



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	16
Operational current I_e	AC-1 ($\leq 40^\circ C$)	A 16
	AC-1 ($\leq 55^\circ C$)	A 14
	AC-1 ($\leq 70^\circ C$)	A 12
	AC-3 ($\leq 440V \leq 55^\circ C$)	A 6
	AC-4 (400V)	A 3.3
Rated operational power AC-3 ($T \leq 55^\circ C$)	230V	kW 1.5
	400V	kW 2.2
	415V	kW 2.4
	440V	kW 2.5
	500V	kW 3
	690V	kW 3
Rated operational power AC-1 ($T \leq 40^\circ C$)	230V	kW 6
	400V	kW 10
	500V	kW 13
	690V	kW 18
IEC max current I_e in DC1 with $L/R \leq 1ms$ with 1 poles in series	$\leq 24V$	A 9
	48V	A 8
	75V	A 4
	110V	A 3
	220V	A —
IEC max current I_e in DC1 with $L/R \leq 1ms$ with 2 poles in series	$\leq 24V$	A 12
	48V	A 11
	75V	A 7
	110V	A 6
	220V	A —
IEC max current I_e in DC1 with $L/R \leq 1ms$ with 3 poles in series	$\leq 24V$	A 14
	48V	A 14
	75V	A 8
	110V	A 8
	220V	A 1
IEC max current I_e in DC1 with $L/R \leq 1ms$ with 4 poles in series		

	≤24V	A	—
	48V	A	—
	75V	A	—
	110V	A	—
	220V	A	—
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	6
	48V	A	5
	75V	A	2
	110V	A	1
	220V	A	—
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	7
	48V	A	7
	75V	A	4
	110V	A	3
	220V	A	—
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	9
	48V	A	9
	75V	A	5
	110V	A	4
	220V	A	0,5
IEC max current I _e 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	96
Protection fuse			
	gG (IEC)	A	16
	aM (IEC)	A	6
Making capacity (RMS value)		A	92
Breaking capacity at voltage			
	440V	A	72
	500V	A	72
	690V	A	72
Resistance per pole (average value)		mΩ	10
Power dissipation per pole (average value)			
	I _{th}	W	2.6
	AC-3	W	0.36
Tightening torque for terminals			
	min	Nm	0.8
	max	Nm	1
	min	I _{bin}	9
	max	I _{bin}	9
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	I _{bin}	9
	max	I _{bin}	9
Max number of wires simultaneously connectable		Nr.	2

Conductor section				
AWG/Kcmil		max		12
Flexible w/o lug conductor section		min	mm ²	0.75
		max	mm ²	2.5
Flexible c/w lug conductor section		min	mm ²	1.5
		max	mm ²	2.5
Flexible with insulated spade lug conductor section		min	mm ²	1.5
		max	mm ²	2.5
Power terminal protection according to IEC/EN 60529				IP20 when properly wired
Mechanical features				
Operating position		normal allowable		Vertical plan ±30°
Fixing		Screw / DIN rail 35mm		
Weight		g		176
Auxiliary contact characteristics				
Thermal current I _{th}		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	1.2
		110V	A	0.6
		125V	A	0.55
		220V	A	0.3
		600V	A	0.1
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 contats according to IEC/EN 60947-4-1 annex F				Yes
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	%U _s	75

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 6A, AC COIL 50/60HZ, 48VAC, 1NC AUXILIARY CONTACT WITH MIRROR CONTACT FUNCTION

AC average coil consumption at 20°C of 50/60Hz coil powered at 60Hz	drop-out	max	%Us	115	
		min	%Us	20	
	pick-up	max	%Us	55	
		drop-out	min	%Us	80
	drop-out		max	%Us	115
		drop-out	min	%Us	20
	drop-out		max	%Us	55
		AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz	in-rush holding	VA	30
	VA			4	
	in-rush holding		VA	25	
VA			3		
in-rush holding	VA		30		
	VA		4		
Dissipation at holding ≤20°C 50Hz	W		0.95		
	Max cycles frequency				
Mechanical operation			cycles/h	3600	
Operating times					
Average time for Us 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	4.8
at 600V	A	3.9

Yielded mechanical performance

for single-phase AC motor

110/120V	HP	0.3
230V	HP	1

for three-phase AC motor

200/208V	HP	1.5
220/240V	HP	2
460/480V	HP	3
575/600V	HP	3

General USE

Contactor

AC current	A	16
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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

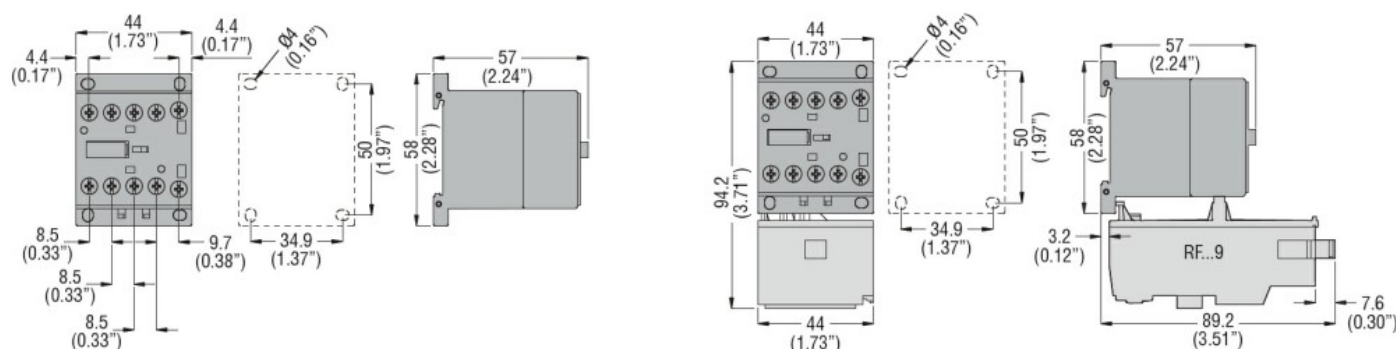
m 3000

Resistance & Protection

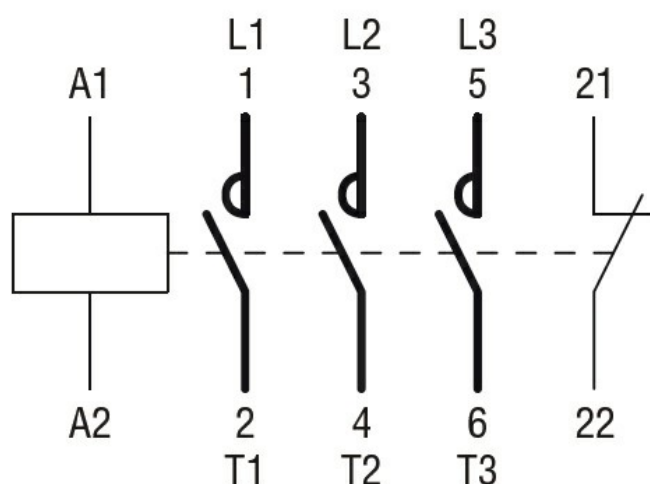
Pollution degree

3

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60335-2-89

IEC/EN 60947-1

IEC/EN 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