





Product designation Product type designation			Power contactor 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)	A	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
	690V	kW	5
Rated operational power AC-1 (T≤40°C)	0001/		
	230V	kW	8
	400V	kW	14
	500V	kW	16
IFC many assument to im DC4 with L/D < 4 may with 4 males in agrics	690V	kW	22
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series	<041/	۸	40
	≤24V 48V	A	12 10
	46 V 75 V	A A	4
	110V	A	3
	220V	A	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	ZZ0 V		
TEO max current to in DOT with E/N = 1m3 with 2 poics in 3chos	≤24V	Α	15
	48V	A	14
	75V	Α	9
	110V	Α	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	Α	10
	110V	Α	10
	220V	Α	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
·	≤24V	Α	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	220 \$	- , ,	
The max current to in 600-600 with E/N = 10m3 with 2 poics in series	≤24V	Α	0
	48V	A	8 8
	75V	A	5
	75 V 110 V	A	5 4
IEC may autrent to in DC2 DC5 with 1/D < 45m-1 with 2 m-1 m 1/2	220V	A	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	10.43.4	•	10
	≤24V	A	10
	48V	A	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	Α	0,8
Short-time allowable current for 10s (IEC/EN60947-1)		Α	96
Protection fuse			
	gG (IEC)	Α	20
	aM (IEC)	Α	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)			
. The dissipation por pole (avolage value)	Ith	W	4
	AC-3	W	0.81
Tightening torque for terminals	70-3	v v	0.01
rightening torque for terminals	min	Nlm	Λ Θ
	min	Nm Nm	0.8
	max	Nm	1
	min	lbin	9
This control is a second to control	max	lbin	9
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	9
	max	lbin	9



May a make a set wines	cincultana a cual y a compatable		Nla	
Conductor section	simultaneously connectable		Nr.	2
Conductor Section	AWG/Kcmil			
	AWG/Remii	max		12
	Flexible w/o lug conductor section	max		12
	Tionible wie lag conductor decitors	min	mm²	0.75
		max	mm²	2.5
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	2.5
	Flexible with insulated spade lug conductor section			
		min	mm²	1.5
		max	mm²	2.5
•	ction according to IEC/EN 60529			IP20 when properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	179
Conductor section				
	AWG/kcmil conductor section			
A : 11		max		12
Auxiliary contact char	acteristics		Λ	10
Thermal current Ith IEC/EN 60947-5-1 de	ecionation		A	A600 - Q600
Operating current AC	-			A000 - Q000
operating current Ao		230V	Α	3
		400V	A	1.9
		500V	Α	1.4
Operating current DC	12			
		110V	Α	2.9
Operating current DC	13			
		24V	Α	2.9
		48V	Α	1.4
		60V	Α	1.1
		125V	Α	0.3
		220V	A	0.1
Operations		600V	Α	0.6
Operations Mechanical life			cyclos	20000000
Electrical life			cycles cycles	500000
Safety related data			Cycles	300000
	10d according to EN/ISO 13489-1			
		rated load	cycles	500000
	me	chanical load	cycles	20000000
Mirror contats accord	ling to IEC/EN 609474-4-1	<u>-</u>		yes
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 5	50/60Hz		V	48
AC operating voltage				





