



Product designation

Auxiliary  
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 $L/R \leq 15\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	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	$\leq 24\text{V}$	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		$\leq 24\text{V}$	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	$\leq 24\text{V}$	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 $\Omega$	10	
Power dissipation per pole (average value)	$I_{th}$	W	4	
	AC-3	W	0.8	
Tightening torque for terminals	min	Nm	0.8	
	max	Nm	1	
	min	Ibin	9	
	max	Ibin	9	
Tightening torque for coil terminal	min	Nm	0.8	
	max	Nm	1	
	min	Ibin	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 <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
<b>Mechanical features</b>			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	200
Conductor section			
AWG/kcmil conductor section	max		12
<b>Auxiliary contact characteristics</b>			
Thermal current I <sub>th</sub>		A	10
IEC/EN 60947-5-1 designation			A600
<b>Operations</b>			
Mechanical life		cycles	20000000
Electrical life		cycles	500000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1	rated load mechanical load	cycles	500000
		cycles	20000000
Mirror contacts according to IEC/EN 60947-4-1			YES
EMC compatibility			YES
<b>AC coil operating</b>			
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
AC average coil consumption at 20°C			
of 50/60Hz coil powered at 50Hz	in-rush holding	VA	30
		VA	4
of 50/60Hz coil powered at 60Hz	in-rush holding	VA	25
		VA	3
of 60Hz coil powered at 60Hz	in-rush holding	VA	30
		VA	4
Dissipation at holding ≤20°C 50Hz		W	0.9
<b>Max cycles frequency</b>			
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
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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

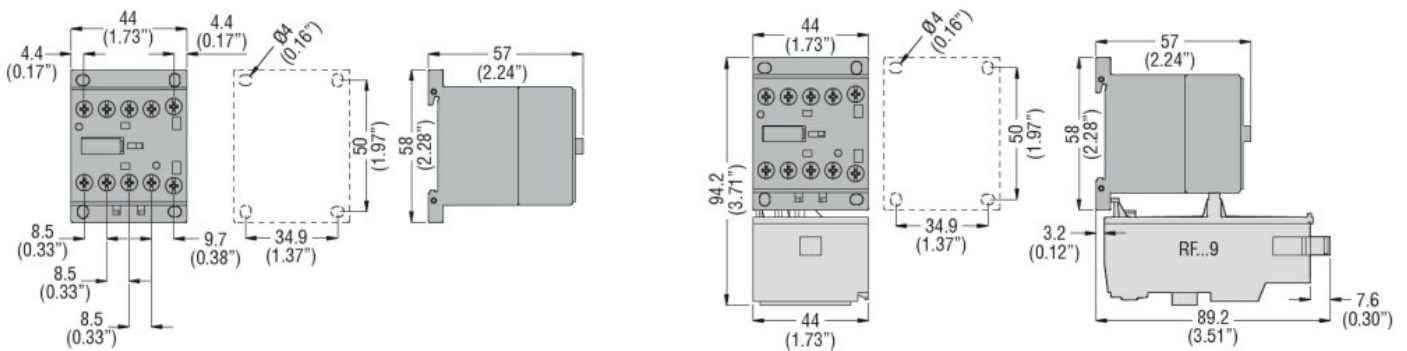
m	3000
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Resistance & Protection

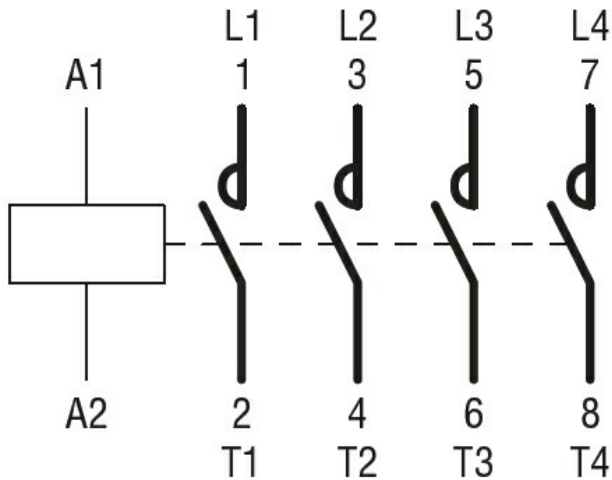
Pollution degree

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