



Contact characteristics

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

	48V	A	15
	75V	A	13
	110V	A	2
	220V	A	–
IEC max current Ie 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
IEC max current Ie 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
IEC max current Ie 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
Short-time allowable current for 10s (IEC/EN60947-1)		A	210
Protection fuse			
	gG (IEC)	A	50
	aM (IEC)	A	32
Making capacity (RMS value)		A	260
Breaking capacity at voltage			
	440V	A	208
	500V	A	184
	690V	A	168
Resistance per pole (average value)		mΩ	2
Power dissipation per pole (average value)			
	Ith	W	4
	AC-3	W	1.4
Tightening torque for terminals			
	min	Nm	2.5
	max	Nm	3
	min	lbin	1.8
	max	lbin	2.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8
	max	lbin	0.74
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
AWG/Kcmil			
	max		6
Flexible w/o lug conductor section			
	min	mm ²	2.5
	max	mm ²	16
Flexible c/w lug conductor section			

	min	mm ²	1
	max	mm ²	10
Flexible with insulated spade lug conductor section			
	min	mm ²	1
	max	mm ²	16
Power terminal protection according to IEC/EN 60529			IP20 when properly wired
Cable stripping length			
	main circuit	mm	10
	command circuit	mm	8
Mechanical features			
Operating position			
	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	508
Operations			
Mechanical life		cycles	20000000
Electrical life		cycles	1600000
Safety related data			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	1600000
	mechanical load	cycles	20000000
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 50/60Hz		V	48
AC operating voltage			
	of 50/60Hz coil powered at 50Hz		
	pick-up		
	min	%Us	80
	max	%Us	110
	drop-out		
	min	%Us	20
	max	%Us	55
	of 50/60Hz coil powered at 60Hz		
	pick-up		
	min	%Us	85
	max	%Us	110
	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	75
	holding	VA	9
	of 50/60Hz coil powered at 60Hz		
	in-rush	VA	70
	holding	VA	6.5
	of 60Hz coil powered at 60Hz		
	in-rush	VA	75
	holding	VA	9
Dissipation at holding ≤20°C 50Hz		W	2.5
Max cycles frequency			

Mechanical operation cycles/h 3600

Operating times

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	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

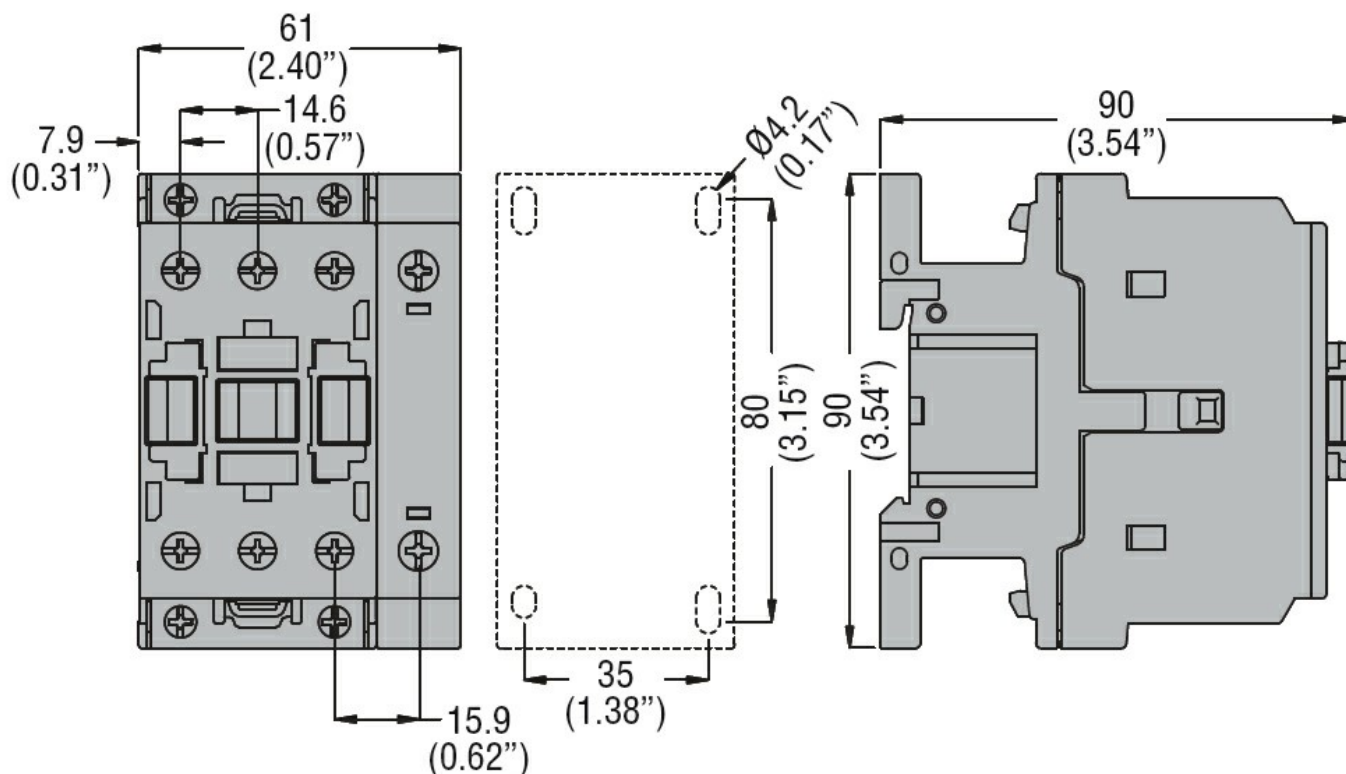
min	°C	-60
max	°C	80

Max altitude m 3000

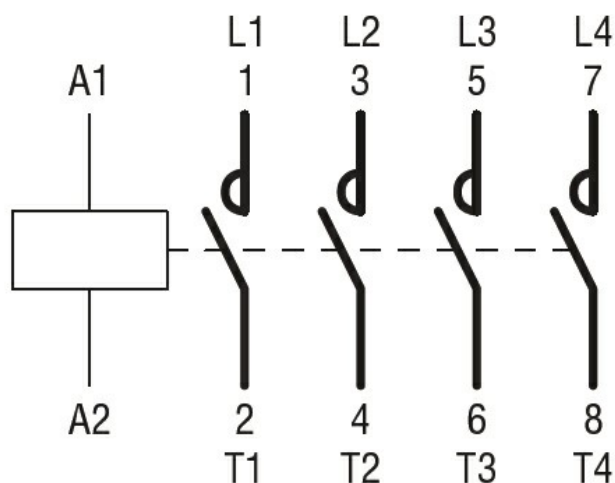
Resistance & Protection

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
UL 60335-2-40 LZGH A2L
UL 60335-2-89 LZGH A2L

ETIM classification

ETIM 8.0	EC000066 - Power contactor, AC switching
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