



Contact characteristics

Number of poles	Nr.	3
Rated insulation voltage U _i IEC/EN	V	690
Rated impulse withstand voltage U _{imp}	kV	6
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I _{th} ≤ 40°C	A	20
Operational current I _e	AC-1 (≤40°C)	A 20
	AC-1 (≤55°C)	A 18
	AC-1 (≤70°C)	A 15
	AC-3 (≤440V ≤55°C)	A 9
	AC-4 (400V)	A 4
Rated operational power AC-3 (T≤55°C)	230V	kW 2.2
	400V	kW 4
	415V	kW 4.3
	440V	kW 4.5
	500V	kW 5
	690V	kW 5
Rated operational power AC-1 (T≤40°C)	230V	kW 8
	400V	kW 14
	500V	kW 16
	690V	kW 22
IEC max current I _e in DC1 with L/R ≤ 1ms with 1 poles in series	≤24V	A 12
	48V	A 10
	75V	A 4
	110V	A 3
	220V	A –
IEC max current I _e in DC1 with L/R ≤ 1ms with 2 poles in series	≤24V	A 15
	48V	A 14
	75V	A 9
	110V	A 8
	220V	A –
IEC max current I _e in DC1 with L/R ≤ 1ms with 3 poles in series	≤24V	A 16
	48V	A 16
	75V	A 10
	110V	A 10
	220V	A 2
IEC max current I _e in DC1 with L/R ≤ 1ms with 4 poles in series		

	≤24V	A	16
	48V	A	16
	75V	A	10
	110V	A	10
	220V	A	2
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IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	≤24V	A	7
	48V	A	6
	75V	A	2
	110V	A	1
	220V	A	–
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IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	≤24V	A	8
	48V	A	8
	75V	A	5
	110V	A	4
	220V	A	–
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IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V	A	10
	48V	A	10
	75V	A	6
	110V	A	5
	220V	A	0,8
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IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	A	10
	48V	A	10
	75V	A	6
	110V	A	5
	220V	A	0,8
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Short-time allowable current for 10s (IEC/EN60947-1)		A	96
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Protection fuse	gG (IEC)	A	20
	aM (IEC)	A	10
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Making capacity (RMS value)		A	92
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Breaking capacity at voltage	440V	A	72
	500V	A	72
	690V	A	72
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Resistance per pole (average value)		mΩ	10
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Power dissipation per pole (average value)	I _{th}	W	4
	AC-3	W	0.81
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Tightening torque for terminals	min	Nm	0.8
	max	Nm	1
	min	I _{bin}	9
	max	I _{bin}	9
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Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	I _{bin}	9
	max	I _{bin}	9
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Max number of wires simultaneously connectable		Nr.	2

Conductor section			
AWG/Kcmil		max	12
Flexible w/o lug conductor section			
		min	mm ² 0.75
		max	mm ² 2.5
Flexible c/w lug conductor section			
		min	mm ² 1.5
		max	mm ² 2.5
Flexible with insulated spade lug conductor section			
		min	mm ² 1.5
		max	mm ² 2.5
Power terminal protection according to IEC/EN 60529			IP20 when properly wired
Mechanical features			
Operating position			
		normal allowable	Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight			g 201
Auxiliary contact characteristics			
Thermal current I _{th}			A 10
IEC/EN 60947-5-1 designation			A600 - Q600
Operating current AC15			
	230V	A	3
	400V	A	1.9
	500V	A	1.4
Operating current DC12			
	110V	A	2.9
Operating current DC13			
	24V	A	2.9
	48V	A	1.4
	60V	A	1.2
	110V	A	0.6
	125V	A	0.55
	220V	A	0.3
	600V	A	0.1
Operations			
Mechanical life			cycles 20000000
Electrical life			cycles 500000
Safety related data			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	500000
	mechanical load	cycles	20000000
EMC compatibility			yes
DC coil operating			
DC rated control voltage			V 48
DC operating voltage			
pick-up			
	min	%Us	75
	max	%Us	115
drop-out			

		min	%Us	10
		max	%Us	25
Average coil consumption ≤20°C				
		in-rush	W	2.3
		holding	W	2.3
Max cycles frequency				
Mechanical operation				cycles/h 3600
Operating times				
Average time for Us control				
	in AC			
		Closing NO		
		min	ms	12
		max	ms	21
		Opening NO		
		min	ms	9
		max	ms	18
		Closing NC		
		min	ms	17
		max	ms	26
		Opening NC		
		min	ms	7
		max	ms	17
	in DC			
		Closing NO		
		min	ms	18
		max	ms	25
		Opening NO		
		min	ms	2
		max	ms	3
		Closing NC		
		min	ms	3
		max	ms	5
		Opening NC		
		min	ms	11
		max	ms	17
UL technical data				
Rated operational voltage AC (UL)				V 600
Full-load current (FLA) for three-phase AC motor				
		at 480V	A	7.6
		at 600V	A	6.1
Yielded mechanical performance				
	for single-phase AC motor			
		110/120V	HP	0.5
		230V	HP	1.5
	for three-phase AC motor			
		200/208V	HP	2
		220/240V	HP	3
		460/480V	HP	5
		575/600V	HP	5
General USE				
	Contactor			
		AC current	A	20
Short-circuit protection fuse, 600V				
	High fault			

Short circuit current	kA	100
Fuse rating	A	30
Fuse class		J

Standard fault

Short circuit current	kA	5
Fuse rating	A	30
Fuse class		RK5

Contact rating of auxiliary contacts according to UL

A600 - Q600

Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	+70

Storage temperature

min	°C	-60
max	°C	+80

Max altitude

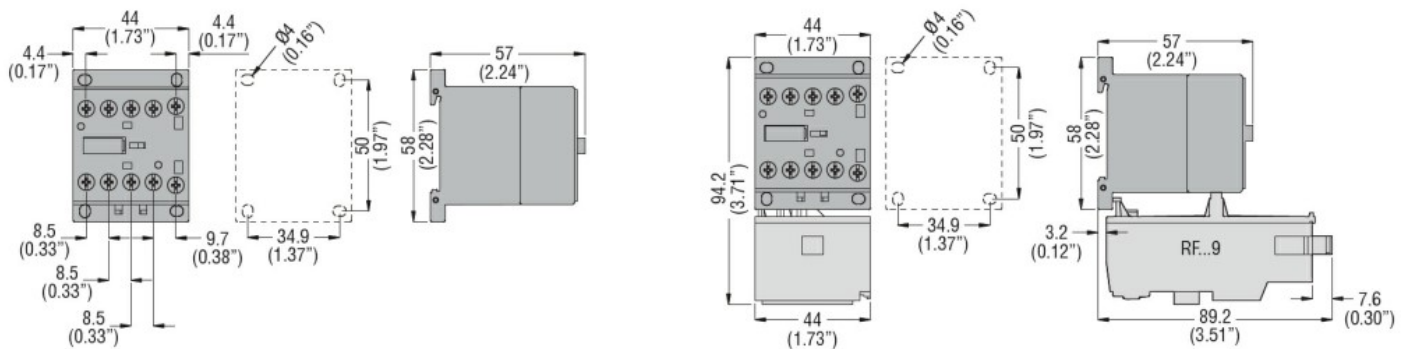
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Resistance & Protection

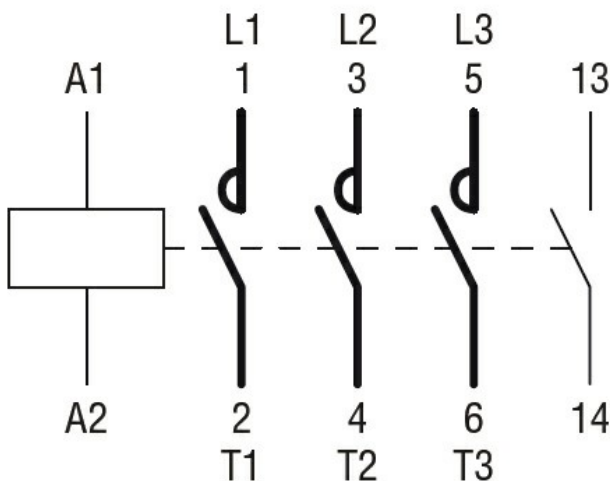
Pollution degree

3

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60335-2-89

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

CSA C22.2 n. 60335-2-40:22 LZGH A2L

CSA C22.2 No. 60335-2-89:21 LZGH A2L

cULus

EAC

UL 60335-2-40 LZGH A2L

UL 60335-2-89 LZGH A2L

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching