

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 90A, AC COIL 50/60HZ, 400VAC



Product designation	Power contactor
Product type designation	BF50
Contact characteristics	

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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	90
Operational current le			
	AC-1 (≤40°C)	Α	90
	AC-1 (≤55°C)	Α	75
	AC-1 (≤70°C)	Α	65
	AC-3 (≤440V ≤55°C)	Α	50
	AC-4 (400V)	Α	28
Rated operational current AC-3 (T≤55°C)	, ,		
,	230V	Α	50
	400V	Α	50
	415V	Α	50
	440V	Α	50
	500V	Α	44
	690V	Α	39
	1000V	Α	23
Rated operational power AC-1 (T≤40°C)			
, ,	230V	kW	34
	400V	kW	59
	500V	kW	74
	690V	kW	102
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			-
	≤24V	Α	45
	48V	Α	40
	75V	Α	40
	110V	Α	8
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series		,,	
The make an entre in Bot man Entre into man 2 person in control	≤24V	Α	60
	48V	Α	60
	75V	A	60
	110V	A	50
	220V	A	7
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	2201	^	1
TEO MAX GUITERILIE III DOT WILL L/N 2 THIS WILL 3 POIES III SELIES	≤24V	Α	60
	≤24 V 48 V	A	60
	75V	Α	60





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	110V	Α	55
	220V	Α	75
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	60
	48V	Α	60
	75V	Α	60
	110V	Α	60
	220V	Α	90
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	30
	48V	Α	25
	75V	A	22
	110V	Α	3
150	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	-0.4V		0.5
	≤24V	A	35
	48V	A	35
	75V 110V	A A	30 25
	220V	A	25 5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	2200	A	5
TEC max current le in DC3-DC3 with L/R \(\) Toms with 3 poles in series	≤24V	Α	50
	48V	A	50
	75V	A	45
	110V	A	30
	220V	A	40
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V		40
The max safrent to in 800 800 with E/TC = 10mb with 4 poice in some	≤24V	Α	55
	48V	A	55
	75V	Α	55
	110V	Α	45
	220V	Α	50
Short-time allowable current for 10s (IEC/EN60947-1)		Α	400
Protection fuse			
	gG (IEC)	Α	100
	aM (IEC)	Α	50
Making capacity (RMS value)	, ,	Α	500
Breaking capacity at voltage			
	440V	Α	400
	500V	Α	352
	690V	Α	312
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
· · · · ·	Ith	W	6.5
	AC-3	W	2
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	lbin	2.95
	max	Ibin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1





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		min	Ibin	0.8
		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	A)A(Q/I/C 'I			
	AWG/Kcmil			0
	Clavible w/e lug conductor coeties	max		2
	Flexible w/o lug conductor section		· 2	4 5
		min	mm²	1.5 35
	Flovible o/w lug conductor acction	max	mm²	33
	Flexible c/w lug conductor section	min	mm²	1.5
		max	mm²	35
Power terminal protec	ction according to IEC/EN 60529	Παλ	111111	IP20 front
Mechanical features	ction according to IEC/EN 00329			IF 20 HOIR
Operating position				
Operating position		normal		Vertical plan
		allowable		±30°
		allowable		Screw / DIN rail
Fixing				35mm
Weight			g	1240
Conductor section			<u> </u>	
Conductor Cochen	AWG/kcmil conductor section			
	7.1. G/norm conductor cooler	max		2
Operations				_
Mechanical life			cycles	15000000
Electrical life			cycles	1400000
Safety related data			, , , , ,	
•	10d according to EN/ISO 13489-1			
•	10d according to EN/ISO 13489-1	rated load	cycles	1400000
•	10d according to EN/ISO 13489-1	rated load mechanical load	cycles cycles	1400000 15000000
Performance level B1	10d according to EN/ISO 13489-1 ling to IEC/EN 609474-4-1		•	
Performance level B1			•	15000000 yes
Performance level B1 Mirror contats accord EMC compatibility			•	15000000
Performance level B1 Mirror contats accord EMC compatibility	ling to IEC/EN 609474-4-1		•	15000000 yes
Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 8	ling to IEC/EN 609474-4-1 50/60Hz		cycles	15000000 yes yes
Performance level B1 Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 8	ling to IEC/EN 609474-4-1 50/60Hz		cycles	15000000 yes yes
Performance level B1 Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 8	ling to IEC/EN 609474-4-1 50/60Hz		cycles	15000000 yes yes
Performance level B1 Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 8	of 50/60Hz coil powered at 50Hz		cycles	15000000 yes yes
Performance level B1 Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 8	of 50/60Hz coil powered at 50Hz	mechanical load	v	15000000 yes yes 400
Performance level B1 Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 8	of 50/60Hz coil powered at 50Hz	mechanical load	v V	15000000 yes yes 400
Performance level B1 Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 8	of 50/60Hz coil powered at 50Hz pick-up	mechanical load	v V	15000000 yes yes 400
Performance level B1 Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 8	of 50/60Hz coil powered at 50Hz pick-up	mechanical load min max	v V %Us %Us	15000000 yes yes 400
Performance level B1 Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 8	of 50/60Hz coil powered at 50Hz pick-up	mechanical load min max min	v V %Us %Us %Us	15000000 yes yes 400 80 110 20
Performance level B1 Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 8	of 50/60Hz coil powered at 50Hz pick-up	mechanical load min max min	v %Us %Us %Us %Us	15000000 yes yes 400 80 110 20 55
Performance level B1 Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 8	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	v %Us %Us %Us %Us	15000000 yes yes 400 80 110 20 55
Performance level B1 Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 8	of 50/60Hz coil powered at 50Hz pick-up of 50/60Hz coil powered at 60Hz pick-up	mechanical load min max min max	v %Us %Us %Us %Us	15000000 yes yes 400 80 110 20 55
Performance level B1 Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 8	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	v V %Us %Us %Us %Us %Us	15000000 yes yes 400 80 110 20 55
Performance level B1 Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 8	of 50/60Hz coil powered at 50Hz pick-up of 50/60Hz coil powered at 60Hz pick-up	mechanical load min max min max min	vV %Us %Us %Us %Us %Us %Us %Us	15000000 yes yes 400 80 110 20 55 85 110 40
Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 8 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up of 50/60Hz coil powered at 60Hz pick-up drop-out drop-out drop-out	mechanical load min max min max min max	v V %Us %Us %Us %Us %Us	15000000 yes yes 400 80 110 20 55
Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 8 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up of 50/60Hz coil powered at 60Hz pick-up drop-out drop-out	mechanical load min max min max min max min max	vV %Us %Us %Us %Us %Us %Us %Us	15000000 yes yes 400 80 110 20 55 85 110 40
Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 8 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up of 50/60Hz coil powered at 60Hz pick-up drop-out drop-out drop-out	mechanical load min max min max min max min max	V %Us %Us %Us %Us %Us %Us %Us %Us %Us	15000000 yes yes 400 80 110 20 55 85 110 40 55
Performance level B1 Mirror contats accord EMC compatibility AC coil operating	of 50/60Hz coil powered at 50Hz pick-up of 50/60Hz coil powered at 60Hz pick-up drop-out drop-out	mechanical load min max min max min max min max	vV %Us %Us %Us %Us %Us %Us %Us	15000000 yes yes 400 80 110 20 55 85 110 40





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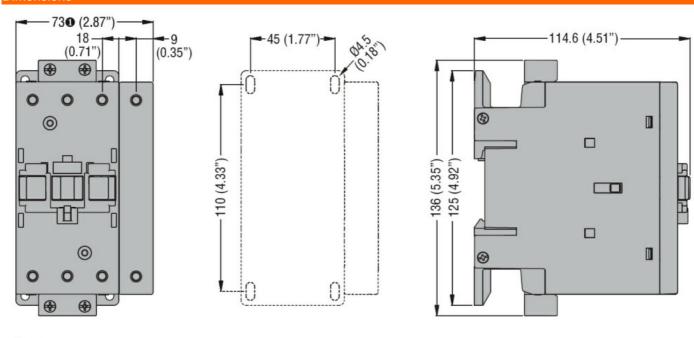
	of 50/60Hz coil power	ed at 60Hz			
	51 55/551 12 5511 POWEI	00 Ut 001 12	in-rush	VA	195
			holding	VA	13
	of 60Hz coil powered	at 60Hz	Holding	VA	10
	or our iz con powered	at 00HZ	in-rush	VA	210
			holding	VA	15
Dissipation at holding	<20°C 50∐-		Holding	W	5
Max cycles frequency	≥20 C 30HZ			VV	5
				ovoloo/b	2600
Mechanical operation				cycles/h	3600
Operating times	- matural				
Average time for Us co					
	in AC	01 : 110			
		Closing NO			
			min	ms	12
			max	ms	28
		Opening NO			_
			min	ms	8
			max	ms	22
	in DC				
		Closing NO			
			min	ms	40
			max	ms	85
		Opening NO			
			min	ms	20
			max	ms	55
UL technical data					
Full-load current (FLA)	for three-phase AC mo	tor			
			at 480V	Α	52
			at 600V	Α	41
Yielded mechanical pe	erformance				
·	for single-phase AC n	notor			
	5 1		110/120V	HP	5
			230V	HP	10
	for three-phase AC m	otor			
	.550 pha60 /10 m		200/208V	HP	15
			220/230V	HP	20
			460/480V	HP	40
			575/600V	HP	40
General USE			373/0007	1 11.	
Jelielai UJL	Contactor				
	Contactor		AC 011770-1	٨	00
Chart aireadt nastastic	tugo 600\/		AC current	A	90
Short-circuit protection					
	High fault		01		400
			Short circuit current	kA	100
			Fuse rating	Α	150
			Fuse class		J
	Standard fault				
			Short circuit current	kA	5
			Fuse rating	Α	150
			Fuse class		RK5
Ambient conditions					
Temperature					
	Operating temperature	Э			
			min	°C	-50



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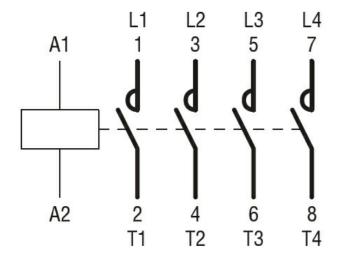
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3

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



BF50T4A400

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CCC cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching