



### Contact characteristics

Number of poles	Nr.	4
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	45
Operational current I <sub>e</sub>	AC-1 (≤40°C)	A 45
	AC-1 (≤55°C)	A 36
	AC-1 (≤70°C)	A 32
	AC-3 (≤440V ≤55°C)	A 26
	AC-4 (400V)	A 11.5
Rated operational power AC-1 (T≤40°C)	230V	kW 17
	400V	kW 30
	500V	kW 37
	690V	kW 51
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 1 poles in series	≤24V	A 25
	48V	A 21
	75V	A 18
	110V	A 6
	220V	A –
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 2 poles in series	≤24V	A 28
	48V	A 28
	75V	A 25
	110V	A 22
	220V	A 2
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 3 poles in series	≤24V	A 28
	48V	A 28
	75V	A 25
	110V	A 24
	220V	A 20
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 4 poles in series	≤24V	A 28
	48V	A 28
	75V	A 25
	110V	A 24
	220V	A 26
IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	≤24V	A 18

	48V	A	15
	75V	A	13
	110V	A	2
	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	20
	48V	A	20
	75V	A	18
	110V	A	13
	220V	A	3
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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	25
	48V	A	25
	75V	A	20
	110V	A	18
	220V	A	19
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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	30
	48V	A	30
	75V	A	25
	110V	A	20
	220V	A	15
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Short-time allowable current for 10s (IEC/EN60947-1)		A	210
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Protection fuse	gG (IEC)	A	50
	aM (IEC)	A	32
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Making capacity (RMS value)		A	260
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Breaking capacity at voltage	440V	A	208
	500V	A	184
	690V	A	168
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Resistance per pole (average value)		mΩ	2
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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	2.5
	max	Nm	3
	min	I <sub>bin</sub>	1.8
	max	I <sub>bin</sub>	2.2
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Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	I <sub>bin</sub>	0.8
	max	I <sub>bin</sub>	0.74
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Max number of wires simultaneously connectable		Nr.	2
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Conductor section	AWG/Kcmil		
		max	6
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Flexible w/o lug conductor section	min	mm <sup>2</sup>	2.5
	max	mm <sup>2</sup>	16
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Flexible c/w lug conductor section			

	min	mm <sup>2</sup>	1
	max	mm <sup>2</sup>	10
Flexible with insulated spade lug conductor section			
	min	mm <sup>2</sup>	1
	max	mm <sup>2</sup>	16
Power terminal protection according to IEC/EN 60529			IP20 when properly wired
Cable stripping length			
	main circuit	mm	10
	command circuit	mm	8
<b>Mechanical features</b>			
Operating position			
	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	664
<b>Operations</b>			
Mechanical life		cycles	20000000
Electrical life		cycles	1600000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	1600000
	mechanical load	cycles	20000000
EMC compatibility			yes
<b>DC coil operating</b>			
DC rated control voltage		V	110
DC operating voltage			
	pick-up		
		min %Us	80
		max %Us	125
	drop-out		
		min %Us	10
		max %Us	40
Average coil consumption ≤20°C			
	in-rush	W	5.4
	holding	W	5.4
<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	8
		max ms	24
	Opening NO		
		min ms	5
		max ms	15
	Closing NC		
		min ms	9
		max ms	20
	Opening NC		
		min ms	9
		max ms	17

in DC			
Closing NO	min	ms	54
	max	ms	66
Opening NO	min	ms	14
	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	21
at 600V	A	22

Yielded mechanical performance

for single-phase AC motor			
110/120V	HP	2	
230V	HP	5	
for three-phase AC motor			
200/208V	HP	7.5	
220/240V	HP	7.5	
460/480V	HP	15	
575/600V	HP	20	

