



		4	
Product designation			Power contactor
Product type designation			BG09
Contact characteristics			2000
Number of poles		nr.	3
		V	
Rated insulation voltage Ui IEC/EN			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	0
	AC-3 (≤440V ≤55°C)	Α	9
	AC-4 (400V)	Α	4
Rated operational power AC-3 (T≤55°C)	7.0 1 (1001)	- , ,	<del>'</del>
rated operational power 7to 0 (1=00 0)	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	<u>-</u>
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
TEO MAX defrent to in BOT with ETC = This with 2 poles in solids	≤24V	Α	15
	48V	A	14
	75V		
		A	9
	110V	A	8
	220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	Α	16
	48V	Α	16
	75V	Α	10
	110V	Α	10
	220V	Α	2



IEC may current to in DC1 with L/P < 1ms with 4 pales in series			_
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	≤24V	Α	16
	48V	A	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		
The max current to in 600-600 with ETC 2 Tomb with 1 poles in series	≤24V	Α	7
	48V	A	6
	75V	A	2
	110V	A	1
	220V	A	- -
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	2201	- , ,	
The max sarron to in 8 co 8 co with Erre Tomo with 2 police in conice	≤24V	Α	8
	48V	A	8
	75V	A	5
	110V	A	4
	220V	A	· -
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	2201	- , ,	_
The max surrent to in B so B so man Ent = Terms with a person 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)	, ,	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)			
	Ith	W	4
	AC3	W	0.81
Tightening torque for terminals			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbft	0.8
	max	lbft	0.74



Max number of wires simultaneously connectable		nr.	2
Conductor section			
Flexible w/o lug conductor section			
	min	mm²	0.75
	max	mm²	2.5
Flexible c/w lug conductor section			
	min	mm²	1.5
Fig. 21 20. See Level Level Level and Constitution	max	mm²	2.5
Flexible with insulated spade lug conductor section	min	mm²	1 E
	min	mm² mm²	1.5 2.5
Power terminal protection according to IEC/EN 60529	max	111111	IP20 when wired
Mechanical features			II 20 WIICH WIICG
Operating position			
operag position	normal		Vertical plan
	allowable		±30°
Fixing			Screw / DIN rail 35mm
Weight		g	180
Auxiliary contact characteristics		J	
Type of contact			1 NC
Thermal current Ith		Α	10
IEC/EN 60947-5-1 designation			A600 - Q600
Operating current AC15			
	230V	Α	3
	400V	Α	1.9
	500V	Α	1.4
Operating current DC12	110V	Α	2.9
Operating current DC13	1101		2.5
operating earrors 2010	24V	Α	2.9
	48V	Α	1.4
	60V	Α	1.2
	110V	Α	0.6
	125V	Α	0.55
	220V	Α	0.3
	600V	Α	0.1
Operations			
Mechanical life		cycles	20000000
Electrical life		cycles	500000
Safety related data			
Performance level B10d according to EN/ISO 13489-1	ا - دا امملم	- داد د	E00000
	rated load	cycles	500000
	nical load	cycles	20000000
Mirror contats according to IEC/EN 609474-4-1  EMC compatibility			yes Yes
AC coil operating			165
Rated AC voltage at 50/60Hz		V	48
AC operating voltage		<u> </u>	
of 50/60Hz coil powered at 50Hz			
pick-up			
· ·	min	%Us	75
	max	%Us	115



