



Product designation

Power contactor

Product type designation

BF38

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	56
Operational current I _e		
	AC-1 (=40°C)	A 56
	AC-1 (=40°C) with 16mm ² wire and fork end lug	A 60
	AC-1 (=55°C)	A 45
	AC-1 (=55°C) with 16mm ² wire and fork end lug	A 48
	AC-1 (=70°C)	A 40
	AC-1 (=70°C) with 16mm ² wire and fork end lug	A 42
	AC-3 (=440V =55°C)	A 38
	AC-4 (400V)	A 15.5
Rated operational power AC-1 (T=40°C)		
	230V	kW 21
	400V	kW 36
	500V	kW 45
	690V	kW 62
Short-time allowable current for 10s (IEC/EN60947-1)	A	320
Protection fuse		
	gG (IEC)	A 63
	aM (IEC)	A 40
Making capacity (RMS value)	A	380
Breaking capacity at voltage		
	440V	A 304
	500V	A 240
	690V	A 192
Resistance per pole (average value)	mΩ	2
Power dissipation per pole (average value)		
	I _{th}	W 6
	AC3	W 2.9
Tightening torque for terminals		
	min	Nm 2.5
	max	Nm 3
	min	lbin 1.8
	max	lbin 2.2
Tightening torque for coil terminal		
	min	Nm 0.8
	max	Nm 1

		min	lbin	0.8
		max	lbin	0.74
Max number of wires simultaneously connectable			Nr.	2
Conductor section				
	AWG/Kcmil			
		max		6
Flexible w/o lug conductor section		min	mm ²	2.5
		max	mm ²	16
Flexible c/w lug conductor section		min	mm ²	1
		max	mm ²	10
Flexible with insulated spade lug conductor section		min	mm ²	1
		max	mm ²	10
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	666
Conductor section				
	AWG/kcmil conductor section			
		max		6
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	1400000
Safety related data				
Performance level B10d according to EN/ISO 13489-1		rated load mechanical load	cycles	1400000 20000000
Mirror contacts according to IEC/EN 60947-4-1				YES
EMC compatibility				yes
DC coil operating				
DC rated control voltage			V	48
DC operating voltage				
	pick-up	min	%Us	80
		max	%Us	125
	drop-out	min	%Us	10
		max	%Us	40
Average coil consumption =20°C		in-rush holding	W	5.4 5.4
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us control				
	in AC			
	Closing NO			

in DC	Opening NO	min	ms	8
		max	ms	24
	Closing NC	min	ms	5
		max	ms	15
	Opening NC	min	ms	9
		max	ms	20
		min	ms	9
		max	ms	17
	Closing NO	min	ms	54
		max	ms	66
	Opening NO	min	ms	14
		max	ms	17
	Closing NC	min	ms	23
		max	ms	28
	Opening NC	min	ms	46
		max	ms	56

UL technical data

Full-load current (FLA) for three-phase AC motor

at 480V	A	40
at 600V	A	32

Yielded mechanical performance

for single-phase AC motor

110/120V	HP	3
230V	HP	7.5

for three-phase AC motor

200/208V	HP	10
220/230V	HP	15
460/480V	HP	30
575/600V	HP	30

General USE

Contactor

AC current	A	55
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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

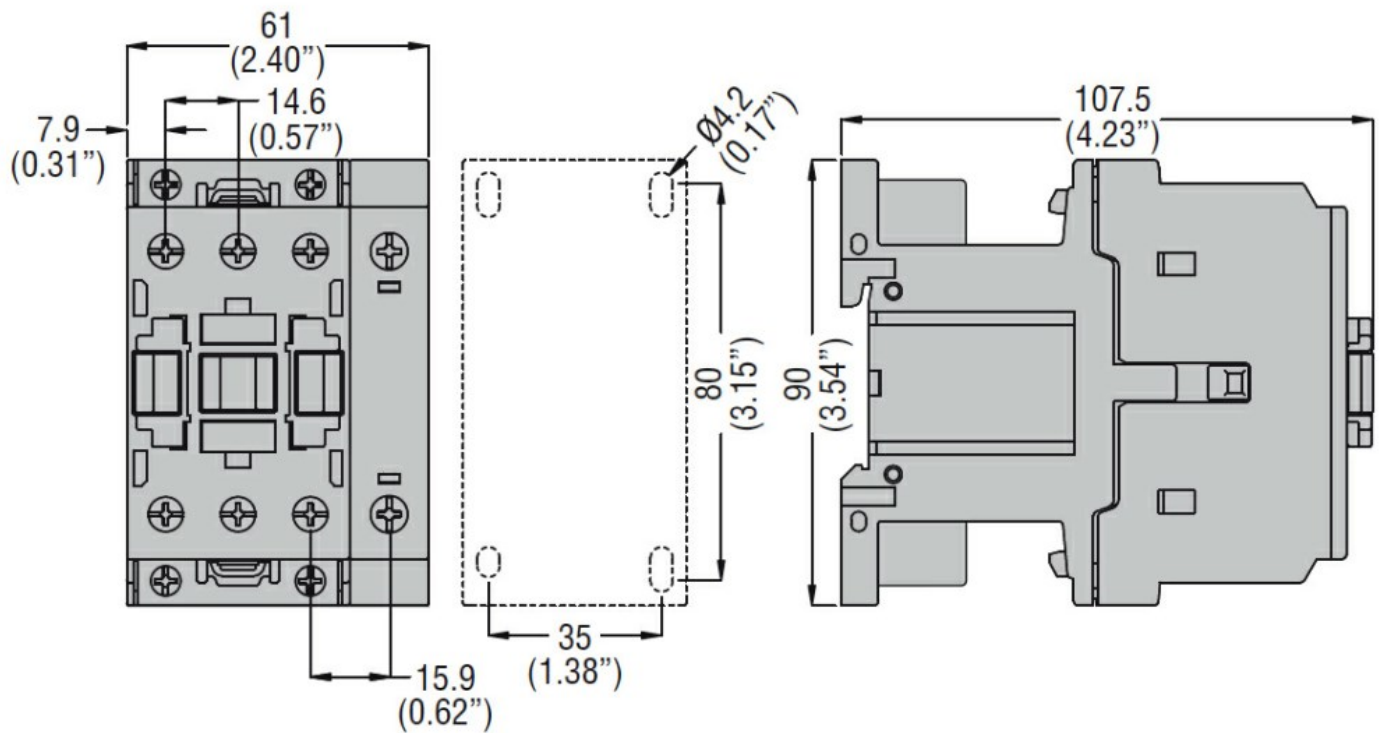
m	3000
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Resistance & Protection

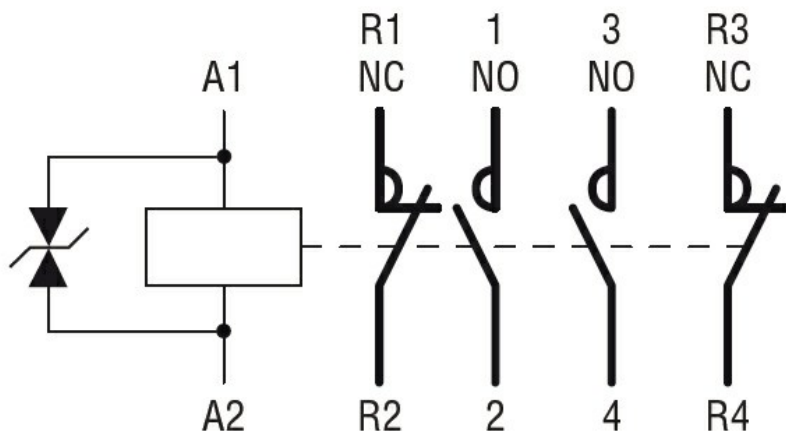
Pollution degree

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