





Product designation			Power contactor
Product type designation			BGF09
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	20
Operational current le			
	AC-1 (≤40°C)	Α	20
	AC-1 (≤55°C)	Α	18
	AC-1 (≤70°C)	Α	15
	AC-3 (≤440V ≤55°C)	Α	9
	AC-4 (400V)	Α	4
Rated operational power AC-3 (T≤55°C)			
	230V	kW	2.2
	400V	kW	4
	415V	kW	4.3
	440V	kW	4.5
	500V	kW	5
D. I. J.	690V	kW	5
Rated operational power AC-1 (T≤40°C)	0001	1-107	0
	230V	kW	8
	400V	kW	14
	500V 690V	kW kW	16 22
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series	090 V	KVV	
TEC max current le in DCT with E/N = mis with 1 poles in series	≤24V	Α	12
	±24√ 48V	A	10
	75V	A	4
	110V	A	3
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	220 V		
120 max current to in 201 with 270 = This with 2 polos in conce	≤24V	Α	15
	48V	Α	14
	75V	A	9
	110V	A	8
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		<u> </u>	
	≤24V	Α	16
	48V	Α	16
	75V	Α	10
	110V	Α	10





	220V	Α	2
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	16
	48V	Α	16
	75V	A	10
	110V	A	10
	220V	A	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	220 V		
ILO MAX current le in DO3-DO3 with L/TC3 Toms with 1 poles in series	<b>~</b> 04\/	٨	7
	≤24V	A	7
	48V	Α	6
	75V	Α	2
	110V	Α	1
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	8
	48V	Α	8
	75V	Α	5
	110V	Α	4
	220V	A	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	ZZU V		<del>-</del>
TEO may content to in 200-2003 with E/K > 13ms with 3 poles in series	-01V	۸	10
	≤24V	A	10
	48V	Α	10
	75V	Α	6
	110V	Α	5
	220V	Α	0,8
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	10
	48V	Α	10
	75V	Α	6
	110V	Α	5
	220V	A	0,8
Short time allowable current for 10s (IEC/ENG0047.1)	220 V	A	96
Short-time allowable current for 10s (IEC/EN60947-1)		A	90
Protection fuse	. 0 (150)		00
	gG (IEC)	Α	20
	aM (IEC)	A	10
Making capacity (RMS value)		Α	92
Breaking capacity at voltage			
	440V	Α	72
	500V	Α	72
	690V	Α	72
Resistance per pole (average value)		mΩ	10
Power dissipation per pole (average value)			. •
. 5.1.5. Glospation por poro (avorago valuo)	Ith	W	4
	AC-3	W	0.81
Tightoning targue for terminals	AU-3	٧٧	U.O I
Tightening torque for terminals			0.0
	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
	111111	15111	•



