



### 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	56	
Operational current I <sub>e</sub>	AC-1 (≤40°C)	A	56
	AC-1 (≤40°C) with 16mm <sup>2</sup> wire and fork end lug	A	60
	AC-1 (≤55°C)	A	45
	AC-1 (≤55°C) with 16mm <sup>2</sup> wire and fork end lug	A	48
	AC-1 (≤70°C)	A	40
	AC-1 (≤70°C) with 16mm <sup>2</sup> wire and fork end lug	A	42
	AC-3 (≤440V ≤55°C)	A	38
	AC-4 (400V)	A	15.5
Rated operational power AC-1 (T≤40°C)	230V	kW	21
	400V	kW	36
	500V	kW	45
	690V	kW	62
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 1 poles in series	≤24V	A	35
	48V	A	30
	75V	A	23
	110V	A	8
	220V	A	–
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 2 poles in series	≤24V	A	36
	48V	A	34
	75V	A	29
	110V	A	32
	220V	A	4
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 3 poles in series	≤24V	A	36
	48V	A	34
	75V	A	33
	110V	A	34
	220V	A	30
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 4 poles in series	≤24V	A	36
	48V	A	34
	75V	A	33
	110V	A	34

	220V	A	38
IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	24
	48V	A	20
	75V	A	17
	110V	A	2,5
	220V	A	–
IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	28
	48V	A	25
	75V	A	22
	110V	A	18
	220V	A	3
IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	32
	48V	A	28
	75V	A	28
	110V	A	23
	220V	A	25
IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	32
	48V	A	28
	75V	A	28
	110V	A	23
	220V	A	15
Short-time allowable current for 10s (IEC/EN60947-1)		A	320
Protection fuse			
	gG (IEC)	A	63
	aM (IEC)	A	40
Making capacity (RMS value)		A	380
Breaking capacity at voltage			
	440V	A	304
	500V	A	240
	690V	A	192
Resistance per pole (average value)		mΩ	2
Power dissipation per pole (average value)			
	I <sub>th</sub>	W	6
	AC-3	W	2.9
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
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
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
	AWG/Kcmil		
		max	6
Flexible w/o lug conductor section			

	min	mm <sup>2</sup>	2.5
	max	mm <sup>2</sup>	16
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	504
<b>Operations</b>			
Mechanical life		cycles	20000000
Electrical life		cycles	1400000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	1400000
	mechanical load	cycles	20000000
EMC compatibility			yes
<b>AC coil operating</b>			
Rated AC voltage at 60Hz		V	460
AC operating voltage			
of 60Hz coil powered at 60Hz			
pick-up			
	min	%Us	80
	max	%Us	110
drop-out			
	min	%Us	20
	max	%Us	55
AC average coil consumption at 20°C			
of 60Hz coil powered at 60Hz			
	in-rush	VA	75
	holding	VA	9
Dissipation at holding ≤20°C 50Hz			W 2.5
<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

**UL technical data**

Rated operational voltage AC (UL)	V	600
Full-load current (FLA) for three-phase AC motor		
	at 480V	A 40
	at 600V	A 32
Yielded mechanical performance for single-phase AC motor		
	110/120V	HP 3
	230V	HP 7.5
for three-phase AC motor		
	200/208V	HP 10
	220/240V	HP 15
	460/480V	HP 30
	575/600V	HP 30

**General USE**

Contactor	AC current	A	55
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	150

