



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-1 ( $T \leq 40^\circ\text{C}$ )	230V	kW	8	
	400V	kW	14	
	500V	kW	16	
	690V	kW	22	
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	
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)	Power dissipation pole (average value) $I_{th}$	W	4	
	AC3	W	0.81	
Tightening torque for terminals	min	Nm	0.8	
	max	Nm	1	
	min	lbft	0.59	
	max	lbft	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	AWG		
	min		18
	max		12
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>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		
Operational current I <sub>e</sub> AC-1 (≤40°C)	A	20	
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
	110V	A	Screw / DIN rail 35mm
	125V	A	0.3
	220V	A	0.1
	600V	A	0.6
<b>Ambient conditions</b>			
Temperature	Operating temperature		
	min	°C	-40
	max	°C	60
	Storage temperature		
	min	°C	-55
	max	°C	70
Max altitude		m	3000
Operational position	Operating position normal Operating position allowable		Vertical plan ±30°
Mounting	Screw / DIN rail 35mm		
Weight		g	0.177

**Operations**

Mechanical life	Cycles	20000000
Electrical life	Cycles	500000

**Safety related data**

Performance level B10d according to EN/ISO 13489-1

	rated load mechanical load	Cicli Cicli	500000 20000000
Mirror contats according to IEC/EN 609474-4-1			yes
EMC compatibility			yes

**AC coil operating**

AC operating voltage

of 50/60Hz coil powered at 50Hz				
pick-up	min	%Us	0.75	
	max	%Us	1.15	
drop-out	min	%Us	0.2	
	max	%Us	0.55	
of 50/60Hz coil powered at 60Hz				
pick-up	min	%Us	0.8	
	max	%Us	1.15	
drop-out	min	%Us	0.2	
	max	%Us	0.55	
of 60Hz coil powered at 60Hz				
pick-up	min	%Us	0.75	
	max	%Us	1.15	
drop-out	min	%Us	0.2	
	max	%Us	0.55	

AC operating voltage

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

**DC coil operating**

DC rated control voltage

max	V	480
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DC operating voltage

Average coil consupcion ≤20°C

in-rush	W	3.2
holding	W	3.2

**Max cycles frequency**

Mechanical operations	Cycles/h	3600
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**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

**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

for single-phase AC motor

Yielded mechanical performance at 110/120V	hp	0.5
Yielded mechanical performance at 230V	hp	1.5

for three-phase AC motor

Yielded mechanical performance at 200/208V	hp	2
Yielded mechanical performance at 220/230V	hp	3
Yielded mechanical performance at 460/480V	hp	5
Yielded mechanical performance at 575/600V	hp	5

Contact rating of auxiliary contacts according to UL

A600 - Q600

General USE

Contactor

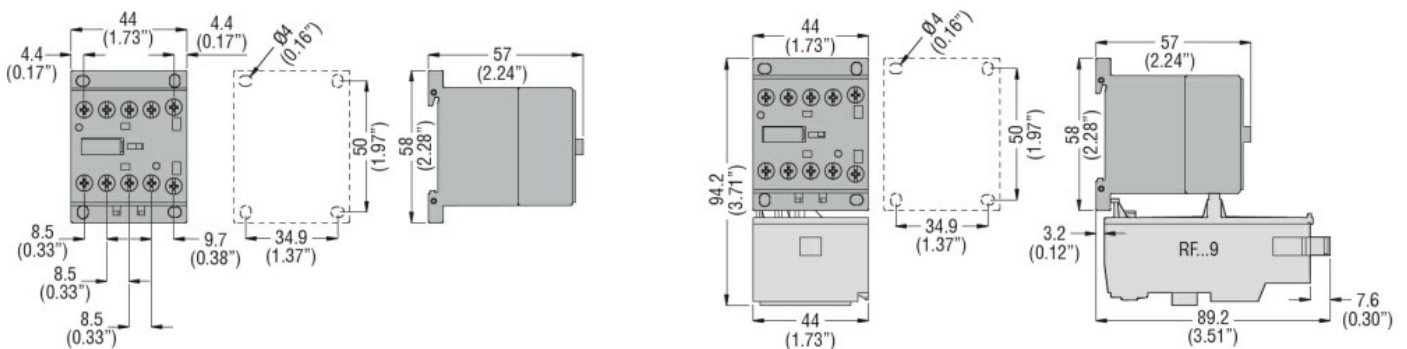
AC current	A	20
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**Other features**

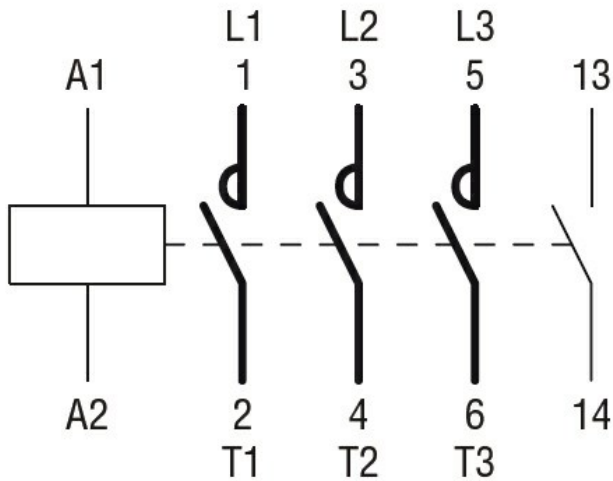
Pollution degree

3

**Dimensions**



**Wiring diagrams**



### Certifications and compliance

#### Certifications

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

#### Compliance

CCC

cULus

EAC

### ETIM 6 classification

EC000066 - Power contactor, AC switching