

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 115A, AC COIL 50/60HZ, 400VAC, 2NO AND 2NC



Product designation Power contactor Product type designation BF80

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Contact characteristics			
Number of poles		Nr.	4
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	115
Operational current le			_
	AC-1 (≤40°C)	Α	115
	AC-1 (≤55°C)	Α	95
	AC-1 (≤70°C)	Α	80
	AC-3 (≤440V ≤55°C)	Α	80
	AC-4 (400V)	Α	38
Rated operational current AC-3 (T≤55°C)			_
	230V	Α	80
	400V	Α	80
	415V	Α	80
	440V	Α	80
	500V	Α	78
	690V	Α	57
	1000V	Α	28
Rated operational power AC-1 (T≤40°C)			
	230V	kW	43
	400V	kW	76
	500V	kW	95
	690V	kW	120
Short-time allowable current for 10s (IEC/EN60947-1)		Α	640
Protection fuse			
	gG (IEC)	Α	125
	aM (IEC)	Α	80
Making capacity (RMS value)		Α	800
Breaking capacity at voltage			
	440V	Α	640
	500V	Α	625
	690V	Α	456
Resistance per pole (average value)		mΩ	0.6
Power dissipation per pole (average value)			
	Ith	W	7.9
	AC-3	W	3.8
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5



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		min	Ibin	2.95
		max	Ibin	3.69
Fightening torque for	coil terminal			
		min	Nm	0.8
		max	Nm	1
		min	lbin	0.8
		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	AVA 0.11			
	AWG/Kcmil			0
	Florible wile have an electric acetics	max		2
	Flexible w/o lug conductor section	min	mama ²	1 E
		min	mm² mm²	1.5 35
	Flexible c/w lug conductor section	max	ШШ	33
	Flexible C/W lug conductor section	min	mm²	1.5
		max	mm²	35
Power terminal protect	ction according to IEC/EN 60529	шах		IP20 front
Mechanical features				11 20 HOH
Operating position				
		normal		Vertical plan
		allowable		±30°
·				Screw / DIN rai
Fixing				35mm
Veight			g	1360
Operations				
Mechanical life				45000000
vietriai iltai ille			cycles	15000000
Electrical life			cycles cycles	13000000
Electrical life Safety related data				
Electrical life Safety related data	10d according to EN/ISO 13489-1		cycles	1300000
Electrical life Safety related data	10d according to EN/ISO 13489-1	rated load	cycles	1300000
Electrical life Safety related data Performance level B1	10d according to EN/ISO 13489-1	rated load mechanical load	cycles	1300000 1300000 15000000
Electrical life Safety related data Performance level B1 EMC compatibility	10d according to EN/ISO 13489-1		cycles	1300000
Electrical life Safety related data Performance level B1 EMC compatibility AC coil operating			cycles cycles cycles	1300000 1300000 15000000 yes
Electrical life Cafety related data Performance level B1 EMC compatibility AC coil operating Rated AC voltage at 5	50/60Hz		cycles	1300000 1300000 15000000
Electrical life Cafety related data Performance level B1 EMC compatibility AC coil operating Rated AC voltage at 5	50/60Hz		cycles cycles cycles	1300000 1300000 15000000 yes
Electrical life Cafety related data Performance level B1 EMC compatibility AC coil operating Rated AC voltage at 5	50/60Hz of 50/60Hz coil powered at 50Hz		cycles cycles cycles	1300000 1300000 15000000 yes
Electrical life Cafety related data Performance level B1 EMC compatibility AC coil operating Rated AC voltage at 5	50/60Hz	mechanical load	cycles cycles cycles	1300000 1300000 15000000 yes 400
Electrical life Cafety related data Performance level B1 EMC compatibility AC coil operating Rated AC voltage at 5	50/60Hz of 50/60Hz coil powered at 50Hz	mechanical load	cycles cycles cycles	1300000 1300000 15000000 yes 400
Electrical life Cafety related data Performance level B1 EMC compatibility AC coil operating Rated AC voltage at 5	50/60Hz of 50/60Hz coil powered at 50Hz pick-up	mechanical load	cycles cycles cycles	1300000 1300000 15000000 yes 400
Electrical life Cafety related data Performance level B1 EMC compatibility AC coil operating Rated AC voltage at 5	50/60Hz of 50/60Hz coil powered at 50Hz	mechanical load min max	cycles cycles cycles V	1300000 1300000 15000000 yes 400
Electrical life Cafety related data Performance level B1 EMC compatibility AC coil operating Rated AC voltage at 5	50/60Hz of 50/60Hz coil powered at 50Hz pick-up	mechanical load min max min	cycles cycles cycles V %Us %Us %Us	1300000 1300000 15000000 yes 400 80 110
Electrical life Cafety related data Performance level B1 EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz of 50/60Hz coil powered at 50Hz pick-up drop-out	mechanical load min max	cycles cycles cycles V	1300000 1300000 15000000 yes 400
Electrical life Cafety related data Performance level B1 EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	mechanical load min max min	cycles cycles cycles V %Us %Us %Us	1300000 1300000 15000000 yes 400 80 110
Electrical life Safety related data Performance level B1 EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz of 50/60Hz coil powered at 50Hz pick-up drop-out	mechanical load min max min max	cycles cycles cycles V %Us %Us %Us %Us %Us	1300000 1300000 15000000 yes 400 80 110 20 55
Electrical life Cafety related data Performance level B1 EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	mechanical load min max min max min	cycles cycles v %Us %Us %Us %Us	1300000 1300000 15000000 yes 400 80 110 20 55
Electrical life Cafety related data Performance level B1 EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up	mechanical load min max min max	cycles cycles cycles V %Us %Us %Us %Us %Us	1300000 1300000 15000000 yes 400 80 110 20 55
Electrical life Safety related data	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	mechanical load min max min max min max	cycles cycles cycles V %Us %Us %Us %Us %Us	1300000 1300000 15000000 yes 400 80 110 20 55
Electrical life Cafety related data Performance level B1 EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up	mechanical load min max min max min max min max	cycles cycles v %Us %Us %Us %Us %Us %Us	1300000 1300000 15000000 yes 400 80 110 20 55 85 110 40
Electrical life Cafety related data Performance level B1 EMC compatibility AC coil operating Rated AC voltage at 8 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out	mechanical load min max min max min max	cycles cycles cycles V %Us %Us %Us %Us %Us	1300000 1300000 15000000 yes 400 80 110 20 55
Electrical life Cafety related data Performance level B1 EMC compatibility AC coil operating Rated AC voltage at 8 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out	mechanical load min max min max min max min max	cycles cycles v %Us %Us %Us %Us %Us %Us	1300000 1300000 15000000 yes 400 80 110 20 55 85 110 40
Electrical life Cafety related data Performance level B1 EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out	mechanical load min max min max min max min max	cycles cycles v %Us %Us %Us %Us %Us %Us	1300000 1300000 15000000 yes 400 80 110 20 55 85 110 40



