



**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 $I_{th} \leq 40^\circ C$	A	56
Operational current $I_e$	AC-1 ( $\leq 40^\circ C$ )	A 56
	AC-1 ( $\leq 40^\circ C$ ) with 16mm <sup>2</sup> wire and fork end lug	A 60
	AC-1 ( $\leq 55^\circ C$ )	A 45
	AC-1 ( $\leq 55^\circ C$ ) with 16mm <sup>2</sup> wire and fork end lug	A 48
	AC-1 ( $\leq 70^\circ C$ )	A 40
	AC-1 ( $\leq 70^\circ C$ ) with 16mm <sup>2</sup> wire and fork end lug	A 42
	AC-3 ( $\leq 440V \leq 55^\circ C$ )	A 38
Rated operational power AC-3 ( $T \leq 55^\circ C$ )	AC-4 (400V)	A 15.5
	230V	kW 11
	400V	kW 18.5
	415V	kW 18.5
	440V	kW 18.5
	500V	kW 20
	690V	kW 22
Rated operational power AC-1 ( $T \leq 40^\circ C$ )	230V	kW 21
	400V	kW 36
	500V	kW 45
	690V	kW 62
	IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 1 poles in series	$\leq 24V$
48V		A 30
75V		A 23
110V		A 8
220V		A -
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 2 poles in series		$\leq 24V$
	48V	A 34
	75V	A 29
	110V	A 32
	220V	A 4
	IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 3 poles in series	$\leq 24V$
48V		A 34
75V		A 33

	110V	A	34
	220V	A	30
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series			
	$\leq 24\text{V}$	A	36
	48V	A	34
	75V	A	33
	110V	A	34
	220V	A	38
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	24
	48V	A	20
	75V	A	17
	110V	A	2,5
	220V	A	–
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series			
	$\leq 24\text{V}$	A	28
	48V	A	25
	75V	A	22
	110V	A	18
	220V	A	3
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series			
	$\leq 24\text{V}$	A	32
	48V	A	28
	75V	A	28
	110V	A	23
	220V	A	25
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 4 poles in series			
	$\leq 24\text{V}$	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)		m $\Omega$	2
Power dissipation per pole (average value)			
	$I_{th}$	W	6
	AC-3	W	2.9
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 <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>	10
Power terminal protection according to IEC/EN 60529			IP20 when properly wired
<b>Mechanical features</b>			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	426
<b>Auxiliary contact characteristics</b>			
Type of contact			0
IEC/EN 60947-5-1 designation			A600 - Q600
Operating current AC15	230V	A	3
	400V	A	1.9
	500V	A	1.4
Operating current DC13	110V	A	0.55
	125V	A	0.55
	220V	A	0.27
	600V	A	0.1
<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 50/60Hz		V	230
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
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**DC coil operating**

DC operating voltage

pick-up	min	%Us	0
	max	%Us	0
drop-out			
	min	%Us	0
	max	%Us	0

Average coil consumption ≤20°C

	in-rush	W	0
	holding	W	0

**Max cycles frequency**

Mechanical operation	cycles/h	3600
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**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
in DC			
Closing NO	min	ms	0
	max	ms	0
Opening NO	min	ms	0
	max	ms	0
Closing NC	min	ms	0
	max	ms	0

Opening NC	min	ms	0
	max	ms	0
	min	ms	0
	max	ms	0

**UL technical data**

Rated operational voltage AC (UL)	V	600
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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
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Short-circuit protection fuse, 600V High fault	Short circuit current	kA	100
	Fuse rating	A	100
Standard fault	Short circuit current	kA	5
	Fuse rating	A	150