**Ambient conditions**

**Temperature**

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

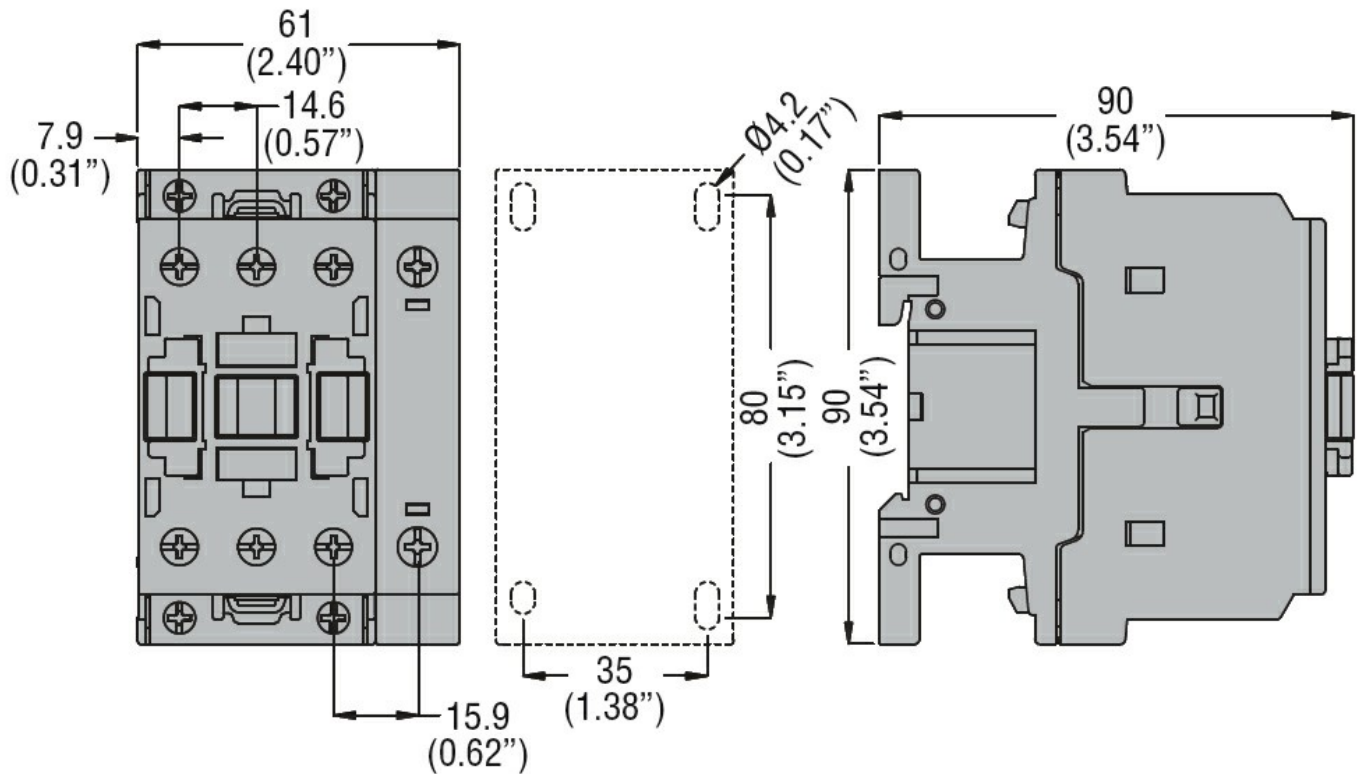
min	°C	-60
max	°C	80

Max altitude	m	3000
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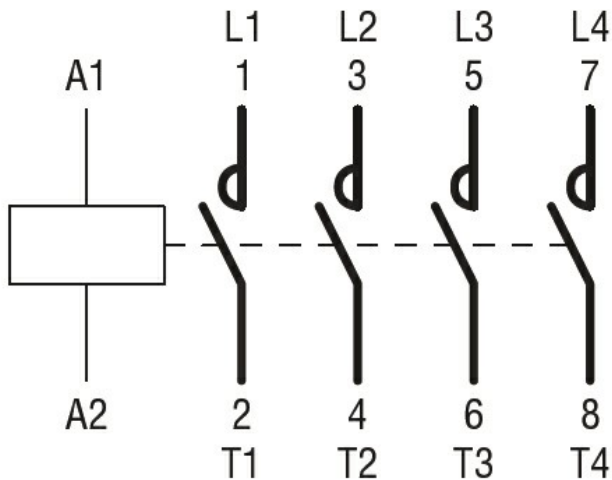
**Resistance & Protection**

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/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

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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