ENERGY AND AUTOMATION			_	-	
		drop-out			
			min	%Us	20
			max	%Us	55
	of 50/60Hz coil power	ered at 60Hz			
		pick-up			
			min	%Us	80
			max	%Us	115
		drop-out			
			min	%Us	20
A O			max	%Us	55
AC average coil consu		and at 5011-			
	of 50/60Hz coil power	ered at 50Hz	مام س من	١/٨	20
			in-rush	VA	30
	of FO/COLL= ooil nove	and at COLL-	holding	VA	4
	of 50/60Hz coil power	ered at 60HZ	in-rush	VA	25
			holding	VA VA	3
	of 60Hz coil powered	Nat 60Hz	Holding	VA	3
	or ourse con powered	1 at 00112	in-rush	VA	30
			holding	VA	4
Dissipation at holding :	<20°C 50Hz		Holding	W	0.95
Max cycles frequency	= <b>2</b> 0 0 00112			• • • • • • • • • • • • • • • • • • • •	0.00
Mechanical operation				cycles/h	3600
Operating times				<i>- y 0.00,</i>	
Average time for Us co	ontrol				
Ŭ	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			
		Opening NC	min	ms	7
		Opening NC		ms ms	7 17
	in DC		min		
	in DC	Opening NC  Closing NO	min max	ms	17
	in DC		min max min	ms ms	17
	in DC	Closing NO	min max	ms	17
	in DC		min max min max	ms ms ms	17 18 25
	in DC	Closing NO	min max min max min	ms ms ms	17 18 25 2
	in DC	Closing NO Opening NO	min max min max	ms ms ms	17 18 25
	in DC	Closing NO	min max min max min max	ms ms ms ms	18 25 2 3
	in DC	Closing NO Opening NO	min max min max min max min	ms ms ms ms	18 25 2 3 3
	in DC	Closing NO Opening NO Closing NC	min max min max min max	ms ms ms ms	18 25 2 3
	in DC	Closing NO Opening NO	min max min max min max min max	ms ms ms ms ms	18 25 2 3 3 5
	in DC	Closing NO Opening NO Closing NC	min max min max min max min max min max min max	ms ms ms ms ms ms ms	17 18 25 2 3 3 5
II technical data	in DC	Closing NO Opening NO Closing NC	min max min max min max min max	ms ms ms ms ms	18 25 2 3 3 5
UL technical data Full-load current (FLA)		Closing NO Opening NO Closing NC Opening NC	min max min max min max min max min max min max	ms ms ms ms ms ms ms	17 18 25 2 3 3 5

at 480V

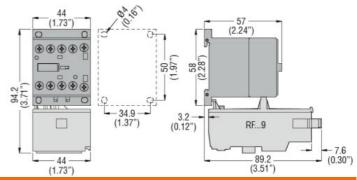
7.6

Α



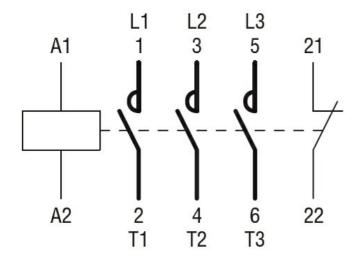
at 600V
for single-phase AC motor    110/120V
110/120V
230V HP 1.5
for three-phase AC motor  200/208V HP 2 220/230V HP 3 460/480V HP 5 575/600V HP 5  eneral USE  Contactor  AC current A 20  nort-circuit protection fuse, 600V High fault  Short circuit current kA 100 Fuse rating A 30 Fuse class J
200/208V
220/230V   HP   3   460/480V   HP   5   575/600V   HP   5
460/480V   HP   5   575/600V   HP   575/600V   H
Short circuit current   KA   100
Contactor  AC current A 20  nort-circuit protection fuse, 600V High fault  Short circuit current kA 100 Fuse rating A 30 Fuse class J
Contactor  AC current A 20  nort-circuit protection fuse, 600V  High fault  Short circuit current kA 100  Fuse rating A 30  Fuse class J
AC current A 20 nort-circuit protection fuse, 600V High fault Short circuit current kA 100 Fuse rating A 30 Fuse class J
nort-circuit protection fuse, 600V High fault Short circuit current kA 100 Fuse rating A 30 Fuse class J
High fault Short circuit current kA 100 Fuse rating A 30 Fuse class J
Short circuit current kA 100 Fuse rating A 30 Fuse class J
Fuse rating A 30
Fuse class J
Standard fault
Short circuit current kA 5
Fuse rating A 30
ontact rating of auxiliary contacts according to UL A600 - Q600
nbient conditions
emperature
Operating temperature
min °C -50
max °C +70
Storage temperature
min °C -60
max °C +80
ax altitude m 3000
esistance & Protection
ollution degree 3
mensions
44 44 66

## 4.4-(0.17") - 57 -(2.24") 8.5\_ (0.33") 0.38") (1.37") 8.5 (0.33") 8.5 (0.33")



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