of 50/60Hz coil powered at 60Hz pick-up					
Max		of 50/60Hz coil powered at 50Hz	<u>'</u>		
Max Mus 115 Mus 115 Mus 115 Mus Mus 115 Mus		pick-up			
Acceptance Ac			min	%Us	
Min			max	%Us	115
Max		drop-out			
of 50/60Hz coil powered at 60Hz pick-up min			min	%Us	20
Pick-up Min			max	%Us	55
Max		of 50/60Hz coil powered at 60Hz	<u>'</u>		
Max		pick-up			
AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz of 50/60Hz coil powered at 50Hz of 50/60Hz coil powered at 60Hz of 60Hz coil powered at 60Hz of			min	%Us	80
Max Multiple Mul			max	%Us	115
AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz		drop-out			
AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz In-rush VA 30 Nolding VA 4			min	%Us	20
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 holding VA 3 In-rush VA 3 holding VA 4 In-rush VA 3 In-rush VA 4 In-rush VA 3 In-rush VA 3 In-rush VA 4 In-rush VA 3 In-rush VA 4 In-rush VA 3 In-rush VA 4 In-rush VA 4 In-rush VA 3 In-rush VA 4 In-rush VA 4 In-rush VA 3 In-rush VA 4 In-rush VA 4 In-rush VA 4 In-rush VA Va Val In-rush VA Va Val In-rush VA Va Val In-rush VA Va Val In-rush VA			max	%Us	55
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 holding VA 3 In-rush VA 3 holding VA 4 In-rush VA 3 In-rush VA 4 In-rush VA 3 In-rush VA 3 In-rush VA 4 In-rush VA 3 In-rush VA 4 In-rush VA 3 In-rush VA 4 In-rush VA 4 In-rush VA 3 In-rush VA 4 In-rush VA 4 In-rush VA 3 In-rush VA 4 In-rush VA 4 In-rush VA 4 In-rush VA Va Val In-rush VA Va Val In-rush VA Va Val In-rush VA Va Val In-rush VA	AC average coil consu	nption at 20°C			
In-rush VA 30 holding VA 4 4 4 4 4 4 4 4 4	· ·		<u>.</u>		
Molding		•		VA	30
of 50/60Hz coil powered at 60Hz in-rush VA 3 3 of 60Hz coil powered at 60Hz in-rush VA 3 of 60Hz coil powered at 60Hz in-rush VA 3 in-rush VA 3 holding VA 4 Dissipation at holding ≤20°C 50Hz W 0.95 Max cycles frequency Max cycles frequency Mechanical operation cycles/h 3600 Operating limes 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 NO in DC Closing NO min ms 17 max ms 17 max ms 17 max ms 17 max ms 25 Opening NO min ms 18 max ms 25 Opening NO min ms 2 max ms 3 min ms					
In-rush holding		of 50/60Hz coil powered at 60Hz			
Molding		o. 00,00 o poo. o a. 00		VA	25
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 W 0.95 Max ms 12 max ms 12 max ms 18 max ms 17 max ms 25 Opening NO min ms 2 max ms 3 Closing NC min ms 3 max ms 3 max ms 5 Opening NC min ms 5 Opening NC min ms 3 max ms 5 Opening NC min ms 10 Opening NC					
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		of 60Hz coil powered at 60Hz	Tiolding.	V/ (
Dissipation at holding ≤20°C 50Hz W 0.95		or cornz con powered at cornz	in-rush	\/Δ	30
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 17 max ms 26 Opening NC min ms 17 in DC Closing NO min ms 18 Opening NO min ms 2 max ms 3 2 max ms 3 Closing NC min ms 3 min ms 3 max ms 5 Opening NC min ms 5	Dissipation at holding	20°C 50Hz	Holding		
Mechanical operation Cycles/h 3600		20 0 30112		VV	0.93
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 Closing NO min ms 7 max ms 17 in DC Closing NO min ms 18 max ms 25 Opening NO min ms 18 max ms 25 Closing NO min ms 18 max ms 25 Opening NO min ms 3 max ms 3 Closing NC min ms 3 max ms 5 Opening NC	moonamoar operation			cycles/h	3600
Closing NO Min Ms 12				cycles/h	3600
Closing NO min ms 12 max ms 21	Operating times	ntrol		cycles/h	3600
Min Ms 12 Max Ms 21	Operating times			cycles/h	3600
Opening NO min ms 9 max ms 18	Operating times	in AC	NO.	cycles/h	3600
Opening NO min ms 9 max ms 18	Operating times	in AC			
Min Ms 9 Max Ms 18	Operating times	in AC	min	ms	12
Closing NC min ms 17 max ms 26 Opening NC min ms 7 max ms 17 max ms 17 max ms 17 max ms 17 max ms 17 max ms 17 max ms 17 max ms 25 Opening 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 3 max ms 5 min ms 3 ma	Operating times	in AC Closing	min max	ms	12
Closing NC min ms 17 max ms 26	Operating times	in AC Closing	min max NO	ms ms	12 21
Min Ms 17 max ms 26	Operating times	in AC Closing	min max NO min	ms ms	12 21 9
Opening NC min ms 7 max ms 17	Operating times	in AC Closing Opening	min max NO min max	ms ms	12 21 9
Opening NC min ms 7 max ms 17	Operating times	in AC Closing Opening	min max NO min max	ms ms ms	12 21 9 18
min ms 7 max ms 17	Operating times	in AC Closing Opening	min max NO min max NC	ms ms ms ms	12 21 9 18
Max ms 17	Operating times	in AC Closing Opening Closing	min max NO min max NC min max	ms ms ms ms	12 21 9 18
Closing NO Min Ms 18 max ms 25	Operating times	in AC Closing Opening Closing	min max NO min max NC min max NC	ms ms ms ms	12 21 9 18 17 26
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	Operating times	in AC Closing Opening Closing	min max NO min max NC min max NC	ms ms ms ms ms	12 21 9 18 17 26
min ms 18 max ms 25	Operating times	in AC Closing Opening Closing Opening	min max NO min max NC min max NC	ms ms ms ms ms	12 21 9 18 17 26
Opening NO min ms 2 max ms 25 Min ms 2 max ms 3 Closing NC min ms 3 max ms 5 Opening NC	Operating times	in AC Closing Opening Closing Opening	min max NO min max NC min max NC min max NC	ms ms ms ms ms	12 21 9 18 17 26
Opening NO min ms 2 max ms 3 Closing NC min ms 3 max ms 5 Opening NC	Operating times	in AC Closing Opening Closing Opening	min max NO min max NC min max NC	ms ms ms ms ms	12 21 9 18 17 26 7
min ms 2 max ms 3 Closing NC min ms 3 max ms 5 Opening NC	Operating times	in AC Closing Opening Closing Opening	min max NO min max NC min max NC min max NC	ms ms ms ms ms	12 21 9 18 17 26 7 17
Closing NC min ms 3 max ms 3 min ms 3 max ms 5 Opening NC	Operating times	in AC Closing Opening Closing Opening in DC Closing	Min max NO min max NC min max NC min max NC Min max NC min max NO min max	ms ms ms ms ms	12 21 9 18 17 26 7 17
Closing NC min ms 3 max ms 5 Opening NC	Operating times	in AC Closing Opening Closing Opening in DC Closing	Min max NO min max NC min max NC min max NC Min max NC min max NO min max NO	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
min ms 3 max ms 5 Opening NC	Operating times	in AC Closing Opening Closing Opening in DC Closing	Min max NO min max NC min max NC min max NC min max NO min max NO min max NO min max NO min max	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
max ms 5 Opening NC	Operating times	in AC Closing Opening Closing Opening in DC Closing Opening	Min max NO min max NC min max NC min max NC min max NO min max	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
Opening NC	Operating times	in AC Closing Opening Closing Opening in DC Closing Opening	Min max NO min max NC min max NC min max NC min max NO	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
	Operating times	in AC Closing Opening Closing Opening in DC Closing Opening	MIN MAX NO MIN MAX NC MIN MAX NO MIN MAX NC MIN MAX NC MIN MIN MAX NC MIN MIN MAX NC MIN MIN MIN MAX NC MIN	ms ms ms ms ms ms ms	12 21 9 18 17 26 7 17
min ms 11	Operating times	in AC Closing Opening Closing Opening in DC Closing Closing Closing	Min max NO min max NC min max NC min max NO min max NC min max NC min max	ms ms ms ms ms ms ms	12 21 9 18 17 26 7 17
	Operating times	in AC Closing Opening Closing Opening in DC Closing Closing Closing	MIN MAX NO MIN MAX NC MIN MAX NO MIN MAX NO MIN MAX NO MIN MAX NO MIN MAX NC MIN MAX NC	ms ms ms ms ms ms ms	12 21 9 18 17 26 7 17 18 25 2 3

