



Product designation	Power contactor		
Product type designation	BF38		
Contact characteristics			
Number of poles	Nr.	4	
Rated insulation voltage Ui IEC/EN	V	690	
Rated impulse withstand voltage $Uimp$	kV	6	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	A	56	
Operational current Ie			
AC-1 ($\leq 40^\circ C$)	A	56	
AC-1 ($\leq 40^\circ C$) with 16mm ² wire and fork end lugA	A	60	
AC-1 ($\leq 55^\circ C$)	A	45	
AC-1 ($\leq 55^\circ C$) with 16mm ² wire and fork end lugA	A	48	
AC-1 ($\leq 70^\circ C$)	A	40	
AC-1 ($\leq 70^\circ C$) with 16mm ² wire and fork end lugA	A	42	
AC-3 ($\leq 440V \leq 55^\circ C$)	A	38	
AC-4 (400V)	A	15.5	
Rated operational power AC-1 ($T \leq 40^\circ C$)	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)	m?		
Power dissipation per pole (average value)	Ith	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	Ibin	0.8		
	max	Ibin	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	Vertical plan			
	allowable	±30°			
Fixing	Screw / DIN rail				
	35mm				
Weight	g	660			
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	cycles	1400000		
	mechanical load	cycles	20000000		
Mirror contacts according to IEC/EN 609474-4-1	YES				
EMC compatibility	yes				
DC coil operating					
DC rated control voltage	V	110			
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	W	5.4		
	holding	W	5.4		
Max cycles frequency					
Mechanical operation	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
Closing NC				
		min	ms	9
		max	ms	20
Opening NC				
		min	ms	9
		max	ms	17
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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

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

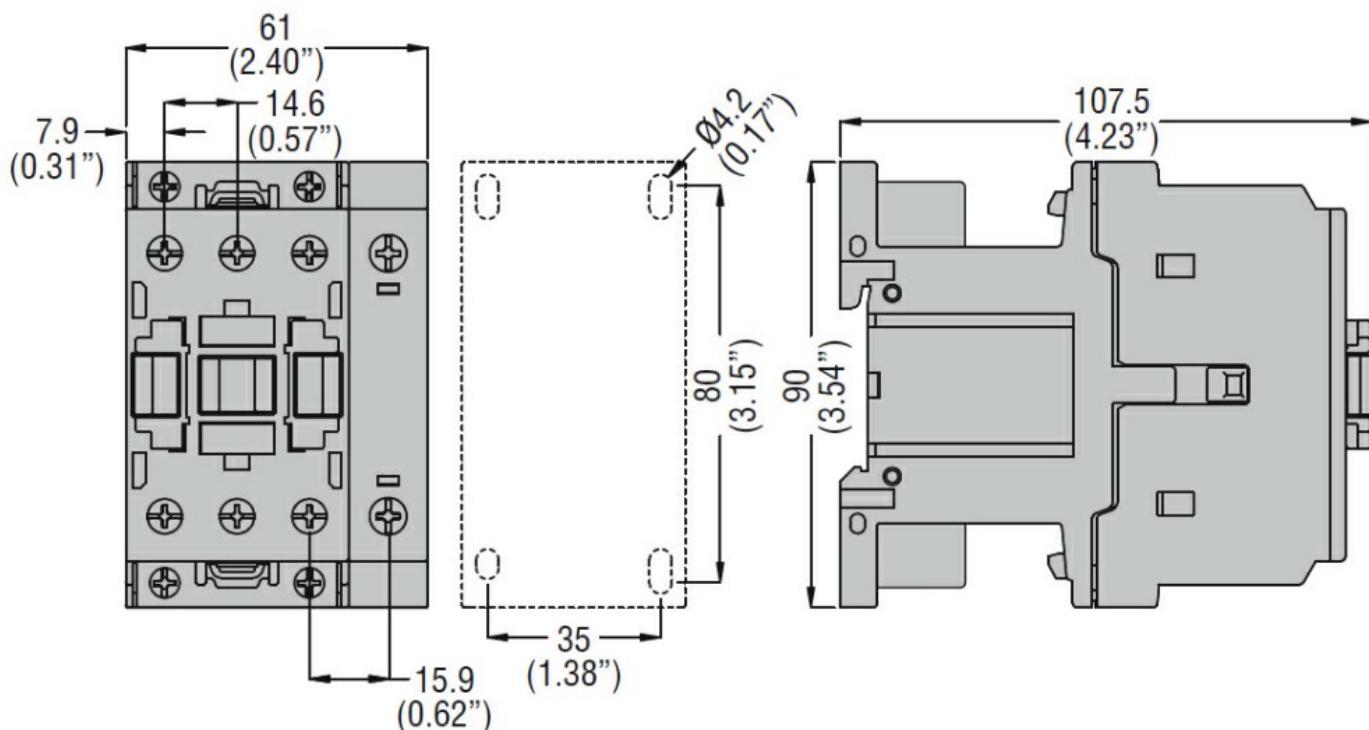
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Resistance & Protection

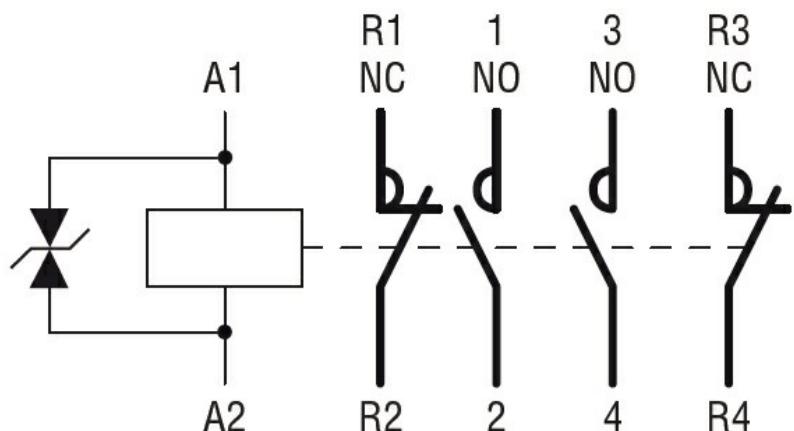
Pollution degree

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