Contact rating of auxiliary contacts according to UL	A600 - Q600
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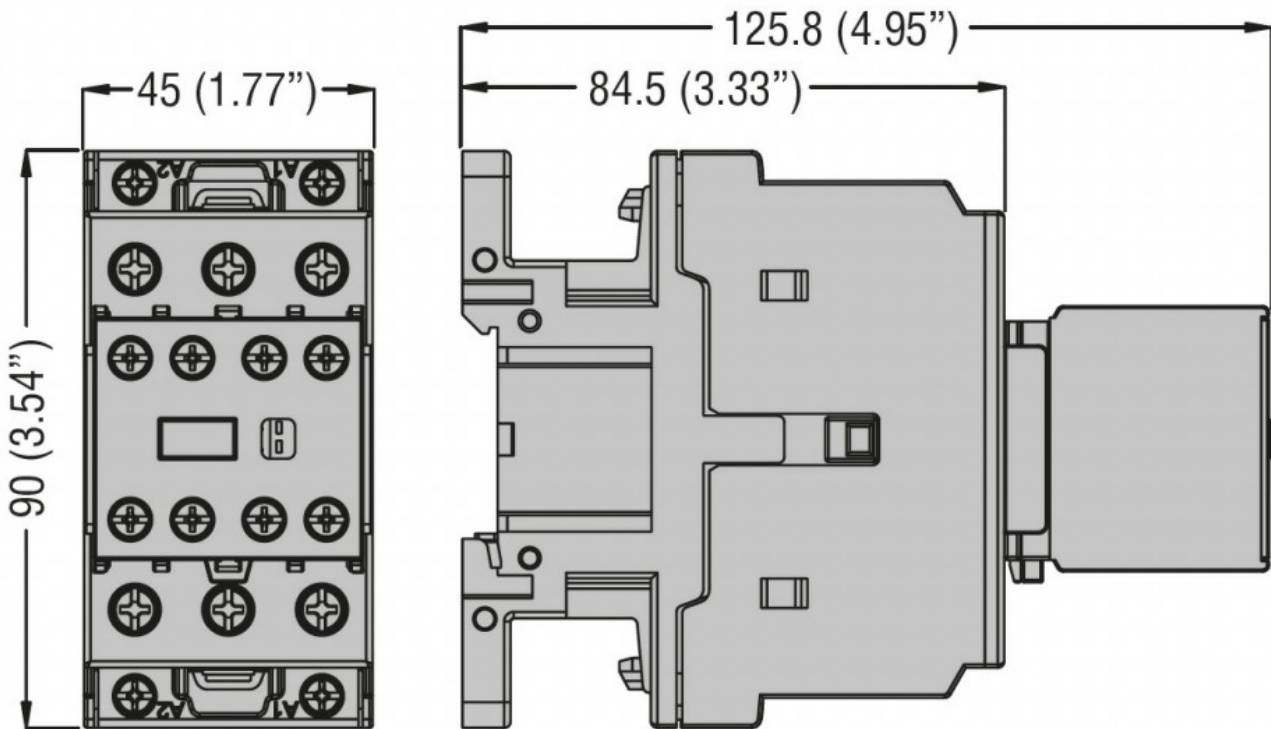
**Ambient conditions**

Temperature	Operating temperature	min	°C	-50
		max	°C	70
Storage temperature	min	°C	-60	
	max	°C	80	
Max altitude	m	3000		

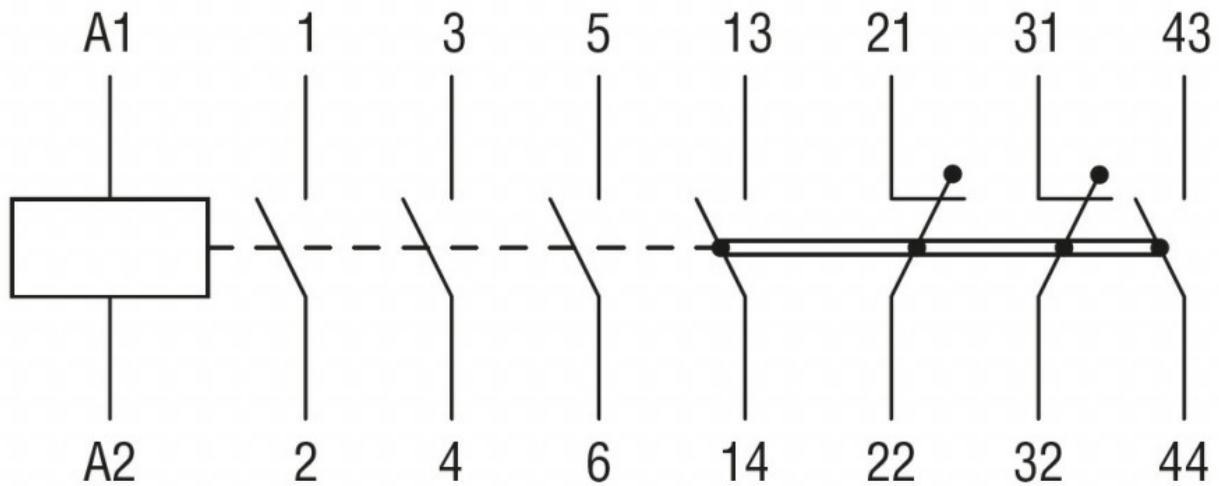
**Resistance & Protection**

Impact resistance	0
Vibration resistance	0
Special thermic treatments	0
Pollution degree	3
Resistance to flame (GWT)	0
Flame retardant according to UL94	0

**Dimensions**



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1

IEC/EN/BS 60947-4-1

IEC/EN/BS 60947-5-1

UL 60947-1

UL 60947-4-1

Certificates

cULus

UL listed for USA and Canada

ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching