



Product designation

Power contactor

Product type designation

BG09

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 (=40°C)	A 20
	AC-3 (=440V =55°C)	A 9
	AC-4 (400V)	A 4
Rated operational power AC-3 (T=55°C)	230V kW	2.2
	400V kW	4
	415V kW	4.3
	440V kW	4.5
	500V kW	5
	690V kW	5
Rated operational power AC-1 (T=40°C)	230V kW	8
	400V kW	14
	500V kW	16
	690V kW	22
IEC max current I_e in DC1 with L/R = 1ms 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 = 1ms 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 = 1ms 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 = 1ms with 4 poles in series		

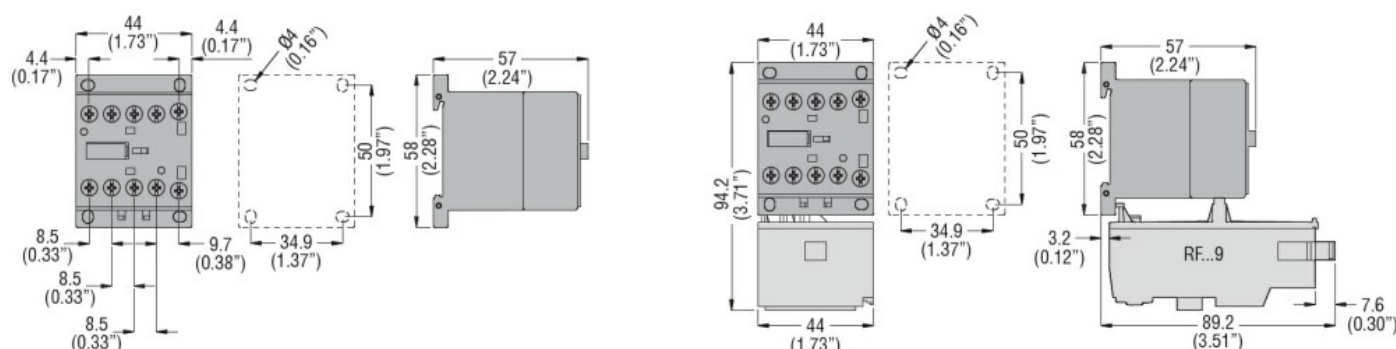
	=24V	A	16
	48V	A	16
	75V	A	10
	110V	A	10
	220V	A	2
IEC max current Ie in DC3-DC5 with L/R = 15ms with 1 poles in series			
	=24V	A	7
	48V	A	6
	75V	A	2
	110V	A	1
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R = 15ms with 2 poles in series			
	=24V	A	8
	48V	A	8
	75V	A	5
	110V	A	4
	220V	A	–
IEC max current 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	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)		m?	10
Power dissipation per pole (average value)			
	Ith	W	4
	AC3	W	0.81
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 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 wired
Mechanical features				
Operating position				
		normal allowable	Vertical plan ±30°	
Fixing				Screw / DIN rail 35mm
Weight			g	179
Conductor section				
AWG/kcmil conductor section		max		12
Auxiliary contact characteristics				
Thermal current I _{th}			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
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 60Hz			V	120
AC operating voltage				
of 60Hz coil powered at 60Hz				

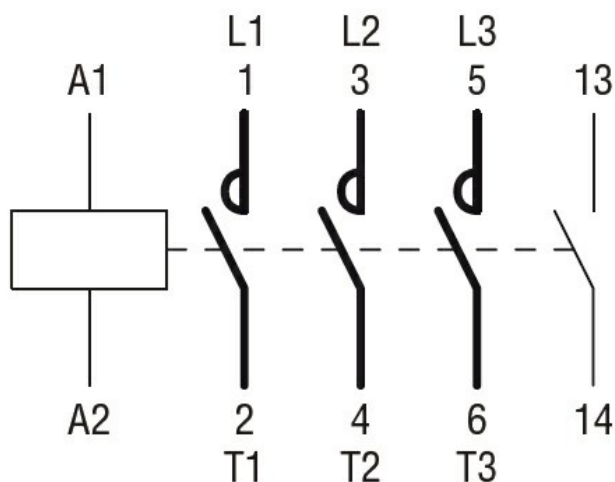
pick-up			
	min	%Us	75
	max	%Us	115
drop-out			
	min	%Us	20
	max	%Us	55
AC average coil consumption at 20°C			
of 50/60Hz coil powered at 50Hz			
	in-rush	VA	30
	holding	VA	4
of 50/60Hz coil powered at 60Hz			
	in-rush	VA	25
	holding	VA	3
of 60Hz coil powered at 60Hz			
	in-rush	VA	30
	holding	VA	4
Dissipation 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
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