



### 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	28
Operational current $I_e$	AC-1 ( $\leq 40^\circ\text{C}$ )	A 28
	AC-1 ( $\leq 40^\circ\text{C}$ ) with 16mm <sup>2</sup> wire and fork end lug	A 0
	AC-1 ( $\leq 55^\circ\text{C}$ )	A 23
	AC-1 ( $\leq 55^\circ\text{C}$ ) with 16mm <sup>2</sup> wire and fork end lug	A 0
	AC-1 ( $\leq 70^\circ\text{C}$ )	A 20
	AC-1 ( $\leq 70^\circ\text{C}$ ) with 16mm <sup>2</sup> wire and fork end lug	A 0
	AC-3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ )	A 12
Rated operational power AC-3 ( $T \leq 55^\circ\text{C}$ )	AC-4 (400V)	A 7.9
	230V	kW 3.2
	400V	kW 5.7
	415V	kW 6.2
	440V	kW 6.2
	500V	kW 7.5
	690V	kW 10
Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )	230V	kW 10
	400V	kW 18
	500V	kW 23
	690V	kW 32
	IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$
48V		A 15
75V		A 13
110V		A 6
220V		A -
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series		$\leq 24\text{V}$
	48V	A 20
	75V	A 18
	110V	A 13
	220V	A 1
	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 22
75V		A 20

	110V	A	16
	220V	A	11
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IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	20
	48V	A	20
	75V	A	20
	110V	A	16
	220V	A	12
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IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	12
	48V	A	11
	75V	A	10
	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	15
	48V	A	13
	75V	A	12
	110V	A	8
	220V	A	2
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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	18
	48V	A	18
	75V	A	15
	110V	A	12
	220V	A	6
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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	15
	48V	A	15
	75V	A	15
	110V	A	16
	220V	A	7
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Short-time allowable current for 10s (IEC/EN60947-1)		A	150
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Protection fuse			
	gG (IEC)	A	32
	aM (IEC)	A	12
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Making capacity (RMS value)		A	120
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Breaking capacity at voltage			
	440V	A	96
	500V	A	96
	690V	A	94
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Resistance per pole (average value)		mΩ	2.5
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Power dissipation per pole (average value)			
	I <sub>th</sub>	W	2
	AC-3	W	0.4
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Tightening torque for terminals			
	min	Nm	1.5
	max	Nm	1.8
	min	lbin	1.1
	max	lbin	1.5
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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
Max number of wires simultaneously connectable		Nr.	2
Conductor section	AWG/Kcmil		
	max		10
Flexible w/o lug conductor section	min	mm <sup>2</sup>	1
	max	mm <sup>2</sup>	6
Flexible c/w lug conductor section	min	mm <sup>2</sup>	1
	max	mm <sup>2</sup>	4
Flexible with insulated spade lug conductor section	min	mm <sup>2</sup>	1
	max	mm <sup>2</sup>	4
Power terminal protection according to IEC/EN 60529	IP20 when properly wired		
Cable stripping length	main circuit	mm	0
	command circuit	mm	0
	auxiliary circuit	mm	0
<b>Mechanical features</b>			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	490
<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 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	2000000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1	rated load	cycles	2000000
	mechanical load	cycles	20000000
Mirror contacts according to IEC/EN 60947-4-1 annex F	Yes		
EMC compatibility	yes		
<b>AC coil operating</b>			
AC operating voltage	of 50/60Hz coil powered at 50Hz drop-out		

			max	%Us	0
<b>DC coil operating</b>					
DC rated control voltage				V	24
<b>DC operating voltage</b>					
pick-up			min	%Us	70
			max	%Us	125
drop-out			min	%Us	10
			max	%Us	40
<b>Average coil consumption <math>\leq 20^{\circ}\text{C}</math></b>					
		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	10
			max	ms	20
Closing NC			min	ms	14
			max	ms	28
Opening NC			min	ms	7
			max	ms	18
in DC					
Closing NO			min	ms	54
			max	ms	66
Opening NO			min	ms	14
			max	ms	17
Closing NC			min	ms	24
			max	ms	30
Opening NC			min	ms	47
			max	ms	57
<b>UL technical data</b>					
Rated operational voltage AC (UL)				V	600
<b>Full-load current (FLA) for three-phase AC motor</b>					
		at 480V	A		11
		at 600V	A		11
<b>Yielded mechanical performance</b>					
for single-phase AC motor					
		110/120V	HP		1
		230V	HP		2
for three-phase AC motor					
		200/208V	HP		5

220/240V	HP	5
460/480V	HP	7.5
575/600V	HP	10

General USE

Contactor

AC current	A	28
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Auxiliary contacts

