



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

	220V	A	2
IEC max current Ie in DC1 with L/R = 1ms with 4 poles in series	=24V 48V 75V 110V 220V	A A A A A	16 16 10 10 2
IEC max current Ie in DC3-DC5 with L/R = 15ms with 1 poles in series	=24V 48V 75V 110V 220V	A A A A A	7 6 2 1 —
IEC max current Ie in DC3-DC5 with L/R = 15ms with 2 poles in series	=24V 48V 75V 110V 220V	A A A A A	8 8 5 4 —
IEC max current Ie in DC3-DC5 with L/R = 15ms with 3 poles in series	=24V 48V 75V 110V 220V	A A A A A	10 10 6 5 0,8
IEC max current Ie in DC3-DC5 with L/R = 15ms with 4 poles in series	=24V 48V 75V 110V 220V	A A A A A	10 10 6 5 0,8
Short-time allowable current for 10s (IEC/EN60947-1)		A	96
Protection fuse	gG (IEC) aM (IEC)	A A	20 10
Making capacity (RMS value)		A	92
Breaking capacity at voltage	440V 500V 690V	A A A	72 72 72
Resistance per pole (average value)		m?	10
Power dissipation per pole (average value)	I <sub>th</sub> AC3	W W	4 0.81
Tightening torque for terminals	min max min max	Nm Nm lbin lbin	0.8 1 9 9
Tightening torque for coil terminal	min max min	Nm Nm lbin	0.8 1 9

	max	lbin	9
Max number of wires simultaneously connectable	Nr.		2
<b>Conductor section</b>			
AWG/Kcmil			
Flexible w/o lug conductor section	max		12
	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		180
<b>Conductor section</b>			
AWG/kcmil conductor section			
	max		12
<b>Auxiliary contact characteristics</b>			
Thermal current Ith	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 mechanical load	cycles	500000
		cycles	20000000
Mirror contacts according to IEC/EN 609474-4-1			yes
EMC compatibility			yes
AC coil operating	V		110
Rated AC voltage at 50/60Hz			

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**

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

**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

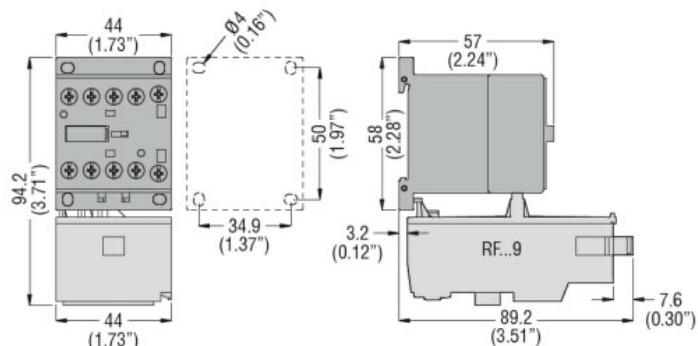
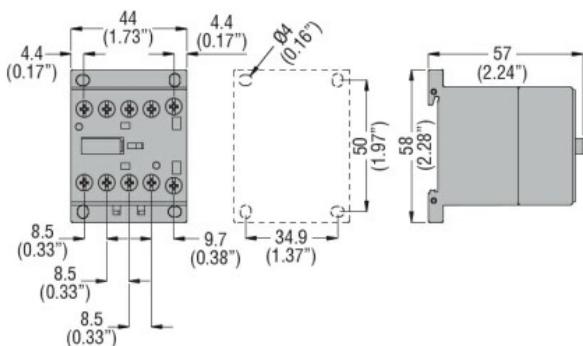
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**Resistance & Protection**

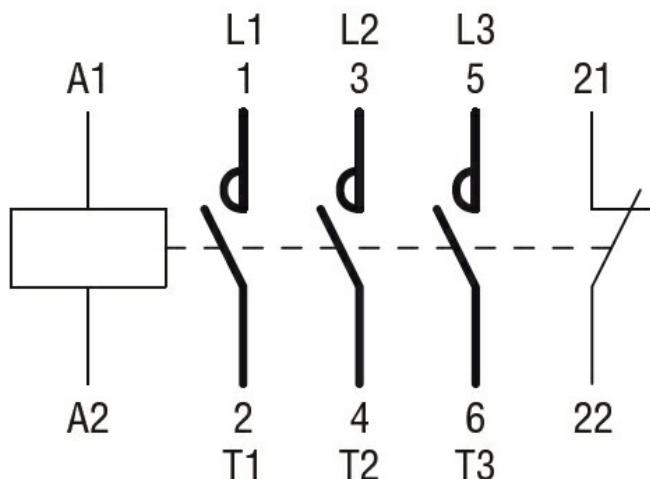
Pollution degree

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 classification

##### ETIM 8.0

EC000066 -  
Power contactor,  
AC switching