



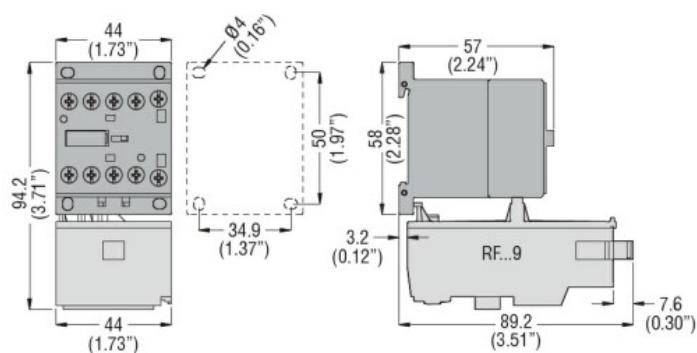
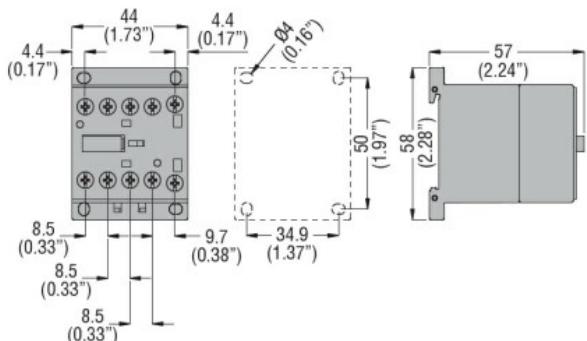
Product designation	Power contactor		
Product type designation	BG09		
Contact characteristics			
Number of poles	Nr.	4	
Rated insulation voltage Ui IEC/EN	V	690	
Rated impulse withstand voltage $Uimp$	kV	6	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		A	20
Operational current le			
	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	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 le 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 le 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 le 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 le 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 le 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	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)	I _{th}	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

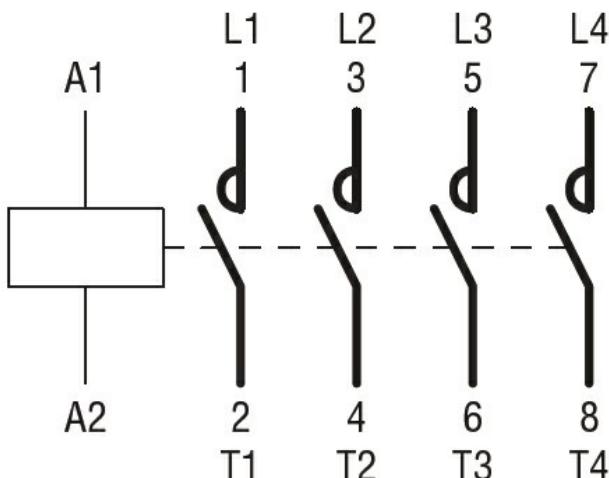
Flexible c/w lug conductor section	min	mm ²	1.5
	max	mm ²	2.5
Flexible with insulated spade lug conductor section	min	mm ²	1.5
	max	mm ²	2.5
Power terminal protection according to IEC/EN 60529			IP20 when wired
Mechanical features			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight	g		175
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 mechanical load	cycles	500000 20000000
Mirror contacts according to IEC/EN 609474-4-1			yes
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 50/60Hz	V		48
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
pick-up	min max	%Us %Us	75 115
drop-out	min max	%Us %Us	20 55
of 50/60Hz coil powered at 60Hz			
pick-up	min max	%Us %Us	80 115
drop-out	min max	%Us %Us	20 55
AC average coil consumption at 20°C			
of 50/60Hz coil powered at 50Hz	in-rush holding	VA VA	30 4
of 50/60Hz coil powered at 60Hz	in-rush holding	VA VA	25 3

of 60Hz coil powered at 60Hz	in-rush	VA	30
	holding	VA	4
Dissipation at holding $\leq 20^{\circ}\text{C}$ 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	Short circuit current	kA	100
High fault	Fuse rating	A	30

	Fuse class	J
Standard fault		
Short circuit current	kA	5
Fuse rating	A	30
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