ENERGY AND AUTOMATION



Product designation			Power contactor
Product type designation Contact characteristics			BF330
Number of poles		Nr.	4
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency		κv	0
Operational frequency	min	Hz	25
	min max	Hz	400
IEC Conventional free air thermal current Ith	Παλ	A	500
Operational current le		~	500
Operational current le	AC-1 (≤40°C)	А	500
	AC-1 (≤40 C) AC-1 (≤55°C)	A	415
	AC-1 (≤55 C) AC-1 (≤70°C)	A	360
	AC-3 (≤440V ≤55°C)	A	330
	AC-3 (3440 v 355 C) AC-4 (400V)	A	160
Rated operational power AC-3 (T≤55°C)	AC-4 (400V)	A	100
	230V	kW	90
	230V 400V	kW	160
	400V 415V	kW	160
	413V 440V	kW	160
	440V 500V	kW	200
	690V	kW	250
	1000V	kW	185
Rated operational current AC-3 (T≤55°C)	1000 v	K V V	105
	230V	А	330
	400V	A	330
	400V 415V	A	330
	440V	A	330
	500V	A	300
	690V	A	300
	1000V	A	140
Rated operational power AC-1 (T≤40°C)	10001		110
	230V	kW	189
	400V	kW	329
	500V	kW	362
	690V	kW	568
IEC max current le in DC1 with $L/R \le 1$ ms with 1 poles in series	0001		
	75V	А	375
	110V	A	195
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series	1.07	<i>,</i> ,	
	75V	А	375
	110V	A	350
	220V	A	300

IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series



FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 500A, AC/DC COIL, 60... 130VAC/DC

