

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 80A, AC COIL 50/60HZ, 400VAC



Product designation			Power contactor
Product type designation			BF80
Contact characteristics			
Number of poles		nr.	3
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/EN6	0947-1)	Α	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
	min	lbft	2.95
	max	lbft	3.69



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Tightening torque for co	oil terminal			
		min	Nm	0.8
		max	Nm	1
		min	lbft	0.8
		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			
	The second of th	min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section			
	Tioxibio o, witag contactor cocton	min	mm²	1.5
		max	mm²	35
Power terminal protect	tion according to IEC/EN 60529	IIIdA	111111	IP20 front
Auxiliary contact chara				11 20 110111
Operational current AC			А	115
			Α	110
Operating current DC1	S			Corour / DIM "
		110V	Α	Screw / DIN rail
Ambient conditions				35mm
Ambient conditions				
Temperature				
	Operating temperature		2.0	
		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	1.02
Operations				
Mechanical life			Cycles	15000000
Electrical life			Cycles	1300000
Safety related data			-	
	Od according to EN/ISO 13489-1			
	3	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	ig to 120/214 000-77-7-1			yes
AC coil operating				y 0.3
AC operating voltage	of 50/0011= ooil =			
	of 50/60Hz coil powered at 50Hz			
	pick-up		0/17	0.0
		min	%Us	0.8
		max	%Us	1.1
	drop-out			



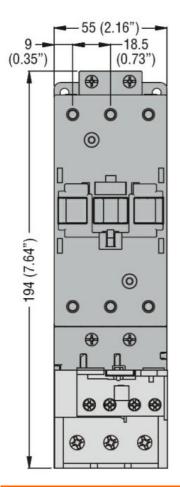


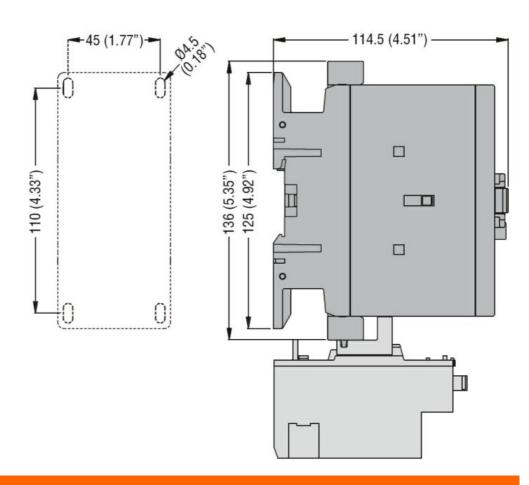
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		min	%Us	0.2
		max	%Us	0.55
	of 50/60Hz coil powered at 60Hz	<u></u> -		
	pick-up			
	pront ap	min	%Us	0.85
		max	%Us	1.1
	drop-out	IIIdx	7003	1.1
	diop-out	min	%Us	0.4
			%Us	0.55
	. (0011	max	%08	0.55
	of 60Hz coil powered at 60Hz			
	pick-up		0/11	
		min	%Us	0.8
		max	%Us	1.1
	drop-out			
		min	%Us	0.2
		max	%Us	0.55
AC operating voltage				
_	of 50/60Hz coil powered at 50Hz			
	·	in-rush	VA	210
		holding	VA	15
	of 50/60Hz coil powered at 60Hz			
	01 00/00112 0011 poworod at 00112	in-rush	VA	195
		holding	VA	13
	of 60Hz coil powered at 60Hz	Holding	VA	10
	or bonz con powered at bonz	in was	١/٨	040
		in-rush	VA	210
D: : : : : : : : : : : : : : : : : : :	40000 FOLL	holding	VA	15
Dissipation at holding	≤20°C 50Hz		W	5.0
May avalog traduction				
Max cycles frequency				
Mechanical operations			Cycles/h	3600
Mechanical operations Operating times			Cycles/h	3600
Mechanical operations	ontrol		Cycles/h	3600
Mechanical operations Operating times	ontrol in AC		Cycles/h	3600
Mechanical operations Operating times	ontrol		Cycles/h	3600
Mechanical operations Operating times	ontrol in AC	min	Cycles/h	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	ontrol in AC Closing NO	min max	ms ms	12 28
Mechanical operations Operating times Average time for Us of	ontrol in AC Closing NO	min max min	ms ms ms	12 28 8
Mechanical operations Operating times Average time for Us of	ontrol in AC Closing NO Opening NO	min max min	ms ms ms	12 28 8
Mechanical operations Operating times Average time for Us of	ontrol in AC Closing NO	min max min max	ms ms ms ms	12 28 8 22
Mechanical operations Operating times Average time for Us of	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 of UL technical data Full-load current (FLA)	ontrol in AC Closing NO Opening NO of for three-phase AC motor	min max min max	ms ms ms ms	12 28 8 22
Mechanical operations Operating times Average time for Us of	ontrol in AC Closing NO Opening NO of for three-phase AC motor erformance	min max min max at 480V	ms ms ms ms	12 28 8 22
Mechanical operations Operating times Average time for Us of UL technical data Full-load current (FLA)	ontrol in AC Closing NO Opening NO of for 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 of UL technical data Full-load current (FLA)	ontrol in AC Closing NO Opening NO of for three-phase AC motor erformance	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 of UL technical data Full-load current (FLA)	ontrol in AC Closing NO Opening NO of for three-phase AC motor erformance	min max min max at 480V at 600V at 220/230V	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)	ontrol in AC Closing NO Opening NO of for three-phase AC motor erformance	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 pe	ontrol in AC Closing NO Opening NO of for three-phase AC motor erformance	min max min max at 480V at 600V at 220/230V	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)	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 pe	ontrol in AC Closing NO Opening NO of for three-phase AC motor erformance	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
Mechanical operations Operating times Average time for Us of UL technical data Full-load current (FLA Yielded mechanical pe	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 pe	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 of UL technical data Full-load current (FLA Yielded mechanical per General USE	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 of the second of the second operating times UL technical data Full-load current (FLA) Yielded mechanical performance of the second operations 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

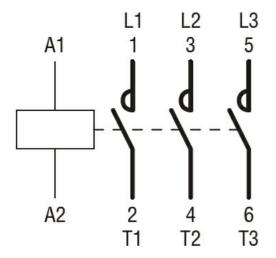


ENERGY AND AUTOMATION





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





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ETIM 6 classification

EC000066 - Power contactor, AC switching