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	of 50/60Hz coil pow	vered at 60Hz			
	0. 00/00 <u>_</u> 00 po.		in-rush	VA	195
			holding	VA	13
	of 60Hz coil powere	ed at 60Hz	<u> </u>		
	·		in-rush	VA	210
			holding	VA	15
Dissipation at holding :	≤20°C 50Hz			W	5
Max cycles frequency					
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us co					
	in AC	0			
		Closing NO			4.0
			min	ms	12
		Opening NO	max	ms	28
		Opening NO	min	ms	8
			max	ms	22
		Closing NC	max	1113	22
		Closing 140	min	ms	11
			max	ms	29
		Opening NC		-	-
		1 0	min	ms	6
			max	ms	14
	in DC				
		Closing NO			
			min	ms	40
			max	ms	85
		Opening NO			
			min	ms	20
			max	ms	55
UL technical data	A O (I II)				
Rated operational volta				V	600
Full-load current (FLA)	for three-phase AC	motor			
			at 480V	A	77
Violded mechanical na	rformana.		at 600V	Α	77
Yielded mechanical pe	errormance for three-phase AC	motor			
	ioi unee-piiase AC	motor	200/208V	HP	25
			220/230V	HP	30
			460/480V	HP	60
			575/600V	HP	75
General USE			21 3, 32 3		
	Contactor				
			AC current	Α	115
Ambient conditions					
Temperature					
	Operating temperat	ture			
	-		min	°C	-50
			max	°C	70
	Storage temperatur	re			
			min	°C	-60
			max	°C	80
Max altitude				m	3000

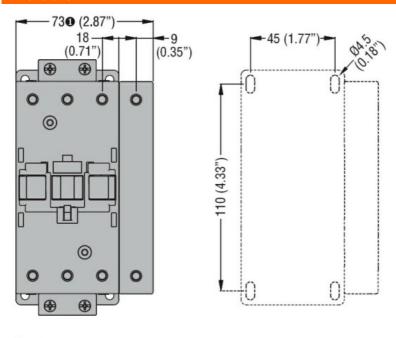
ENERGY AND AUTOMATION

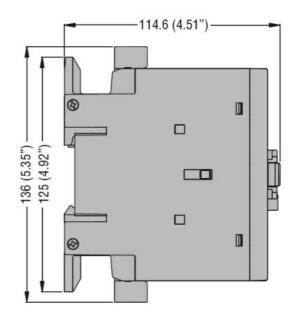
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Resistance & Protection

Pollution degree 3

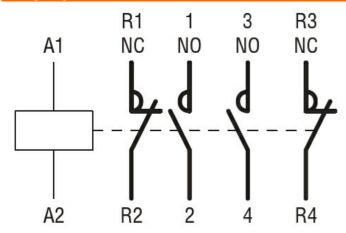
Dimensions





BF80T2 82mm/3.23"

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

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching