



Product designation				Power contactor
Product type designation				BG12
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}	A			20
Operational current I_e	AC-1 ($\leq 40^\circ\text{C}$)	A	160	
	AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$)	A	12	
	AC-4 (400V)	A	4.8	
Rated operational power AC-3 ($T \leq 55^\circ\text{C}$)	230V	kW	3.2	
	400V	kW	5.7	
	415V	kW	6.2	
	440V	kW	5.5	
	500V	kW	5	
	690V	kW	5	
Rated operational power AC-1 ($T \leq 40^\circ\text{C}$)	230V	kW	8	
	400V	kW	14	
	500V	kW	16	
	690V	kW	22	
Short-time allowable current for 10s (IEC/EN60947-1)	A			96
Protection fuse	gG (IEC)	A	20	
	aM (IEC)	A	16	
Making capacity (RMS value)	A			120
Breaking capacity at voltage	440V	A	96	
	500V	A	72	
	690V	A	72	
Resistance per pole (average value)	m Ω			10
Power dissipation per pole (average value)	I_{th}	W	4	
	AC3	W	1.44	
Tightening torque for terminals	min	Nm	0.8	
	max	Nm	1	
	min	lbin	0.59	
	max	lbin	0.74	
Tightening torque for coil terminal				

	min	Nm	0.8
	max	Nm	1
	min	lbft	0.8
	max	lbft	0.74
Max number of wires simultaneously connectable		nr.	2
Conductor section	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 wired		
Mechanical features			
Operating position	normal allowable	vertical plan ±30°	
Fixing		Screw / DIN rail 35mm	
Weight		g	222
Auxiliary contact characteristics			
Type of contact			1 NC
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 contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			Yes
AC coil operating			
Rated AC voltage at 50/60Hz, 60Hz	min	V	12

		max	V	575
AC operating voltage 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	0.9
DC coil operating				
DC rated control voltage				
		min	V	6
		max	V	480
DC operating voltage				
pick-up		min	%Us	75
		max	%Us	115
drop-out		min	%Us	10
		max	%Us	25
Average coil consumption ≤20°C				
		in-rush	W	3.2
		holding	W	3.2
Max cycles frequency				
Mechanical operations			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

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

at 480V	A	11
at 600V	A	11

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	3
220/230V	hp	3
460/480V	hp	7.5
575/600V	hp	10

Contact rating of auxiliary contacts according to UL

A600 - Q600

General USE

Contactor

AC current	A	20
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Ambient conditions

Temperature

Operating temperature

min	°C	-40
max	°C	60

Storage temperature

min	°C	-55
max	°C	70

Max altitude

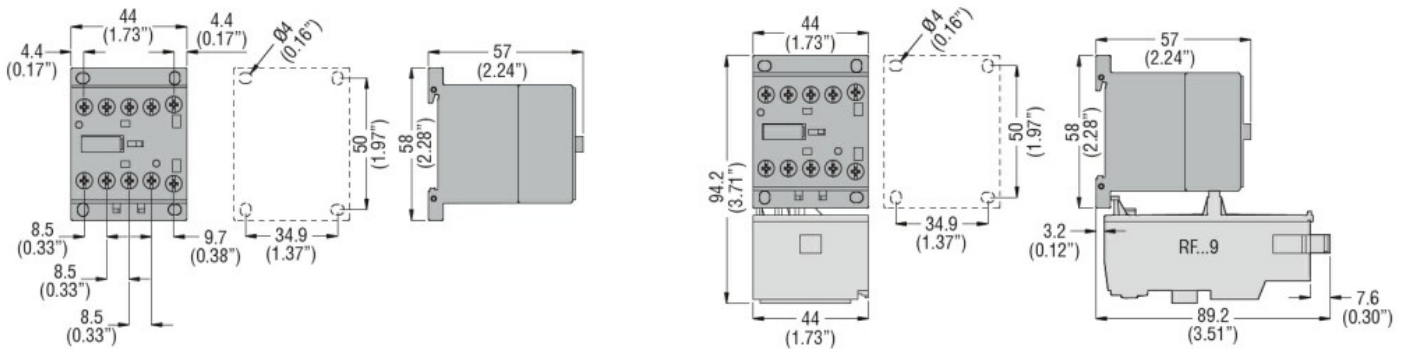
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Resistance & Protection

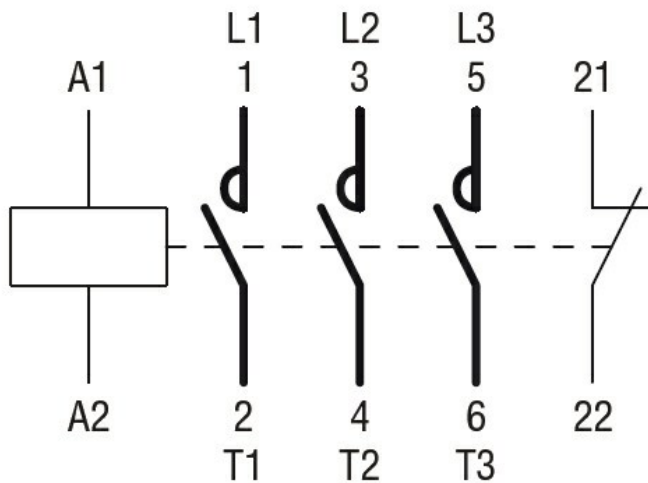
Pollution degree

3

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

EAC

ETIM 6 classification

EC000066 - Power contactor, AC switching