



Product designation				Power contactor
Product type designation				BG09
<b>Contact characteristics</b>				
Number of poles	Nr.			3
Rated insulation voltage $U_i$ IEC/EN	V			690
Rated impulse withstand voltage $U_{imp}$	kV			6
Operational frequency	min	Hz		25
	max	Hz		400
IEC Conventional free air thermal current $I_{th}$	A			20
Operational current $I_e$	AC-1 (=40°C)	A		20
	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
	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 $I_e$ 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 $I_e$ 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 $I_e$ in DC1 with L/R = 1ms with 3 poles in series	=24V	A		16
	48V	A		16
	75V	A		10
	110V	A		10
	220V	A		2
IEC max current $I_e$ in DC1 with L/R = 1ms with 4 poles in series	=24V	A		16
	48V	A		16
	75V	A		10
	110V	A		10
	220V	A		2

	=24V	A	16
	48V	A	16
	75V	A	10
	110V	A	10
	220V	A	2
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IEC max current I <sub>e</sub> in DC3-DC5 with L/R = 15ms with 1 poles in series	=24V	A	7
	48V	A	6
	75V	A	2
	110V	A	1
	220V	A	–
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IEC max current I <sub>e</sub> in DC3-DC5 with L/R = 15ms with 2 poles in series	=24V	A	8
	48V	A	8
	75V	A	5
	110V	A	4
	220V	A	–
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IEC max current I <sub>e</sub> in DC3-DC5 with L/R = 15ms with 3 poles in series	=24V	A	10
	48V	A	10
	75V	A	6
	110V	A	5
	220V	A	0,8
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IEC max current I <sub>e</sub> in DC3-DC5 with L/R = 15ms with 4 poles in series	=24V	A	10
	48V	A	10
	75V	A	6
	110V	A	5
	220V	A	0,8
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Short-time allowable current for 10s (IEC/EN60947-1)		A	96
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Protection fuse	gG (IEC)	A	20
	aM (IEC)	A	10
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Making capacity (RMS value)		A	92
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Breaking capacity at voltage	440V	A	72
	500V	A	72
	690V	A	72
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Resistance per pole (average value)		m?	10
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Power dissipation per pole (average value)	I <sub>th</sub>	W	4
	AC3	W	0.81
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Tightening torque for terminals	min	Nm	0.8
	max	Nm	1
	min	I <sub>bin</sub>	9
	max	I <sub>bin</sub>	9
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Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	I <sub>bin</sub>	9
	max	I <sub>bin</sub>	9
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Max number of wires simultaneously connectable		Nr.	2

Conductor section			
AWG/Kcmil		max	12
Flexible w/o lug conductor section			
		min	mm <sup>2</sup> 0.75
		max	mm <sup>2</sup> 2.5
Flexible c/w lug conductor section			
		min	mm <sup>2</sup> 1.5
		max	mm <sup>2</sup> 2.5
Flexible with insulated spade lug conductor section			
		min	mm <sup>2</sup> 1.5
		max	mm <sup>2</sup> 2.5
Power terminal protection according to IEC/EN 60529			IP20 when wired
<b>Mechanical features</b>			
Operating position			
		normal allowable	Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight			g 177
Conductor section			
AWG/kcmil conductor section		max	12
<b>Auxiliary contact characteristics</b>			
Thermal current I <sub>th</sub>		A	10
IEC/EN 60947-5-1 designation			A600 - Q600
Operating current AC15			
	230V	A	3
	400V	A	1.9
	500V	A	1.4
Operating current DC12			
	110V	A	2.9
Operating current DC13			
	24V	A	2.9
	48V	A	1.4
	60V	A	1.2
	110V	A	0.6
	125V	A	0.55
	220V	A	0.3
	600V	A	0.1
<b>Operations</b>			
Mechanical life		cycles	20000000
Electrical life		cycles	500000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	500000
	mechanical load	cycles	20000000
Mirror contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			yes
<b>AC coil operating</b>			
Rated AC voltage at 60Hz		V	48
AC operating voltage			
of 60Hz coil powered at 60Hz			

pick-up	min	%Us	75
	max	%Us	115
drop-out	min	%Us	20
	max	%Us	55

AC average coil consumption at 20°C

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

of 60Hz coil powered at 60Hz

in-rush	VA	30
holding	VA	4

Dissipation at holding =20°C 50Hz

W	0.95
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Max cycles frequency

Mechanical operation

cycles/h	3600
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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

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	11
max	ms	17

UL technical data

Full-load current (FLA) for three-phase AC motor

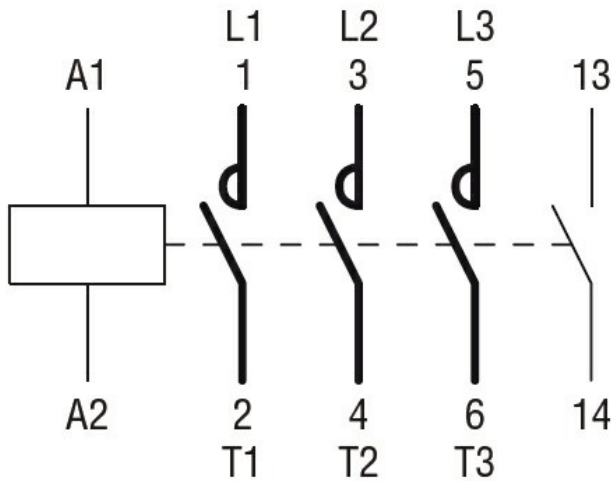
at 480V	A	7.6
at 600V	A	6.1

Yielded mechanical performance

for single-phase AC motor

110/120V	HP	0.5
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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