



Product designation	Power contactor		
Product type designation	BG12		
<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 ( $=40^\circ\text{C}$ )	A	20
	AC-3 ( $=440\text{V} = 55^\circ\text{C}$ )	A	12
	AC-4 (400V)	A	4.8
Rated operational power AC-3 ( $T=55^\circ\text{C}$ )	230V	kW	3.2
	400V	kW	5.7
	415V	kW	6.2
	440V	kW	5.5
	500V	kW	5
	690V	kW	5
Rated operational power AC-1 ( $T=40^\circ\text{C}$ )	230V	kW	8
	400V	kW	14
	500V	kW	16
	690V	kW	22
IEC max current $I_e$ in DC1 with $L/R = 1\text{ms}$ 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 $L/R = 1\text{ms}$ 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 $L/R = 1\text{ms}$ 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 $L/R = 1\text{ms}$ with 4 poles in series			

	=24V	A	—
	48V	A	—
	75V	A	—
	110V	A	—
	220V	A	—
IEC max current Ie 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 Ie 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 Ie 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 Ie in DC3-DC5 with L/R = 15ms with 4 poles in series	=24V	A	—
	48V	A	—
	75V	A	—
	110V	A	—
	220V	A	—
Short-time allowable current for 10s (IEC/EN60947-1)		A	96
Protection fuse			
	gG (IEC)	A	20
	aM (IEC)	A	16
Making capacity (RMS value)		A	120
Breaking capacity at voltage			
	440V	A	96
	500V	A	72
	690V	A	72
Resistance per pole (average value)		m?	10
Power dissipation per pole (average value)	I <sub>th</sub>	W	4
	AC3	W	1.44
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
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

Mechanical features

Operating position

normal allowable	Vertical plan ±30°
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Fixing

Screw / DIN rail  
35mm

Weight

g 183

Conductor section

AWG/kcmil conductor section	max	12
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Auxiliary contact characteristics

Thermal current Ith	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
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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 609474-4-1

yes

EMC compatibility

yes

AC coil operating

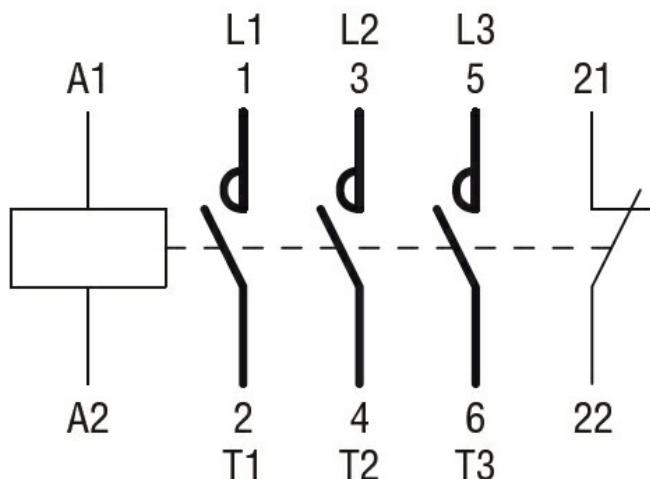
Rated AC voltage at 50/60Hz	V	230
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AC operating voltage

of 50/60Hz coil powered at 50Hz

	pick-up	min	%Us	75
		max	%Us	115
	drop-out	min	%Us	20
		max	%Us	55
of 50/60Hz coil powered at 60Hz				
	pick-up	min	%Us	80
		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
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	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





#### 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