



Product designation

Power contactor

Product type designation

BG09

Contact characteristics

Number of poles	Nr.	4
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 ($\leq 40^\circ\text{C}$)	A 20
	AC-1 ($\leq 55^\circ\text{C}$)	A 18
	AC-1 ($\leq 70^\circ\text{C}$)	A 15
	AC-3 ($\leq 440\text{V } \leq 55^\circ\text{C}$)	A 9
	AC-4 (400V)	A 4
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 I_e 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 I_e 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 I_e 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	$\leq 24\text{V}$ A	16
	48V A	16
	75V A	10
	110V A	10
	220V A	2

IEC max current I _e 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 _e 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 _e 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 _e 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 _{th}	W	4
	AC-3	W	0.81
Tightening torque for terminals			
	min	Nm	0.8
	max	Nm	1
	min	I _{bin}	9
	max	I _{bin}	9
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	I _{bin}	9
	max	I _{bin}	9
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
AWG/Kcmil			
	max		12
Flexible w/o lug conductor section			
	min	mm ²	0.75

		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 when properly wired
Mechanical features				
Operating position		normal allowable	Vertical plan ±30°	
Fixing		Screw / DIN rail 35mm		
Weight		g		183
Conductor section		AWG/kcmil conductor section		
		max	12	
Auxiliary contact characteristics				
Thermal current I _{th}		A		10
IEC/EN 60947-5-1 designation		A600		
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 50/60Hz		V		230
AC operating voltage		of 50/60Hz coil powered at 50Hz		
		min	%U _s	75
		max	%U _s	115
		drop-out		
		min	%U _s	20
		max	%U _s	55
		of 50/60Hz coil powered at 60Hz		
		min	%U _s	80
		max	%U _s	115
		drop-out		
		min	%U _s	20
		max	%U _s	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				
Full-load current (FLA) for three-phase AC motor				
		at 480V	A	7.6
		at 600V	A	6.1
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	2
		220/230V	HP	3
		460/480V	HP	5
		575/600V	HP	5
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

Ambient conditions

Temperature

Operating temperature	min	°C	-50
	max	°C	+70

Storage temperature

min	°C	-60
max	°C	+80

Max altitude

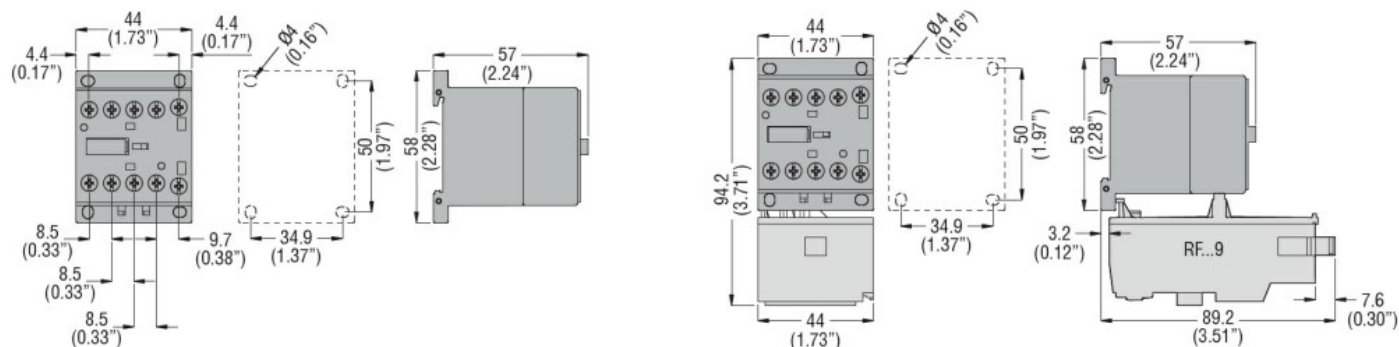
m	3000
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Resistance & Protection

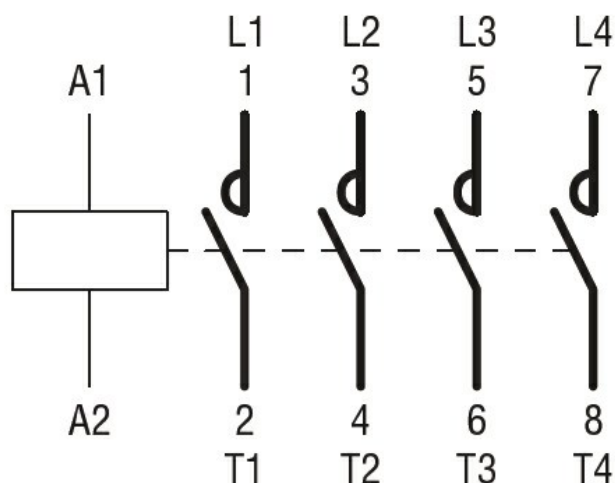
Pollution degree

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