

electric THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL, 12VDC, 1NC AUXILIARY CONTACT, FASTON TERMINALS **ENERGY AND AUTOMATION**



Contact Apracalerations Surprise Surp	Product designation			Power contactor
Number of poles	Product type designation			BGF09
Rated insulation voltage Ui IEC/EN V 690 Rated impulse withstand voltage Uimp kV 6 Operational frequency min Hz 25 IEC conventional free air thermal current Ith A 20 Operational current Ie 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-3 (T≤55°C) 230V kW 2.2 400V kW 4.3 440V kW 4.5 500V kW 5 5 4.6			Nle	2
Rated impulse withstand voltage Uimp				
Departional frequency				
Min Hz 25 max Hz 400 EC Conventional free air thermal current Ith A 20 Operational current Ie AC-1 (≤40°C) A 20 AC-1 (≤55°C) A 18 AC-3 (≤440°V ≤55°C) A 15 AC-3 (≤440°V ≤55°C) A 9 AC-4 (4000V A 4 AC-3 (≤440V ≤55°C) A 9 AC-4 (400V) A 4 AC-3 (≤440V ≤55°C) A 9 AC-4 (400V) A 4 AC-3 (≤440V ≤55°C) A 9 AC-4 (400V) A 4 AC-3 (≤440V ≤55°C) A 9 AC-4 (400V) A 4 AC-3 (≤440V ≤55°C) A 9 AC-4 (400V) A 4 AC-1 (≤40°C) A AC-1 (≤40°C) A 4 AC-1 (≤40°C) A AC-			KV	0
EC Conventional free air thermal current lth	Operational frequency	min	LJ- ₇	25
EC Conventional free air thermal current Ith				
Operational current le AC-1 (≤45°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-3 (T≤55°C) 230V kW 2.2 400V kW 4.3 440V kW 4.5 500V kW 5 Rated operational power AC-1 (T≤40°C) 230V kW 8 400V kW 16 690V kW 22 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 12 48V A 10 75V A 9 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 16 48V A 16 48V A 16 48V A<	IEC Conventional free air thermal current Ith	IIIax		
AC-1 (≤40°C) A 20 AC-1 (≤55°C) A 18 AC-1 (≤76°C) A 15 AC-1 (≤77°C) A 15 AC-3 (≤440V ≤55°C) A 9 AC-4 (400V) A 4 Rated operational power AC-3 (T≤55°C) 230V kW 2.2 400V kW 4.3 440V kW 4.5 500V kW 5 800V kW 5 Rated operational power AC-1 (T≤40°C) Rated operational power AC-1 (T≤40°C) 230V kW 5 690V kW 5 Rated operational power AC-1 (T≤40°C) 230V kW 16 690V kW 22 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 524V A 12 48V A 10 75V A 4 110V A 3 220V A − IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series 524V A 15 48V A 14 75V A 9 110V A 8 220V A − IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 15 48V A 14 75V A 9 110V A 8 220V A − IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 16 48V A 16				20
AC-1 (≤55°C)	Operational current le	ΔC-1 (0°C)</td <td>Δ</td> <td>20</td>	Δ	20
AC-1 (≤70°C)		` ,		
AC-3 (≤440V ≤55°C) A 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 4416V kW 4.5 500V kW 5 690V kW 5 690V kW 5 Rated operational power AC-1 (T≤40°C) Rated operational power AC-1 (T≤40°C) 230V kW 8 400V kW 14 500V kW 14 500V kW 14 500V kW 16 690V kW 22 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 12 48V A 10 75V A 4 1110V A 3 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 15 48V A 14 75V A 9 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 15 48V A 14 75V A 9 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series				
Rated operational power AC-3 (T≤55°C)		` ,		
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) Rated operational power AC-1 (T≤40°C) 230V kW 8 400V kW 14 500V kW 16 690V kW 22 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 12 48V A 10 75V A 4 110V A 3 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 15 48V A 14 75V A 9 110V A 3 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 15 48V A 14 75V A 9 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 15 48V A 16 48V A 16 75V A 9 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		*		
230V kW 2.2 400V kW 4 4 415V kW 4 4.15V kW 4.3 440V kW 4.5 500V kW 5 690V kW 5 690V kW 5 690V kW 5 690V kW 14 600V kW 14 600V kW 14 600V kW 14 600V kW 12 600V kW 12 600V kW 12 600V kW 12 600V kW 14 600V kW 16	Rated operational power AC-3 (T≤55°C)	710 1 (1001)	- , ,	<u>.</u>
A00V	rated operational power ris o (1-55 G)	230V	kW	22
415V				
A40V kW 4.5 500V kW 5 690V kW 14 600V kW 14 600V kW 14 600V kW 22 600V 600V kW 22 600V				
Soov kW 5 690V kW 5				
Rated operational power AC-1 (T≤40°C) 230V kW 8 400V kW 14 500V kW 16 690V kW 22				
Rated operational power AC-1 (T≤40°C) 230V kW 8 400V kW 14 500V kW 16 690V kW 22 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series \$24V A 12 48V A 10 75V A 4 110V A 3 220V A − IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series \$24V A 15 48V A 14 75V A 9 110V A 8 220V A − IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series \$24V A 16 48V A 16 48V A 16 75V A 10 110V A 10 110V A 10				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Rated operational power AC-1 (T≤40°C)			
S00V kW 16 690V kW 22		230V	kW	8
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V		400V	kW	14
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V		500V	kW	16
≤24V A 12 48V A 10 75V A 4 4 110V A 3 220V A −		690V	kW	22
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
T5V A 4 110V A 3 220V A -		≤24V	Α	12
110V A 3 220V A -		48V	Α	10
EC max current le in DC1 with L/R \leq 1ms with 2 poles in series \leq 24V A 15 48V A 14 75V A 9 110V A 8 220V A -		75V	Α	4
EC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V		110V	Α	3
		220V	Α	
	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
		≤24V	Α	15
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		48V	Α	14
220V A -			Α	
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 16 48V A 16 75V A 10 110V A 10				8
≤24V A 16 48V A 16 75V A 10 110V A 10		220V	Α	
48V A 16 75V A 10 110V A 10	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
75V A 10 110V A 10				
110V A 10				
		220V	A	



