ENERGY AND AUTOMATION



Product designation Power contactor Contact characteristics Nr. 4 Rated insulation voltage Ui IEC/EN V 1000 Rated insulation voltage Uir IEC/EN V 1000 Rated impulse withstand voltage Uirnp kV 8 Operational frequency min Hz 25 max Hz 400 400 IEC Conventional free air thermal current Ith AC 1 (540°C) A 115 Operational current Ie AC-1 (450°C) A 115 AC-1 (550°C) A 80 AC-1 (550°C) A 80 Rated operational current AC-3 (T≤55°C) A 80 AC-2 (5440V ≤55°C) A 80 Rated operational current AC-3 (T≤55°C) A 80 AC-3 (5440V ≤55°C) A 80 Rated operational power AC-1 (T≤40°C) A 80 AC-4 (400V) A 80 Rated operational power AC-1 (T≤40°C) A 80 AC-4 (400V) A 80 Rated operational power AC-1 (T≤40°C) A 230V <t< th=""><th></th><th></th><th></th><th></th></t<>				
Product type designation	Product designation			Power contactor
Contact characteristics Nr. 4 Rated insulation voltage Ui IEC/EN V 1000 Rated insulation voltage Withstand voltage Uimp kV 8 Operational frequency min Hz 25 max Hz 400 IEC Conventional free air thermal current Ith A 115 Operational current Ie AC-1 (≤40°C) A 115 AC-1 (≤45°C) A 80 AC-1 (≤40°C) A 80 AC-1 (≤40°C) A 80 AC-1 (≤40°C) A 80 AC-4 (400V) A 80 AC-4 (400V) A 80 AC-4 (400V) A 80 400V A 80 415V A 80 440V A 80 440V A 80 440V A 80 440V A 78 690V KW 43 400V kW 95	•			BF80
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 A 115 Operational current Ie AC-1 (≤40°C) A 115 AC-1 (≤70°C) A 80 AC-3 (≤4400 ≤55°C) A 80 AC-4 (400V) A 80 AC-4 (400V) A 80 400V A 80 415V A 80 440V A 80 500V A 78 690V KW 43 400V KW 43 400V KW 48 400V KW 48 500V kW <td>Contact characteristics</td> <td></td> <td></td> <td></td>	Contact characteristics			
Rated impulse withstand voltage Uimp	Number of poles		Nr.	4
Operational frequency min max bit with the problem of the	Rated insulation voltage Ui IEC/EN		V	1000
Min	Rated impulse withstand voltage Uimp		kV	8
EC Conventional free air thermal current lth	Operational frequency			
EC Conventional free air thermal current Ith Operational current Ie AC-1 (≤40°C) A 115		min	Hz	
Operational current le AC-1 (≤40°C) A 115 AC-1 (≤55°C) A 95 AC-1 (≤70°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 38 Rated operational current AC-3 (T≤55°C) 230V A 80 400V A 80 415V A 80 440V A 80 440V A 80 440V A 80 480V A 57 1000V A 28 Rated operational power AC-1 (T≤40°C) 230V kW 43 400V kW 75 500V kW 75 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 48V A 100 48V A 100 110V A 80 22V		max		
AC-1 (≤40°C)			A	115
AC-1 (≤55°C)	Operational current le			
AC-1 (≤70°C) A 80 AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 38 Rated operational current AC-3 (T≤55°C) 230V A 80 400V A 80 415V A 80 4415V A 80 500V A 78 690V A 57 1000V A 28 Rated operational power AC-1 (T≤40°C) 230V kW 43 440V A 80 500V A 78 690V W 76 500V kW 95 690V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 70 48V A 60 75V A 60 1110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series				
AC-3 (≤440V ≤55°C) A 80 AC-4 (400V) A 38 AC-4 (400V) A 38 AC-4 (400V) A 38 AC-4 (400V) A 80 400V A 80 415V A 80 440V A 80 500V A 78 690V A 57 1000V A 28 AC-3 (T≤55°C) A 80 440V A 80 440V A 80 500V A 57 1000V A 28 AC-3 (T≤40°C) A 80 440V A 80 500V KW 43 440V KW 76 500V kW 95 690V kW 120 A 80 100 A 8 220V A 70 48V A 100 48V A 100 110V A 80 220V A 9 BEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 100 48V A 100 110V A 80 220V A 9 BEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 100 48V A		•		
Rated operational current AC-3 (T≤55°C) 230V A 80 400V A 80 415V A 80 440V A 80 500V A 78 690V A 57 1000V A 28 Rated operational power AC-1 (T≤40°C) 230V kW 43 400V kW 76 500V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 70 48V A 60 75V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 110V A 8 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		• • • • • • • • • • • • • • • • • • • •		
Rated operational current AC-3 (T≤55°C) 230V A 80 440V A 80 415V A 80 440V A 80 500V A 78 690V A 57 1000V A 28 Rated operational power AC-1 (T≤40°C) 230V kW 43 400V kW 76 500V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 70 48V A 60 75V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 110V A 8 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		,		
230V		AC-4 (400V)	A	38
400V	Rated operational current AC-3 (T≤55°C)		_	
415V				
440V				
Soov A 78				
690V A 57 1000V A 28 Rated operational power AC-1 (T≤40°C) 230V kW 43 400V kW 76 500V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series				
Rated operational power AC-1 (T≤40°C) 230V kW 43 400V kW 76 500V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 70 48V A 60 75V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 48V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 48V A 100 48V A 100 48V A 100 48V A 100				
Rated operational power AC-1 (T≤40°C) 230V kW 43 400V kW 76 500V kW 95 690V kW 120 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 70 48V A 60 75V A 60 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 48V A 100 48V A 100 48V A 100				
		1000V	Α	
A00V kW 76 500V kW 95 690V kW 120	Rated operational power AC-1 (T≤40°C)			
EC max current le in DC1 with L/R \leq 1ms with 1 poles in series \leq 24V A 70 48V A 60 75V A 60 110V A 8 220V A -				
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series				
Section Sec				
		690V	kW	120
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
T5V A 60 110V A 8 220V A -				
110V A 8 220V A -				
EC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V				
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 100 48V A 100 75V A 100 110V A 80 220V A 9 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 48V A 100				8
		220V	Α	
	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series		_	
75V A 100 110V A 80 220V A 9				
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 100 48V A 100				
≤24V A 100 48V A 100		220V	Α	9
48V A 100	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		_	
75V A 100				
		75V	Α	100





