



Power contactor  
BF38

Product designation

Product type designation

**Contact characteristics**

Number of poles	nr.	4
Rated insulation voltage U <sub>i</sub>	V	690
Rated impulse withstand voltage U <sub>imp</sub>	kV	6
Operating frequency	Operational frequency min	Hz 25
	Operational frequency max	Hz 400
Conventional free air thermal current I <sub>th</sub>	A	56
Operating current	Operational current AC1 (≤40°C)	A 56
	Operational current AC3 (≤440V ≤55°C)	A 38
	Operational current AC4 (400V)	A 15.5
Rated operational power AC1 (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	Breaking capacity 440V	A 304
	Breaking capacity 500V	A 240
	Breaking capacity 690V	A 192
Resistance per pole (average value)	mΩ	2
Power dissipation per pole (average value)	Power dissipation pole (average value) I <sub>th</sub>	W 6
	AC3	W 2.9
Tightening torque for terminals	min	Nm 2.5
	max	Nm 3
	min	lbft 1.8
	max	lbft 2.2
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	AWG	

	min		14
	max		6
Flexible w/o lug conductor section	min	mm <sup>2</sup>	2.5
	max	mm <sup>2</sup>	16
Flexible c/w lug conductor section	min	mm <sup>2</sup>	1
	max	mm <sup>2</sup>	10
Flexible with insulated spade lug conductor section	min	mm <sup>2</sup>	1
	max	mm <sup>2</sup>	10
Power terminal protection according to IEC/EN 60529			IP20 when wired
<b>Auxiliary contact characteristics</b>			
Operational current AC1 (≤40°C)		A	56
Operating current DC13	110V	A	Screw / DIN rail 35mm
<b>Ambient conditions</b>			
Temperature			
Operating temperature			
	min	°C	-50
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Operating position	normal allowable		Vertical plan ±30°
Mounting			Screw / DIN rail 35mm
Weight		g	0.668
<b>Operations</b>			
Mechanical life		Cycles	20000000
Electrical life		Cycles	1400000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1			
	rated load	Cicli	1400000
	mechanical load	Cicli	20000000
EMC compatibility			yes
<b>DC coil operating</b>			
DC rated control voltage			
	min	V	6
DC operating voltage			
pick-up			
	min	%Us	0.7
	max	%Us	1.25
drop-out			
	min	%Us	0.1
	max	%Us	0.40
Average coil consumption ≤20°C			
	in-rush	W	5.4
	holding	W	5.4

**Max cycles frequency**

Mechanical operations Cycles/h 3600

**Operating times**

Average time for Us control

in AC

Closing NO

min ms 8  
max ms 24

Opening NO

min ms 5  
max ms 15

in DC

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

General USE

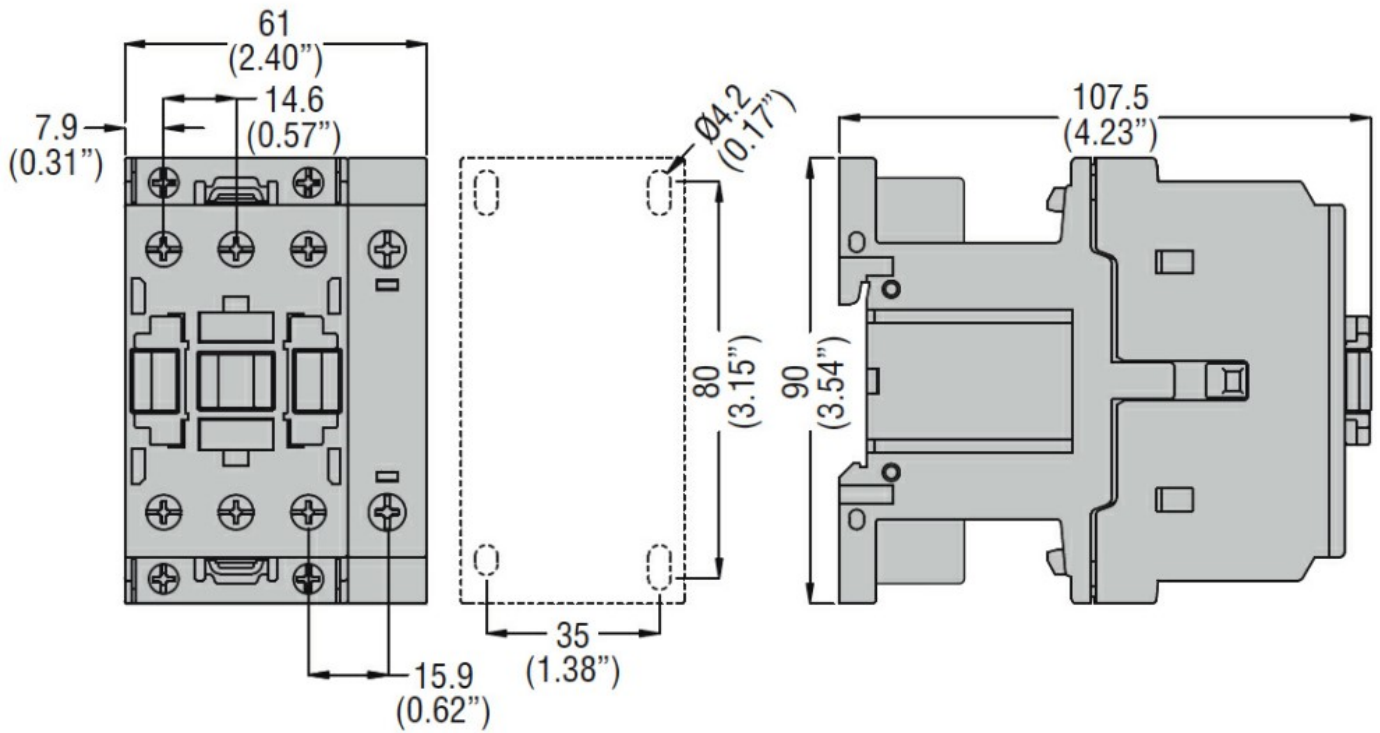
Contactor

AC current A 32

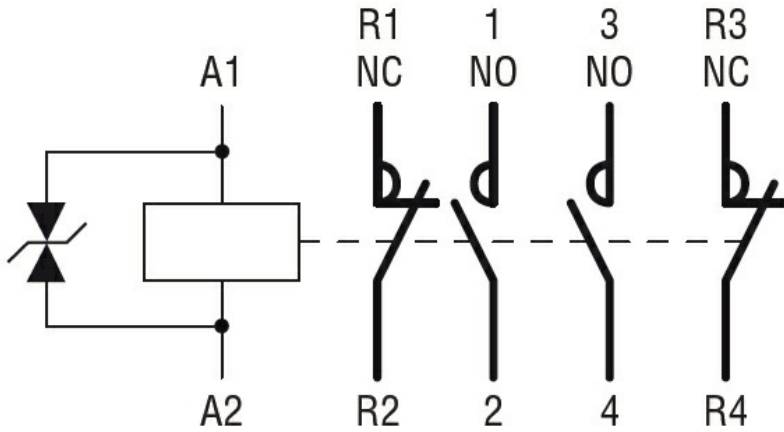
**Other features**

Pollution degree 3

**Dimensions**



### Wiring diagrams



### Certifications and compliance

#### Certifications

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

#### Compliance

CCC  
cULus  
EAC

### ETIM 6 classification

EC000066 - Power contactor, AC switching