ENERGY AND AUTOMATION

MOTOR PROTECTION CIRCUIT BREAKER TYPE E, IEC BREAKING CAPACITY ICU 100KA AT 400V, 2.5...4A

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Product designation

Motor protection circuit breaker

Product type designation

SM1R

Product type designation			SM1R
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			2.54
Rated current (In)		Α	4
Magnetic tripping			13 x In
Total power dissipation		W	2.29
Operational short-circuit current breaking capacity (Ics) at AC			
	230V	kA	100
	400V	kA	100
	440V	kA	100
	500V	kA	100
	690V	kA	10
Maximum short-circuit current breaking capacity (Icu) at AC			
	230V	kA	100
	400V	kA	100
	440V	kA	100
	500V	kA	100
	690V	kA	10
Tripping class			10A
IEC Utilization category			Α
Operations			
Mechanical life		cycles	100000
Electrical life		cycles	100000
Mechanical features			
Tightening torque for terminals			
	min	Nm	2.5
	max	Nm	3
	min	lbin	22
	max	lbin	26.5
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

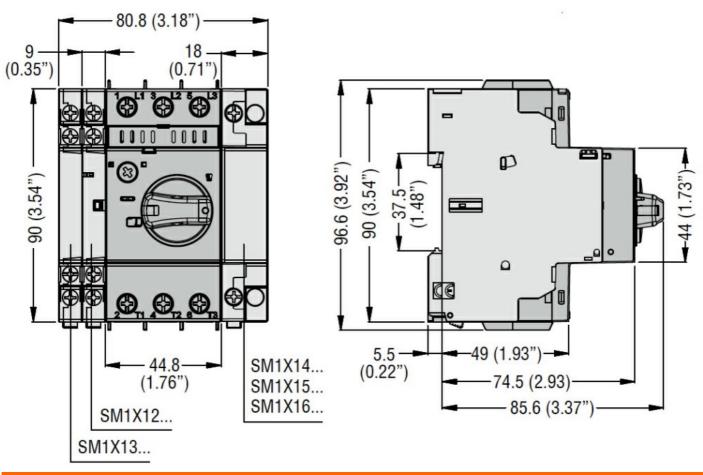
electric MOTOR PROTECTION CIRCUIT BREAKER TYPE E, IEC BREAKING CAPACITY ICU 100KA AT 400V, 2.5...4A

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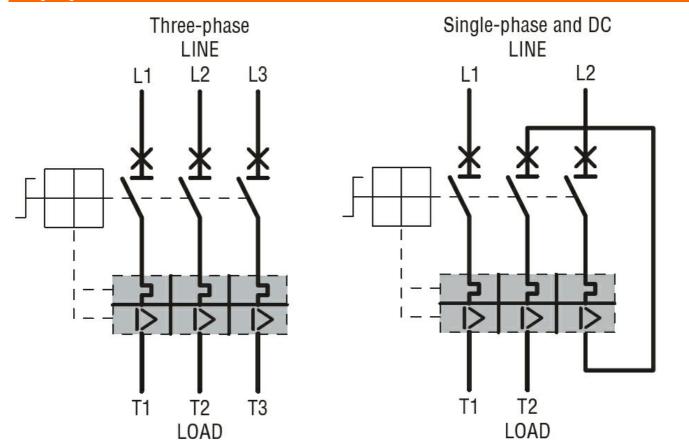
	Flexible c/w lug conductor section			
		min	mm²	1
	Flexible with insulated spade lug conductor section			
	·	min	mm²	1
Screwdriver				PH2
Power terminal protect	tion according to IEC/EN 60529			IP20
Cable stripping lenght				
11 0 0		main circuit	mm	1
Ambient conditions				
Temperature				
'	Operating temperature			
	21 2 2 3 2 1 2 2 2 2	min	°C	-20
		max	°C	+60
	Storage temperature			
	σ.σ.σ. σ .σ.σ.	min	°C	-50
		max	°C	+80
	Compensation temperature			
		min	°C	-20
		max	°C	+50
Max altitude		max	m	3000
Operating position				
Operating position		normal		Vertical plan
		allowable		Any
		allowable		Screw / DIN rail
Fixing				35mm
Maight			g	390
Weight			9	390
UL technical data			9	390
		at 480V		
UL technical data		at 480V	kA	30
UL technical data		at 600V		30 30
UL technical data Motor Disconnect	nn		kA	30
UL technical data	on	at 600V protection	kA kA	30 30 Fuse or CB
UL technical data Motor Disconnect	on	at 600V protection at 480V	kA kA	30 30 Fuse or CB
UL technical data Motor Disconnect	on	at 600V protection at 480V at 600V	kA kA	30 30 Fuse or CB 30 30
UL technical data Motor Disconnect Group Motor Installation		at 600V protection at 480V	kA kA	30 30 Fuse or CB
UL technical data Motor Disconnect	tion	at 600V protection at 480V at 600V protection	kA kA kA kA	30 30 Fuse or CB 30 30 Fuse or CB
UL technical data Motor Disconnect Group Motor Installation	tion a	at 600V protection at 480V at 600V protection at 480Y/277V	kA kA kA kA	30 30 Fuse or CB 30 30 Fuse or CB
UL technical data Motor Disconnect Group Motor Installation Tap Conductor Protect	tion a a	at 600V protection at 480V at 600V protection at 480Y/277V at 600Y/347V	kA kA kA kA	30 30 Fuse or CB 30 30 Fuse or CB
UL technical data Motor Disconnect Group Motor Installation Tap Conductor Protect	tion a	at 600V protection at 480V at 600V protection at 480Y/277V at 600Y/347V Type E) Short of	kA kA kA kA kA	30 30 Fuse or CB 30 30 Fuse or CB 30 30
UL technical data Motor Disconnect Group Motor Installation Tap Conductor Protect	tion a a Manual Self Protected Combination Motor Controller (1	at 600V protection at 480V at 600V protection at 480Y/277V at 600Y/347V Type E) Short of at 240V	kA kA kA kA circuit cui	30 30 Fuse or CB 30 30 Fuse or CB 30 30 rrent 30
UL technical data Motor Disconnect Group Motor Installation Tap Conductor Protect	tion a a a Manual Self Protected Combination Motor Controller (1	at 600V protection at 480V at 600V protection at 480Y/277V at 600Y/347V Type E) Short of at 240V at 480Y/277V	kA kA kA kA circuit cui	30 30 Fuse or CB 30 30 Fuse or CB 30 30 Trent 30 30
UL technical data Motor Disconnect Group Motor Installation Tap Conductor Protect UL508 / UL 60947-4-1	tion a a a Manual Self Protected Combination Motor Controller (1	at 600V protection at 480V at 600V protection at 480Y/277V at 600Y/347V Type E) Short of at 240V	kA kA kA kA circuit cui	30 30 Fuse or CB 30 30 Fuse or CB 30 30 rrent 30
UL technical data Motor Disconnect Group Motor Installation Tap Conductor Protect UL508 / UL 60947-4-1	tion a a a Manual Self Protected Combination Motor Controller (1	at 600V protection at 480V at 600V protection at 480Y/277V at 600Y/347V Type E) Short of at 240V at 480Y/277V at 600Y/347V	kA kA kA kA circuit cur kA kA	30 30 Fuse or CB 30 30 Fuse or CB 30 30 Trent 30 30 30
UL technical data Motor Disconnect Group Motor Installation Tap Conductor Protect UL508 / UL 60947-4-1	tion a a a Manual Self Protected Combination Motor Controller (1	at 600V protection at 480V at 600V protection at 480Y/277V at 600Y/347V Type E) Short of at 240V at 480Y/277V at 600Y/347V 110V-120V	kA kA kA kA circuit cui kA kA	30 30 Fuse or CB 30 30 Fuse or CB 30 30 Trent 30 30 30
UL technical data Motor Disconnect Group Motor Installation Tap Conductor Protect UL508 / UL 60947-4-1 Maximum UL/CSA hor	tion A a a a a a a a a a a a a a a a a a a	at 600V protection at 480V at 600V protection at 480Y/277V at 600Y/347V Type E) Short of at 240V at 480Y/277V at 600Y/347V	kA kA kA kA circuit cur kA kA	30 30 Fuse or CB 30 30 Fuse or CB 30 30 Trent 30 30 30
UL technical data Motor Disconnect Group Motor Installation Tap Conductor Protect UL508 / UL 60947-4-1 Maximum UL/CSA hor	tion a a a Manual Self Protected Combination Motor Controller (1	at 600V protection at 480V at 600V protection at 480Y/277V at 600Y/347V Type E) Short of at 240V at 480Y/277V at 600Y/347V 110V-120V 220V-240V	kA kA kA kA circuit cur kA kA HP	30 30 Fuse or CB 30 30 Fuse or CB 30 30 rrent 30 30 30 1/8 1/3
UL technical data Motor Disconnect Group Motor Installation Tap Conductor Protect UL508 / UL 60947-4-1 Maximum UL/CSA hor	tion A a a a a a a a a a a a a a a a a a a	at 600V protection at 480V at 600V protection at 480Y/277V at 600Y/347V Type E) Short of at 240V at 600Y/347V 110V-120V 220V-240V 200V-208V	kA kA kA kA circuit cui kA kA kA HP HP	30 30 Fuse or CB 30 30 Fuse or CB 30 30 Trent 30 30 30 1/8 1/3
UL technical data Motor Disconnect Group Motor Installation Tap Conductor Protect UL508 / UL 60947-4-1 Maximum UL/CSA hor	tion A a a a a a a a a a a a a a a a a a a	at 600V protection at 480V at 600V protection at 480Y/277V at 600Y/347V Type E) Short of at 240V at 480Y/277V at 600Y/347V 110V-120V 220V-240V 200V-208V 220V-240V	kA kA kA kA circuit cuit kA kA HP HP	30 30 Fuse or CB 30 30 Fuse or CB 30 30 7rent 30 30 30 1/8 1/3
UL technical data Motor Disconnect Group Motor Installation Tap Conductor Protect UL508 / UL 60947-4-1 Maximum UL/CSA hor	tion A a a a a a a a a a a a a a a a a a a	at 600V protection at 480V at 600V protection at 480Y/277V at 600Y/347V Type E) Short of at 240V at 480Y/277V at 600Y/347V 110V-120V 220V-240V 200V-208V 220V-240V 440V-480V	kA kA kA kA circuit cuit kA kA HP HP HP	30 30 Fuse or CB 30 30 Fuse or CB 30 30 orrent 30 30 30 1/8 1/3
UL technical data Motor Disconnect Group Motor Installation Tap Conductor Protect UL508 / UL 60947-4-1 Maximum UL/CSA hor	tion A a a a a a a a a a a a a a a a a a a	at 600V protection at 480V at 600V protection at 480Y/277V at 600Y/347V Type E) Short of at 240V at 480Y/277V at 600Y/347V 110V-120V 220V-240V 200V-208V 220V-240V	kA kA kA kA circuit cuit kA kA HP HP	30 30 Fuse or CB 30 30 Fuse or CB 30 30 7rent 30 30 30 1/8 1/3



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Wiring diagrams





SM1R0400

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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