**ENERGY AND AUTOMATION** 

# FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 500A, AC/DC COIL, 250... 500VAC/DC



Product designation			Power contactor
Product type designation			BF330
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	500
Operational current le			
	AC-1 (≤40°C)	Α	500
	AC-1 (≤55°C)	Α	415
	AC-1 (≤70°C)	Α	360
	AC-3 (≤440V ≤55°C)	Α	330
	AC-4 (400V)	Α	160
Rated operational power AC-3 (T≤55°C)			
	230V	kW	90
	400V	kW	160
	415V	kW	160
	440V	kW	160
	500V	kW	200
	690V	kW	250
	1000V	kW	185
Rated operational current AC-3 (T≤55°C)			
	230V	Α	330
	400V	Α	330
	415V	Α	330
	440V	Α	330
	500V	Α	300
	690V	Α	300
	1000V	Α	140
Rated operational power AC-1 (T≤40°C)			
1 1 - ( /	230V	kW	189
	400V	kW	329
	500V	kW	362
	690V	kW	568
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
Sanoncio in 201 mai 211 - Tillo mai i poloo ili oolioo	75V	Α	375
	110V	Α	195
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	1101		100
120 max outfork to in 201 with 2/11 2 mile with 2 poles in selies	75V	Α	375
	110V		350
	220V	A A	300
	ZZUV	Α	300



BF330T4E400

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	75V	Α	375
	110V	Α	350
	220V	Α	350
	330V	Α	300
EC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
'	75V	Α	375
	110V	Α	350
	220V	Α	350
EC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
20 max can six is in 200 200 man 2/10 - rome man i polec in conce	75V	Α	310
	110V	A	170
EC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	1101		170
LO max current le in Dos-Dos with L/N = 15ms with 2 poles in series	75V	۸	310
	110V	A	290
		A	
50	220V	Α	230
EC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	751/	•	0.4.0
	75V	A	310
	110V	A	310
	220V	Α	290
	330V	A	230
EC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	75V	Α	310
	110V	Α	310
	220V	Α	310
	330V	Α	310
	460V	Α	230
Short-time allowable current for 10s (IEC/EN60947-1)		Α	2640
Protection fuse			
	gG (IEC)	Α	630
	aM (IEC)	Α	500
Making capacity (RMS value)		Α	3300
Breaking capacity at voltage			
	440V	Α	2640
	500V	Α	2240
	690V	Α	2000
Resistance per pole (average value)		mΩ	0.12
Power dissipation per pole (average value)		11132	0.12
ower dissipation per pole (average value)	lth	W	30
	AC-3	W	13
Fightening torque for terminals	AO-3	V V	10
nghiening torque for terminals	min	Nim	0.E
	min	Nm Nm	35 35
	max	Nm	35
	min	lbin	310
	max	lbin	310
Fightening torque for coil terminal			
Fightening torque for coil terminal	min	Nm	0.8
	min max	Nm Nm	1
Power terminal protection according to IEC/EN 60529			
Power terminal protection according to IEC/EN 60529  Mechanical features			1
Power terminal protection according to IEC/EN 60529  Mechanical features			1
Power terminal protection according to IEC/EN 60529  Mechanical features			1
Tightening torque for coil terminal  Power terminal protection according to IEC/EN 60529  Mechanical features  Operating position	max		1 IP00



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500VAC/DC

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o				
Operations			a alaa	500000
Mechanical life			cycles	5000000
Electrical life			cycles	700000
Safety related data	D			
Performance level B10	od according to EN/ISO 13489-1	orte Ulea I		4000000
EMO seems at le litte .		rated load	cycles	1000000
EMC compatibility				yes
AC coil operating	0/60H= 60H=			
Rated AC voltage at 50	0/0002, 0002	min	17	250
		min	V V	250 500
AC operating valtage		max	V	500
AC operating voltage	of E0/60Hz goil nowared at E0Hz			
	of 50/60Hz coil powered at 50Hz pick-up			
	ріск-ир	min	%Us	80 Us min
		max	%Us	110 Us max
	drop-out	IIIdA	/003	110 03 1110
	drop out	max	%Us	≤70 Us min
	of 50/60Hz coil powered at 60Hz	Пих	7000	=70 00 Hilli
	pick-up			
	p.5 up	min	%Us	80 Us min
		max	%Us	110 Us max
	drop-out			
	·	max	%Us	≤70 Us min
AC average coil consu	ımption at 20°C			
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	160320
		holding	VA	3.58.0
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	160320
		holding	VA	3.58.0
	of 60Hz coil powered at 60Hz			
		in-rush	VA	160320
		holding	VA	3.58.0
Dissipation at holding:	≤20°C 50Hz		W	3.58.0
DC coil operating				
DC rated control voltage	ge	•		050
		min	V	250
DC aparating valtage		max	V	500
DC operating voltage	niek un			
	pick-up	min	%Us	85 Us min
			%Us	110 Us max
	drop-out	max	/005	i io os iliax
	GIOP OUL	max	%Us	≤70 Us min
Average coil consump	tion <20°C	IIIdA	/003	=10 03 Hilli
, wordgo oon oonsump	1311 -20 0	in-rush	W	160230
		holding	W	3.58.0
Max cycles frequency		rioiding	**	3.55.0
Mechanical operation			cycles/h	1000
			2, 3.30/11	

Average time for Us control

in AC

Operating times

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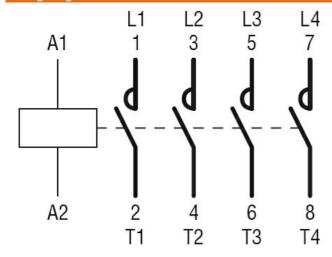
electric FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 500A, AC/DC COIL, 250...
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		Closing NO			
		g	min	ms	80
			max	ms	120
		Opening NO			0.0
			min max	ms ms	30 75
UL technical data			IIIdA	1113	7.5
Yielded mechanical pe	erformance				
	for three-phase AC mo	otor			
			200/208V	HP	100
			220/230V	HP	125
			460/480V 575/600V	HP HP	250 300
General USE			373/000V	- 111	300
	Contactor				
			AC current	Α	500
Short-circuit protection					
	High fault				400
			Short circuit current	kA	100
			Fuse rating Fuse class	Α	600 J
	Standard fault		1 430 61433		
			Short circuit current	kA	18
			Fuse rating	Α	600
			Fuse class		RK5
Ambient conditions					
Temperature	Operating temperature				
	Operating temperature		min	°C	-40
			max	°C	70
	Storage temperature				
			min	°C	-50
			max	°C	80
Max altitude Resistance & Protection	20			m	3000
Pollution degree	ווע				3
Dimensions					
80.00			•	181.5	
57.5 35	92.5			137.9	5-
			ф   <u> </u>		
				Щ	
⊕ _	⊕			$\neg$	0
	213		333	a a	168 - 168 - 233 -
	-216				
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	G , , , , , , , , , , , , , , , , , , ,				
45 45	lo <sub>s</sub>	170			

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#### 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

cULus

## ETIM classification

**ETIM 8.0** 

EC000066 -Power contactor, AC switching