



Product designation				Power contactor
Product type designation				BG09
<b>Contact characteristics</b>				
Number of poles	Nr.			4
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	
Operational current $I_e$	AC-1 ( $\leq 40^\circ\text{C}$ )	A	20	
	AC-1 ( $\leq 55^\circ\text{C}$ )	A	18	
	AC-1 ( $\leq 70^\circ\text{C}$ )	A	15	
	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	
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	
	AC-3	W	0.81	
Tightening torque for terminals	min	Nm	0.8	
	max	Nm	1	
	min	$I_{bin}$	9	
	max	$I_{bin}$	9	
Tightening torque for coil terminal	min	Nm	0.8	
	max	Nm	1	
	min	$I_{bin}$	9	
	max	$I_{bin}$	9	
Max number of wires simultaneously connectable	Nr.	2		
Conductor section				

AWG/Kcmil			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 properly wired

**Mechanical features**

Operating position	normal allowable	Vertical plan ±30°
Fixing		Screw / DIN rail 35mm
Weight		g 220
Conductor section	AWG/kcmil conductor section	max 12

**Auxiliary contact characteristics**

Thermal current I<sub>th</sub> A 10

**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

**DC coil operating**

DC rated control voltage V 220

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 operation cycles/h 3600

**Operating times**

Average time for U <sub>s</sub> 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
<hr/>				
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

Contacteur

AC current	A	20
------------	---	----

**Ambient conditions**

Temperature

Operating temperature

min	°C	-50
max	°C	+70

Storage temperature

min	°C	-60
max	°C	+80

Max altitude

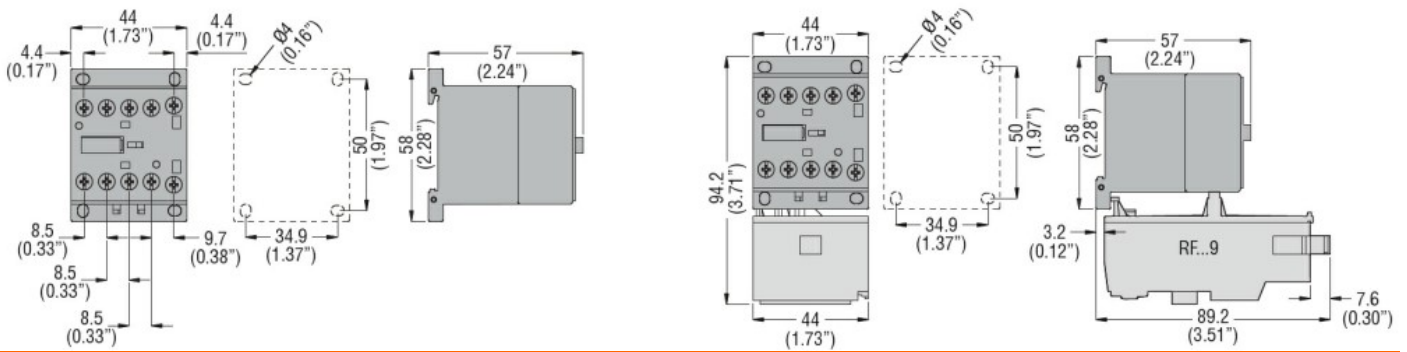
m	3000
---	------

**Resistance & Protection**

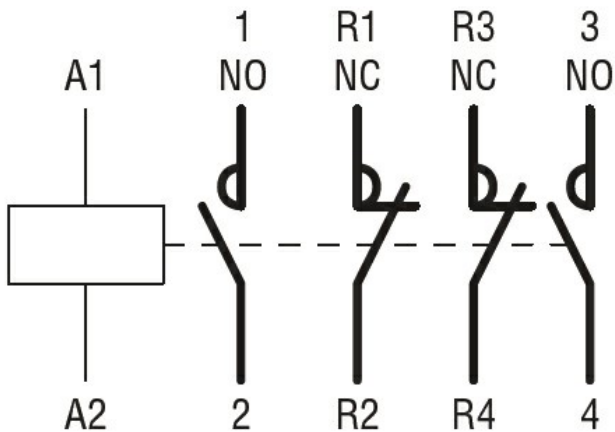
Pollution degree

3

**Dimensions**



**Wiring diagrams**



**Certifications and compliance**

**Compliance**

- CSA C22.2 n° 60947-1
- CSA C22.2 n° 60947-4-1
- 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