AC voltage	V	600
AC current	A	10
DC voltage	V	250
DC current	A	1

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	70

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

Impact resistance

0

Vibration resistance

0

Special thermic treatments

0

Pollution degree

3

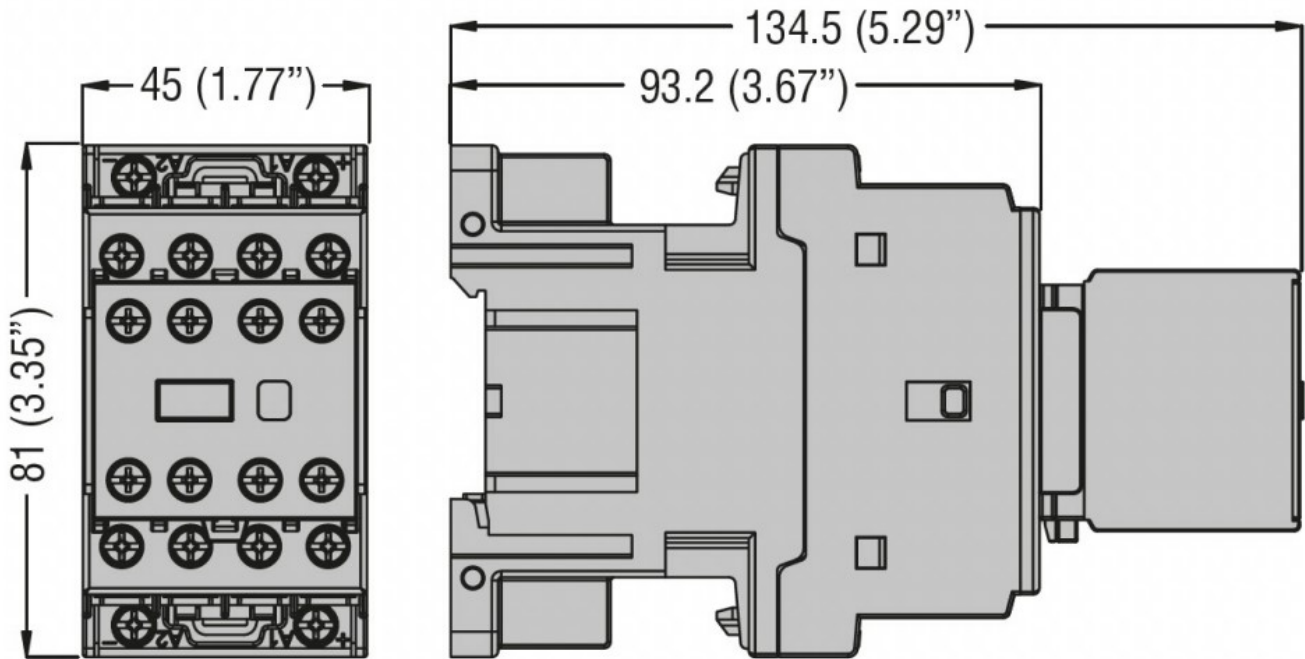
Resistance to flame (GWT)

0

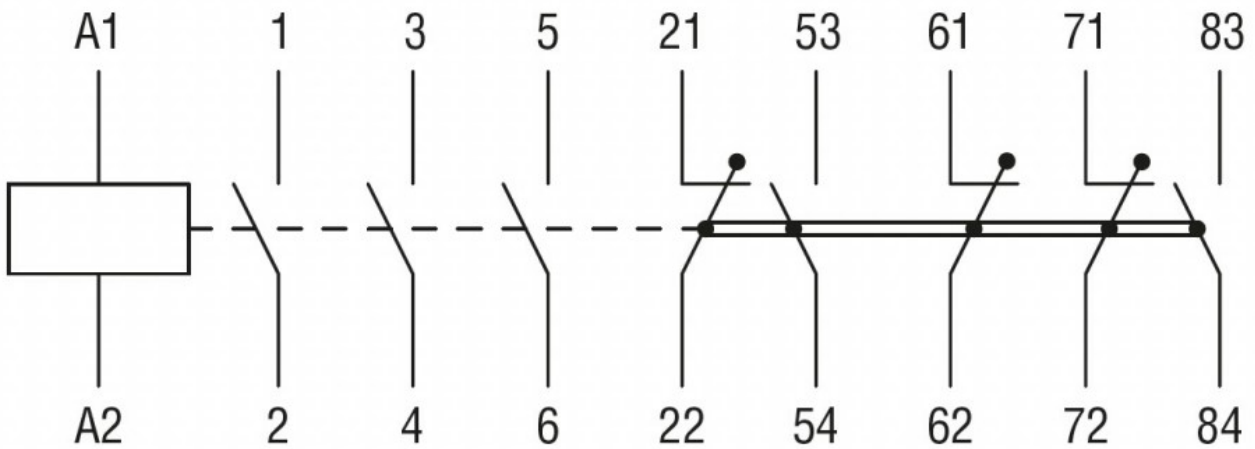
Flame retardant according to UL94

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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/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