



### 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 $I_{th} \leq 40^\circ\text{C}$	A	16
Operational current $I_e$	AC-1 ( $\leq 40^\circ\text{C}$ )	A 16
	AC-1 ( $\leq 55^\circ\text{C}$ )	A 14
	AC-1 ( $\leq 70^\circ\text{C}$ )	A 12
	AC-3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ )	A 6
	AC-4 (400V)	A 3.3
Rated operational power AC-3 ( $T \leq 55^\circ\text{C}$ )	230V	kW 1.5
	400V	kW 2.2
	415V	kW 2.4
	440V	kW 2.5
	500V	kW 3
	690V	kW 3
Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )	230V	kW 6
	400V	kW 10
	500V	kW 13
	690V	kW 18
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A 9
	48V	A 8
	75V	A 4
	110V	A 3
	220V	A -
	IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	$\leq 24\text{V}$
48V		A 11
75V		A 7
110V		A 6
220V		A -
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series		$\leq 24\text{V}$
	48V	A 14
	75V	A 8
	110V	A 8
	220V	A 1
	IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series	

	≤24V	A	–
	48V	A	–
	75V	A	–
	110V	A	–
	220V	A	–
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	≤24V	A	6
	48V	A	5
	75V	A	2
	110V	A	1
	220V	A	–
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	≤24V	A	7
	48V	A	7
	75V	A	4
	110V	A	3
	220V	A	–
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V	A	9
	48V	A	9
	75V	A	5
	110V	A	4
	220V	A	0,5
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IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	A	–
	48V	A	–
	75V	A	–
	110V	A	–
	220V	A	–
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Short-time allowable current for 10s (IEC/EN60947-1)		A	96
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Protection fuse	gG (IEC)	A	16
	aM (IEC)	A	6
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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)	Ith	W	2.6
	AC-3	W	0.36
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Tightening torque for terminals	min	Nm	0.8
	max	Nm	1
	min	Ibin	9
	max	Ibin	9
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Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	Ibin	9
	max	Ibin	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 <sup>2</sup>	0.75
	max	mm <sup>2</sup>	2.5
Flexible c/w lug conductor section	min	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	2.5
Flexible with insulated spade lug conductor section	min	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	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      230

**Auxiliary contact characteristics**

Thermal current I<sub>th</sub>

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
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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      24

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	3.2
		holding	W	3.2
<b>Max cycles frequency</b>				
Mechanical operation				cycles/h 3600
<b>Operating times</b>				
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
<b>UL technical data</b>				
Rated operational voltage AC (UL)				V 600
Full-load current (FLA) for three-phase AC motor				
		at 480V	A	4.8
		at 600V	A	3.9
Yielded mechanical performance				
	for single-phase AC motor			
		110/120V	HP	0.3
		230V	HP	1
	for three-phase AC motor			
		200/208V	HP	1.5
		220/240V	HP	2
		460/480V	HP	3
		575/600V	HP	3
General USE				
	Contactor			
		AC current	A	16
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

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

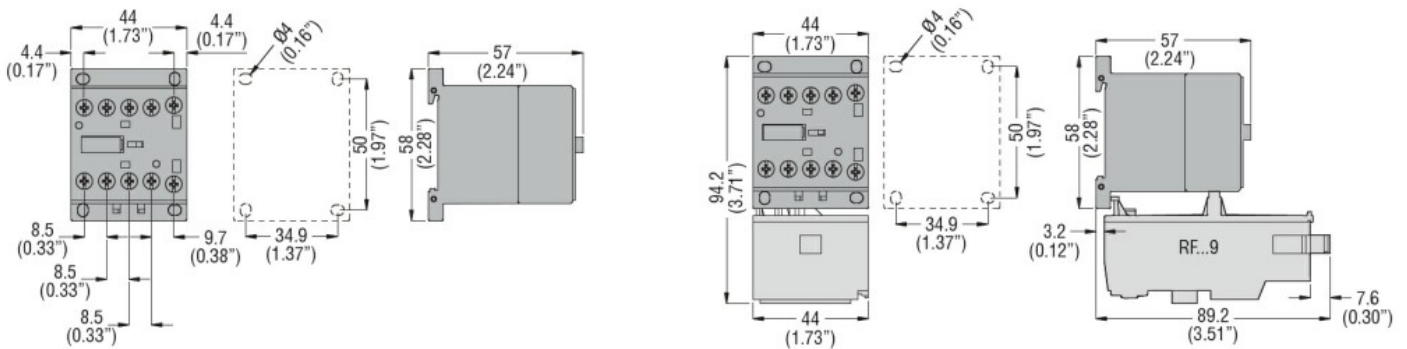
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Resistance & Protection

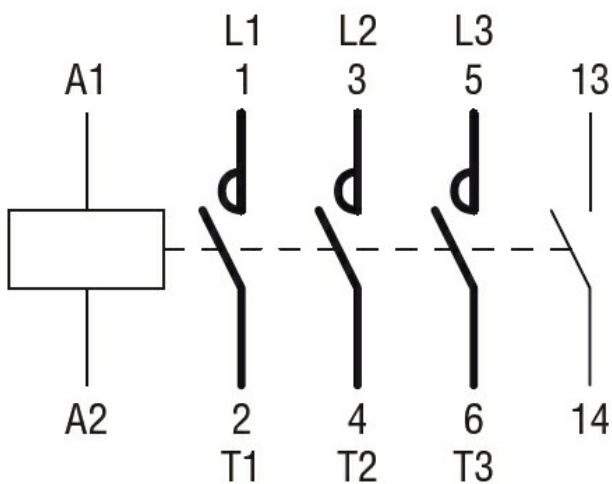
Pollution degree

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