BF330T4E230

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 500A, AC/DC COIL, 100...250VAC/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 ≤ 40°C		A	500
Operational current Ie			
	AC-1 (≤40°C)	A	500
	AC-1 (≤55°C)	A	415
	AC-1 (≤70°C)	A	360
	AC-3 (≤440V ≤55°C)	A	330
	AC-4 (400V)	A	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	A	330
	400V	A	330
	415V	A	330
	440V	A	330
	500V	A	300
	690V	A	300
	1000V	A	140
Rated operational power AC-1 (T≤40°C)			
	230V	kW	189
	400V	kW	329
	500V	kW	362
	690V	kW	568
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	75V	A	375
	110V	A	195
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	75V	A	375
	110V	A	350
	220V	A	300
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			

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	75V	A	375
	110V	A	350
	220V	A	350
	330V	A	300
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	75V	A	375
	110V	A	350
	220V	A	350
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	A	310
	110V	A	170
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	75V	A	310
	110V	A	290
	220V	A	230
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	75V	A	310
	110V	A	310
	220V	A	290
	330V	A	230
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	75V	A	310
	110V	A	310
	220V	A	310
	330V	A	310
	460V	A	230
Short-time allowable current for 10s (IEC/EN60947-1)		A	2640
Protection fuse			
	gG (IEC)	A	630
	aM (IEC)	A	500
Making capacity (RMS value)		A	3300
Breaking capacity at voltage			
	440V	A	2640
	500V	A	2240
	690V	A	2000
Resistance per pole (average value)		mΩ	0.12
Power dissipation per pole (average value)			
	Ith	W	30
	AC-3	W	13
Tightening torque for terminals			
	min	Nm	35
	max	Nm	35
	min	lbin	310
	max	lbin	310
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
Power terminal protection according to IEC/EN 60529			IP00
Mechanical features			
Operating position			
	normal		Vertical plan
	allowable		±30°
Fixing			Screw

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Operations				
Mechanical life			cycles	5000000
Electrical life			cycles	700000 (Ie AC-3 400V)
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
		rated load	cycles	700000
		mechanical load	cycles	5000000
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 50/60Hz, 60Hz				
		min	V	100
		max	V	250
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
		pick-up		
		min	%Us	80 Us min
		max	%Us	110 Us max
		drop-out		
		max	%Us	≤75 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	≤75 Us min
AC average coil consumption at 20°C				
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	300
		holding	VA	6.4
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	300
		holding	VA	6.4
	of 60Hz coil powered at 60Hz			
		in-rush	VA	300
		holding	VA	6.4
Dissipation at holding ≤20°C 50Hz			W	3.5…8.0
DC coil operating				
DC rated control voltage				
		min	V	100
		max	V	250
DC operating voltage				
	pick-up			
		min	%Us	85 Us min
		max	%Us	110 Us max
	drop-out			
		max	%Us	≤70 Us min
Average coil consumption ≤20°C				
		in-rush	W	220
		holding	W	2.7
Max cycles frequency				
Mechanical operation			cycles/h	1000
Operating times				
Average time for Us control				

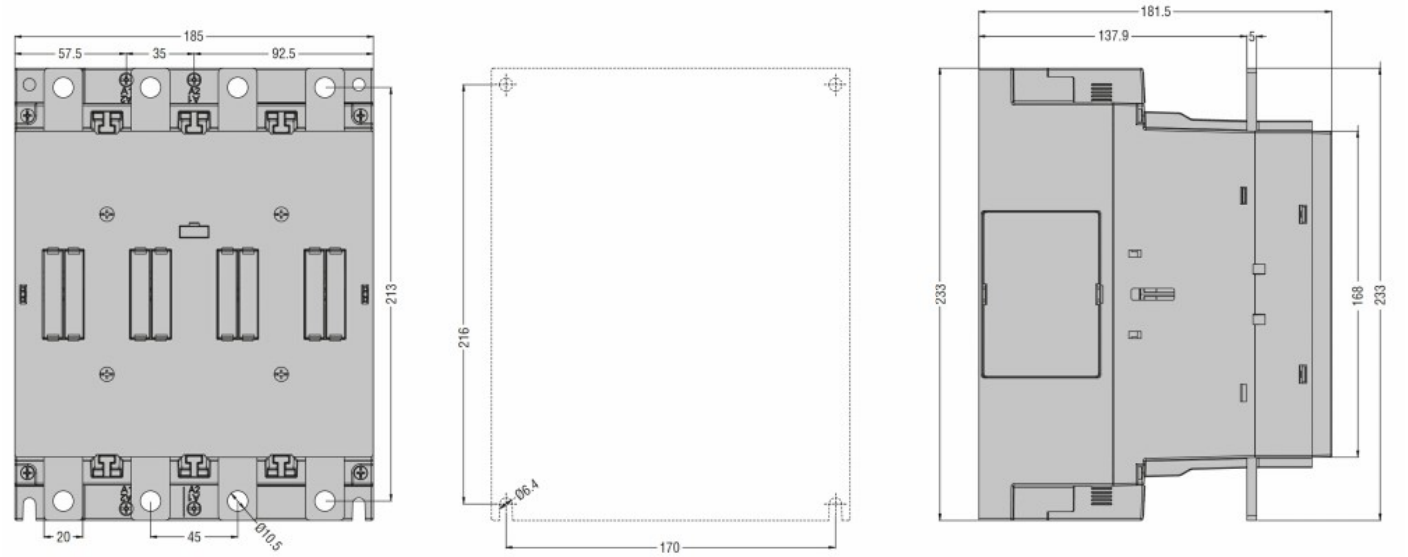
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	in AC				
		Closing NO			
			min	ms	80
			max	ms	120
		Opening NO			
			min	ms	30
			max	ms	75
UL technical data					
Rated operational voltage AC (UL)				V	600
Yielded mechanical performance					
	for three-phase AC motor				
			200/208V	HP	100
			220/240V	HP	125
			460/480V	HP	250
			575/600V	HP	300
General USE					
	Contactor				
			AC current	A	500
Short-circuit protection fuse, 600V					
	High fault				
			Short circuit current	kA	100
			Fuse rating	A	600
			Fuse class		J
	Standard fault				
			Short circuit current	kA	18
			Fuse rating	A	600
			Fuse class		RK5
Ambient conditions					
Temperature					
	Operating temperature				
			min	°C	-40
			max	°C	70
	Storage temperature				
			min	°C	-50
			max	°C	80
Max altitude				m	3000
Resistance & Protection					
Pollution degree					3
Dimensions					

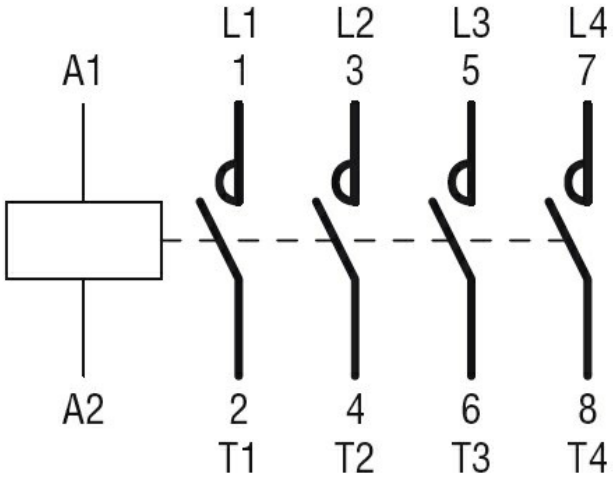
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Wiring diagrams



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

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