



### 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	20
Operational current $I_e$	AC-1 ( $\leq 40^\circ\text{C}$ )	A 20
	AC-1 ( $\leq 55^\circ\text{C}$ )	A 18
	AC-1 ( $\leq 70^\circ\text{C}$ )	A 15
	AC-3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ )	A 9
	AC-4 (400V)	A 4
Rated operational power AC-3 ( $T \leq 55^\circ\text{C}$ )	230V	kW 2.2
	400V	kW 4
	415V	kW 4.3
	440V	kW 4.5
	500V	kW 5
	690V	kW 5
Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )	230V	kW 8
	400V	kW 14
	500V	kW 16
	690V	kW 22
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A 12
	48V	A 10
	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 14
75V		A 9
110V		A 8
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 16
	75V	A 10
	110V	A 10
	220V	A 2
	IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series	$\leq 24\text{V}$
48V		A 16
75V		A 10
110V		A 10

	≤24V	A	16
	48V	A	16
	75V	A	10
	110V	A	10
	220V	A	2
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IEC max current Ie 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 Ie 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 Ie 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 Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	A	10
	48V	A	10
	75V	A	6
	110V	A	5
	220V	A	0,8
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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	10
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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	4
	AC-3	W	0.81
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Conductor section	AWG/Kcmil		
		max	12
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<b>Mechanical features</b>			
Operating position	normal allowable		Vertical plan ±30°
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Fixing			Screw / DIN rail 35mm
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Weight		g	224
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<b>Auxiliary contact characteristics</b>			

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
Operating current DC13	24V	A	2.9
	48V	A	1.4
	60V	A	1.1
	125V	A	0.3
	220V	A	0.1
	600V	A	0.6

### 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
Mirror contacts according to IEC/EN 60947-4-1 annex F			Yes
EMC compatibility			yes

### DC coil operating

DC rated control voltage		V	48
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

### Max cycles frequency

Mechanical operation		cycles/h	3600
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### Operating times

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

**UL technical data**

Rated operational voltage AC (UL)	V	600
Full-load current (FLA) for three-phase AC motor	at 480V	A 7.6
	at 600V	A 6.1
Yielded mechanical performance		
for single-phase AC motor	110/120V	HP 0.5
	230V	HP 1.5
for three-phase AC motor	200/208V	HP 2
	220/240V	HP 3
	460/480V	HP 5
	575/600V	HP 5

**General USE**

Contactor	AC current	A	20
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**

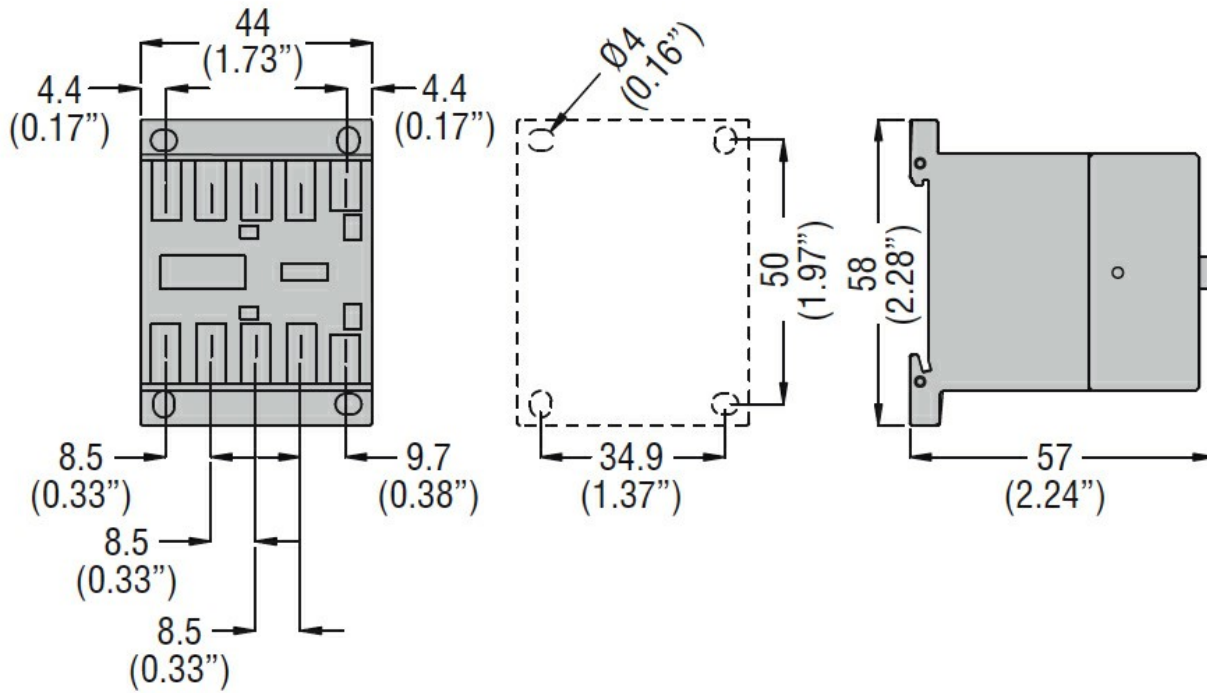
Operating temperature	min	°C	-50
	max	°C	+70
Storage temperature	min	°C	-60
	max	°C	+80

Max altitude m 3000

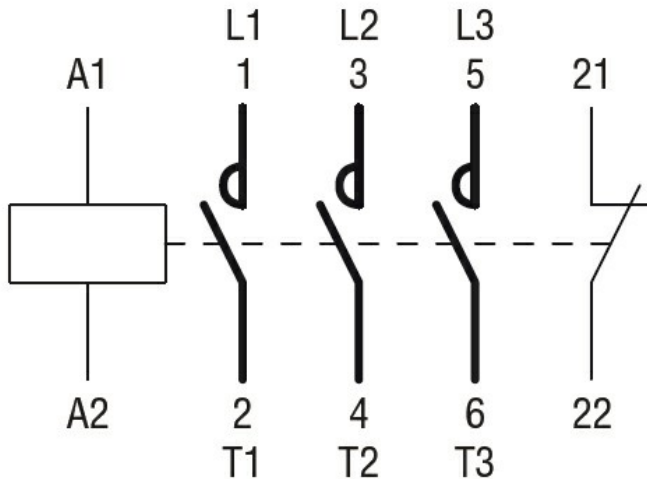
**Resistance & Protection**

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 60947-1
- IEC/EN 60947-4-1
- UL 60947-1
- UL 60947-4-1

**Certificates**

- CCC
- cULus
- EAC

**ETIM classification**

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching