



Power contactor
BG09

Product designation

Product type designation

Contact characteristics

Number of poles	nr.	3
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 130
	AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$)	A 9
	AC-4 (400V)	A 4
Rated operational power AC-3 ($T \leq 55^\circ\text{C}$)	230V	kW 2.2
	400V	kW 4
	415V	kW 4.3
	440V	kW 4.5
	500V	kW 5
	690V	kW 5
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°
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Fixing

Screw / DIN rail 35mm

Weight

g 182

Auxiliary contact characteristics

Type of contact

1 NC

Thermal current I_{th}

A 10

IEC/EN 60947-5-1 designation

A600 - Q600

Operating current AC15

230V	A	3
400V	A	1.9
500V	A	1.4

Operating current DC12

110V	A	2.9
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Operating current DC13

24V	A	2.9
48V	A	1.4
60V	A	1.2
110V	A	0.6
125V	A	0.55
220V	A	0.3
600V	A	0.1

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, 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	
		max	%Us	115	
	drop-out	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 $\leq 20^{\circ}\text{C}$ 50Hz				W	0.95
DC coil operating					
DC rated control voltage					
		min	V	6	
		max	V	250	
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

Contact rating of auxiliary contacts according to UL

A600 - Q600

General USE

Contactor

AC current	A	20
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Ambient conditions

Temperature

Operating temperature

min	°C	-40
max	°C	60

Storage temperature

min	°C	-55
max	°C	70

Max altitude

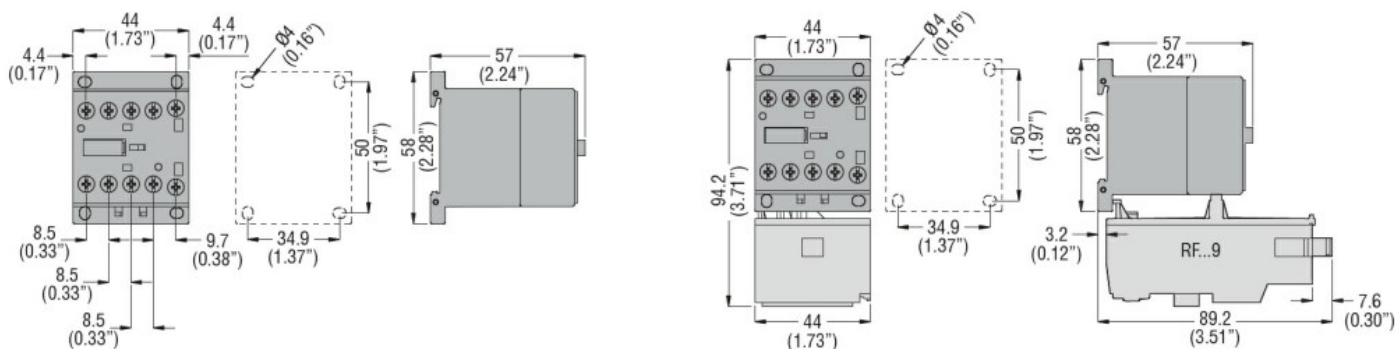
m 3000

Resistance & Protection

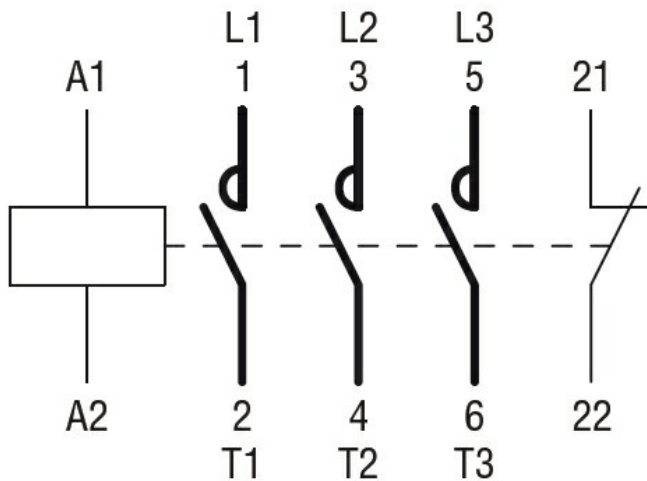
Pollution degree

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