



Product designation				Power contactor
Product type designation				BG09
<b>Contact characteristics</b>				
Number of poles	Nr.			3
Rated insulation voltage U <sub>i</sub> IEC/EN	V			690
Rated impulse withstand voltage U <sub>imp</sub>	kV			6
Operational frequency	min	Hz	25	
	max	Hz	400	
IEC Conventional free air thermal current I <sub>th</sub>	A			20
Operational current I <sub>e</sub>	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	
	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 <sub>e</sub> 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 <sub>e</sub> 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 <sub>e</sub> 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 <sub>e</sub> 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
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	–
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	–
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
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
Short-time allowable current for 10s (IEC/EN60947-1)		A	96
Protection fuse	gG (IEC)	A	20
	aM (IEC)	A	10
Making capacity (RMS value)		A	92
Breaking capacity at voltage	440V	A	72
	500V	A	72
	690V	A	72
Resistance per pole (average value)		mΩ	10
Power dissipation per pole (average value)	I <sub>th</sub>	W	4
	AC-3	W	0.81
Tightening torque for terminals	min	Nm	0.8
	max	Nm	1
	min	I <sub>bin</sub>	9
	max	I <sub>bin</sub>	9
Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	I <sub>bin</sub>	9

		max	Ibin	9
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 properly wired

### Mechanical features

Operating position		normal allowable		Vertical plan ±30°
Fixing				Screw / DIN rail 35mm
Weight			g	187
Conductor section	AWG/kcmil conductor section	max		12

### Auxiliary contact characteristics

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

### Operations

Mechanical life		cycles		20000000
Electrical life		cycles		500000

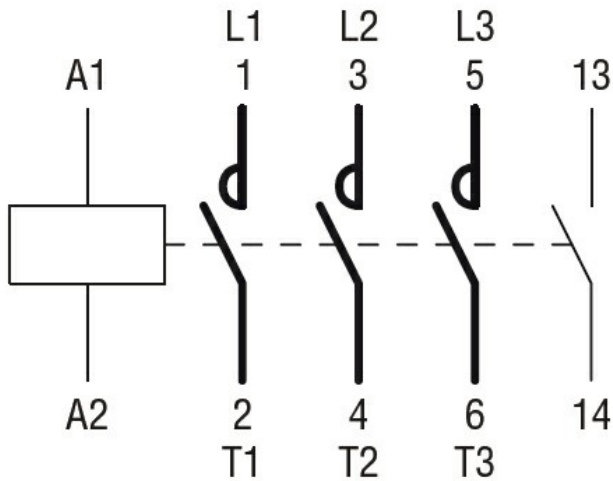
### Safety related data

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

### AC coil operating

Rated AC voltage at 60Hz	V	230
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
<b>Max cycles frequency</b>		
Mechanical operation	cycles/h	3600
<b>Operating times</b>		
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
<b>UL technical data</b>		
Full-load current (FLA) for three-phase AC motor		
	at 480V A	7.6
	at 600V A	6.1





**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