ENERGY AND AUTOMATION

BF23000E110 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 230A, AC/DC COIL, 60... 130VAC/DC



Product designation Product type designation			Power contactor BF230
Contact characteristics			
Number of poles		Nr.	3
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		А	350
Operational current le			
	AC-1 (≤40°C)	А	350
	AC-1 (≤55°C)	А	290
	AC-1 (≤70°C)	А	250
	AC-3 (≤440V ≤55°C)	А	230
	AC-4 (400V)	Α	110
Rated operational power AC-3 (T≤55°C)			
	230V	kW	55
	400V	kW	110
	415V	kW	110
	440V	kW	132
	500V	kW	132
	690V	kW	160
	1000V	kW	110
Rated operational power AC-1 (T≤40°C)			
	230V	kW	132
	400V	kW	230
	500V	kW	253
	690V	kW	397
IEC max current le in DC1 with $L/R \le 1$ ms with 1 poles in series	.0.0.1		
	≤24V	A	350
	48V	A	350
	75V	A	350
	110V	A	145
IFC may automate to in DC1 with 1/D < the with 2 halos in action	220V	A	_
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series	<04)/	^	250
	≤24V	A	350
	48V	A	350 350
	75V 110V	A	350 270
	220V	A A	270 225
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	2200	A	220
$1 \ge 0$ max current is in DOT with $E/R \ge 1005$ with 5 poiss in series	≤24V	۸	350
	≤24∨ 48V	A A	350
	46 V 75 V	A	350
	737	А	330



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	110V	А	270
	220V	А	270
	330V	А	225
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	А	350
	48V	А	350
	75V	А	350
	110V	А	350
	220V	А	350
IEC max current le in DC3-DC5 with L/R \leq 15ms with 1 poles in series			
	≤24V	А	350
	48V	А	350
	75V	А	250
	110V	А	135
	220V	Α	-
IEC max current le in DC3-DC5 with L/R \leq 15ms with 2 poles in series			
	≤24V	А	350
	48V	А	350
	75V	А	250
	110V	А	225
	220V	Α	180
IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series			
	≤24V	А	350
	48V	А	350
	75V	А	250
	110V	А	250
	220V	А	225
	330V	Α	180
IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series			
	≤24V	А	350
	48V	А	350
	75V	А	250
	110V	А	250
	220V	А	225
	330V	А	210
	460V	Α	180
Short-time allowable current for 10s (IEC/EN60947-1)		Α	1840
Protection fuse			
	gG (IEC)	А	400
	aM (IEC)	А	250
Making capacity (RMS value)		А	2300
Breaking capacity at voltage			
	440V	А	1840
	500V	А	1472
	690V	А	1296
Resistance per pole (average value)		mΩ	0.18
Power dissipation per pole (average value)			
	lth	W	21
	AC3	W	9.3
Tightening torque for terminals			
	min	Nm	18
	max	Nm	18
	min	lbin	159
		Ihin	150

max

lbin

159



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Tightoning target for a 'l t	orminal			
Tightening torque for coil te	eminal	min	Nm	0.8
		max	Nm	1
Power terminal protection	according to IEC/EN 60529	Παλ	1 11 11	IP00
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw
Weight			g	3000
Operations			5	
Mechanical life			cycles	10000000
Electrical life			cycles	1000000
Safety related data			,	
	ccording to EN/ISO 13489-1			
	-	rated load	cycles	1000000
EMC compatibility			-	yes
AC coil operating				
Rated AC voltage at 50/60	Hz, 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 consumpt				
of	50/60Hz coil powered at 50Hz	· ·		400 000
		in-rush	VA	160230
	50/0011	holding	VA	1.53.0
of	50/60Hz coil powered at 60Hz		174	400 000
		in-rush	VA	160230
		holding	VA	1.53.0
OT	60Hz coil powered at 60Hz	in work	1/6	160 220
		in-rush	VA VA	160230 1.53.0
Dissipation at holding ≤20°	°C 50H7	holding	W	1.53.0
DC coil operating			vv	1.JJ.U
DC rated control voltage				
Do rated control voltage		min	V	60
		max	V	130
DC operating voltage		IIIdX	v	100
	ck-up			
ри		min	%Us	85 Us min
		max	%Us	110 Us max
		IIIdX	/003	110 03 1110

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	drop-out				
A	1		max	%Us	≤70 Us min
Average coil consump	tion $\leq 20^{\circ}$ C		in ruch	W	160230
			in-rush holding	W	1.53.0
Max cycles frequency			noiding	vv	1.55.0
Mechanical operation				cycles/h	1000
Operating times				-,	
Average time for Us co	ontrol				
	in AC				
		Closing NO			
			min	ms	50
			max	ms	100
		Opening NO			
			min	ms	30
UL technical data			max	ms	75
Yielded mechanical pe	rformance				
noided mechanical pe	for three-phase AC mot	for			
			200/208V	HP	75
			220/230V	HP	75
			460/480V	HP	150
			575/600V	HP	200
General USE					
	Contactor				
			AC current	А	350
Short-circuit protection					
	High fault				
			Short circuit current	kA	100
			Fuse rating	А	400
	<u></u>		Fuse class		J
	Standard fault		Chart aire it aurrent	L.A	10
			Short circuit current	kA	10
			Fuse rating Fuse class	A	400 RK5
Ambient conditions			1 430 61433		
Temperature					
1	Operating temperature				
			min	°C	-40
			max	°C	70
	Storage temperature				
			min	°C	-50
			max	°C	80
Max altitude				m	3000
Resistance & Protection	on				
Pollution degree					3
Dimensions					

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5 (0.20")

E

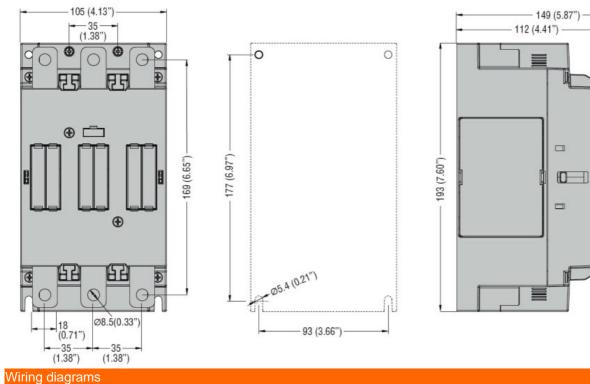
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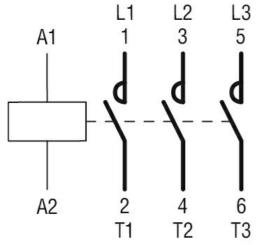
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128 (5.04") 187 (7.36")



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Certifications and compliance

Certificates

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching

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