



Product designation				Power contactor
Product type designation				BF38
Contact characteristics				
Number of poles	nr.			4
Rated insulation voltage U_i	V			690
Rated impulse withstand voltage U_{imp}	kV			6
Operating frequency	Operational frequency min	Hz	25	
	Operational frequency max	Hz	400	
	Conventional free air thermal current I_{th}	A	56	
Operating current	Operational current AC1 ($\leq 40^\circ\text{C}$)	A	56	
	Operational current AC3 ($\leq 440\text{V} \leq 55^\circ\text{C}$)	A	38	
	Operational current AC4 (400V)	A	15.5	
Rated operational power AC1 ($T \leq 40^\circ\text{C}$)	230V	kW	21	
	400V	kW	36	
	500V	kW	45	
	690V	kW	62	
Rated operational power AC3 ($T \leq 55^\circ\text{C}$)	230V	kW	11	
	400V	kW	18.5	
	415V	kW	18.5	
	440V	kW	18.5	
	500V	kW	20	
	690V	kW	22	
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)	$m\Omega$			2
Power dissipation per pole (average value)	Power dissipation pole (average value) I_{th}	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 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
Auxiliary contact characteristics			
Operational current AC1 (≤40°C)		A	56
Operating current DC13	110V	A	Screw / DIN rail 35mm
Ambient conditions			
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	0.508
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	Cicli	1400000
		Cicli	20000000
Mirror contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			yes
AC coil operating			
AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up		
	min	%Us	0.8

		max	%Us	1.1
	drop-out	min	%Us	0.2
		max	%Us	0.55
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	of 50/60Hz coil powered at 60Hz			
	pick-up	min	%Us	0.85
		max	%Us	1.1
	drop-out	min	%Us	0.2
		max	%Us	0.55
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	of 60Hz coil powered at 60Hz			
	pick-up	min	%Us	0.8
		max	%Us	1.1
	drop-out	min	%Us	0.2
		max	%Us	0.55
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AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	75
		holding	VA	9
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	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	70
		holding	VA	6.5
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	of 60Hz coil powered at 60Hz			
		in-rush	VA	75
		holding	VA	9
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	Dissipation at holding $\leq 20^{\circ}\text{C}$ 50Hz		W	2.5
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Max cycles frequency				
	Mechanical operations		Cycles/h	3600
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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
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UL technical data				
	Full-load current (FLA) for three-phase AC motor			
		at 480V	A	40
		at 600V	A	32
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	Yielded mechanical performance			
	for single-phase AC motor			
		at 110/120V	hp	3
		at 230V	hp	7.5
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	for three-phase AC motor			
		at 200/208V	hp	10
		at 220/230V	hp	15
		at 460/480V	hp	30
		at 575/600V	hp	30
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General USE				

Contactor

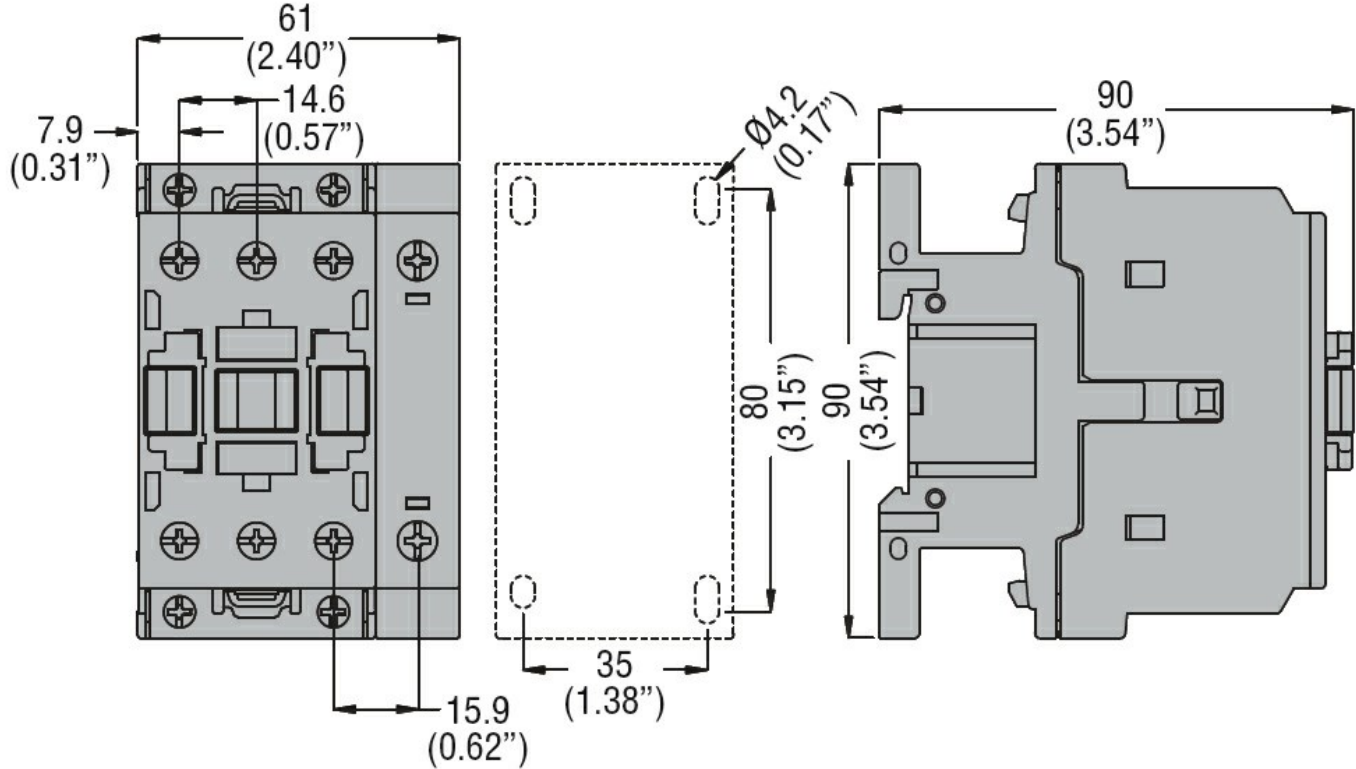
AC current A 32

Other features

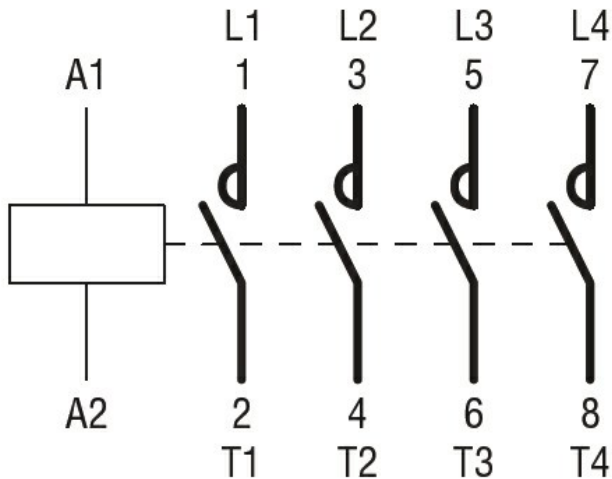
Pollution degree

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