# FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 115A, AC COIL 50/60HZ, 110VAC



Product designation		Power contactor
Product type designation		BF80
Contact characteristics		
Number of poles	nr.	4
Rated insulation voltage Ui	V	1000
Rated impulse withstand voltage Uimp	kV	8
Operating frequency		
Operational frequency min	Hz	25
Operational frequency max	Hz	400
Conventional free air thermal current Ith	Α	115
Operating current		
Operational current AC1 (≤40°C)	Α	115
Operational current AC3 (≤440V ≤55°C)	Α	80
Operational current AC4 (400V)	Α	38
Rated operational power AC1 (T≤40°C)		
230V	kW	43
400V	kW	76
500V	kW	95
690V	kW	120
Rated operational power AC3 (T≤55°C)		
230V	kW	22
400V	kW	45
415V	kW	45
440V	kW	45
500V	kW	55
690V	kW	55
1000V	kW	37
Short-time allowable current for 10s (IEC/EN60947-1)	A	640
Protection fuse		
gG (IEC)	Α	125
aM (IEC)	Α	80
Making capacity (RMS value)	Α	800
Breaking capacity at voltage		
Breaking capacity 440V	Α	640
Breaking capacity 500V	Α	625
Breaking capacity 690V	Α	456
Resistance per pole (average value)	mΩ	0.6
Power dissipation per pole (average value)		
Power dissipation pole (average value) Ith	W	7.9
AC3	W	3.8
Tightening torque for terminals		
min	Nm	4
max	Nm	5
!	1144	2 OE
min max	lbft lbft	2.95 3.69

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Tightening torque for co	oil terminal			
		min	Nm	0.8
		max	Nm	1
		min	lbft	8.0
		max	lbft	0.74
max number of wires s	imultaneously connectable		nr.	2
Conductor section				
	AWG			
		min		14
		max		2
	Flexible w/o lug conductor section			
	3 11 13	min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section			
	Tioxisio o, wing conductor coolien	min	mm²	1.5
		max	mm²	35
Power terminal protect	ion according to IEC/EN 60529	IIIdA	111111	IP20 front
Auxiliary contact charact	-			11 20 110111
Operational current AC			А	115
Operational current AC			А	110
Operating current DC1	3			Canana / DIM nail
		110V	Α	Screw / DIN rail
A malai a mata a a madisti a ma				35mm
Ambient conditions				
Temperature				
	Operating temperature		0.0	
		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	1.24
Operations				
Mechanical life			Cycles	15000000
Electrical life			Cycles	1300000
Safety related data			·	
	od according to EN/ISO 13489-1			
	<b>3</b>	rated load	Cicli	1300000
		mechanical load	Cicli	15000000
Mirror contats according	ng to IEC/EN 609474-4-1	ss.iailisai isaa	0.000	yes
EMC compatibility	.g .c .e o/e it o o o = i = i = i			yes
AC coil operating				y 0.3
AC operating voltage	-4 F0/001			
	of 50/60Hz coil powered at 50Hz			
	pick-up		0/1/	
		min	%Us	0.8
		max	%Us	1.1
	drop-out			

