



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

	≤24V	A	16
	48V	A	16
	75V	A	10
	110V	A	10
	220V	A	2
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	–
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	–
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
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
Short-time allowable current for 10s (IEC/EN60947-1)		A	96
Protection fuse			
	gG (IEC)	A	20
	aM (IEC)	A	10
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)			
	Ith	W	4
	AC-3	W	0.81
Conductor section			
	AWG/Kcmil		
	max		12
Mechanical features			
Operating position			
	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	179
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 1.1
	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 contats according to IEC/EN 609474-4-1 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	%Us 75
	max	%Us 115
drop-out	min	%Us 20
	max	%Us 55
of 50/60Hz coil powered at 60Hz		
pick-up	min	%Us 80
	max	%Us 115
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 30
	holding	VA 4
of 50/60Hz coil powered at 60Hz	in-rush	VA 25
	holding	VA 3
of 60Hz coil powered at 60Hz	in-rush	VA 30
	holding	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
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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
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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

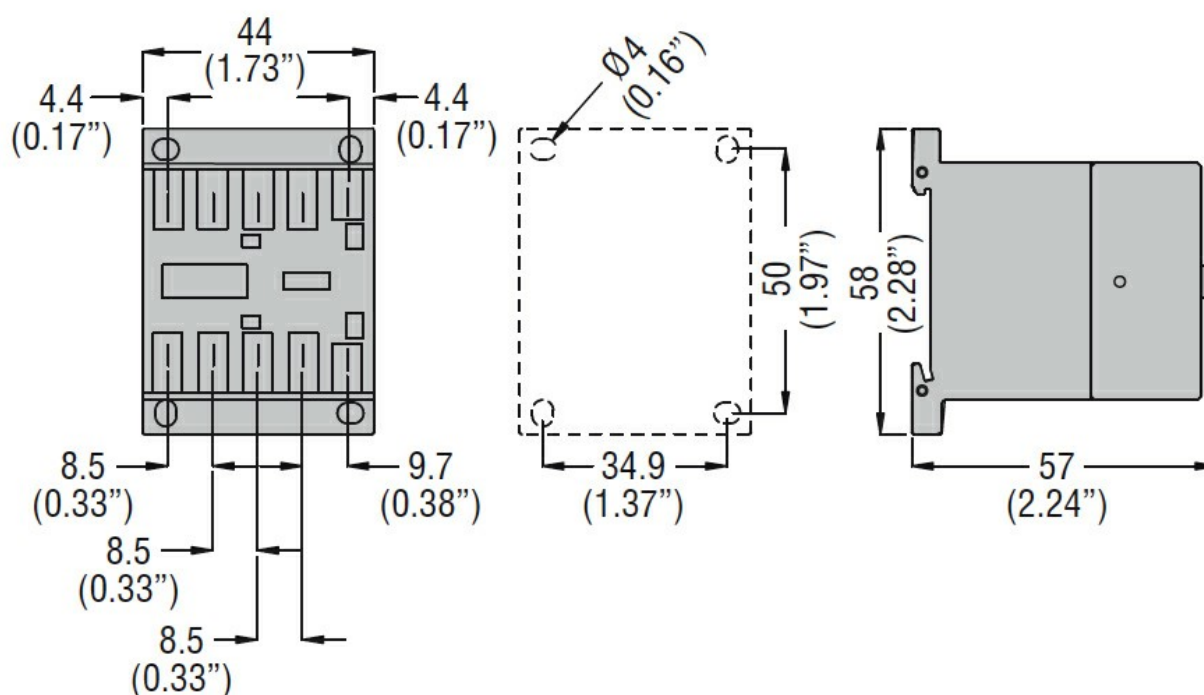
m 3000

Resistance & Protection

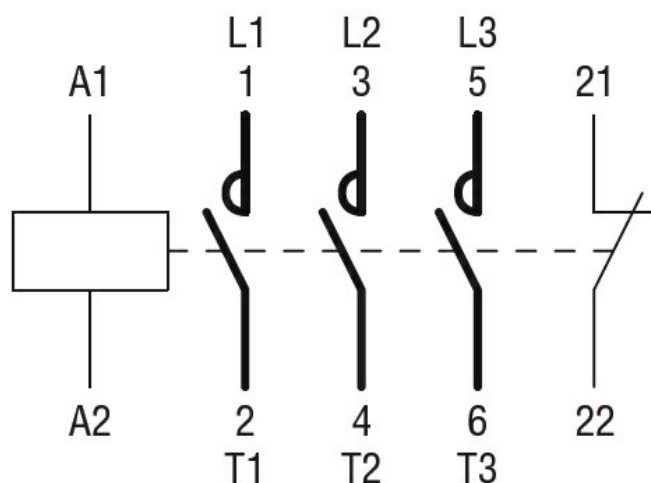
Pollution degree

3

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, AC COIL 50/60HZ,
48VAC, 1NC AUXILIARY CONTACT, FASTON TERMINALS

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