ENERGY AND AUTOMATION

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 56A, AC COIL 50/60HZ, 48VAC



Product designation			Power contactor
Product type designation			BF38
Contact characteristics			
Number of poles		nr.	4
Rated insulation voltage Ui		V	690
Rated impulse withstand voltage Uimp		kV	6
Operating frequency			
Operational fre		Hz	25
Operational free	quency max	Hz	400
Conventional free air thermal current Ith		Α	56
Operating current			
Operational current A	, ,	Α	56
Operational current AC3 (≤4	•	Α	38
Operational current	AC4 (400V)	Α	15.5
Rated operational power AC1 (T≤40°C)			
	230V	kW	21
	400V	kW	36
	500V	kW	45
	690V	kW	62
Rated operational power AC3 (T≤55°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)		Α	320
Protection fuse			
	gG (IEC)	Α	63
	aM (IEC)	Α	40
Making capacity (RMS value)		Α	380
Breaking capacity at voltage			
Breaking ca	pacity 440V	Α	304
Breaking ca	pacity 500V	Α	240
Breaking ca	pacity 690V	Α	192
Resistance per pole (average value)		mΩ	2
Power dissipation per pole (average value)			
Power dissipation pole (average	ge value) Ith	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			



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		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	mm²	2.5
		max	mm²	16
	Flexible c/w lug conductor section			
		min	mm²	1
		max	mm²	10
	Flexible with insulated spade lug conductor section			
	r toxible that inculated opage tag conductor coolers	min	mm²	1
		max	mm²	10
Power terminal protect	ction according to IEC/EN 60529	max		IP20 when wired
Auxiliary contact chara				ii 20 When whea
Operational current A			А	56
Operating current DC				
Operating current DC		110V	А	Screw / DIN rail
A 1 1 2 101				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		Vertical plan
		allowable		±30°
Mounting				Screw / DIN rail 35mm
Weight			g	0.513
Operations			9	
Mechanical life			Cycles	20000000
Electrical life			Cycles	1400000
Safety related data			2,3,00	
· ·	0d according to EN/ISO 13489-1			
. Silomanoo lovol Di	To a doctrining to Environ 10 To To	rated load	Cicli	1400000
	maa	hanical load	Cicli	2000000
Mirror contate accord		i iai iicai i0au	OIUII	
	ing to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating				
AC operating voltage	(50/0011 11 1 1 1 5011			
	of 50/60Hz coil powered at 50Hz			
	pick-up	_		
		min	%Us	0.8





