



Product designation

Power contactor

Product type designation

BG09

**Contact characteristics**

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
IEC Conventional free air thermal current $I_{th}$	A	20
Operational current $I_e$	AC-1 (=40°C)	A 20
	AC-1 (=55°C)	A 18
	AC-1 (=70°C)	A 15
	AC-3 (=440V =55°C)	A 9
	AC-4 (400V)	A 4
Rated operational power AC-1 (T=40°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)	mΩ	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	9
	max lbin	9
Tightening torque for coil terminal	min Nm	0.8
	max Nm	1
	min lbin	9
	max lbin	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 wired
Mechanical features			
Operating position			
		normal allowable	Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	180
Conductor section			
AWG/kcmil conductor section		max	12
Auxiliary contact characteristics			
Thermal current I <sub>th</sub>		A	10
IEC/EN 60947-5-1 designation			A600
Operating current DC12			
		110V	A 2.9
Operating current DC13			
		24V	A 2.9
		48V	A 1.4
		60V	A 1.1
		125V	A 0.3
		220V	A 0.1
		600V	A 0.6
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		V	110
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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Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	+70

Storage temperature

min	°C	-60
max	°C	+80

Max altitude

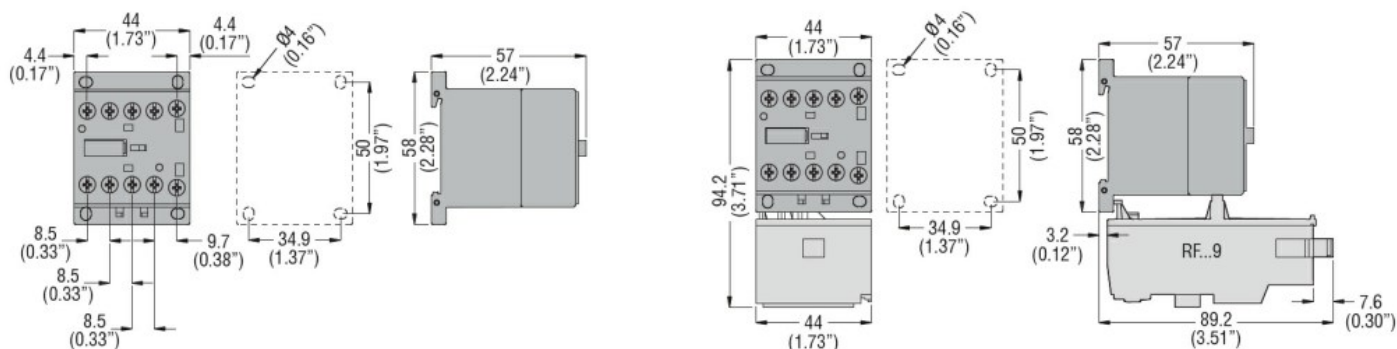
m	3000
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Resistance & Protection

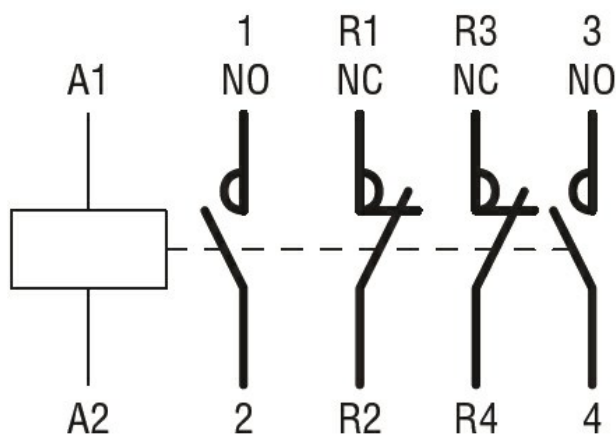
Pollution degree

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

Certificates	IEC/EN 60947-4-1
	UL 60947-1
	UL 60947-4-1
	CCC
	cULus
	EAC
ETIM classification	
ETIM 8.0	EC000066 - Power contactor, AC switching