



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 ( $\leq 40^\circ C$ )	A	20
	AC-1 ( $\leq 55^\circ C$ )	A	18
	AC-1 ( $\leq 70^\circ C$ )	A	15
	AC-3 ( $\leq 440V \leq 55^\circ C$ )	A	12
	AC-4 (400V)	A	4.8
Rated operational power AC-3 ( $T \leq 55^\circ C$ )	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 ( $T \leq 40^\circ C$ )	230V	kW	8
	400V	kW	14
	500V	kW	16
	690V	kW	22
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 1 poles in series	$\leq 24V$	A	12
	48V	A	10
	75V	A	4
	110V	A	3
	220V	A	—
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 2 poles in series	$\leq 24V$	A	15
	48V	A	14
	75V	A	9
	110V	A	8
	220V	A	—
IEC max current $I_e$ in DC1 with $L/R \leq 1ms$ with 3 poles in series	$\leq 24V$	A	16
	48V	A	16
	75V	A	10
	110V	A	10

	220V	A	2
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series			
≤24V	A	—	
48V	A	—	
75V	A	—	
110V	A	—	
220V	A	—	
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series			
≤24V	A	7	
48V	A	6	
75V	A	2	
110V	A	1	
220V	A	—	
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series			
≤24V	A	8	
48V	A	8	
75V	A	5	
110V	A	4	
220V	A	—	
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series			
≤24V	A	10	
48V	A	10	
75V	A	6	
110V	A	5	
220V	A	0,8	
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ 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)		mΩ	10
Power dissipation per pole (average value)			
I <sub>th</sub>	W	4	
AC-3	W	1.44	
Tightening torque for terminals			
min	Nm	0.8	
max	Nm	1	
min	Ibin	9	
max	Ibin	9	
Tightening torque for coil terminal			
min	Nm	0.8	
max	Nm	1	
min	Ibin	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
<b>Mechanical features</b>			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight	g		178
<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 609474-4-1			Yes
EMC compatibility			yes
<b>AC coil operating</b>			
Rated AC voltage at 50/60Hz	V		400
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

**UL technical data**

Rated operational voltage AC (UL)	V	600
Full-load current (FLA) for three-phase AC motor		
at 480V	A	11
at 600V	A	11

**Yielded mechanical performance**

for single-phase AC motor	110/120V	HP	0.5
	230V	HP	1.5
for three-phase AC motor			
	200/208V	HP	3
	220/230V	HP	3
	460/480V	HP	7.5
	575/600V	HP	10

**General USE**

Contactor	AC current	A	20
Short-circuit protection fuse, 600V			
High fault	Short circuit current	kA	100
	Fuse rating	A	30
	Fuse class		J
Standard fault	Short circuit current	kA	5
	Fuse rating	A	30
	Fuse class		RK5

**Contact rating of auxiliary contacts according to UL**

A600 - Q600

**Ambient conditions**

**Temperature**

Operating temperature	min	°C	-50
	max	°C	+70
Storage temperature	min	°C	-60
	max	°C	+80

**Max altitude**

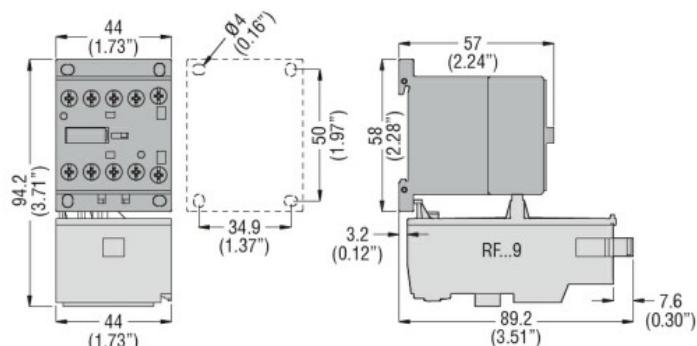
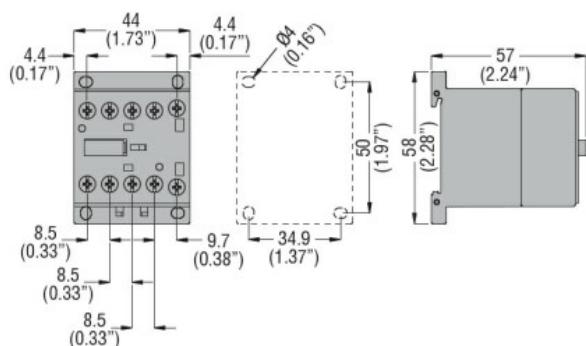
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**Resistance & Protection**

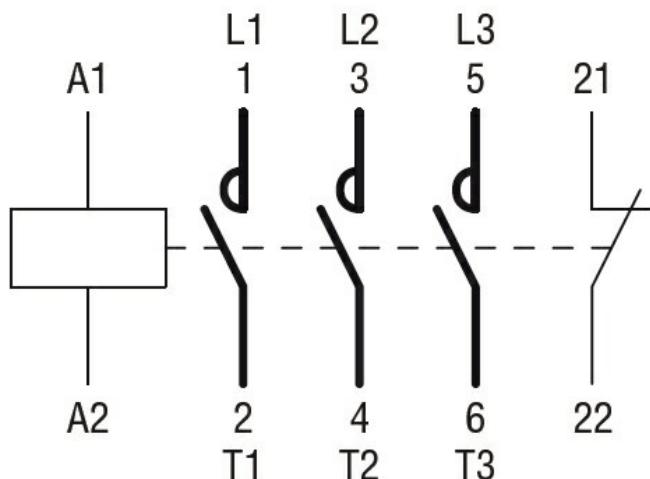
**Pollution degree**

3

**Dimensions**



**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