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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			_
The max sarron to in 8 co 8 co with Erry - Tomo with a poloco in conce	≤24V	Α	7
	48V	A	6
	75V	A	2
	110V	A	1
	220V	A	
IEC may current to in DC2 DC5 with L/D < 15mg with 2 males in series	220 V	A	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	-0.4V.		•
	≤24V	A	8
	48V	Α	8
	75V	Α	5
	110V	Α	4
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	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	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)	u (v)	A	92
Breaking capacity at voltage		- , ,	<u> </u>
Distanting supusity at voltage	440V	Α	72
	500V	A	72 72
	690V	A	72 72
Posietaneo por polo (averago value)	090 v		
Resistance per pole (average value)		mΩ	10
Power dissipation per pole (average value)	1.1	147	4
	Ith	W	4
-	AC-3	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



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May purch as of wise	oimultan aqualy oon sastable		N I	2
Max number of wires a Conductor section	simultaneously connectable		Nr.	2
Conductor Section	AWG/Kcmil			
	AWG/Remii	max		12
	Flexible w/o lug conductor section	Пах		12
	ooo tag contactor coolie.	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	224
Conductor section				
	AWG/kcmil conductor section			
A !!!		max		12
Auxiliary contact chara Thermal current Ith	acteristics		Α	10
IEC/EN 60947-5-1 de	signation			A600 - Q600
Operating current AC	<u> </u>			71000 0000
operating earners to	. •	230V	Α	3
		400V	Α	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	A	1.1
		125V	A	0.3
		220V 600V	A	0.1 0.6
Operations		V UU V	Α	0.0
Mechanical life			cycles	20000000
Electrical life			cycles	500000
Safety related data			.,	
	0d according to EN/ISO 13489-1			
	-	rated load	cycles	500000
		mechanical load	cycles	20000000
	ing to IEC/EN 609474-4-1			yes
EMC compatibility				yes
DC coil operating				
DC rated control volta	ge		V	12
DC operating voltage				



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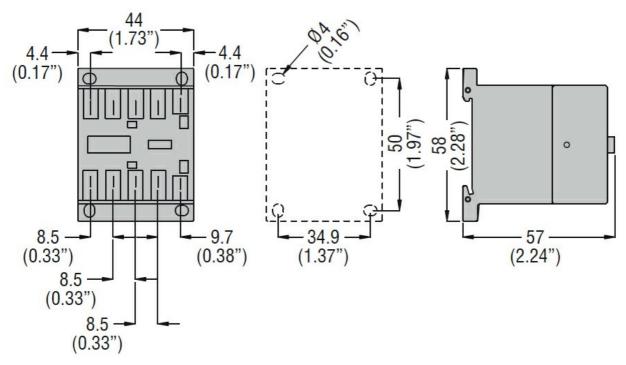
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	pick-up			0/11	
			min	%Us	75 445
	duam acció		max	%Us	115
	drop-out		min	%Us	10
			max	%Us	25
Average coil consumpt	tion <20°C		IIIAX	7003	
7 (Vorago con concamp			in-rush	W	3.2
			holding	W	3.2
Max cycles frequency					0.2
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us co	ntrol				
	in AC				
		Closing NO			
			min	ms	12
			max	ms	21
		Opening NO			
			min	ms	9
		01 1 116	max	ms	18
		Closing NC			4-
			min	ms	17
		Opening NC	max	ms	26
		Opening NC	min	ms	7
			max	ms	, 17
	in DC		IIIAX	1113	
	50	Closing NO			
		5.55g . 15	min	ms	18
			max	ms	25
		Opening NO			
			min	ms	2
			max	ms	3
		Closing NC			
			min	ms	3
			max	ms	5
		Opening NC			44
			min	ms	11
UL technical data			max	ms	17
Full-load current (FLA)	for three-phase AC m	octor			
i dii-load culterii (i LA)	ioi tillee-pilase AC III	iotoi	at 480V	Α	7.6
			at 400 V	A	6.1
Yielded mechanical pe	rformance		4.0001	- ,,	
. Island John and po	for single-phase AC	motor			
			110/120V	HP	0.5
			230V	HP	1.5
	for three-phase AC r	motor			
	-		200/208V	HP	2
			220/230V	HP	3
			460/480V	HP	5
-			575/600V	HP	5
General USE					
	Contactor				



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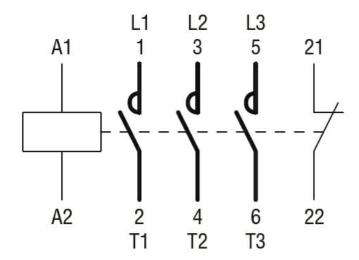
		AC current	Α	20
Short-circuit protec	tion fuse, 600V			
	High fault			
	-	Short circuit current	kA	100
		Fuse rating	Α	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	30
Contact rating of au	uxiliary contacts according to UL			A600 - Q600
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	+70
	Storage temperature			
		min	°C	-60
		max	°C	+80
Max altitude			m	3000
Resistance & Prote	ection			
Pollution degree				3
Dimensions				



Wiring diagrams

electric THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL, 12VDC, 1NC AUXILIARY CONTACT, FASTON TERMINALS

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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