 ENERGY AND AUTOMATION
 130VAC/DC

 75V
 A
 375

 110V
 A
 350

 220V
 A
 350

 330V
 A
 300

 IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series
 TEV
 A

BF330T4E110

$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	IEC max current le in DC1 with $L/R \le 1$ ms with 4 poles in series			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		75V	А	375
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		110V	А	350
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		220V	А	350
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 1 poles in series			
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series 75V A 310 110V A 290 220V A 230 IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series 75V A 310 110V A 310 110V A 310 110V A 310 210V A 230 IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series 75V A 310 110V A 310 110V A 310 110V A 310 110V A 310 110V A 310 310 220V A 310 110V A 310 300V A 310 220V A 310 110V A 310 300V A 310 300V A 310 220V A 310 310V A 2640 2640 2640 Protection fuse gG (IEC) A 630V A 2240 690V A 2240 6		75V	А	310
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		110V	А	170
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
220V A 230 IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series 75V A 310 110V A 220V A 290 330V A 230 330V A 230 IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series 75V A 310 220V A 230 IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series 75V A 310 310 220V A 310 110V A 310 310 220V A 310 220V A 310 330V A 310 220V A 310 330V A 310 220V A 310 330V A 310 220V A 500 A 500 A Short-time allowable current for 10s (IEC/EN60947-1) A 2640 500V A 2240 630V A 2000 Resistance per pole (average value)		75V	А	310
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series75VA310110VA310220VA290330VA230IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series75VA310110VA310220VA230IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series75VA310110VA310220VA230Short-time allowable current for 10s (IEC/EN60947-1)A2640Protection fusegG (IEC)A630Making capacity (RMS value)A3300Breaking capacity (RMS value)ABreaking capacity at voltage440VA2640500VA2240690VA2000Resistance per pole (average value)mΩ0.120.12Power dissipation per pole (average value)minNm35min< toru		110V	А	290
75V A 310 110V A 310 220V A 230 IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series 75V A 310 110V A 310 230 A 230 IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series 75V A 310 220V A 310 220V A 310 220V A 310 300 A 230 Short-time allowable current for 10s (IEC/EN60947-1) A 2640 A 500 Making capacity (RMS value) A 3300 B A 3300 Breaking capacity at voltage 440V A 2640 500V A 2240 690V A 22000 MC<		220V	А	230
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		75V	А	310
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		110V	А	310
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		220V	А	290
75V A 310 110V A 310 220V A 310 330V A 310 330V 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 (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) W 30 Power dissipation per pole (average value) Ith W 30 AC-3 W 13 Tightening torque for terminals min Nm 310 max Nm 310 Tightening torque for coil terminal min Nm 0.8 max Nm 1 Power terminal protection according to		330V	А	230
110V A 310 220V A 310 330V A 310 360V 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 2240 690V A 2000 Resistance per pole (average value) mΩ 0.12 Power dissipation per pole (average value) mΩ 0.12 Power dissipation per pole (average value) min Nm 35 Tightening torque for terminals min Nm 310 T Tightening torque for coil terminal min Nm 310 T Power terminal protection according to IEC/EN 60529 IP00 Mechanical features IP00 Mechanical features Operating position IP00 Mechanical features </td <td>IEC max current le in DC3-DC5 with $L/R \le 15$ms with 4 poles in series</td> <td></td> <td></td> <td></td>	IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 4 poles in series			
220V A 310 330V 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 A 3300 Breaking capacity (RMS value) A 3300 B 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) mΩ 0.12 Power dissipation per pole (average value) Ith W 30 AC-3 W 13 Tightening torque for terminals min Nm 310 max Nm 310 Tightening torque for coil terminal min Nm 1 Power terminal protection according to IEC/EN 60529 IP00 Mechanical features Operating position IP00 <td< td=""><td></td><td>75V</td><td>А</td><td>310</td></td<>		75V	А	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 A 3300 Breaking capacity RMS value) A 3300 Breaking capacity at voltage 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) mΩ 0.12 0 AC-3 W 13 Tightening torque for terminals min Nm 35 max Nm 310 Tightening torque for coil terminal min Nm 310 11 11 Power terminal protection according to IEC/EN 60529 IP00 Mechanical features IP00 Mechanical features Operating position IP00 IP00 IP00		110V	А	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 min Ibin 310 310 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 Vertical plan		220V	А	310
Short-time allowable current for 10s (IEC/EN60947-1) A 2640 Protection fuse gG (IEC) A 630 Making capacity (RMS value) A 3300 Breaking capacity at voltage 440V A 2640 Soov A 3300 Breaking capacity at voltage 440V A 2640 500V A 2240 690V A 2000 Resistance per pole (average value) mQ 0.12 Power dissipation per pole (average value) mK W 30 AC-3 W 13 Tightening torque for terminals min Nm 35 max Nm 310 Tightening torque for coil terminal min Nm 0.8 max Nm 1 Power terminal protection according to IEC/EN 60529 IP00 IP00 Mechanical features Operating position Vertical plan		330V	А	310
Protection fuse gG (IEC) A 630 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 0.12 Power dissipation per pole (average value) th W 30 AC-3 W 13 13 Tightening torque for terminals min Nm 35 min Ibin 310 10 Tightening torque for coil terminal min Nm 0.8 max Nm 1 1 Power terminal protection according to IEC/EN 60529 IP00 1 Mechanical features Operating position Vertical plan		460V	А	230
gG (IEC) aM (IEC) A 630 500 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 0.12 Power dissipation per pole (average value) th W 30 AC-3 W 13 13 Tightening torque for terminals min Nm 35 min<	Short-time allowable current for 10s (IEC/EN60947-1)		А	2640
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 0.12 Power dissipation per pole (average value) th W 30 AC-3 W 13 13 Tightening torque for terminals min Nm 35 min Ibin 310 310 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 Vertical plan	Protection fuse			
Making capacity (RMS value) A 3300 Breaking capacity at voltage 440V A 2640 500V A 2240 690V A 2000 Resistance per pole (average value) mQ 0.12 0.12 Power dissipation per pole (average value) Ith W 30 AC-3 W 13 13 Tightening torque for terminals min Nm 35 min Ibin 310 10 Tightening torque for coil terminal min Nm 0.8 Mover terminal protection according to IEC/EN 60529 IP00 IP00 Mechanical features Operating position Vertical plan		gG (IEC)	А	630
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 min Ibin 310 max Ibin 310 Tightening torque for coil terminal min Nm 0.8 mox Ibin 1 Power terminal protection according to IEC/EN 60529 IP00 Mechanical features Operating position Vertical plan		aM (IEC)	А	500
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 max Nm 310 Tightening torque for coil terminal min Ibin 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 Nm 1	Making capacity (RMS value)		А	3300
500V 690VA2240 690VResistance per pole (average value)mΩ0.12Power dissipation per pole (average value)IthW30 AC-3Tightening torque for terminalsAC-3W13Tightening torque for terminalsminNm35 maxminIbin310 max310Tightening torque for coil terminalminNm0.8 maxMode for coil terminalminNm1Power terminal protection according to IEC/EN 60529IP00IP00Mechanical featuresoperating positionVertical plan	Breaking capacity at voltage			
690V A 2000 Resistance per pole (average value) mΩ 0.12 Power dissipation per pole (average value) Ith W 30 AC-3 W 13 13 Tightening torque for terminals min Nm 35 min Ibin 310 310 Tightening torque for coil terminal max Nm 310 Tightening torque for coil terminal min Nm 0.8 max Nm 1 1 Power terminal protection according to IEC/EN 60529 IP00 IP00 Mechanical features Operating position Vertical plan		440V	А	2640
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 min Ibin 310 max Ibin 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 Vertical plan		500V	А	2240
Power dissipation per pole (average value) Ith W 30 AC-3 W 13 Tightening torque for terminals min Nm 35 max Nm 35 min Ibin 310 Tightening torque for coil terminal min Nm 0.8 min Nm 0.8 max Nm 1 Power terminal protection according to IEC/EN 60529 IP00 IP00 Mechanical features Operating position Vertical plan		690V	А	2000
Ith W 30 AC-3 W 13 Tightening torque for terminals min Nm 35 max Nm 35 min Ibin 310 Tightening torque for coil terminal min Ibin 310 Tightening torque for coil terminal min Nm 0.8 max Nm 1 1 Power terminal protection according to IEC/EN 60529 IP00 1 Mechanical features Upposition Vertical plan	Resistance per pole (average value)		mΩ	0.12
AC-3 W 13 Tightening torque for terminals min Nm 35 max Nm 35 min Ibin 310 Tightening torque for coil terminal min Nm 0.8 max Nm 1 Power terminal protection according to IEC/EN 60529 IP00 Mechanical features IP00 Operating position Normal Vertical plan	Power dissipation per pole (average value)			
Tightening torque for terminals min Nm 35 max Nm 35 min Ibin 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		lth	W	30
min Nm 35 max Nm 35 min Ibin 310 Tightening torque for coil terminal min Nm 0.8 max Nm 1 1 Power terminal protection according to IEC/EN 60529 IP00 IP00 Mechanical features Operating position Vertical plan		AC-3	W	13
max minNm35 Ibinmin maxIbin310 310Tightening torque for coil terminalmin maxNm0.8 Nmmin maxNm1 NmPower terminal protection according to IEC/EN 60529IP00Mechanical featuresIP00Operating positionVertical plan	Tightening torque for terminals			
min Ibin 310 max Ibin 310 Tightening torque for coil terminal min Nm 0.8 max Nm 1 Power terminal protection according to IEC/EN 60529 IP00 Mechanical features IP00 Operating position Vertical plan		min	Nm	35
max Ibin 310 Tightening torque for coil terminal min Nm 0.8 max Nm 1 Power terminal protection according to IEC/EN 60529 IP00 Mechanical features IP00 Operating position Vertical plan		max	Nm	35
Tightening torque for coil terminal min Nm 0.8 max Nm 1 Power terminal protection according to IEC/EN 60529 IP00 Mechanical features IP00 Operating position Normal Vertical plan		min	lbin	310
min Nm 0.8 max Nm 1 Power terminal protection according to IEC/EN 60529 IP00 Mechanical features Operating position		max	lbin	310
min Nm 0.8 max Nm 1 Power terminal protection according to IEC/EN 60529 IP00 Mechanical features Operating position	Tightening torque for coil terminal			
max Nm 1 Power terminal protection according to IEC/EN 60529 IP00 Mechanical features IP00 Operating position Vertical plan		min	Nm	0.8
Mechanical features Operating position Normal Vertical plan				
Mechanical features Operating position Normal Vertical plan	Power terminal protection according to IEC/EN 60529			IP00
Operating position normal Vertical plan				
normal Vertical plan				
·		normal		Vertical plan
				•

