circuit breaker
Product type designation			SM1P
Electrical features			
Number of poles		nr.	3
Magnetic protection			yes
Thermal protection			yes
Phase failure detection			Yes
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Rated frequency		Hz	50/60
Thermal trip adjustment range			1.6…2.5
Rated current (In)		A	2.5
Magnetic tripping			13 x In
Total power dissipation		W	1.63
Operational short-circuit current breaking capacity (Ics) at AC			
	230V	kA	100
	400V	kA	100
	440V	kA	100
	500V	kA	100
	690V	kA	3
Maximum short-circuit current breaking capacity (Icu) 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	1.8
	max	lbin	2.2
Max number of wires simultaneously connectable		nr.	2
Conductor section			
AWG/Kcmil			
	min		16
	max		8
Flexible w/o lug conductor section			
	min	mm²	1

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Flexible c/w lug conductor section			
	min	mm²	1
Flexible with insulated spade lug conductor section			
	min	mm²	1
Screwdriver			PH2
Power terminal protection according to IEC/EN 60529			IP20
Cable stripping lenght			
	main circuit	mm	1

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
UL508 / UL 60947-4-1 Manual Self Protected Combination Motor Controller (Type E) Short circuit current			
	at 240V	kA	50
	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

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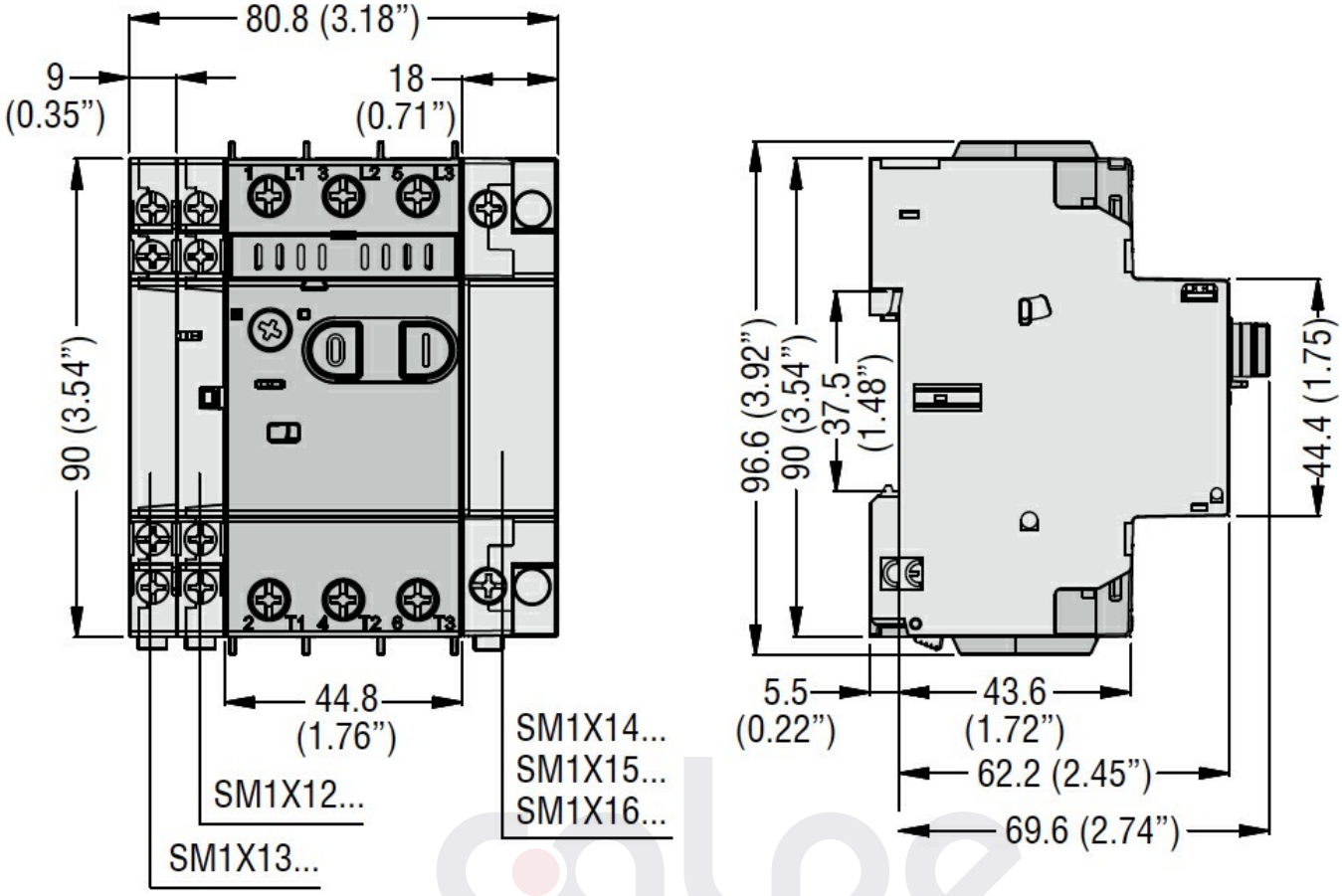
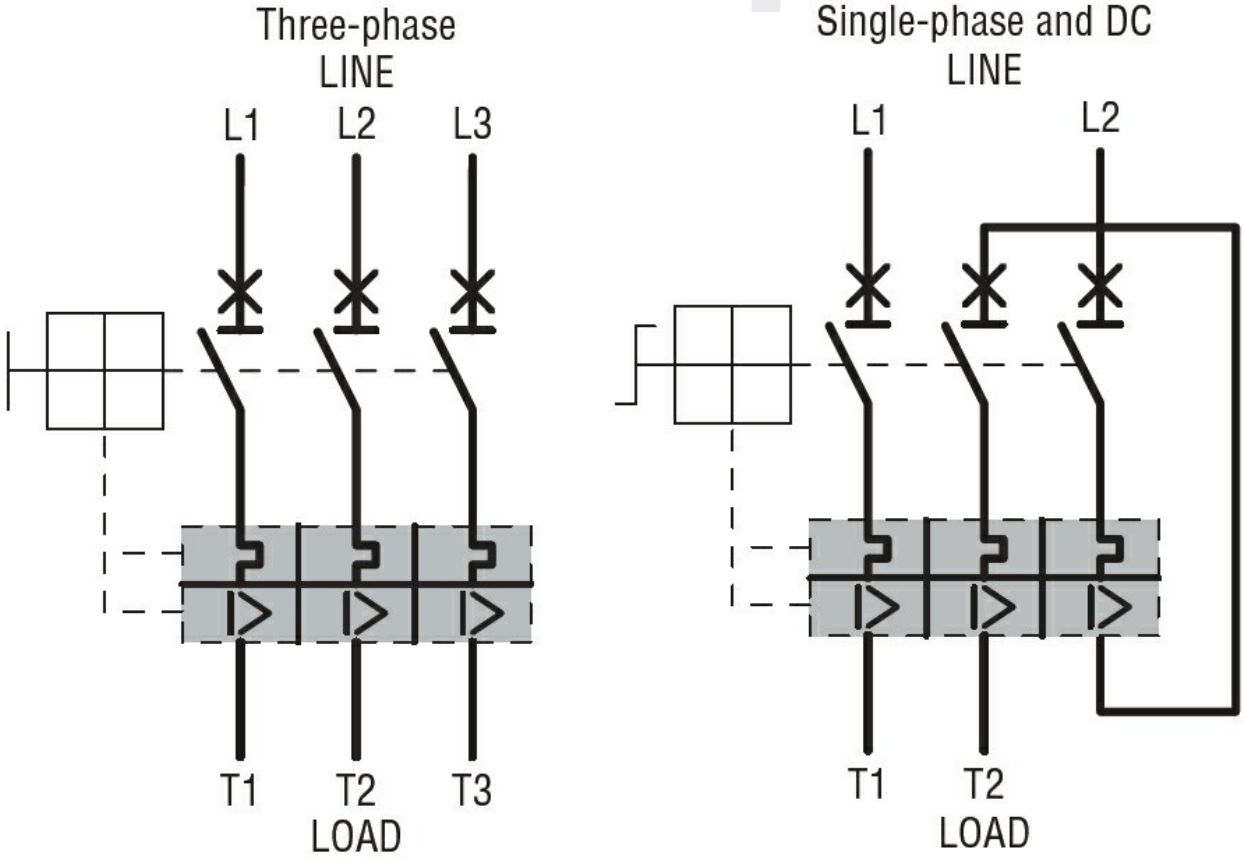


Wiring diagrams



Certifications and compliance

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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