



Product designation				Power contactor
Product type designation				BG09
<b>Contact characteristics</b>				
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	
Conventional free air thermal current $I_{th}$ IEC/EN	A			20
Operational current $I_e$	AC-1 ( $\leq 40^\circ\text{C}$ )	A	20	
	AC-3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ )	A	9	
	AC-4 (400V)	A	4	
Rated operational power AC-3 ( $T \leq 55^\circ\text{C}$ )	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 ( $T \leq 40^\circ\text{C}$ )	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	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)	m $\Omega$			10
Power dissipation per pole (average value)	$I_{th}$	W	4	
	AC3	W	0.81	
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 <sup>2</sup>	0.75
	max	mm <sup>2</sup>	2.5
	Flexible c/w lug conductor section		
	min	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	2.5
	Flexible with insulated spade lug conductor section		
	min	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	2.5
Power terminal protection according to IEC/EN 60529	IP20 when wired		
<b>Mechanical features</b>			
Operating position	normal allowable	Vertical plan ±30°	
Fixing		Screw / DIN rail 35mm	
Weight		g	177
<b>Auxiliary contact characteristics</b>			
Type of contact		1 NO	
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 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
<b>Operations</b>			
Mechanical life		cycles	20000000
Electrical life		cycles	500000
<b>Safety related data</b>			
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	
<b>AC coil operating</b>			
Rated AC voltage at 50/60Hz, 60Hz	min	V	12

		max	V	575
<b>AC operating voltage</b>				
	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
<b>AC operating voltage at 20°C</b>				
	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
<b>Dissipation at holding ≤20°C 50Hz</b>			W	0.95
<b>DC coil operating</b>				
<b>DC rated control voltage</b>				
		min	V	6
		max	V	480
<b>Average coil consumption ≤20°C</b>				
		in-rush	W	3.2
		holding	W	3.2
<b>Max cycles frequency</b>				
<b>Mechanical operations</b>			cycles/h	3600
<b>Operating times</b>				
<b>Average time for Us control</b>				
	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

Opening NO	max	ms	25
	min	ms	2
Closing NC	max	ms	3
	min	ms	3
Opening NC	max	ms	5
	min	ms	11
	max	ms	17

**UL technical data**

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
220/230V	hp	3
460/480V	hp	5
575/600V	hp	5

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

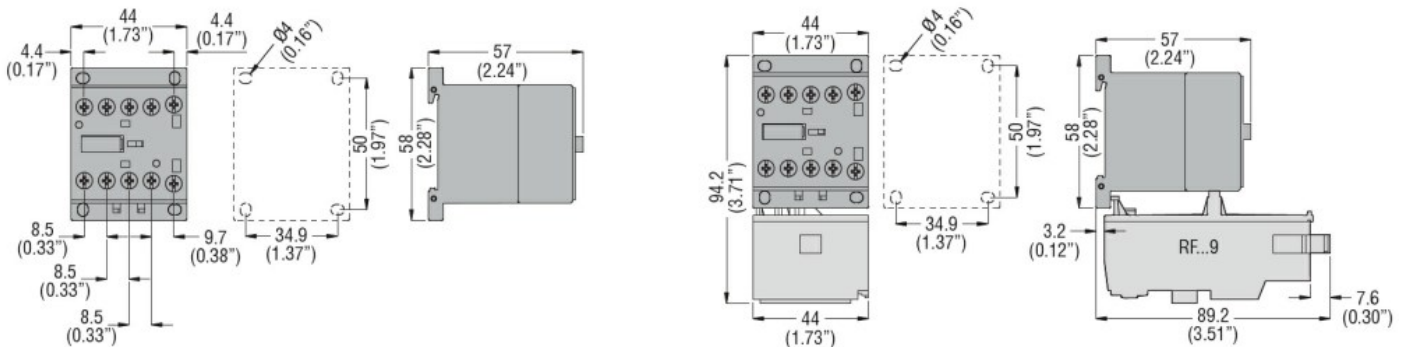
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**Resistance & Protection**

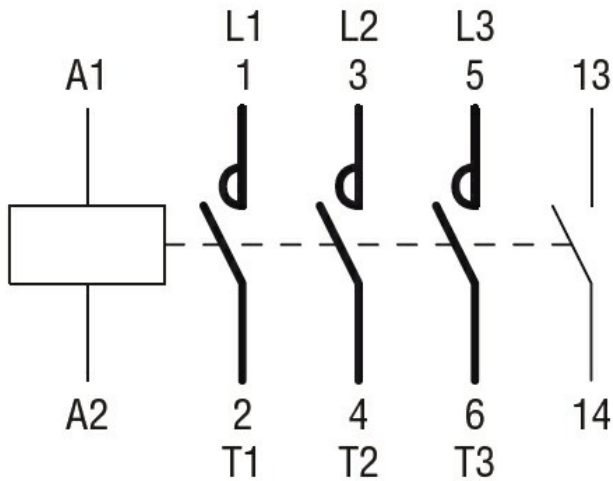
Pollution degree

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