

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 500A, AC/DC COIL, 100...250VAC/DC



Product designation Product type designation			Power contactor BF330
Contact characteristics			Ы 330
Number of poles		Nr.	4
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
operational mequantry	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	max	A	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)			
	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			
	75V	Α	375
	110V	Α	195
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	75V	Α	375
	110V	Α	350
	220V	Α	300
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			



BF330T4E230

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	75V	Α	375
	110V	Α	350
	220V	Α	350
	330V	Α	300
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
·	75V	Α	375
	110V	Α	350
	220V	Α	350
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
·	75V	Α	310
	110V	Α	170
EC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	75V	Α	310
	110V	A	290
	220V	A	230
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	220 V		200
Le max current le in Des-Des with E/12 Toms with 5 poles in series	75V	٨	310
	75 V 110 V	A	310
		A	
	220V	A	290
EO	330V	Α	230
EC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	75.7		0.4.0
	75V	Α	310
	110V	Α	310
	220V	Α	310
	330V	Α	310
	460V	A	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)			
	lth	W	30
	AC-3	W	13
Tightening torque for terminals			
	min	Nm	35
	max	Nm	35
	min	lbin	310
	max	Ibin	310
Tightening torque for coil terminal	Пах		<u> </u>
	min	Nm	0.8
	max	Nm	1
Power terminal protection according to IEC/EN 60529	Шах	1 11111	IP00
Mechanical features			IFUU
Operating position			\/autiacl=l==
	normal		Vertical plan
-	allowable		±30°
Fixing			Screw



FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 500A, AC/DC COIL, 100...250VAC/DC

