

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 56A, DC COIL, 60VDC, 2NO AND 2NC



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		Α	56
Operational current le			
	AC-1 (≤40°C)	Α	56
	AC-1 (≤40°C) with 16mm² wire and fork end	lugA	60
	AC-1 (≤55°C)	Α	45
	AC-1 (≤55°C) with 16mm² wire and fork end	lugA	48
	AC-1 (≤70°C)	Α	40
	AC-1 (≤70°C) with 16mm² wire and fork end	lugA	42
	AC-3 (≤440V ≤55°C)	Α	38
	AC-4 (400V)	Α	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)	Α	63
	aM (IEC)	Α	40
Making capacity (RMS value)	,	Α	380
Breaking capacity at voltage			
3 1 7 3	440V	Α	304
	500V	Α	240
	690V	Α	192
Resistance per pole (average value)		mΩ	2
Power dissipation per pole (average value)			
(a. c. age (a. d.)	Ith	W	6
	AC-3	W	2.9
Tightening torque for terminals	7.0 0	- · ·	
	min	Nm	2.5
	max	Nm	3
	min	lbin	1.8
	max	Ibin	2.2
Tightening torque for coil terminal	max	15111	
rightening torque for con terminal	min	Nm	0.8
	max	Nm	1
	IIIAX	1 11111	1



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	min	Ibin	0.8
	max	Ibin	0.74
Max number of wires s	Nr.	2	
Conductor section	1110 Hz 11		
	AWG/Kcmil		
	The vibrative and vistor coefficient		6
	Flexible w/o lug conductor section	mm²	2.5
	max	mm²	16
	Flexible c/w lug conductor section	111111	10
	min	mm²	1
	max	mm²	10
	Flexible with insulated spade lug conductor section		
	min	mm²	1
	max	mm²	10
Power terminal protect	tion according to IEC/EN 60529		IP20 when
	ion according to IEO/EN 00023		properly wired
Mechanical features			
Operating position			
	normal		Vertical plan
	allowable		±30°
Fixing			Screw / DIN rail 35mm
Weight		<u> </u>	660
Operations		g	000
Mechanical life		cycles	20000000
Electrical life		cycles	1400000
Safety related data		0,0100	1100000
•	Od according to EN/ISO 13489-1		
	rated load	cycles	1400000
	mechanical load	cycles	20000000
EMC compatibility		•	yes
DC coil operating			
DC rated control voltage	je	V	60
DC operating voltage			
	pick-up		
	min	%Us	80
	max	%Us	125
	drop-out .	0/11	4.0
	min	%Us	10
A	max tion cooso	%Us	40
Average coil consumpt		147	F 4
		W	5.4
	in-rush		5 <i>1</i>
Max cycles frequency	in-rush holding	W	5.4
		W	
Mechanical operation			
Mechanical operation Operating times	holding	W	
Mechanical operation	holding	W	
Mechanical operation Operating times	nontrol in AC	W	
Mechanical operation Operating times	ontrol in AC Closing NO	W cycles/h	3600
Operating times	nontrol in AC	W	
Mechanical operation Operating times	ontrol in AC Closing NO min	W cycles/h ms	3600

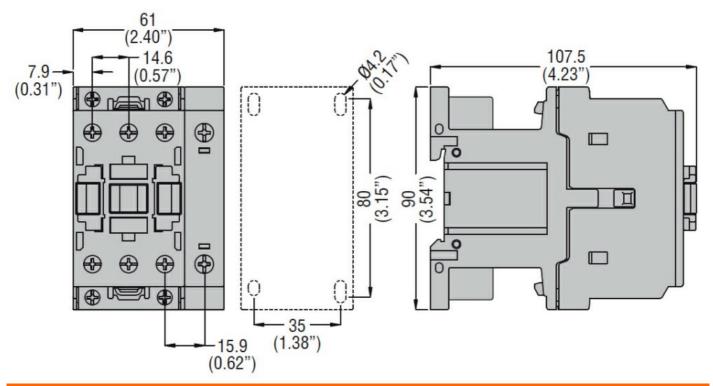


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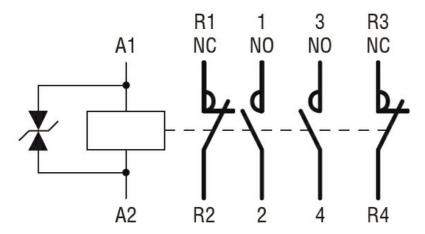
Rated operational voltage AC (UL)						
Max				max	ms	15
Opening NC			Closing NC			
Opening NC				min	ms	9
Max				max	ms	20
Max			Opening NC			
Max			1 0	min	ms	9
In DC						
Closing NO		in DC				
Min		50	Closing NO			
Max			Closing IVC	min	me	54
Opening NO						
Min			Opening NO	IIIdx	1113	00
Closing NC			Opening NO	min	mo	1.1
Closing NC						
Max			Olassia a NO	max	ms	17
Max			Closing NC			00
Opening NC min max ms 46 max ms 56						
Min max Min				max	ms	28
Max			Opening NC			
Storage temperature Contactor Contac				min	ms	46
Rated operational voltage AC (UL)				max	ms	56
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 15 460/480V HP 30 575/600V HP 30 General USE Contactor AC current A 55 Ambient conditions Temperature Operating temperature Operating temperature Storage temperature Min °C -50 max °C 70 Storage temperature min °C -60 max °C 80 Max altitude min °C -60 max °C 80 Max altitude Max altitude Pollution degree Follution degree	UL technical data					
Full-load current (FLA) for three-phase AC motor at 480V	Rated operational volta	age AC (UL)			V	600
At 480V A 32 At 600V A 32			tor			
At 600V A 32	,	'		at 480V	Α	40
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 Ambient conditions Temperature Min °C -50 max °C 70 Storage temperature min °C -60 max °C -60 Max altitude Colspan="2						
For single-phase AC motor 110/120V	Vielded mechanical ne	rformance		ut 000 v	- , ,	
110/120V	riciaca mediameai pe					
230V HP 7.5		ioi sirigie-priase AC iii	iotoi	110/120\/	UD	2
For three-phase AC motor 200/208V						
200/208V				230 V	ПР	7.5
220/230V		tor three-phase AC motor				
A60/480V						
S75/600V HP 30						
Contactor AC current A 55						
Contactor AC current A 55 Ambient conditions Temperature Operating temperature min °C -50 max °C 70 Storage temperature min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection Pollution degree				575/600V	HP	30
AC current A 55	General USE					
Ambient conditions		Contactor				
Ambient conditions				AC current	Α	55
Temperature Operating temperature min °C -50 max °C 70	Ambient conditions					
Operating temperature min °C -50 max °C 70 Storage temperature min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection Pollution degree 3						
min %C 70 max %C 70 Storage temperature min %C -60 max %C 80 Max altitude m 3000 Resistance & Protection 3	L - 2	Operating temperature	<u> </u>			
max °C 70		aparating temperature	•	min	°C.	-50
Storage temperature min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection Storage temperature Total Pollution degree 3						
min °C -60 max °C 80 Max altitude m 3000 Resistance & Protection 3 Pollution degree 3		Storage temperature		IIIdX	U	10
Max altitude m 3000 Resistance & Protection Pollution degree 3		Storage temperature			۰.	60
Max altitude m 3000 Resistance & Protection Pollution degree 3						
Resistance & Protection Pollution degree 3	B. 4. 1474 1			max		
Pollution degree 3						3000
		on The Control of the				
Dimensions						3
Difficultions	Dimensions					

ENERGY AND AUTOMATION

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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