



Product designation	Power contactor		
Product type designation	BF38		
<b>Contact characteristics</b>			
Number of poles	Nr.	4	
Rated insulation voltage U <sub>i</sub> IEC/EN	V	690	
Rated impulse withstand voltage U <sub>imp</sub>	kV	6	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current I <sub>th</sub>		A	56
Operational current I <sub>e</sub>			
AC-1 ( $\leq 40^{\circ}\text{C}$ )	A	56	
AC-1 ( $\leq 40^{\circ}\text{C}$ ) with 16mm <sup>2</sup> wire and fork end lug	A	60	
AC-1 ( $\leq 55^{\circ}\text{C}$ )	A	45	
AC-1 ( $\leq 55^{\circ}\text{C}$ ) with 16mm <sup>2</sup> wire and fork end lug	A	48	
AC-1 ( $\leq 70^{\circ}\text{C}$ )	A	40	
AC-1 ( $\leq 70^{\circ}\text{C}$ ) with 16mm <sup>2</sup> wire and fork end lug	A	42	
AC-3 ( $\leq 440\text{V} \leq 55^{\circ}\text{C}$ )	A	38	
AC-4 (400V)	A	15.5	
Rated operational power AC-1 ( $T \leq 40^{\circ}\text{C}$ )	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 <sub>th</sub>	W	6
	AC-3	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	I <sub>bin</sub>	0.8
		max	I <sub>bin</sub>	0.74
Max number of wires simultaneously connectable	Nr. 2			
Conductor section	AWG/Kcmil			
		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 properly wired			
<b>Mechanical features</b>				
Operating position		normal	Vertical plan	
		allowable	±30°	
Fixing	Screw / DIN rail 35mm			
Weight		g	500	
<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	cycles	1400000
		mechanical load	cycles	20000000
EMC compatibility	yes			
<b>AC coil operating</b>				
Rated AC voltage at 60Hz		V	120	
AC operating voltage				
of 60Hz coil powered at 60Hz				
pick-up		min	%Us	80
		max	%Us	110
drop-out		min	%Us	20
		max	%Us	55
AC average coil consumption at 20°C				
of 60Hz coil powered at 60Hz		in-rush	VA	75
		holding	VA	9
Dissipation at holding ≤20°C 50Hz			W	2.5
<b>Max cycles frequency</b>				
Mechanical operation		cycles/h	3600	
<b>Operating times</b>				
Average time for Us control				
in AC				
	Closing NO			
		min	ms	8

Opening NO	max	ms	24
	min	ms	5
	max	ms	15
Closing NC	min	ms	11
	max	ms	29
Opening NC	min	ms	6
	max	ms	14

**UL technical data**

Rated operational voltage AC (UL)	V	600
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**

