



### Contact characteristics

Number of poles	Nr.	3
Rated insulation voltage U <sub>i</sub> IEC/EN	V	690
Rated impulse withstand voltage U <sub>imp</sub>	kV	6
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I <sub>th</sub> ≤ 40°C	A	20
Operational current I <sub>e</sub>	AC-1 (≤40°C)	A 20
	AC-1 (≤55°C)	A 18
	AC-1 (≤70°C)	A 15
	AC-3 (≤440V ≤55°C)	A 12
	AC-4 (400V)	A 4.8
Rated operational power AC-3 (T≤55°C)	230V	kW 3.2
	400V	kW 5.7
	415V	kW 6.2
	440V	kW 5.5
	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 <sub>e</sub> 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 <sub>e</sub> 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 <sub>e</sub> 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 <sub>e</sub> in DC1 with L/R ≤ 1ms with 4 poles in series	≤24V	A 16
	48V	A 16
	75V	A 10
	110V	A 10

	≤24V	A	–
	48V	A	–
	75V	A	–
	110V	A	–
	220V	A	–
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IEC max current I <sub>e</sub> 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 <sub>e</sub> 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 <sub>e</sub> 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 <sub>e</sub> 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	20
	aM (IEC)	A	16
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Making capacity (RMS value)		A	120
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Breaking capacity at voltage	440V	A	96
	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 <sub>th</sub>	W	4
	AC-3	W	1.4
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Tightening torque for terminals	min	Nm	0.8
	max	Nm	1
	min	I <sub>bin</sub>	9
	max	I <sub>bin</sub>	9
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Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	I <sub>bin</sub>	9
	max	I <sub>bin</sub>	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> 0.8
			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

**Mechanical features**

Operating position

	normal allowable	Vertical plan ±30°
Fixing		Screw / DIN rail 35mm
Weight		g 200

**Auxiliary contact characteristics**

Thermal current I <sub>th</sub>	A	10
IEC/EN 60947-5-1 designation		A600

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

**AC coil operating**

Rated AC voltage at 50/60Hz V 230

AC operating voltage

of 50/60Hz coil powered at 50Hz  
pick-up

min	%Us	75
max	%Us	115

drop-out

	min	%Us	20
	max	%Us	55
of 50/60Hz coil powered at 60Hz			
pick-up	min	%Us	80
	max	%Us	115
drop-out	min	%Us	20
	max	%Us	55
AC average coil consumption at 20°C			
of 50/60Hz coil powered at 50Hz			
	in-rush	VA	30
	holding	VA	4
of 50/60Hz coil powered at 60Hz			
	in-rush	VA	25
	holding	VA	3
of 60Hz coil powered at 60Hz			
	in-rush	VA	30
	holding	VA	4
Dissipation at holding ≤20°C 50Hz		W	0.9
<b>Max cycles frequency</b>			
Mechanical operation		cycles/h	3600
<b>Operating times</b>			
Average time for U <sub>s</sub> 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
			11

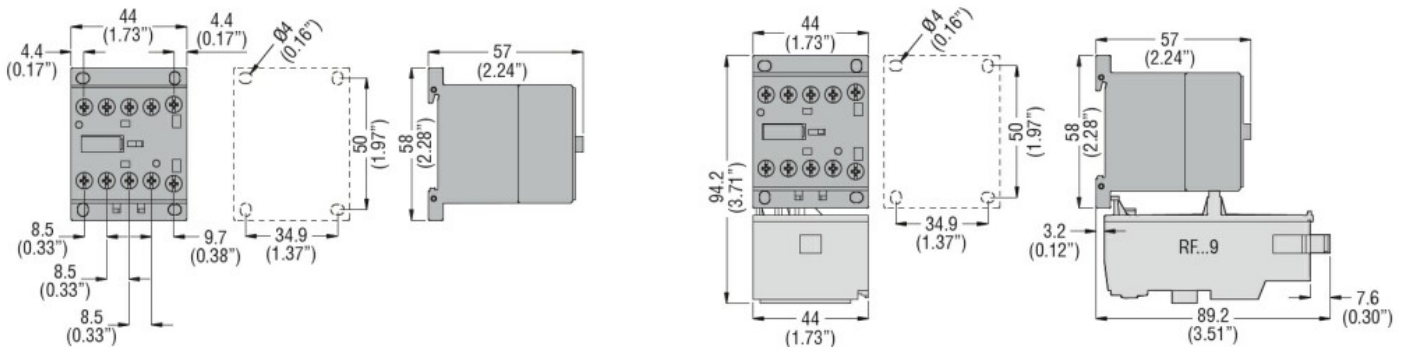
		at 600V	A	11	
Yielded mechanical performance	for single-phase AC motor	110/120V	HP	0.5	
		230V	HP	1.5	
General USE	Contactor	AC current			A 20
		Short-circuit protection fuse, 600V			
		High fault			
		Short circuit current	kA	100	
		Fuse rating	A	30	
Standard fault					
Short circuit current	kA	5			
Fuse rating	A	30			
Fuse class		RK5			
Contact rating of auxiliary contacts according to UL				A600 - Q600	

<b>Ambient conditions</b>				
Temperature				
Operating temperature				
	min	°C	-50	
	max	°C	+70	
Storage temperature				
	min	°C	-60	
	max	°C	+80	
Max altitude				
		m	3000	

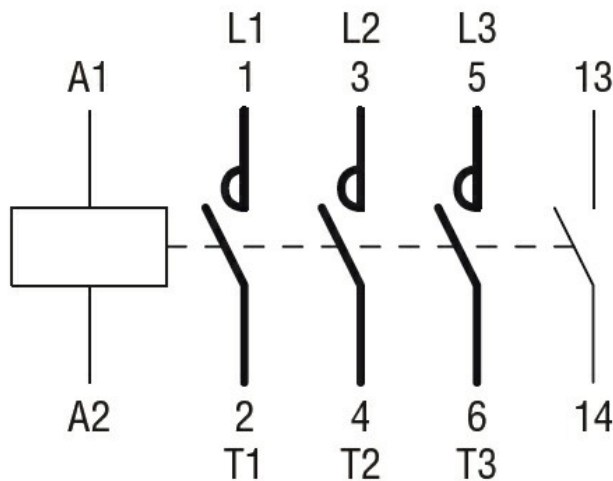
**Resistance & Protection**

Pollution degree	3			
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**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