Three-pole contactor, IEC operating current le (AC3) = 9A, AC coil 50/60Hz, 230VAC, 1NC auxiliary **ENERGY AND AUTOMATION**



Product designation			Power contactor
Product type designation			BG09
Contact characteristics		Nle	3
Number of poles Rated insulation voltage Ui IEC/EN		Nr. V	690
Rated insulation voltage of IEC/EN Rated impulse withstand voltage Uimp		kV	6
Operational frequency		K V	0
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	Παλ	A	20
Operational current le			
Operational current le	AC-1 (≤40°C)	Α	20
	AC-1 (≤55°C)	A	0
	AC-3 (≤440V ≤55°C)	Α	9
	AC-4 (400V)	Α	4
Rated operational power AC-3 (T≤55°C)	710 1 (1001)		<u>·</u>
(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)			
	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	Α	12
	48V	Α	10
	75V	Α	4
	110V	Α	3
	220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	15
	48V	Α	14
	75V	Α	9
	110V	Α	8
	220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		_	
	≤24V	Α	16
	48V	A	16
	75V	A	10
	110V	A	10
	220V	Α	2

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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 darron to in 200 200 with 210 = 10mb with 1 poloc in conce	≤24V	Α	7
	48V	A	6
	75V	A	2
	110V	A	1
IFO are a compart to in DO2 DO5 with L/D < 45 are with 2 are less in coning	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	.0.0.4		
	≤24V	Α	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)	220 V	A	96
Protection fuse			30
1 Total Control Tube	gG (IEC)	Α	20
Making canacity (DMC yelya)	aM (IEC)	Α	10
Making capacity (RMS value)		Α	92
Breaking capacity at voltage	4.403.7		70
	440V	Α	72
	500V	Α	72
· - · · · · · · · · · · · · · · · · · ·	690V	A	72
Resistance per pole (average value)		mΩ	10
Power dissipation per pole (average value)			
	lth	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
	Παλ	IDIII	5

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May number of wires	simultaneously connectable		Nr.	2
Conductor section	Simultaneously connectable		INI.	2
Conductor Scotlon	AWG/Kcmil			
	,	max		12
	Flexible w/o lug conductor section			
	9	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
D	('	max	mm²	2.5
	ction according to IEC/EN 60529			IP20 when wired
Mechanical features Operating position				
Operating position		normal		Vertical plan
		allowable		±30°
		anowabic		Screw / DIN rail
Fixing				35mm
Weight			g	182
Conductor section				
	AWG/kcmil conductor section			
		max		12
Auxiliary contact chara	acteristics			
Thermal current Ith			Α	10
IEC/EN 60947-5-1 de	•			A600 - Q600
Operating current AC	15			
		230V	Α	3
		400V	A	1.9
O	40	500V	Α	1.4
Operating current DC	12	110\/	۸	2.0
Operating current DC	12	110V	Α	2.9
Operating current DC	15	24V	Α	2.9
		48V	A	1.4
		60V	A	1.2
		110V	A	0.6
		125V	A	0.55
		220V	A	0.3
		600V	Α	0.1
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	500000
Safety related data				
Performance level B1	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
AC coil operating	50/0011			000
Rated AC voltage at 5	0U/6UHZ		V	230
AC operating voltage				

