



Power contactor  
BG09

Product designation

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 ( $\leq 40^\circ\text{C}$ )	A 160
	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
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
	AC3	W 0.81
Tightening torque for terminals	min	Nm 0.8
	max	Nm 1
	min	lbin 0.59
	max	lbin 0.74
Tightening torque for coil terminal	min	Nm 0.8
	max	Nm 1
	min	lbft 0.8
	max	lbft 0.74
Max number of wires simultaneously connectable	nr.	2
Conductor section		
Flexible w/o lug conductor section		

	min	mm <sup>2</sup>	0.75
	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 when wired
<b>Mechanical features</b>			
Operating position			
	normal allowable		vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight			g 180
<b>Auxiliary contact characteristics</b>			
Type of contact			1 NO
Thermal current I <sub>th</sub>			A 10
IEC/EN 60947-5-1 designation			A600
Operating current DC12			
	110V	A	2.9
Operating current DC13			
	24V	A	2.9
	48V	A	1.4
	60V	A	1.1
	125V	A	0.3
	220V	A	0.1
	600V	A	0.6
<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	cycles	500000
	mechanical load	cycles	20000000
Mirror contacts according to IEC/EN 60947-4-1			true
EMC compatibility			Yes
<b>AC coil operating</b>			
Rated AC voltage at 50/60Hz, 60Hz			
	min	V	12
	max	V	575
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
	pick-up		
	min	%Us	75
	max	%Us	115
	drop-out		
	min	%Us	20
	max	%Us	55
of 50/60Hz coil powered at 60Hz			
	pick-up		
	min	%Us	80

drop-out	max	%Us	115
	min	%Us	20
	max	%Us	55
AC operating voltage 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
<b>DC coil operating</b>			
DC rated control voltage			
	min	V	6
	max	V	480
Average coil consumption ≤20°C			
	in-rush	W	3.2
	holding	W	3.2
<b>Max cycles frequency</b>			
Mechanical operations		cycles/h	3600
<b>Operating times</b>			
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
<b>Yielded mechanical performance</b>			
for single-phase AC motor			
	110/120V	hp	0.5
	230V	hp	1.5
<b>for three-phase AC motor</b>			
	200/208V	hp	2
	220/230V	hp	3
	460/480V	hp	5
	575/600V	hp	5

**General USE**

Contactor

AC current A 20

**Ambient conditions**

Temperature

Operating temperature

min °C -40  
max °C 60

Storage temperature

min °C -55  
max °C 70

Max altitude

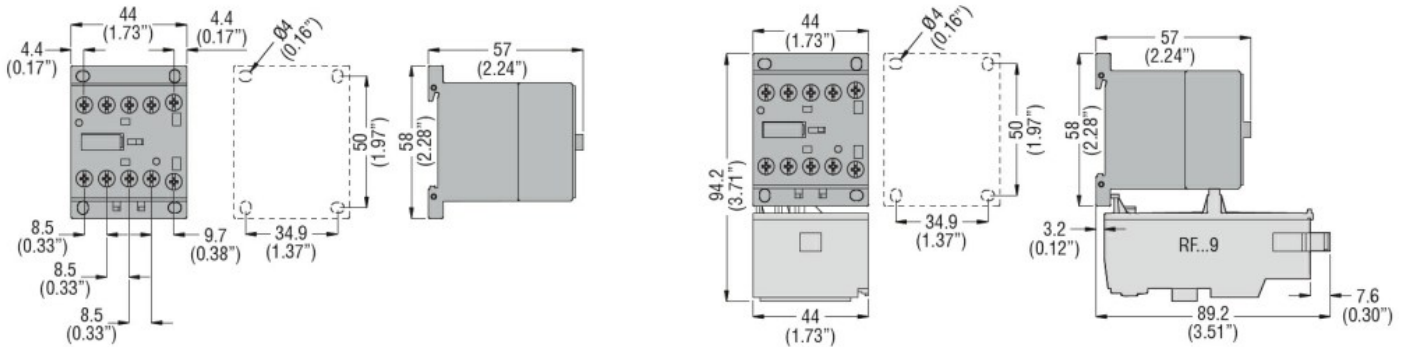
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**Resistance & Protection**

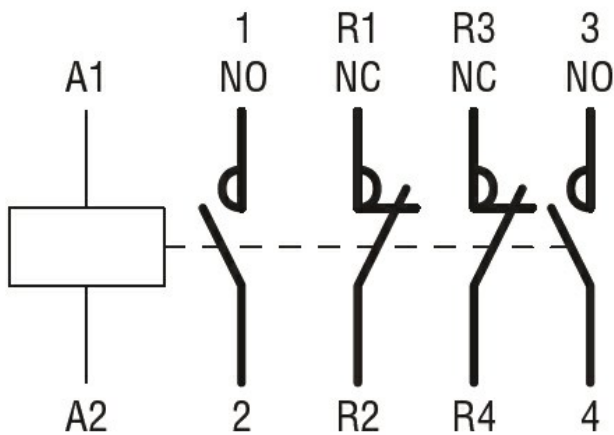
Pollution degree

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 6 classification

EC000066 - Power contactor, AC switching