	110V	Α	85
	220V	Α	95
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	100
	48V	Α	100
	75V	Α	100
	110V	Α	100
	220V	Α	115
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	40
	48V	Α	30
	75V	Α	30
	110V	Α	3
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	60
	48V	Α	50
	75V	Α	50
	110V	Α	40
	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	80
	48V	Α	70
	75V	A	70
	110V	A	60
	220V	A	64
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V		<u> </u>
The max current to in 600-600 with E/TC = 10m3 with 4 poics in 30m63	≤24V	Α	90
	48V	A	90
	75V	A	90
	110V	A	75
	220V	A	80
Short-time allowable current for 10s (IEC/EN60947-1)	220 V	A	640
Protection fuse			040
Protection ruse	«C (IEC)	۸	105
	gG (IEC)	A	125
Malifer and arity (DMC value)	aM (IEC)	A	80
Making capacity (RMS value)		Α	800
Breaking capacity at voltage	4.403.4		0.40
	440V	A	640
	500V	A	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
	min	lbin	2.95
	max	lbin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1



BF80T4A110

		min	Ibin	0.8
		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	ANA/O/I/C 11			
	AWG/Kcmil			2
	Florible w/o lug conductor coction	max		2
	Flexible w/o lug conductor section	min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section	IIIdA	111111	33
	r lexible c/w lug conductor section	min	mm²	1.5
		max	mm²	35
Power terminal protect	tion according to IEC/EN 60529	тах		IP20 front
Mechanical features	tion deportantly to 12-0/214 00020			II Zo IIOIR
Operating position				
operaning peemen		normal		Vertical plan
		allowable		±30°
Finder a				Screw / DIN rail
Fixing				35mm
Weight			g	1240
Conductor section				
	AWG/kcmil conductor section			
		max		2
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1300000
Safety related data				
Performance level B1	0d according to EN/ISO 13489-1			
		rated load	cycles	1300000
		mechanical load	cycles	15000000
	ng to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating	0/00/1		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	110
Rated AC voltage at 5	0/60Hz		V	110
AC operating voltage	(50/0011 "			
	of 50/60Hz coil powered at 50Hz			
	pick-up	min	0/110	80
		min	%Us %Us	110
	drop-out	max	/008	110
	drop-out	min	%Us	20
		max	%Us	55
	of 50/60Hz coil powered at 60Hz	max	,,,,,	
	pick-up			
	Pion ap	min	%Us	85
		max	%Us	110
	drop-out			
		min	%Us	40
		max	%Us	55
AC average coil consu	umption at 20°C			
<u> </u>	of 50/60Hz coil powered at 50Hz			
	·	in-rush	VA	210
		holding	VA	15
		Ŭ		





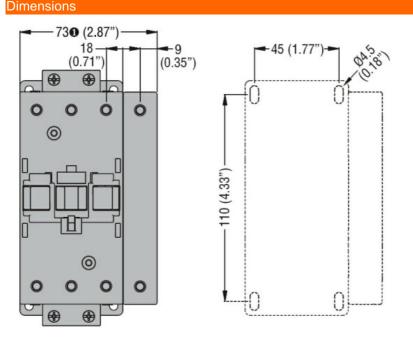
	of 50/60Hz coil power	ared at 60Hz			
	or 30/00112 con powe	ared at our iz	in-rush	VA	195
			holding	VA	13
	of 60Hz coil powered	1 at 60Hz	Holding	V/\	10
	or dornz con powered	i at ouriz	in-rush	VA	210
			holding	VA VA	15
Discipation at holding	<20°C E0∐-		riolaling	W	5
Dissipation at holding	≥20 C 30⊓Z			VV	5
Max cycles frequency				ovelee/b	2600
Mechanical operation				cycles/h	3600
Operating times	ontrol				
Average time for Us co					
	in AC	Ola aira a NO			
		Closing NO			40
			min	ms	12
		0 1 110	max	ms	28
		Opening NO			0
			min	ms	8
			max	ms	22
	in DC	a.			
		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 m	otor			
			at 480V	Α	77
-			at 600V	Α	77
Yielded mechanical pe	erformance				
	for three-phase AC n	notor			
			200/208V	HP	25
			220/230V	HP	30
			460/480V	HP	60
			575/600V	HP	75
General USE					
	Contactor				
			AC current	Α	115
Short-circuit protection	fuse, 600V				_
•	High fault				
	5		Short circuit current	kA	100
			Fuse rating	Α	200
			Fuse class		J
	Standard fault		. 200 0.000		
	Januara radit		Short circuit current	kA	10
			Fuse rating	A	200
			Fuse class	, ,	RK5
Ambient conditions			1 430 01433		
Temperature					
romporaturo	Operating temperatu	rΔ			
	Operating temperatu	10	min	°C	-50
				°C	70
	Storage temperature		max	U	10
	Storage temperature		min	°C	-60
			min		-00

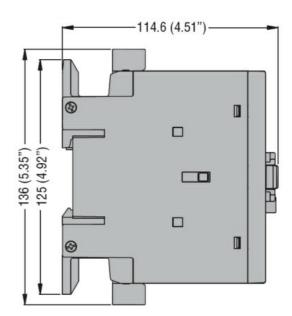


ENERGY AND AUTOMATION

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

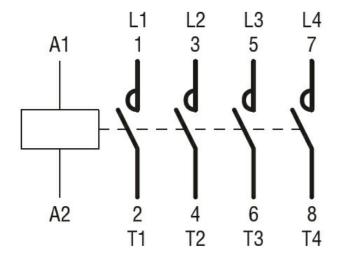
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
D: .			





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



BF80T4A110

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

ETIM 8.0

EC000066 -Power contactor, AC switching