Fixing

Screw



BF330T4E110 FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 500A, AC/DC COIL, 60...

ENERGY AND AUTOMATION

130VAC/DC

Operations			5000000
Mechanical life		cycles	5000000
Electrical life		cycles	700000
Safety related data			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	1000000
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 50/60Hz, 60Hz			
	min	V	60
	max	V	130
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	≤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	≤70 Us min
AC average coil consumption 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	noraing		0.00.0
	in-rush	VA	160320
	holding	VA	3.58.0
Dissipation at holding ≤20°C 50Hz	noiding	W	3.58.0
C coil operating		VV	5.50.0
DC rated control voltage			
De raied control voltage	min	V	60
	max	V	130
	IIIdA	V	130
DC operating voltage			
pick-up	min	%Us	85 Us min
	min		
drop out	max	%Us	110 Us max
drop-out		0/11-	<70
	max	%Us	≤70 Us min
Average coil consumption ≤20°C			400 0
	in-rush	W	160230
	holding	W	3.58.0
Max cycles frequency			
Mechanical operation		cycles/h	1000
Operating times			
Average time for Us control			
in AC			

BF330T4E110

BF330T4E110



FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 500A, AC/DC COIL, 60...

130VAC/DC

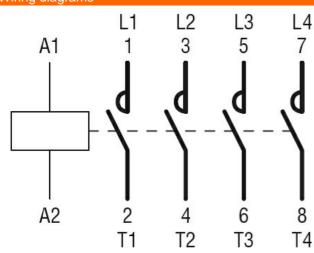
		Closing NO	min	ms	80
		Opening NO	max	ms	120
			min max	ms ms	30 75
UL technical data				-	
Yielded mechanical p		otor			
	for three-phase AC m	otor	200/208V	HP	100
			220/230V	HP	125
			460/480V	HP	250
General USE			575/600V	HP	300
General USE	Contactor				
	Contactor		AC current	А	500
Short-circuit protection					
	High fault		Chart aircuit aureat	L۸	100
			Short circuit current Fuse rating	kA A	100 600
			Fuse class		J
	Standard fault				
			Short circuit current	kA	18 600
			Fuse rating Fuse class	A	RK5
Ambient conditions					
Temperature					
	Operating temperature	e	min	°C	-40
			max	°C	70
	Storage temperature			-	
			min	°C	-50
Max altitude			max	°C	80 3000
Resistance & Protect	ion			m	3000
Pollution degree					3
Dimensions					
185	1		-	—— 181.5 — 137.9 —	
	- 92.5		+ I	=	
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	-213		-33		-168
	-216				
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FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 500A, AC/DC COIL, 60... 130VAC/DC

ENERGY AND AUTOMATION

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		
		EC000066 -
ETIM 8.0		Power contactor,

Power contactor, AC switching