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		max	%Us	1.1			
	drop-out		,,,,,				
	arop out	min	%Us	0.2			
		max	%Us	0.55			
	of 50/60Hz coil powered at 60Hz	max	7003	0.00			
	pick-up						
	рюк-ир	min	%Us	0.85			
		max	%Us	1.1			
	drop-out	max	7003	1.1			
	diop out	min	%Us	0.2			
		max	%Us	0.55			
	of 60Hz coil powered at 60Hz	IIIax	/003	0.55			
	pick-up	min	0/116	0.0			
		min	%Us	0.8			
	1	max	%Us	1.1			
	drop-out		0/11-	0.0			
		min	%Us	0.2			
A O		max	%Us	0.55			
AC operating voltage							
	of 50/60Hz coil powered at 50Hz						
		in-rush	VA	75			
		holding	VA	9			
	of 50/60Hz coil powered at 60Hz						
		in-rush	VA	70			
		holding	VA	6.5			
	of 60Hz coil powered at 60Hz						
		in-rush	VA	75			
		holding	VA	9			
Dissipation at holding			W	2.5			
Max cycles frequency							
Mechanical operations			Cycles/h	3600			
Operating times							
Average time for Us co	ontrol						
_							
	in AC						
		min	ms	8			
	in AC	min max	ms ms	8 24			
	in AC Closing NO						
	in AC	max	ms	24			
	in AC Closing NO	max min	ms ms	5			
UL technical data	in AC Closing NO	max	ms	24			
UL technical data Full-load current (FLA)	in AC Closing NO Opening NO	max min	ms ms	5			
	in AC Closing NO	max min max	ms ms ms	24515			
	in AC Closing NO Opening NO	max min max at 480V	ms ms ms	2451540			
Full-load current (FLA)	in AC Closing NO Opening NO for three-phase AC motor	max min max	ms ms ms	24515			
	in AC Closing NO Opening NO for three-phase AC motor	max min max at 480V	ms ms ms	2451540			
Full-load current (FLA)	in AC Closing NO Opening NO for three-phase AC motor	max min max at 480V at 600V	ms ms ms	24 5 15 40 32			
Full-load current (FLA)	in AC Closing NO Opening NO for three-phase AC motor	max min max at 480V at 600V at 110/120V	ms ms ms A A	24 5 15 40 32			
Full-load current (FLA)	in AC Closing NO Opening NO for three-phase AC motor erformance for single-phase AC motor	max min max at 480V at 600V	ms ms ms	24 5 15 40 32			
Full-load current (FLA)	in AC Closing NO Opening NO for three-phase AC motor	max min max at 480V at 600V at 110/120V at 230V	ms ms ms A A	24 5 15 40 32 3 7.5			
Full-load current (FLA)	in AC Closing NO Opening NO for three-phase AC motor erformance for single-phase AC motor	max min max at 480V at 600V at 110/120V at 230V at 200/208V	ms ms ms A A hp	24 5 15 40 32 3 7.5			
Full-load current (FLA)	in AC Closing NO Opening NO for three-phase AC motor erformance for single-phase AC motor	max min max at 480V at 600V at 110/120V at 230V at 200/208V at 220/230V	ms ms ms A A hp hp	24 5 15 40 32 3 7.5 10 15			
Full-load current (FLA)	in AC Closing NO Opening NO for three-phase AC motor erformance for single-phase AC motor	max min max at 480V at 600V at 110/120V at 230V at 220/230V at 220/230V at 460/480V	ms ms ms A A hp hp	24 5 15 40 32 3 7.5 10 15 30			
Full-load current (FLA)	in AC Closing NO Opening NO for three-phase AC motor erformance for single-phase AC motor	max min max at 480V at 600V at 110/120V at 230V at 200/208V at 220/230V	ms ms ms A A hp hp	24 5 15 40 32 3 7.5 10 15			

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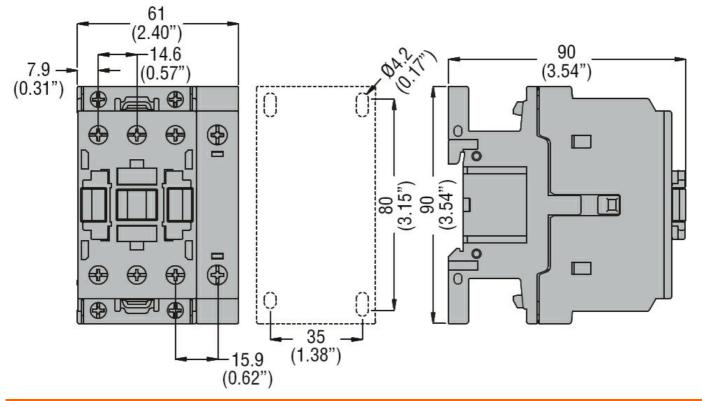
Contactor

AC current A 32

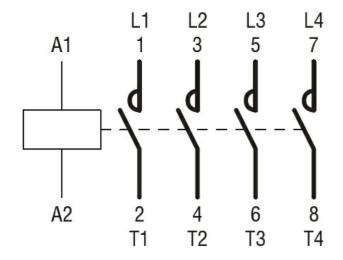
Other features

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



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CCC		
cULus		
EAC		

ETIM 6 classification

EC000066 - Power contactor, AC switching