



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 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 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 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 0.75
		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	180
Conductor section			
AWG/kcmil conductor section		max	12
Auxiliary contact characteristics			
Thermal current I _{th}		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
Operations			
Mechanical life		cycles	20000000
Electrical life		cycles	500000
Safety related data			
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			YES
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 50/60Hz		V	110
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
		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	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 $\leq 20^{\circ}\text{C}$ 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				
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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Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	+70

Storage temperature

min	°C	-60
max	°C	+80

Max altitude

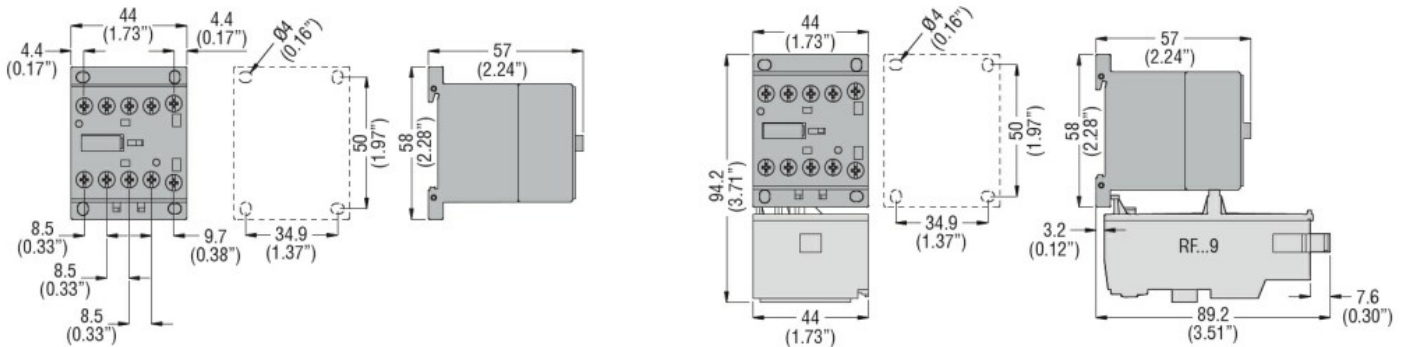
m	3000
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Resistance & Protection

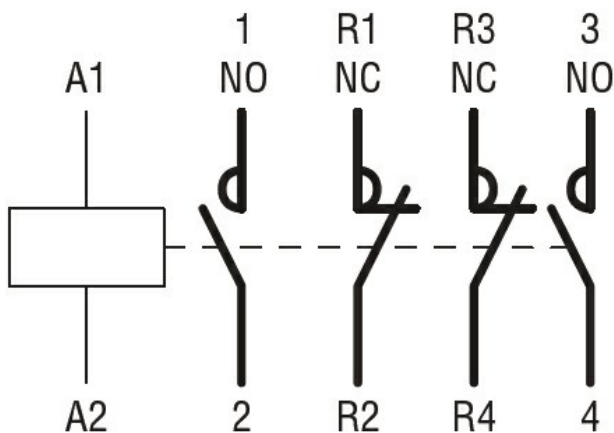
Pollution degree

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