



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 ($=40^\circ\text{C}$)	A	20
	AC-3 ($=440\text{V} =55^\circ\text{C}$)	A	9
	AC-4 (400V)	A	4
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 I_e in DC1 with $L/R = 1\text{ms}$ with 4 poles in series	=24V	A	16
	48V	A	16
	75V	A	10
	110V	A	10
	220V	A	2
IEC max current I_e in DC3-DC5 with $L/R = 15\text{ms}$ with 1 poles in series	=24V	A	7

	48V	A	6
	75V	A	2
	110V	A	1
	220V	A	—
IEC max current I_e in DC3-DC5 with $L/R = 15\text{ms}$ with 2 poles in series			
	=24V	A	8
	48V	A	8
	75V	A	5
	110V	A	4
	220V	A	—
IEC max current I_e in DC3-DC5 with $L/R = 15\text{ms}$ with 3 poles in series			
	=24V	A	10
	48V	A	10
	75V	A	6
	110V	A	5
	220V	A	0,8
IEC max current I_e in DC3-DC5 with $L/R = 15\text{ms}$ with 4 poles in series			
	=24V	A	10
	48V	A	10
	75V	A	6
	110V	A	5
	220V	A	0,8
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?	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 ²	0.75
	max	mm ²	2.5
Flexible c/w lug conductor section			

	min	mm ²	1.5
	max	mm ²	2.5
Flexible with insulated spade lug conductor section			
Power terminal protection according to IEC/EN 60529			
Mechanical features			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight	g	220	
Conductor section			
AWG/kcmil conductor section			
Auxiliary contact characteristics			
Thermal current I _{th}	A	10	
IEC/EN 60947-5-1 designation		Q600	
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 609474-4-1		yes	
EMC compatibility		yes	
DC coil operating			
DC rated control voltage	V	110	
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 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

Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	+70

Storage temperature

min	°C	-60
max	°C	+80

Max altitude

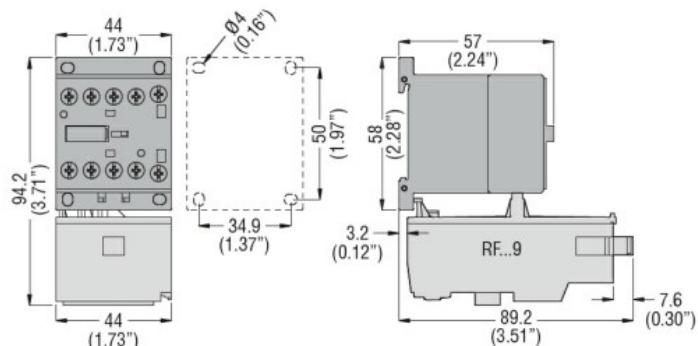
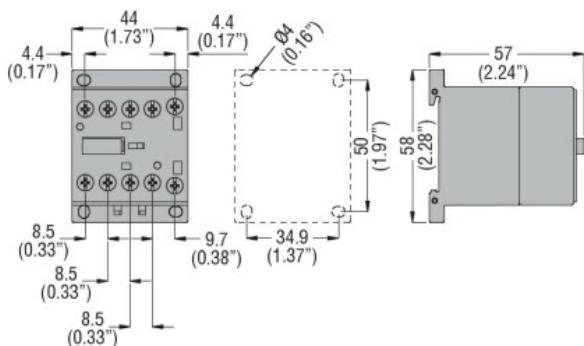
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Resistance & Protection

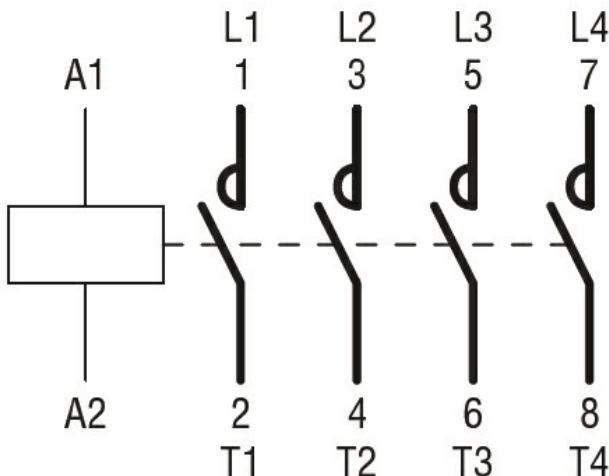
Pollution degree

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