exhanical life	Operations				
ectrical life	Mechanical life			cycles	5000000
A	Electrical life				
Material	Safety related data			·	
## A Compatibility Yes A Comparation Yes A Comparation Yes A Comparating Yes Ye	erformance level B10	d according to EN/ISO 13489-1			
2 coli Operating 2 coli Operating 2 coli Operating 2 coli Operating voltage 2 coli Operatin			rated load	cycles	1000000
ated AC voltage at 50/60Hz, 60Hz min	EMC compatibility				yes
Min	AC coil operating				
C operating voltage of 50/60Hz coil powered at 50Hz pick-up min Mus 80 Us min max %Us 70 Us min max %Us 70 Us min max %Us 80 Us min max %Us 70 Us min 110 Us may max %Us 70 Us min max %Us 70 Us min 110 Us may min %Us 85 Us min max %Us 70 Us min max %U	Rated AC voltage at 50	1/60Hz, 60Hz			
Operating voltage of 50/60Hz coil powered at 50Hz pick-up min max wus 110 Us max drop-out max wus 570 Us min max wus 110 Us max drop-out min max wus 110 Us max drop-out min max wus 570 Us min C average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush vA 160320 holding vA 3.58.0 of 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 coil powered at 60Hz in-rush vA 160320 holding vA 3.58.0 coil powered at 60Hz in-rush vA 160320 holding vA 3.58.0 coil powered at 60Hz in-rush vA 160320 holding vA 3.58.0 coil powered at 60Hz in-rush vA 160320 holding vA 3.58.0 coil powered at 60Hz in-rush vA 160320 holding vA 3.58.0 coil powered at 60Hz in-rush vA 160320 holding vA 3.58.0 coil powered at 60Hz in-rush vA 160320 holding vA 3.58.0 coil powered at 60Hz in-rush vA 160320 holding vA 3.58.0 coil powered at 60Hz in-rush vA 160320 holding vA 3.58.0 coil powered at 60Hz in-rush vA 160320 holding vA 3.58.0 coil powered at 60Hz in-rush vA 160320 holding vA 3.58.0 coil powered at 60Hz in-rush vA 160320 holding vA 3.58.0			min		
of 50/60Hz coil powered at 50Hz pick-up min max %Us 80 Us min max %Us 110 Us max drop-out max %Us \$70 Us min of 50/60Hz coil powered at 60Hz pick-up min %Us 80 Us min max %Us \$110 Us max drop-out max %Us \$110 Us max drop-out max %Us \$110 Us max drop-out max %Us \$70 Us min max %Us \$110 Us max drop-out max %Us \$70 Us min caverage coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 160320 holding VA 3.58.0 of 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 coll operating VA			max	V	250
Pick-up min wus 80 Us min max wus 110 Us max drop-out max wus 570 Us min wus max max wus max max wus max max wus max max max max max max	C operating voltage				
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Max %Us 110 Us max Mus 110 Us max Mus 570 Us min max Mus 550 Us min max Mus 550 Us min max Mus 550 Us min max Mus 550 Us min max Mus 550 Us min max Mus 570 Us min		pick-up			
drop-out max %Us ≤70 Us min fo 50/60Hz coil powered at 60Hz pick-up min %Us 80 Us min max %Us 110 Us max Mus Mus 110 Us max Mus Mu			min		
max %Us ≤70 Us min of 50/60Hz coil powered at 60Hz pick-up min max %Us 80 Us min max %Us 110 Us max Mus 110 Us max			max	%Us	110 Us max
of 50/60Hz coil powered at 60Hz pick-up min		drop-out			
Pick-up min max %Us 80 Us min max %Us 110 Us max			max	%Us	≤70 Us min
min max wus wu		•			
Max %Us 110 Us max		pick-up			
Arroy					
C average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush holding vA is58.0 VA is0320 holding vA is58.0 in-rush holding vA is58.0 VA is0320 holding vA is58.0 in-rush holding vA is58.0 VA is0320 holding vA is58.0 in-rush holding vA is58.0 VA is0320 holding vA is58.0 in-rush holding vA is58.0 VA is0320 holding vA is58.0			max	%Us	110 Us max
C average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush		drop-out		0/11	4 7 0 III .
of 50/60Hz coil powered at 50Hz in-rush holding VA 160320 holding VA 3.58.0 of 50/60Hz coil powered at 60Hz in-rush holding VA 3.58.0 of 60Hz coil powered at 60Hz in-rush holding VA 3.58.0 of 60Hz coil powered at 60Hz in-rush holding VA 3.58.0 of 60Hz coil powered at 60Hz in-rush holding VA 3.58.0 coil operating VA 3.58.0 coil operating VA 3.58.0 coil operating VA 3.58.0 coil operating VA 3.58.0 coil operating voltage min V 100 max V 250 coperating voltage min wus 85 Us min max wus 110 Us	<u> </u>	U 10000	max	%Us	≤/0 Us min
in-rush holding VA 160320 holding VA 3.58.0	C average coil consui	•			
holding		of 50/60Hz coil powered at 50Hz			
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 ssipation at holding ≤20°C 50Hz W 3.58.0 Coil operating Crated control voltage min V 100 max V 250 Coperating voltage pick-up min %Us 85 Us min max %Us 110 Us max drop-out max %Us ≤70 Us min verage coil consumption ≤20°C in-rush W 160230 holding W 3.58.0 ax cycles frequency echanical operation cycles/h 1000 cerating times cycles/h 1000 cerating times cycles/h 1000 correcting times cycles/h 1000 cy					
in-rush VA 160320 holding VA 3.58.0 of 60Hz coil powered at 60Hz in-rush VA 160320 holding VA 3.58.0 ssipation at holding ≤20°C 50Hz W 3.58.0 ssipation at holding ≤20°C 50Hz W 3.58.0 coil operating C rated control voltage min V 100 max V 250 C operating voltage pick-up min %Us 85 Us min max %Us 110 Us max drop-out max %Us 110 Us max drop-out max %Us ≤70 Us min verage coil consumption ≤20°C in-rush W 160230 holding W 3.58.0 ax cycles frequency echanical operation cycles/h 1000 poerating times construction cycles/h 1000 c		450000	holding	VA	3.58.0
holding		of 50/60Hz coil powered at 60Hz			400 000
of 60Hz coil powered at 60Hz in-rush VA 160320 holding VA 3.58.0 ssipation at holding ≤20°C 50Hz W 3.58.0 coil operating W 3.58.0 coil operating W 3.58.0 coperating voltage min V 100 max V 250 coperating voltage min max W S S Us min M S S Us min S S Us min M S S Us min M S S Us min S S Us min M S S Us min S S Us min S S S S S S S S S					
in-rush VA 160320 holding VA 3.58.0 ssipation at holding ≤20°C 50Hz W 3.58.0 Cocil operating W 3.58.0 Crated control voltage min V 100 max V 250 Coperating voltage min %Us 85 Us min max %Us 110 Us max drop-out max %Us ≤70 Us min verage coil consumption ≤20°C in-rush W 160230 holding W 3.58.0 ax cycles frequency echanical operation cycles/h 1000 perating times cycles/h 1000 constitution max max max max cycles/h 1000 constitution max max max cycles/h 1000 constitution max max cycles/h 1000 constitution max max cycles/h 1000 constitution max cycles/h 1000 constitution max cycles/h 1000 constitution max cycles/h 1000 constitution max cycles/h 1000 cycles/		10011	holding	VA	3.58.0
kolding VA 3.58.0 ssipation at holding ≤20°C 50Hz W 3.58.0 C coil operating C rated control voltage min V 100 max V 250 C operating voltage min %Us 85 Us min max %Us 110 Us max drop-out max %Us ≤70 Us min verage coil consumption ≤20°C in-rush olding W 160230 holding W 3.58.0 ax cycles frequency echanical operation cycles/h 1000 berating times cycles/h 1000		of 60Hz coil powered at 60Hz			400 000
Sesipation at holding ≤20°C 50Hz					
C roil operating C rated control voltage min V 100 max V 250 C operating voltage min %Us 85 Us min max %Us 110 Us max drop-out	N	2000 5011	nolaing		
C rated control voltage min V 100 max V 250		20°C 50Hz		VV	3.58.0
min					
max V 250	oc rated control voltag	e			400
Dick-up					
pick-up min %Us 85 Us min max %Us 110 Us max drop-out max %Us ≤70 Us min max %Us ≤70 U	O an anating a selfer s		max	V	250
min %Us 85 Us min max %Us 110 Us max	operating voltage	piek up			
max %Us 110 Us max drop-out max %Us ≤70 Us min verage coil consumption ≤20°C in-rush W 160230 holding W 3.58.0 ax cycles frequency echanical operation cycles/h 1000 perating times		ріск-ир		0/11-	0E I la mi-
drop-out max %Us ≤70 Us min verage coil consumption ≤20°C in-rush W 160230 holding W 3.58.0 ax cycles frequency echanical operation cycles/h 1000 perating times					
max %Us ≤70 Us min verage coil consumption ≤20°C in-rush W 160230 holding W 3.58.0 ax cycles frequency cycles/h 1000 perating times		drop out	max	-⁄₀US	1 10 US Max
verage coil consumption ≤20°C in-rush W 160230 holding W 3.58.0 ax cycles frequency echanical operation cycles/h 1000 perating times		urop-out	200	0/110	<70 Ha min
in-rush W 160230 holding W 3.58.0 ax cycles frequency echanical operation cycles/h 1000 perating times	vorago coil concurre	ion <20°C	max	-⁄₀US	≥ru Us min
holding W 3.58.0 ax cycles frequency echanical operation cycles/h 1000 perating times	werage con consumpt	IUII =2U G	امن سیدا	۱۸/	160 220
echanical operation cycles/h 1000 perating times					
echanical operation cycles/h 1000 perating times	May avales frogues av		noiding	VV	ა.უგ.ს
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in AC



