

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



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Product designation			Power contactor
Product type designation			BF80
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			
	C-1 (≤40°C)	Α	115
	C-1 (≤55°C)	Α	95
	C-1 (≤70°C)	Α	80
· ·	40V ≤55°C)	A	80
	AC-4 (400V)	Α	38
Rated operational current AC-3 (T≤55°C)	0001/	•	00
	230V	A	80
	400V	A	80
	415V	A	80
	440V	A	80
	500V 690V	A A	78 57
	1000V	A	28
Rated operational power AC-1 (T≤40°C)	1000 V		20
Tatod operational power 7.0 T (T=40 0)	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	Α	70
	48V	Α	60
	75V	Α	60
	110V	Α	8
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	100
	48V	Α	100
	75V	Α	100
	110V	Α	80
	220V	Α	9
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	≤24V	Α	100
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	≤24V 48V 75V	A A A	100 100 100



## FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 115A, AC COIL 50/60HZ, 24VAC

	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	Α	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



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		min	lbin	0.8
		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			•
	Electrical territories and the second territories and ter	max		2
	Flexible w/o lug conductor section		2	4.5
		min	mm² mm²	1.5 35
	Flexible c/w lug conductor section	max	111111	33
	Flexible c/w lug conductor section	min	mm²	1.5
		max	mm²	35
Power terminal protect	ction according to IEC/EN 60529	тах		IP20 front
Mechanical features	Stion according to 120/214 00023			II ZO IIOIIL
Operating position				
operaning promon		normal		Vertical plan
		allowable		±30°
				Screw / DIN rail
Fixing				35mm
Weight			g	1240
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
EMC compatibility				
				yes
AC coil operating	-0/00LL		\/	
AC coil operating Rated AC voltage at 5	50/60Hz		V	yes 24
AC coil operating			V	
AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz		V	
AC coil operating Rated AC voltage at 5		min		24
AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz	min max	%Us	24 80
AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up	min max		24
AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz	max	%Us %Us	80 110
AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up	max min	%Us %Us %Us	80 110 20
AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up	max	%Us %Us	80 110
AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out	max min	%Us %Us %Us	80 110 20
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	max min	%Us %Us %Us	80 110 20
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	max min max	%Us %Us %Us %Us	24 80 110 20 55
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	max min max min	%Us %Us %Us %Us %Us	24 80 110 20 55 85 110
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	max min max min	%Us %Us %Us %Us %Us	80 110 20 55 85 110
AC coil operating Rated AC voltage at 5 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	max min max min max	%Us %Us %Us %Us %Us	24 80 110 20 55 85 110
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	max min max min max min max min	%Us %Us %Us %Us %Us	80 110 20 55 85 110
AC coil operating Rated AC voltage at 5 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	max min max min max min max min max	%Us %Us %Us %Us %Us %Us %Us	80 110 20 55 85 110 40 55
AC coil operating Rated AC voltage at 5 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	max min max min max min max min max	%Us %Us %Us %Us %Us %Us	24 80 110 20 55 85 110 40 55
AC coil operating Rated AC voltage at 5 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  umption at 20°C of 50/60Hz coil powered at 50Hz	max min max min max min max min max	%Us %Us %Us %Us %Us %Us %Us	80 110 20 55 85 110 40 55
AC coil operating Rated AC voltage at 5 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	max min max min max min max in-rush holding	%Us %Us %Us %Us %Us %Us %Us	24 80 110 20 55 85 110 40 55 210 15
AC coil operating Rated AC voltage at 5 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  umption at 20°C of 50/60Hz coil powered at 50Hz	max min max min max min max in-rush holding in-rush	%Us %Us %Us %Us %Us %Us %Us VA VA	24  80 110 20 55  85 110 40 55  210 15
AC coil operating Rated AC voltage at 5 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  umption at 20°C of 50/60Hz coil powered at 50Hz  of 50/60Hz coil powered at 60Hz	max min max min max min max in-rush holding	%Us %Us %Us %Us %Us %Us %Us	24 80 110 20 55 85 110 40 55 210 15
AC coil operating Rated AC voltage at 5 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  umption at 20°C of 50/60Hz coil powered at 50Hz	max min max min max min max in-rush holding in-rush	%Us %Us %Us %Us %Us %Us %Us VA VA	24  80 110 20 55  85 110 40 55  210 15



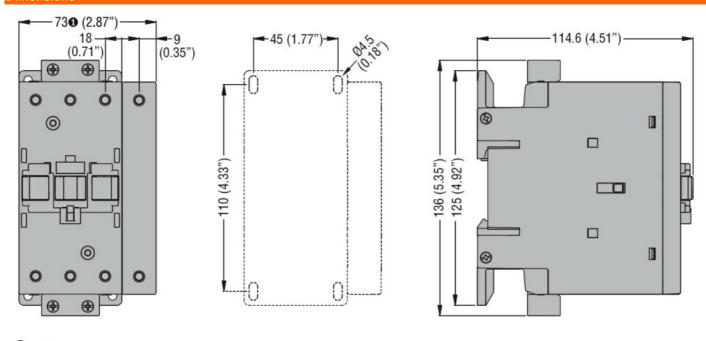
## FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 115A, AC COIL 50/60HZ,

		holding	VA	15
Dissipation at holding	≤20°C 50Hz	<u> </u>	W	5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co				
	in AC			
	Closing NO			
		min	ms	12
	On aging NO	max	ms	28
	Opening NO	main	<b></b>	8
		min	ms ms	22
	in DC	max	ms	22
	Closing NO			
	Closing NO	min	ms	40
		max	ms	85
	Opening NO	max	5	
	3 pog . 10	min	ms	20
		max	ms	55
UL technical data				
Rated operational volta	age AC (UL)		V	600
	for three-phase AC motor			
	·	at 480V	Α	77
		at 600V	Α	77
Yielded mechanical pe	erformance			
	for three-phase AC motor			
		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				
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	200
	Otom along to all	Fuse class		J
	Standard fault	Object state 10 constant	Ι. Α	40
		Short circuit current	kA ^	10
		Fuse rating Fuse class	Α	200 RK5
Ambient conditions		ruse ciass		IXIXO
Temperature				
i emperature	Operating temperature			
	Sporating temperature	min	°C	-50
		max	°C	70
	Storage temperature	max		_ · •
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protection	on			
Pollution degree				3

**ENERGY AND AUTOMATION** 

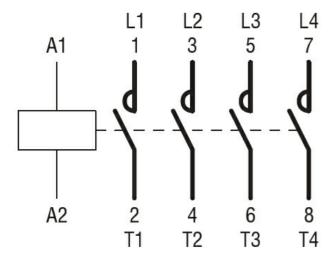
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#### **Dimensions**



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