



Product designation Auxiliary contactor BG09

Product type designation

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 ($\leq 40^\circ C$)	A	20
AC-3 ($\leq 440V \leq 55^\circ C$)	A	9
AC-4 (400V)	A	4

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 $L/R \leq 1ms$ with 4 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 DC3-DC5 with $L/R \leq 15ms$ 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 $L/R \leq 15ms$ 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 $L/R \leq 15ms$ 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 $L/R \leq 15ms$ 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)	I _{th}	W	4
	AC3	W	0.8
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	0.8
	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	
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 60Hz	V	48	
AC operating voltage			
of 60Hz coil powered at 60Hz			
pick-up	min max	%Us %Us	75 115
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 holding	VA VA	30 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

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	

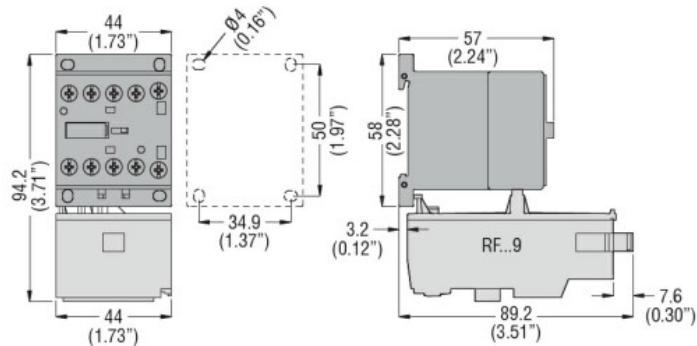
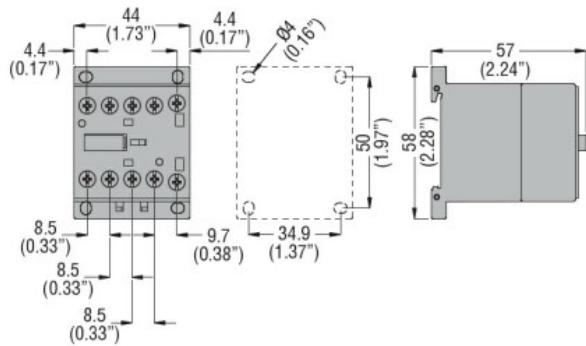
Standard fault	Short circuit current	kA	5
	Fuse rating	A	30

Ambient conditions

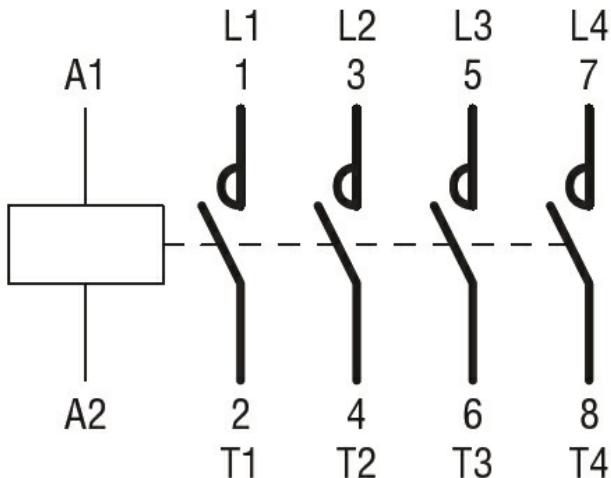
Temperature

Operating temperature

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