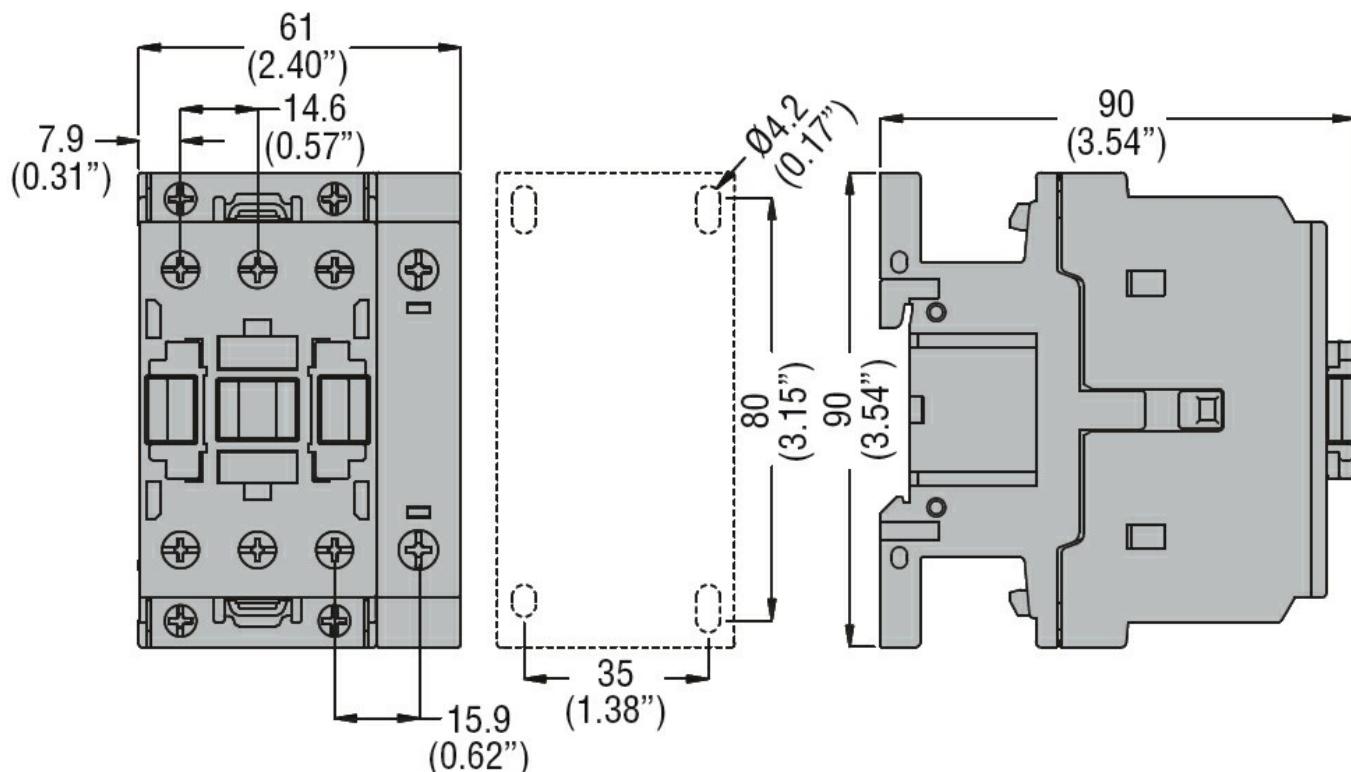
Operating temperature	min	°C	-50
	max	°C	70
Storage temperature	min	°C	-60
	max	°C	80

Max altitude	m	3000
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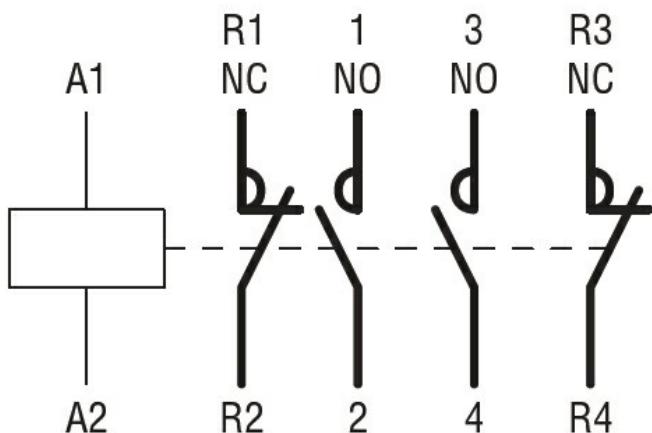
**Resistance & Protection**

Pollution degree	3
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**Dimensions**



#### Wiring diagrams



#### Certifications and compliance

##### Compliance

[CSA C22.2 n° 60947-1](#)

[CSA C22.2 n° 60947-4-1](#)

[IEC/EN/BS 60947-1](#)

[IEC/EN/BS 60947-4-1](#)

[UL 60947-1](#)

[UL 60947-4-1](#)

##### Certificates

[CCC](#)

[cULus](#)

[EAC](#)

#### ETIM classification

##### ETIM 8.0

EC000066 -  
Power contactor,  
AC switching