		max	Ibin	9
	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
	-	max		12
	Flexible w/o lug conductor section			
		min	mm²	0.75
	<del></del>	max	mm²	2.5
	Flexible c/w lug conductor section		2	
		min	mm²	1.5
	=	max	mm²	2.5
	Flexible with insulated spade lug conductor section		2	
		min	mm²	1.5
		max	mm²	2.5
Power terminal protect	ction according to IEC/EN 60529			IP20 when
Machanical factures				properly wired
Mechanical features Operating position				
Operating position		normal		Vertical plan
		allowable		±30°
		allowable		Screw / DIN rail
Fixing				35mm
Weight			g	181
Conductor section			<u> </u>	
Conductor Cochen	AWG/kcmil conductor section			
	, the Gritanian confederal coolien	max		12
Auxiliary contact chara	acteristics			
Thermal current Ith			Α	10
THEITHAI CUITEIL IIII			А	10
	esignation		A	A600 - Q600
IEC/EN 60947-5-1 de	•		A	
IEC/EN 60947-5-1 de Operating current AC	•	230V	A	
IEC/EN 60947-5-1 de	•	230V 400V		A600 - Q600
IEC/EN 60947-5-1 de	•		A	A600 - Q600 3
IEC/EN 60947-5-1 de Operating current AC	15	400V	A A	A600 - Q600 3 1.9
IEC/EN 60947-5-1 de Operating current AC	15	400V	A A	A600 - Q600 3 1.9
IEC/EN 60947-5-1 de Operating current AC Operating current DC	12	400V 500V	A A A	A600 - Q600 3 1.9 1.4
IEC/EN 60947-5-1 de Operating current AC Operating current DC	12	400V 500V	A A A	A600 - Q600 3 1.9 1.4
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V 500V 110V	A A A	A600 - Q600 3 1.9 1.4 2.9
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V 500V 110V 24V	A A A	A600 - Q600 3 1.9 1.4 2.9
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V 500V 110V 24V 48V	A A A A	A600 - Q600  3 1.9 1.4 2.9 2.9 1.4
IEC/EN 60947-5-1 de Operating current AC Operating current DC	12	400V 500V 110V 24V 48V 60V	A A A A A	A600 - Q600  3 1.9 1.4 2.9 2.9 1.4 1.1
IEC/EN 60947-5-1 de	12	400V 500V 110V 24V 48V 60V 125V	A A A A A A	A600 - Q600  3 1.9 1.4  2.9  2.9 1.4 1.1 0.3
Operating current DC	12	400V 500V 110V 24V 48V 60V 125V 220V	A A A A A A	A600 - Q600  3 1.9 1.4  2.9  2.9 1.4 1.1 0.3 0.1
Operating current DC Operating current DC Operating current DC	12	400V 500V 110V 24V 48V 60V 125V 220V	A A A A A A	A600 - Q600  3 1.9 1.4  2.9  2.9 1.4 1.1 0.3 0.1
Operating current DC	12	400V 500V 110V 24V 48V 60V 125V 220V	A A A A A A A	A600 - Q600  3 1.9 1.4  2.9  2.9  1.4 1.1 0.3 0.1 0.6
Operating current DC	12	400V 500V 110V 24V 48V 60V 125V 220V	A A A A A A A Cycles	A600 - Q600  3 1.9 1.4  2.9  2.9 1.4 1.1 0.3 0.1 0.6
Operating current DC Operations Mechanical life Electrical life Safety related data	12	400V 500V 110V 24V 48V 60V 125V 220V	A A A A A A A Cycles	A600 - Q600  3 1.9 1.4  2.9  2.9 1.4 1.1 0.3 0.1 0.6
Operating current DC Operations Mechanical life Electrical life Safety related data	12	400V 500V 110V 24V 48V 60V 125V 220V	A A A A A A A Cycles	A600 - Q600  3 1.9 1.4  2.9  2.9 1.4 1.1 0.3 0.1 0.6
Operating current DC Operations Mechanical life Electrical life Safety related data	15 12 13 0d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 125V 220V 600V	A A A A A A Cycles cycles	A600 - Q600  3 1.9 1.4  2.9  2.9 1.4 1.1 0.3 0.1 0.6  20000000 500000
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	15 12 13 0d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 125V 220V 600V	A A A A A A Cycles cycles	A600 - Q600  3 1.9 1.4  2.9  2.9 1.4 1.1 0.3 0.1 0.6  20000000 500000
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	15  12  13  Od according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 125V 220V 600V	A A A A A A Cycles cycles	A600 - Q600  3 1.9 1.4  2.9  2.9  1.4 1.1 0.3 0.1 0.6  20000000  500000  500000
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accord	15  12  13  Od according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 125V 220V 600V	A A A A A A Cycles cycles	A600 - Q600  3 1.9 1.4  2.9  2.9 1.4 1.1 0.3 0.1 0.6  20000000 500000  500000  yes
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats according EMC compatibility	15 12 13  Od according to EN/ISO 13489-1  mig to IEC/EN 609474-4-1	400V 500V 110V 24V 48V 60V 125V 220V 600V	A A A A A A Cycles cycles	A600 - Q600  3 1.9 1.4  2.9  2.9 1.4 1.1 0.3 0.1 0.6  20000000 500000  500000  yes