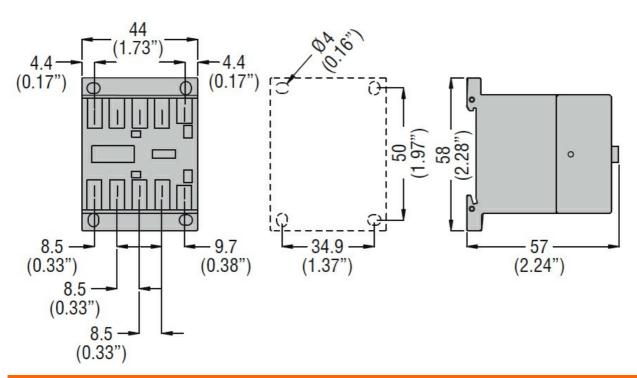




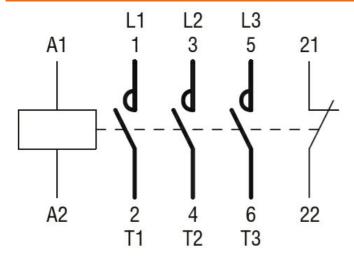
	max	ms	17
UL technical data			
Full-load current (FLA) for three-phase AC motor			
	at 480V	Α	7.6
	at 600V	Α	6.1
Yielded mechanical performance			
for single-phase AC motor			
	110/120V	HP	0.5
	230V	HP	1.5
for three-phase AC motor			
	200/208V	HP	2
	220/230V	HP	3
	460/480V	HP	5
	575/600V	HP	5
General USE			
Contactor			
	AC current	Α	20
Short-circuit protection 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
Contact rating of auxiliary 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, 48VAC, 1NC 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