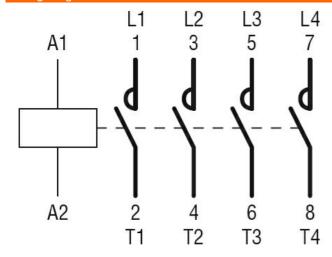
FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 500A, AC/DC COIL, 100...250VAC/DC

	Closing NO	min	ms	80
	Opening NO	max	ms	120
		min max	ms ms	30 75
UL technical data				
Yielded mechanical pe				
	for three-phase AC motor	000/000/		
		200/208V 220/230V	HP HP	100 125
		460/480V	HP	250
		575/600V	HP	300
General USE		0.0,000.		
	Contactor			
		AC current	Α	500
Short-circuit protection				
	High fault			
		Short circuit current	kA	100
		Fuse rating Fuse class	Α	600 J
	Standard fault	Fuse class		
	Standard radit	Short circuit current	kA	18
		Fuse rating	Α	600
		Fuse class		RK5
Ambient conditions				
Temperature				
	Operating temperature		°C	40
		min max	°C	-40 70
	Storage temperature	IIIdA		10
	Storage temperature	min	°C	-50
		max	°C	80
Max altitude			m	3000
Resistance & Protection	on			
Pollution degree				3
Dimensions			181.5	
185	1		— 137.9 —	75 -
57.5 35	-92.5	+	_	
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ENERGY AND AUTOMATION

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 500A, AC/DC COIL, 100...250VAC/DC

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