



Product designation	Auxiliary contactor		
Product type designation	BG12		
Contact characteristics			
Number of poles	Nr. 3		
Rated insulation voltage Ui IEC/EN	V 690		
Rated impulse withstand voltage Uimp	kV 6		
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	A 20		
Operational current Ie			
	AC-1 ( $\leq 40^{\circ}\text{C}$ )	A	20
	AC-1 ( $\leq 55^{\circ}\text{C}$ )	A	0
	AC-3 ( $\leq 440\text{V} \leq 55^{\circ}\text{C}$ )	A	12
	AC-4 (400V)	A	4.8
Rated operational power AC-3 ( $T \leq 55^{\circ}\text{C}$ )	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 ( $T \leq 40^{\circ}\text{C}$ )	230V	kW	8
	400V	kW	14
	500V	kW	16
	690V	kW	22
IEC max current Ie in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A	12
	48V	A	10
	75V	A	4
	110V	A	3
	220V	A	–
IEC max current Ie in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	$\leq 24\text{V}$	A	15
	48V	A	14
	75V	A	9
	110V	A	8
	220V	A	–
IEC max current Ie in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series	$\leq 24\text{V}$	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

$\leq 24V$	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

$\leq 24V$	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

$\leq 24V$	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

$\leq 24V$	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

$\leq 24V$	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	1.4

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> 0.8
	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	
Mechanical features		
Operating position	normal allowable	Vertical plan ±30°
Fixing	Screw / DIN rail 35mm	
Weight	g	200
Conductor section		
AWG/kcmil conductor section	max	12
Auxiliary contact characteristics		
Thermal current Ith	A	10
IEC/EN 60947-5-1 designation	A600	
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 mechanical load	cycles 500000 cycles 20000000
Mirror contacts according to IEC/EN 609474-4-1	YES	
EMC compatibility	YES	
AC coil operating		
Rated AC voltage at 60Hz	V	24
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
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AC average coil consumption at 20°C				
of 50/60Hz coil powered at 50Hz				
		in-rush	VA	30
		holding	VA	4
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of 50/60Hz coil powered at 60Hz				
		in-rush	VA	25
		holding	VA	3
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of 60Hz coil powered at 60Hz				
		in-rush	VA	30
		holding	VA	4
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Dissipation at holding ≤20°C 50Hz				
			W	0.9
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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
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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
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UL technical data				
Full-load current (FLA) for three-phase AC motor				
		at 480V	A	11
		at 600V	A	11
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Yielded mechanical performance				
for single-phase AC motor				

	110/120V 230V	HP HP	0.5 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
Short-circuit protection fuse, 600V			20
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

Contact rating of auxiliary contacts according to UL A600 - Q600

Ambient conditions

Temperature

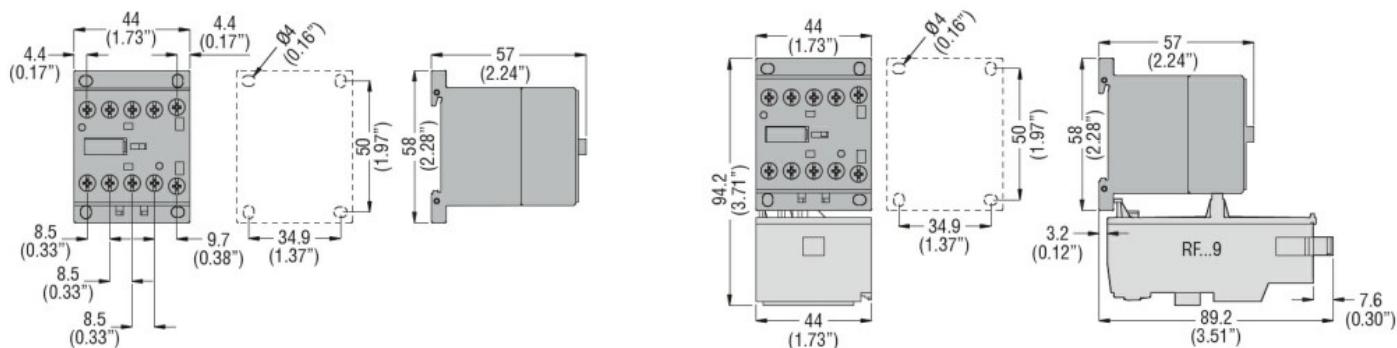
Operating temperature	min	°C	-50
	max	°C	+70
Storage temperature			
	min	°C	-60
	max	°C	+80

Max altitude m 3000

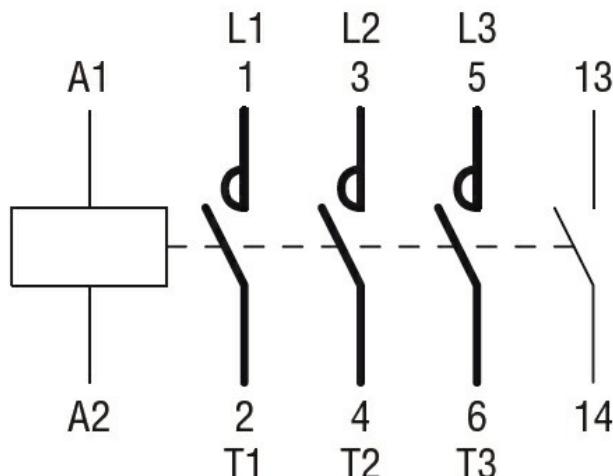
Resistance & Protection

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