AC operating voltage					
	of 50/60Hz coil pov	wered at 50Hz			
		pick-up			
			min	%Us	75
			max	%Us	115
		drop-out	_		
			min	%Us	20
			max	%Us	55
	of 50/60Hz coil pov				
		pick-up		0/11	22
			min	%Us	80
		duam acut	max	%Us	115
		drop-out	ma in	0/116	20
			min	%Us	20 55
AC average seil consu	umption at 20°C		max	%Us	33
AC average coil consu		world at EOU-			
	of 50/60Hz coil pov	weieu al DUMZ	in-rush	VA	30
				VA VA	30 4
	of FO/GOLLT coil re-	world at COU-	holding	VA	4
	of 50/60Hz coil pov	weieu al OUTZ	in-rush	VA	25
			holding	VA VA	3
	of 60Hz coil power	od at 60∐-	Holding	VA	<u> </u>
	or doriz con power	eu at ouriz	in-rush	VA	30
			holding	VA	4
Dissipation at holding	<20°C 50Hz		Holding	W	0.95
Max cycles frequency	=20 O 30112			VV	0.33
man eyeree nequency					
Mechanical operation				cvcles/h	3600
Mechanical operation Operating times				cycles/h	3600
Operating times	ontrol			cycles/h	3600
				cycles/h	3600
Operating times	ontrol in AC	Closing NO		cycles/h	3600
Operating times		Closing NO	min	cycles/h	
Operating times		Closing NO	min max	ms	12
Operating times			min max		
Operating times		Closing NO Opening NO		ms	12
Operating times			max	ms ms	12 21
Operating times			max min	ms ms ms	12 21 9
Operating times		Opening NO	max min	ms ms ms	12 21 9
Operating times		Opening NO	max min max	ms ms ms	12 21 9 18
Operating times		Opening NO	max min max min	ms ms ms ms	12 21 9 18
Operating times		Opening NO Closing NC	max min max min	ms ms ms ms	12 21 9 18
Operating times		Opening NO Closing NC	max min max min max	ms ms ms ms	12 21 9 18 17 26
Operating times		Opening NO Closing NC	max min max min max min	ms ms ms ms	12 21 9 18 17 26
Operating times	in AC	Opening NO Closing NC	max min max min max min	ms ms ms ms	12 21 9 18 17 26
Operating times	in AC	Opening NO Closing NC Opening NC	max min max min max min	ms ms ms ms	12 21 9 18 17 26
Operating times	in AC	Opening NO  Closing NC  Opening NC  Closing NO	max min max min max min max	ms ms ms ms ms	12 21 9 18 17 26 7
Operating times	in AC	Opening NO Closing NC Opening NC	max min max min max min max min max	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
Operating times	in AC	Opening NO  Closing NC  Opening NC  Closing NO	max min max min max min max min max	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
Operating times	in AC	Opening NO  Closing NC  Opening NC  Closing NO  Opening NO	max min max min max min max min max	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
Operating times	in AC	Opening NO  Closing NC  Opening NC  Closing NO	max min max min max min max min max min max min	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
Operating times	in AC	Opening NO  Closing NC  Opening NC  Closing NO  Opening NO	max min max min max min max min max min max min	ms ms ms ms ms ms	12 21 9 18 17 26 7 17 18 25 2 3
Operating times	in AC	Opening NO  Closing NC  Opening NO  Closing NO  Opening NO  Closing NC	max min max min max min max min max  min max	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
Operating times	in AC	Opening NO  Closing NC  Opening NC  Closing NO  Opening NO	max min	ms ms ms ms ms ms ms	12 21 9 18 17 26 7 17 18 25 2 3

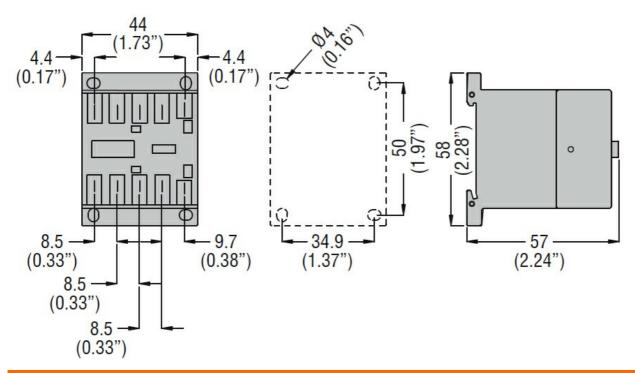




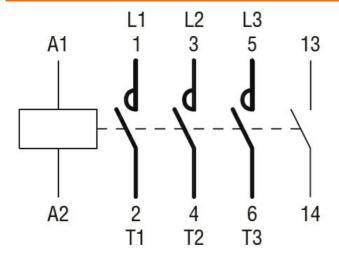
		min	ms	11	
		max	ms	17	
UL technical data					
Full-load current (FLA)	for three-phase AC motor				
		at 480V	Α	7.6	
		at 600V	Α	6.1	
Yielded mechanical pe	erformance				
	for single-phase AC motor				
		110/120V	HP	0.5	
		230V	HP	1.5	
	for three-phase AC motor				
		200/208V	HP	2	
		220/230V	HP	3	
		460/480V	HP	5	
		575/600V	HP	5	
General USE					
	Contactor				
		AC current	Α	20	
Short-circuit protection	n fuse, 600V				
	High fault				
		Short circuit current	kA	100	
		Fuse rating	Α	30	
		Fuse class		J	
	Standard fault				
		Short circuit current	kA	5	
		Fuse rating	Α	30	
	ary 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			m	3000	
Resistance & Protection					
Pollution degree				3	
Dimensions					

**ENERGY AND AUTOMATION** 

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, AC COIL 50/60HZ, 230VAC, 1NO AUXILIARY CONTACT, FASTON TERMINALS



## 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