ENERGY AND AUTOMATION

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 100A, AC COIL 50/60HZ,



Product designation		Power contactor
Product type designation		BF65
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	100
Operating current		
Operational current AC1 (≤40°C)	Α	100
Operational current AC3 (≤440V ≤55°C)	Α	65
Operational current AC4 (400V)	Α	31
Rated operational power AC1 (T≤40°C)		
230V	kW	38
400V	kW	65
500V	kW	82
690V	kW	114
Rated operational power AC3 (T≤55°C)		
230V	kW	18.5
400V	kW	30
415V	kW	37
440V	kW	37
500V	kW	37
690V	kW	45
1000V	kW	30
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	650
Breaking capacity at voltage		
Breaking capacity 440V	Α	520
Breaking capacity 500V	Α	425
Breaking capacity 690V	Α	376
Resistance per pole (average value)	mΩ	0.8
Power dissipation per pole (average value)		
Power dissipation pole (average value) Ith	W	8
AC3	W	3.4
Tightening torque for terminals		
min	Nm	4
max	Nm	5
·	lbft	2.95
min	lbft	3.69

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Tightening torque for o	coil terminal			
		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		2
	Flexible w/o lug conductor section			
	r ismore in a raig community country	min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section	тах		
	r lexible 6, w lag conductor section	min	mm²	1.5
		max	mm²	35
Power terminal protec	tion according to IEC/EN 60529	IIIdA	1111111	IP20 front
Auxiliary contact chara				IP 20 HOIR
			А	100
Operational current AC			А	100
Operating current DC	13			Carrayy / DINI rail
		110V	Α	Screw / DIN rail 35mm
Ambient conditions				3311111
Ambient conditions				
Temperature	O a serifica to a series and			
	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
wounting				35mm
Weight			g	1.24
Operations				
Mechanical life			Cycles	15000000
Electrical life			Cycles	1400000
Safety related data				
	0d according to EN/ISO 13489-1			
	•	rated load	Cicli	1400000
		mechanical load	Cicli	15000000
Mirror contats accordi	ng to IEC/EN 609474-4-1		z · = ··	yes
EMC compatibility	<u> </u>			yes
AC coil operating				, 55
AC operating voltage				
no operating voltage	of EO/GOHz goil naviored at EO/I-			
	of 50/60Hz coil powered at 50Hz			
	pick-up		0/11-	0.0
		min	%Us	0.8
		max	%Us	1.1
	drop-out			

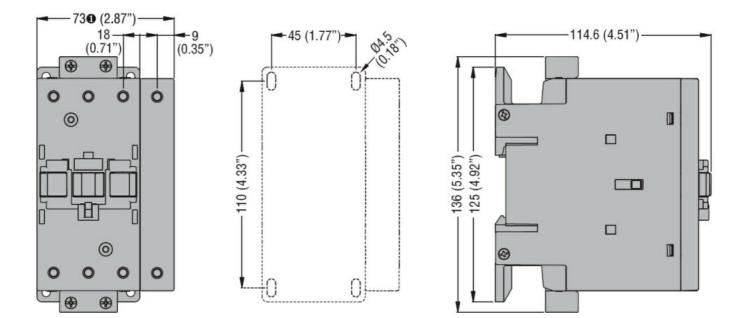


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		min	%Us	0.2
		max	%Us	0.55
	of 50/60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	0.85
		max	%Us	1.1
	drop-out			
		min	%Us	0.4
		max	%Us	0.55
	of 60Hz coil powered at 60Hz			
	pick-up		0/11	0.0
		min	%Us	0.8
	duan aut	max	%Us	1.1
	drop-out	min	%Us	0.2
			%Us	0.55
AC operating voltage		max	/008	0.55
Ac operating voltage	of 50/60Hz coil powered at 50Hz			
	5. 55/55/12 55/1 powered at 50/12	in-rush	VA	210
		holding	VA	15
	of 50/60Hz coil powered at 60Hz	9		
		in-rush	VA	195
		holding	VA	13
	of 60Hz coil powered at 60Hz	<u> </u>		
	·	in-rush	VA	210
		holding	VA	15
Dissipation at holding	≤20°C 50Hz		W	5.0
			• • •	0.0
Max cycles frequency				
Mechanical operations			Cycles/h	
Mechanical operations Operating times				
Mechanical operations	ontrol			
Mechanical operations Operating times	ontrol in AC			
Mechanical operations Operating times	ontrol		Cycles/h	3600
Mechanical operations Operating times	ontrol in AC	min	Cycles/h ms	12
Mechanical operations Operating times	ontrol in AC Closing NO		Cycles/h	3600
Mechanical operations Operating times	ontrol in AC	min max	Cycles/h ms ms	12 28
Mechanical operations Operating times	ontrol in AC Closing NO	min max min	Cycles/h ms ms ms	12 28 8
Mechanical operations Operating times	ontrol in AC Closing NO	min max	Cycles/h ms ms	12 28
Mechanical operations Operating times Average time for Us of	ontrol in AC Closing NO Opening NO	min max min	Cycles/h ms ms ms	12 28 8
Mechanical operations Operating times Average time for Us of	ontrol in AC Closing NO	min max min	Cycles/h 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	ms ms ms ms	12 28 8
Mechanical operations Operating times Average time for Us of	ontrol in AC Closing NO Opening NO of 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 of UL technical data Full-load current (FLA)	ontrol in AC Closing NO Opening NO of 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 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	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 65 62
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 at 220/230V at 220/230V at 460/480V	ms ms ms ms	12 28 8 22 65 62 20 25 50
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	min max min max at 480V at 600V at 200/208V at 220/230V	ms ms ms A A	12 28 8 22 65 62 20 25
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 ms hp	12 28 8 22 65 62 20 25 50
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	min max min max at 480V at 600V at 200/208V at 220/230V at 460/480V at 575/600V	ms ms ms hp hp hp	12 28 8 22 65 62 20 25 50 60
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 220/230V at 220/230V at 460/480V	ms ms ms ms hp	12 28 8 22 65 62 20 25 50
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 hp hp hp	12 28 8 22 65 62 20 25 50 60
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 hp hp hp	12 28 8 22 65 62 20 25 50 60

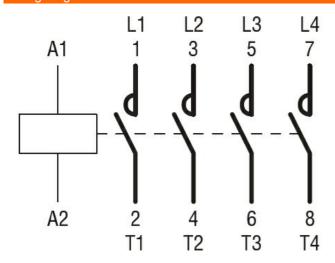
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BF80T2 82mm/3.23"

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