



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	56	
Operational current I_e			
	AC-1 ($\leq 40^{\circ}\text{C}$)	A	56
	AC-1 ($\leq 40^{\circ}\text{C}$) with 16mm ² wire and fork end lug	A	0
	AC-1 ($\leq 55^{\circ}\text{C}$)	A	45
	AC-1 ($\leq 55^{\circ}\text{C}$) with 16mm ² wire and fork end lug	A	0
	AC-1 ($\leq 70^{\circ}\text{C}$)	A	40
	AC-1 ($\leq 70^{\circ}\text{C}$) with 16mm ² wire and fork end lug	A	0
	AC-3 ($\leq 440\text{V} \leq 55^{\circ}\text{C}$)	A	32
	AC-4 (400V)	A	13.5
Rated operational power AC-3 ($T \leq 55^{\circ}\text{C}$)			
	230V	kW	8.8
	400V	kW	16
	415V	kW	17
	440V	kW	17
	500V	kW	20
	690V	kW	22
Rated operational power AC-1 ($T \leq 40^{\circ}\text{C}$)			
	230V	kW	21
	400V	kW	36
	500V	kW	45
	690V	kW	62
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series			
	$\leq 24\text{V}$	A	30
	48V	A	26
	75V	A	22
	110V	A	8
	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	32
	48V	A	32
	75V	A	28
	110V	A	25
	220V	A	3
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series			
	$\leq 24\text{V}$	A	32
	48V	A	32
	75V	A	32

	110V	A	27
	220V	A	23
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	–
	48V	A	–
	75V	A	–
	110V	A	–
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	20
	48V	A	17
	75V	A	15
	110V	A	2,5
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	25
	48V	A	22
	75V	A	20
	110V	A	15
	220V	A	3
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	30
	48V	A	28
	75V	A	28
	110V	A	20
	220V	A	23
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	–
	48V	A	–
	75V	A	–
	110V	A	–
	220V	A	–
Short-time allowable current for 10s (IEC/EN60947-1)		A	320
Protection fuse			
	gG (IEC)	A	63
	aM (IEC)	A	32
Making capacity (RMS value)		A	320
Breaking capacity at voltage			
	440V	A	256
	500V	A	240
	690V	A	192
Resistance per pole (average value)		mΩ	2
Power dissipation per pole (average value)			
	Ith	W	6
	AC-3	W	2
Tightening torque for terminals			
	min	Nm	2.5
	max	Nm	3
	min	Ibin	1.8
	max	Ibin	2.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1

	min	I _{bin}	0.8
	max	I _{bin}	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	10
Power terminal protection according to IEC/EN 60529			IP20 when properly wired
Cable stripping lenght			
	main circuit	mm	0
	command circuit	mm	0
	auxiliary circuit	mm	0
Mechanical features			
Operating position			
	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	428
Auxiliary contact characteristics			
Type of contact			0
Thermal current I _{th}		A	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
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	110
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
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
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				

Opening NO	min	ms	0
	max	ms	0
Closing NC	min	ms	0
	max	ms	0
Opening NC	min	ms	0
	max	ms	0

UL technical data

Rated operational voltage AC (UL) V 600

Full-load current (FLA) for three-phase AC motor

at 480V	A	27
at 600V	A	27

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	10
460/480V	HP	20
575/600V	HP	25

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
Fuse class		J

Standard fault

Short circuit current	kA	5
Fuse rating	A	125

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

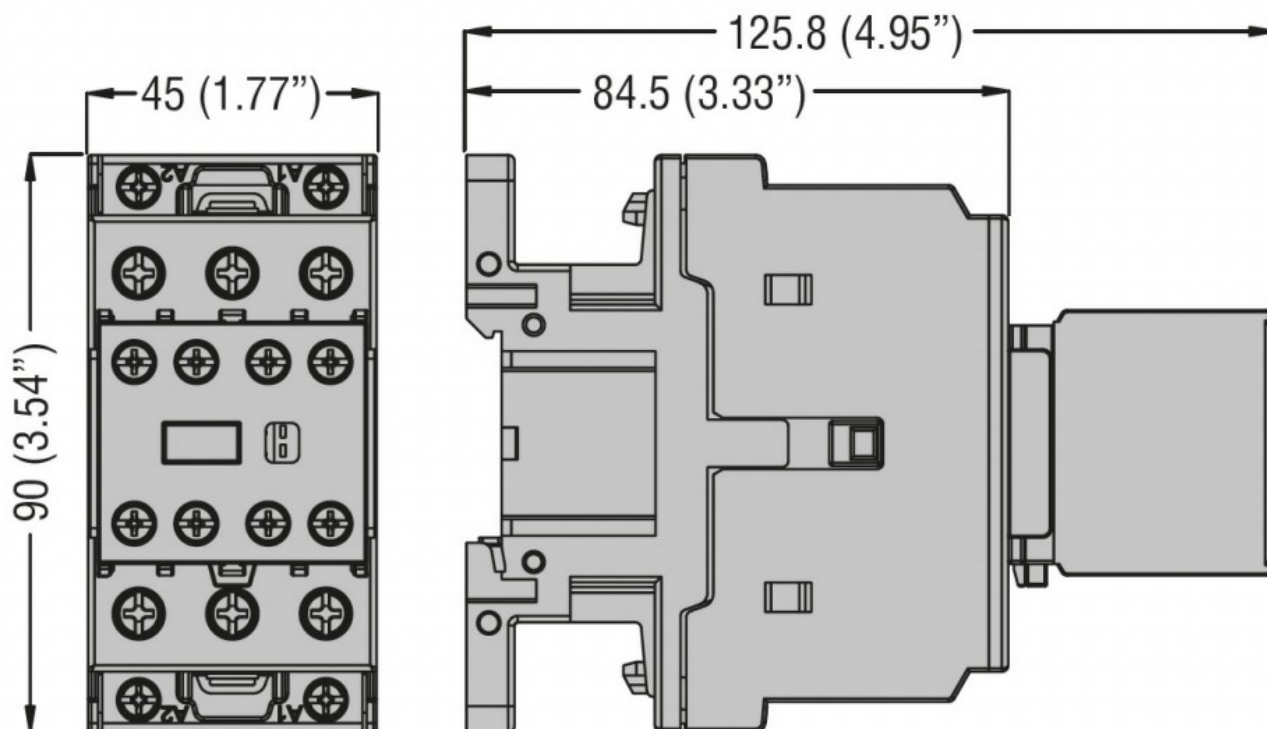
Special thermic treatments 0

Pollution degree 3

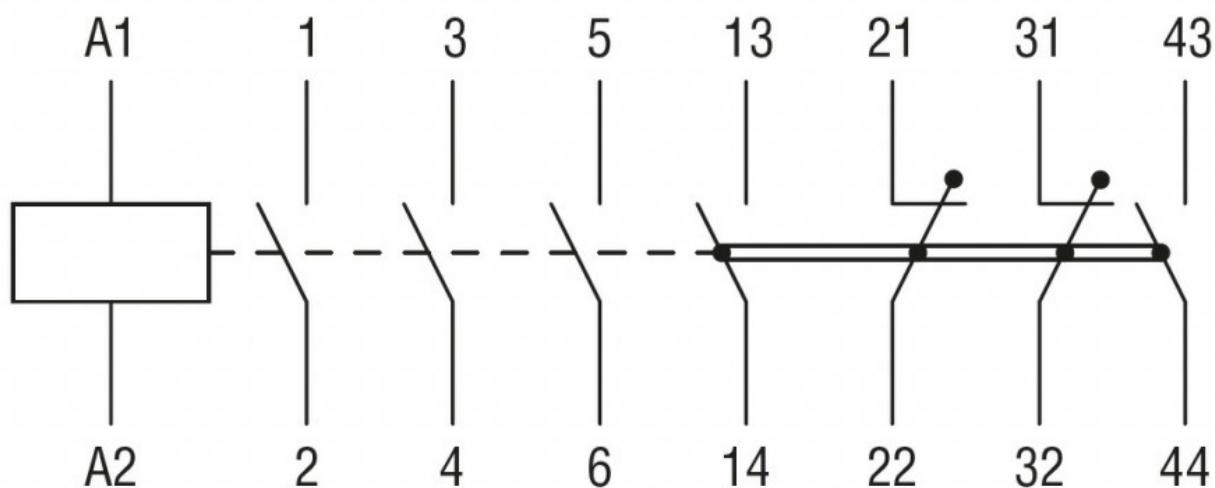
Resistance to flame (GWT) 0

Flame retardant according to UL94 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