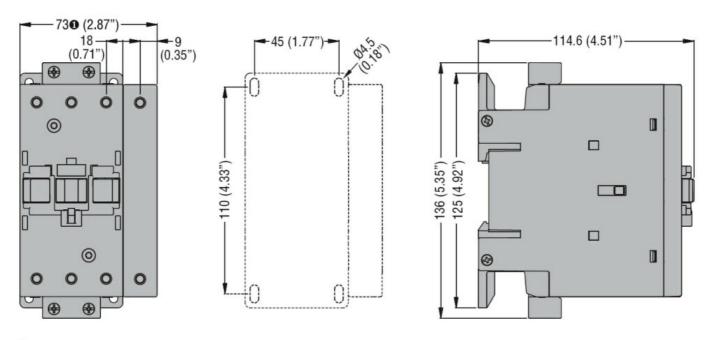


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		min	%Us	0.2
		max	%Us	0.55
	of 50/60Hz coil powered at 60Hz			_
	pick-up			
		min	%Us	0.85
		max	%Us	1.1
	drop-out			
		min	%Us	0.4
		max	%Us	0.55
	of 60Hz coil powered at 60Hz			
	pick-up		0/11-	0.0
		min	%Us	0.8
	duam aut	max	%Us	1.1
	drop-out	min	0/110	0.2
		min	%Us	0.2
AC operation valtage		max	%Us	0.55
AC operating voltage	of 50/60Hz coil powered at 50Hz			
	of 50/60Hz coil powered at 50Hz	in-rush	VA	210
		holding	VA VA	15
	of 50/60Hz coil powered at 60Hz	Holding	VA	10
	of 50/60Hz coil powered at 60Hz	in-rush	VA	195
		holding	VA	13
	of 60Hz coil powered at 60Hz	Holding	٧٨	13
	of doffiz con powered at doffiz	in-rush	VA	210
		holding	VA	15
Dissipation at holding	<20°C 50Hz	notaling	W	5.0
	-20 0 00112		* *	0.0
Max cycles frequency				
Max cycles frequency Mechanical operations			Cycles/h	3600
Mechanical operations			Cycles/h	3600
			Cycles/h	3600
Mechanical operations Operating times			Cycles/h	3600
Mechanical operations Operating times	ontrol		Cycles/h	3600
Mechanical operations Operating times	ontrol in AC	min	Cycles/h	3600 12
Mechanical operations Operating times	ontrol in AC			
Mechanical operations Operating times	ontrol in AC	min	ms	12
Mechanical operations Operating times	ontrol in AC Closing NO	min	ms	12
Mechanical operations Operating times Average time for Us co	ontrol in AC Closing NO	min max	ms ms	12 28
Mechanical operations Operating times Average time for Us co	ontrol in AC Closing NO Opening NO	min max min	ms ms	12 28 8
Mechanical operations Operating times Average time for Us co	ontrol in AC Closing NO	min max min max	ms ms	12 28 8 22
Mechanical operations Operating times Average time for Us co	ontrol in AC Closing NO Opening NO	min max min max at 480V	ms ms ms ms	12 28 8 22
Mechanical operations Operating times Average time for Us co	ontrol in AC Closing NO Opening NO ofor three-phase AC motor	min max min max	ms ms ms	12 28 8 22
Mechanical operations Operating times Average time for Us co	ontrol in AC Closing NO Opening NO of for three-phase AC motor	min max min max at 480V	ms ms ms ms	12 28 8 22
Mechanical operations Operating times Average time for Us co	ontrol in AC Closing NO Opening NO ofor three-phase AC motor	min max min max at 480V at 600V	ms ms ms ms	12 28 8 22 77 77
Mechanical operations Operating times Average time for Us co	ontrol in AC Closing NO Opening NO of for three-phase AC motor	min max min max at 480V at 600V	ms ms ms A A	12 28 8 22 77 77
Mechanical operations Operating times Average time for Us co	ontrol in AC Closing NO Opening NO of for three-phase AC motor	min max min max at 480V at 600V at 200/208V at 220/230V	ms ms ms A A	12 28 8 22 77 77 77
Mechanical operations Operating times Average time for Us co	ontrol in AC Closing NO Opening NO of for three-phase AC motor	min max min max at 480V at 600V at 220/230V at 220/230V at 460/480V	ms ms ms A A	12 28 8 22 77 77 77
Mechanical operations Operating times Average time for Us co	ontrol in AC Closing NO Opening NO of for three-phase AC motor	min max min max at 480V at 600V at 200/208V at 220/230V	ms ms ms A A	12 28 8 22 77 77 77
Mechanical operations Operating times Average time for Us co	ontrol in AC  Closing NO  Opening NO  for three-phase AC motor  erformance for three-phase AC motor	min max min max at 480V at 600V at 220/230V at 220/230V at 460/480V	ms ms ms A A	12 28 8 22 77 77 77
Mechanical operations Operating times Average time for Us co	ontrol in AC Closing NO Opening NO of for three-phase AC motor	min max min max  at 480V at 600V  at 200/208V at 220/230V at 460/480V at 575/600V	ms ms ms A A	12 28 8 22 77 77 77 25 30 60 75
Mechanical operations Operating times Average time for Us co	ontrol in AC  Closing NO  Opening NO  for three-phase AC motor  erformance for three-phase AC motor	min max min max at 480V at 600V at 220/230V at 220/230V at 460/480V	ms ms ms A A	12 28 8 22 77 77 77
Mechanical operations Operating times Average time for Us of  UL technical data Full-load current (FLA)  Yielded mechanical per General USE  Other features	ontrol in AC  Closing NO  Opening NO  for three-phase AC motor  erformance for three-phase AC motor	min max min max  at 480V at 600V  at 200/208V at 220/230V at 460/480V at 575/600V	ms ms ms A A	12 28 8 22 77 77 77 25 30 60 75
Mechanical operations Operating times Average time for Us co	ontrol in AC  Closing NO  Opening NO  for three-phase AC motor  erformance for three-phase AC motor	min max min max  at 480V at 600V  at 200/208V at 220/230V at 460/480V at 575/600V	ms ms ms A A	12 28 8 22 77 77 77 25 30 60 75

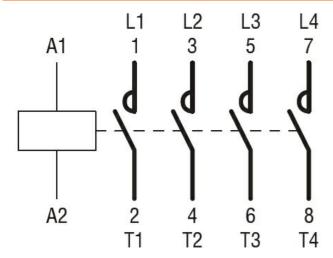
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### BF80T2 82mm/3.23"

### 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

cULus

### ETIM 6 classification

EC000066 - Power contactor, AC switching