



Product designation Power 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
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
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	0.81
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 <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 properly wired	
Mechanical features				
Operating position	normal allowable		Vertical plan ±30°	
Fixing			Screw / DIN rail 35mm	
Weight	g		180	
Auxiliary contact characteristics				
Thermal current I <sub>th</sub>	A		10	
Operations				
Mechanical life	cycles		20000000	
Electrical life	cycles		500000	
Safety related data				
Performance level B10d according to EN/ISO 13489-1			rated load	cycles
			mechanical load	cycles
				500000
				20000000
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	%Us
			max	%Us
				75
				115
drop-out			min	%Us
			max	%Us
				20
				55
AC average coil consumption at 20°C				
of 50/60Hz coil powered at 50Hz			in-rush	VA
			holding	VA
				30
				4
of 50/60Hz coil powered at 60Hz			in-rush	VA
			holding	VA
				25
				3
of 60Hz coil powered at 60Hz			in-rush	VA
			holding	VA
				30
				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

Rated operational voltage AC (UL) V 600

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

#### Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	+70

Storage temperature

min	°C	-60
max	°C	+80

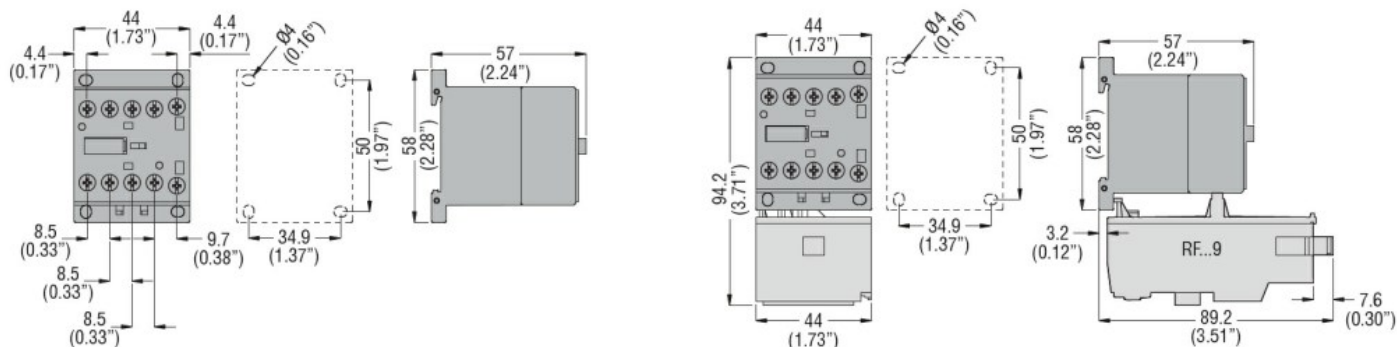
Max altitude m 3000

#### Resistance & Protection

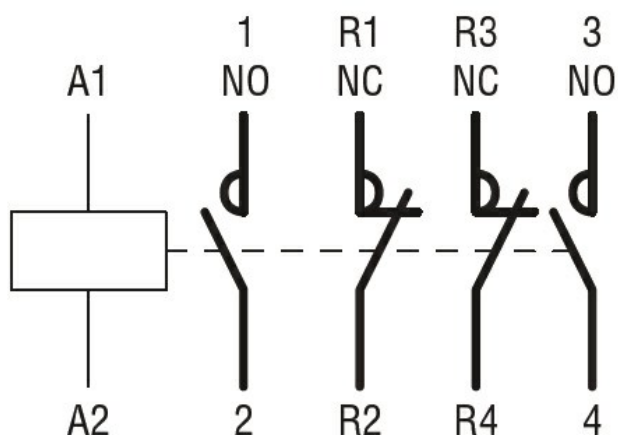
Pollution degree

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