



Product designation	Auxiliary contactor		
Product type designation	BG12		
Contact characteristics			
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	$\leq 24V$ 48V 75V 110V 220V	A A A A A	— — — — —
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series	$\leq 24V$ 48V 75V 110V 220V	A A A A A	7 6 2 1 —
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series	$\leq 24V$ 48V 75V 110V 220V	A A A A A	8 8 5 4 —
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series	$\leq 24V$ 48V 75V 110V 220V	A A A A A	10 10 6 5 0,8
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 4 poles in series	$\leq 24V$ 48V 75V 110V 220V	A A A A A	— — — — —
Short-time allowable current for 10s (IEC/EN60947-1)		A	96
Protection fuse	gG (IEC) aM (IEC)	A A	20 16
Making capacity (RMS value)		A	120
Breaking capacity at voltage	440V 500V 690V	A A A	96 72 72
Resistance per pole (average value)		$\text{m}\Omega$	10
Power dissipation per pole (average value)	I _{th} AC-3	W W	4 1.4
Tightening torque for terminals	min max min max	Nm Nm I _{bin} I _{bin}	0.8 1 9 9
Tightening torque for coil terminal	min max min	Nm Nm I _{bin}	0.8 1 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 ²	0.8
	max	mm ²	2.5
Flexible c/w lug conductor section	min	mm ²	1.5
	max	mm ²	2.5
Flexible with insulated spade lug conductor section	min	mm ²	1.5
	max	mm ²	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
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 20000000
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

drop-out	max	%Us	115
	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	0.9
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

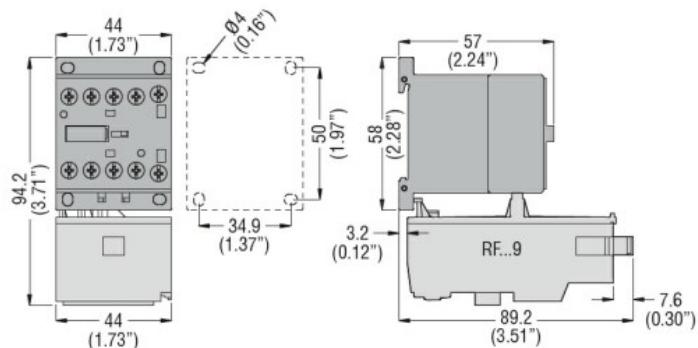
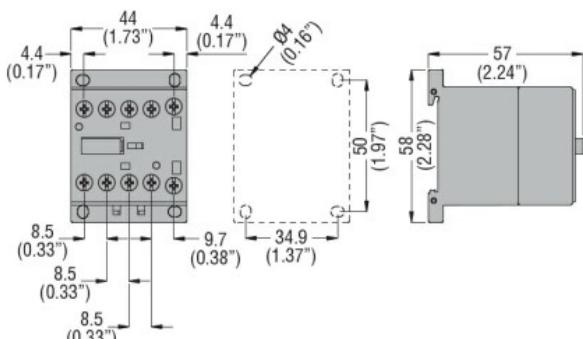
Operating temperature	min	°C	-50
	max	°C	+70
Storage temperature	min	°C	-60
	max	°C	+80
Max altitude	m		3000
	ft		10000

Max altitude

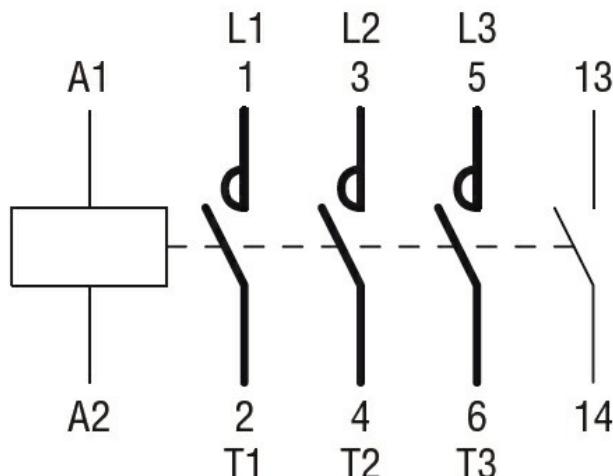
Resistance & Protection

Pollution degree

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