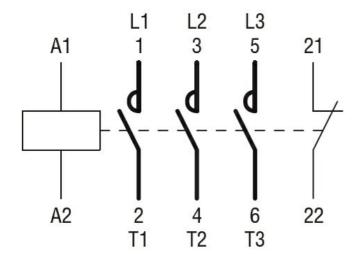
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of 50/60Hz coil powered at 60Hz pick-up					
Max		of 50/60Hz coil powered at 50Hz			
Max Mus 115 Mus 115 Mus 115 Mus Mus 115 Mus		pick-up			
Acceptance Ac			min	%Us	
Min			max	%Us	115
Max		drop-out			
of 50/60Hz coil powered at 60Hz pick-up min			min	%Us	20
Pick-up Min			max	%Us	55
Max		of 50/60Hz coil powered at 60Hz			
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 NA 25 holding VA 3 holding VA 3 In-rush NA 30 holding VA 3 In-rush VA 30 holding VA 3 In-rush VA 30 holding VA 4 In-rush VA 30 In-rush VA 4 In-rush VA 30 In-rush VA 30 In-rush VA 4 In-rush VA 30 In-rush VA 4 In-rush VA 4 In-rush VA 4 In-rush VA 4 In-rush VA 10 In-rush VA 10 In-rush VA VA 10 In-rush VA VA VA In-rush VA VA In-rush VA VA In-rush VA VA In-rush			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 NA 25 holding VA 3 holding VA 3 In-rush NA 30 holding VA 3 In-rush VA 30 holding VA 3 In-rush VA 30 holding VA 4 In-rush VA 30 In-rush VA 4 In-rush VA 30 In-rush VA 30 In-rush VA 4 In-rush VA 30 In-rush VA 4 In-rush VA 4 In-rush VA 4 In-rush VA 4 In-rush VA 10 In-rush VA 10 In-rush VA VA 10 In-rush VA VA VA In-rush VA VA In-rush VA VA In-rush VA VA In-rush	AC average coil consu	nption at 20°C			
In-rush VA 30 holding VA 4 4 4 4 4 4 4 4 4	· ·				
Molding		•	in-rush	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 NC 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		01 00,001 12 0011 powerou at 001 12	in-rush	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 3 max ms 5 Opening NC min ms 5 Opening NC min ms 3 max ms 5 Opening NC min ms 10 Opening NC min					
In-rush VA 30 holding VA 4		of 60Hz coil powered at 60Hz	Tiolanig	• • • • • • • • • • • • • • • • • • • •	
Dissipation at holding ≤20°C 50Hz W 0.95		or corrected at corre	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 s	20°C 50Hz	Holding		
Mechanical operation Cycles/h 3600		20 0 301 12		VV	0.95
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			cvcles/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	Operating times	in AC Closing N	min max	ms	12
Closing NC min ms 17 max ms 26	Operating times	in AC Closing N	min max NO	ms ms	12 21
Min Ms 17 max ms 26	Operating times	in AC Closing N	min max NO min	ms ms	12 21 9
Opening NC min ms 7 max ms 17	Operating times	in AC Closing N Opening	min max NO min max	ms ms	12 21 9
Opening NC min ms 7 max ms 17	Operating times	in AC Closing N Opening	min max NO min max	ms ms ms	12 21 9 18
min ms 7 max ms 17	Operating times	in AC Closing N Opening	min max NO min max IC	ms ms ms ms	12 21 9 18
Max ms 17	Operating times	in AC Closing N Opening I Closing N	min max NO min max IC min max	ms ms ms ms	12 21 9 18
Closing NO Min Ms 18 max ms 25	Operating times	in AC Closing N Opening I Closing N	min max NO min max IC 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 N Opening I Closing N	min max NO min max IC min max NC min max	ms ms ms ms ms	12 21 9 18 17 26
min ms 18 max ms 25	Operating times	in AC Closing N Opening I Closing N Opening I	min max NO min max IC min max NC min max	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 N Opening I Closing N Opening I in DC	min max NO min max IC min max NC min max	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 N Opening I Closing N Opening I in DC	min max NO min max IC min max NC min max	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 N Opening I Closing N Opening I in DC	min max NO min max IC 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 N Opening N Closing N Opening N Opening N Closing N Closing N	min max NO min max IC min max NC min max NC 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 N Opening N Closing N Opening N Opening N Closing N Closing N	min max NO min max IC min max NC min max NO min max	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 N Opening N Closing N Opening N Opening N Closing N Closing N	min max NO min max IC min max NC 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 N Opening I Closing N Opening I in DC Closing N Opening I	min max NO min max IC min max NC 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
Opening NC	Operating times	in AC Closing N Opening I Closing N Opening I in DC Closing N Opening I	min max NO min max IC min max NC min max NO min max NO min max NO min max NO	ms ms ms ms ms ms	12 21 9 18 17 26 7 17
	Operating times	in AC Closing N Opening I Closing N Opening I in DC Closing N Opening I	Min max NO min max IC min max NC min max NO min max IO min max NO min max NO min max IC min max	ms ms ms ms ms ms ms	12 21 9 18 17 26 7 17
min ms 11	Operating times	in AC Closing N Opening I Closing N Opening I in DC Closing N Opening I Closing N Closing N	Min max NO min max C min max NC min max NO min max C min max MO min max MO min max MO min max MO min max MO min max	ms ms ms ms ms ms ms	12 21 9 18 17 26 7 17
	Operating times	in AC Closing N Opening I Closing N Opening I in DC Closing N Opening I Closing N Closing N	Min max NO min max IC min max NC min max NO min max IC min max NO min max NO	ms ms ms ms ms ms ms	12 21 9 18 17 26 7 17 18 25 2 3 3 5

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I II and the state of the state		max	ms	17
UL technical data Full-load current (FLA) for three-phase AC motor				
ruii-ioad current (FLA) for three-phas	SE AC IIIOIOI	at 480V	Α	7.6
		at 400V	A	6.1
Yielded mechanical performance		at 000 v		0.1
	ase AC motor			
ion em 9re him		110/120V	HP	0.5
		230V	HP	1.5
for three-pha	se 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		a.		400
		Short circuit current	kA	100
		Fuse rating	Α	30
Chandard for	14	Fuse class		J
Standard fau	π	Short circuit current	kA	5
		Fuse rating	A	30
Contact rating of auxiliary contacts ac	cording to LII	r doc rating		A600 - Q600
Ambient conditions	octaing to 02			7,000 000
Temperature				
Operating te	mperature			
, ,	•	min	°C	-50
		max	°C	+70
Storage tem	perature			
		min	°C	-60
		max	°C	+80
Max altitude			m	3000
Resistance & Protection				
Pollution degree				3
Dimensions				
4.4 (0.17") (0.17") (0.17") (0.33") (0.38") (1.37") (0.38")	(2.24")	2. E.	58 (2.28") 5	89.2 7.6 (0.30")
(0.33")		(1.73")	-	89.2 (0.30") (3.51")
Wiring diagrams				

Three-pole contactor, IEC operating current le (AC3) = 9A, AC coil 50/60Hz, 230VAC, 1NC auxiliary



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