



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)	Ith	W		4
	AC-3	W		0.81
Tightening torque for terminals	min	Nm		0.8
	max	Nm		1
	min	Ibin		9
	max	Ibin		9
Tightening torque for coil terminal	min	Nm		0.8
	max	Nm		1
	min	Ibin		9
	max	Ibin		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 180
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

**AC coil operating**

Rated AC voltage at 60Hz V 48

AC operating voltage			
of 60Hz coil powered at 60Hz			
pick-up	min	%Us	75
	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 $\leq 20^{\circ}\text{C}$ 50Hz		W	0.95
<b>Max cycles frequency</b>			
Mechanical operation		cycles/h	3600
<b>Operating times</b>			
Average time for $U_s$ 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

**Ambient conditions**

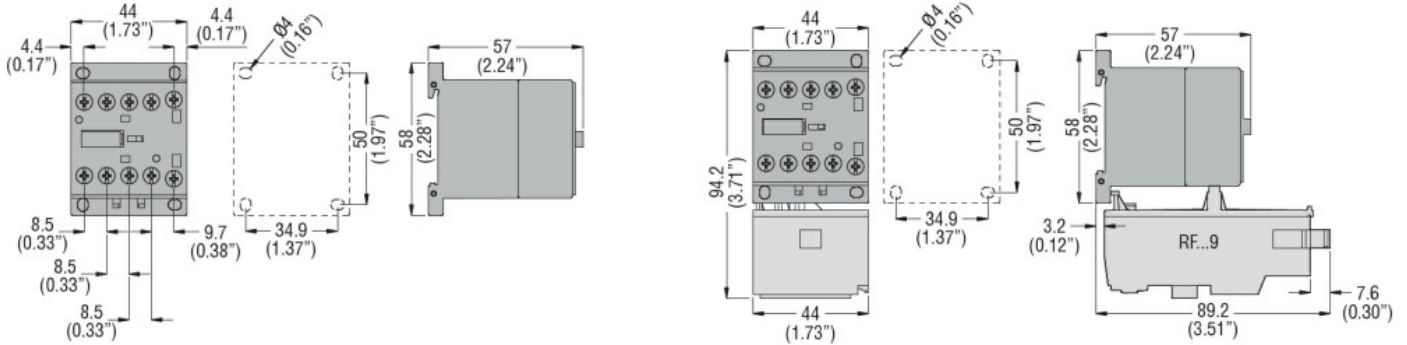
Temperature			
Operating temperature			
	min	$^{\circ}\text{C}$	-50
	max	$^{\circ}\text{C}$	+70
Storage temperature			
	min	$^{\circ}\text{C}$	-60

Max altitude	max	°C	+80
		m	3000

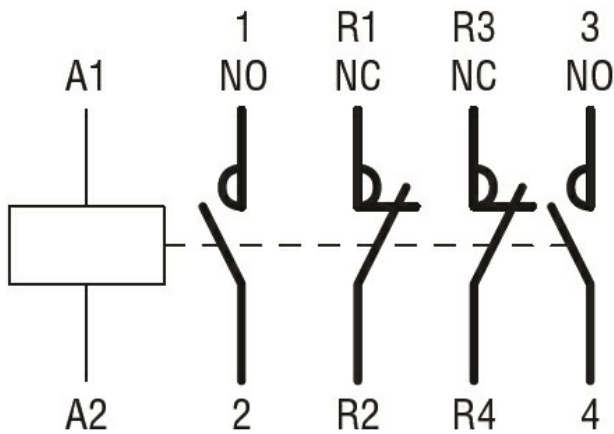
**Resistance & Protection**

Pollution degree	3
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**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
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