



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 Ω	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 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	222
Auxiliary contact characteristics			
Type of contact			1 NO
Thermal current I _{th}		A	10
IEC/EN 60947-5-1 designation			Q600
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
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 cycles 20000000
Mirror contacts according to IEC/EN 60947-4-1			true
EMC compatibility			Yes
AC coil operating			
Rated AC voltage at 50/60Hz, 60Hz	min	V	12
	max	V	575
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	0.9

DC coil operating

DC rated control voltage

min	V	6
max	V	480

DC operating voltage

pick-up

min	%Us	75
max	%Us	115

drop-out

min	%Us	10
max	%Us	25

Average coil consumption $\leq 20^{\circ}\text{C}$

in-rush	W	3.2
holding	W	3.2

Max cycles frequency

Mechanical operations

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
------------	---	----

Ambient conditions

Temperature

Operating temperature

min	°C	-40
max	°C	60

Storage temperature

min	°C	-55
max	°C	70

Max altitude

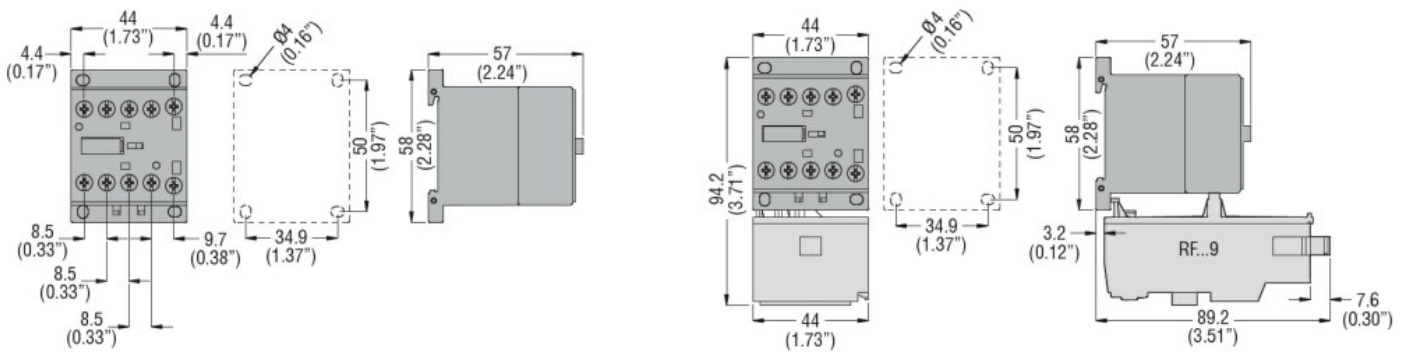
m	3000
---	------

Resistance & Protection

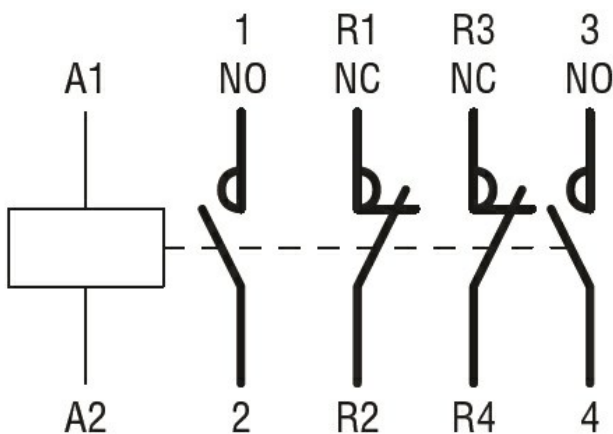
Pollution degree

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 6 classification

EC000066 - Power contactor, AC switching