**General USE**

Contactor AC current A 45

Short-circuit protection fuse, 600V High fault

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

Standard fault

Short circuit current	kA	5
Fuse rating	A	100

**Ambient conditions**

**Temperature**

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

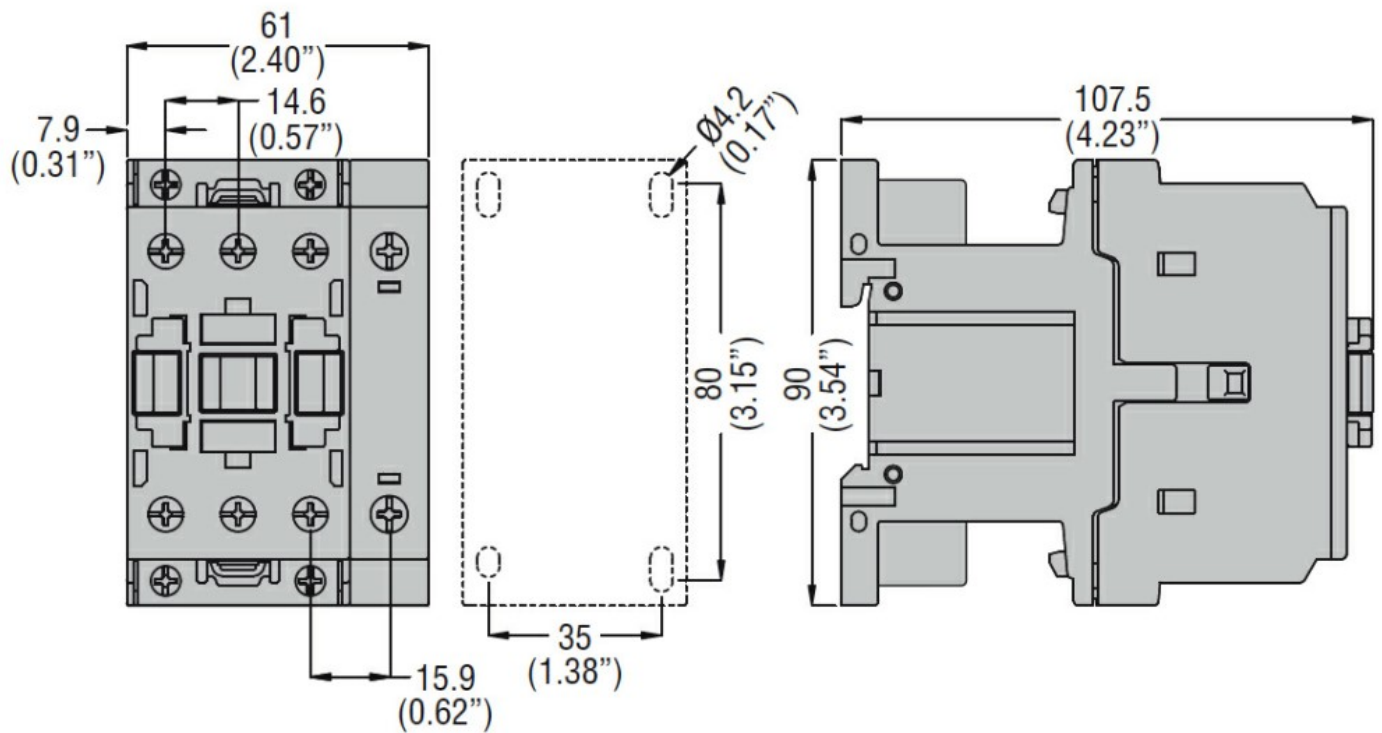
min	°C	-60
max	°C	80

Max altitude m 3000

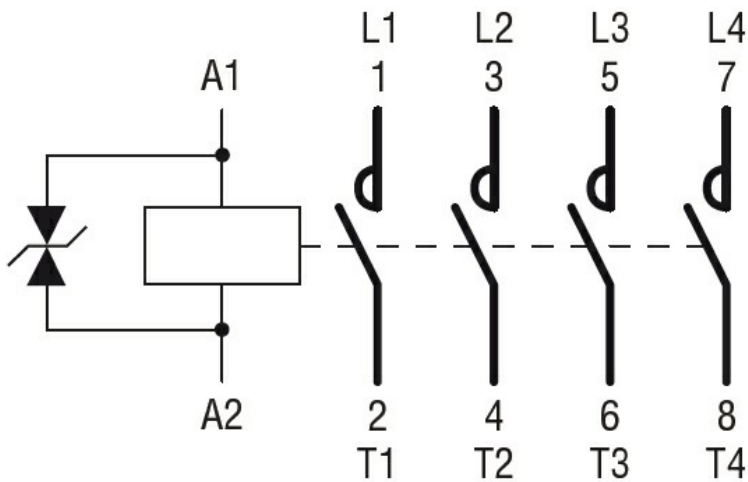
**Resistance & Protection**

Pollution degree 3

**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/BS 60947-1
- IEC/EN/BS 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

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UL 60335-2-40 LZGH A2L

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UL 60335-2-89 LZGH A2L

ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching