

ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 230A, AC/DC COIL, 250... 500VAC/DC



Product designation			Power contactor
Product type designation			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		Α	350
Operational current le			
	AC-1 (≤40°C)	Α	350
	AC-1 (≤55°C)	Α	290
	AC-1 (≤70°C)	Α	250
	AC-3 (≤440V ≤55°C)	Α	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 ≤ 1ms with 1 poles in series			
	≤24V	Α	350
	48V	Α	350
	75V	Α	350
	110V	Α	145
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	350
	48V	Α	350
	75V	Α	350
	110V	Α	270
	220V	Α	225
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
•	≤24V	Α	350
	48V	Α	350
	75V	Α	350

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	110V	Α	270
	220V	Α	270
	330V	Α	225
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series		- ' '	
120 max current le in 201 with 2/102 mis with 4 poles in series	≤24V	Α	350
	48V	A	350
	75V		
		A	350
	110V	Α	350
	220V	Α	350
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	350
	48V	Α	350
	75V	Α	250
	110V	Α	135
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
·	≤24V	Α	350
	48V	Α	350
	75V	A	250
	110V	A	225
	220V	A	180
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	ZZU V		100
TEC max current le in DC3-DC5 with L/R \(\) 15ms with 3 poles in series	2041 /	۸	050
	≤24V	A	350
	48V	Α	350
	75V	Α	250
	110V	Α	250
	220V	Α	225
	330V	Α	180
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	350
	48V	Α	350
	75V	Α	250
	110V	Α	250
	220V	Α	225
	330V	Α	210
	460V	A	180
Short-time allowable current for 10s (IEC/EN60947-1)	700 V	A	1840
			1040
Protection fuse	=O (IEO)	Λ	400
	gG (IEC)	A	400
14 (010 1)	aM (IEC)	Α	250
Making capacity (RMS value)		Α	2300
Breaking capacity at voltage			
	440V	Α	1840
	500V	Α	1472
	690V	Α	1296
Resistance per pole (average value)		mΩ	0.18
Power dissipation per pole (average value)			_
,	Ith	W	21
	AC3	W	9.3
Tightening torque for terminals	,,,,,,	- •	
gciig toiquo ioi toirimitulo	min	Nm	18
		Nm	18
	max		
	min	lbin	159
	max	lbin	159



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Tightening torque for coi	I terminal			
rigitioning torque for our	Terminal	min	Nm	0.8
		max	Nm	1
Power terminal protection	on according to IEC/EN 60529			IP00
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw
Weight			g	3000
Operations				
Mechanical life			cycles	10000000
Electrical life			cycles	1000000
Safety related data				
Performance level B10d	I 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	250
10 "		max	V	500
AC operating voltage	of 50/0011- only normal of 5011-			
	of 50/60Hz coil powered at 50Hz			
	pick-up	min	%Us	80 Us min
		min	%Us %Us	110 Us max
	drop-out	max	/005	110 05 max
	drop-out	max	%Us	≤70 Us min
	of 50/60Hz coil powered at 60Hz	тах	7000	
	pick-up			
	p. 5.0 ap	min	%Us	80 Us min
		max	%Us	110 Us max
	drop-out			
		max	%Us	≤70 Us min
AC average coil consum	nption at 20°C			
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	160230
		holding	VA	1.53.0
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	160230
		holding	VA	1.53.0
	of 60Hz coil powered at 60Hz			400 000
		in-rush	VA	160230
Dissipation at halding of	00°C 5011-	holding	VA	1.53.0
Dissipation at holding ≤2	±0 ∪ 00⊓∠ 		W	1.53.0
DC coil operating DC rated control voltage				
Po rated control voltage	;	min	V	250
		max	V	500
DC operating voltage		IIIdX	V	300
, ,	pick-up			
	pion up	min	%Us	85 Us min
		max	%Us	110 Us max
		····ax	, , , ,	110 00



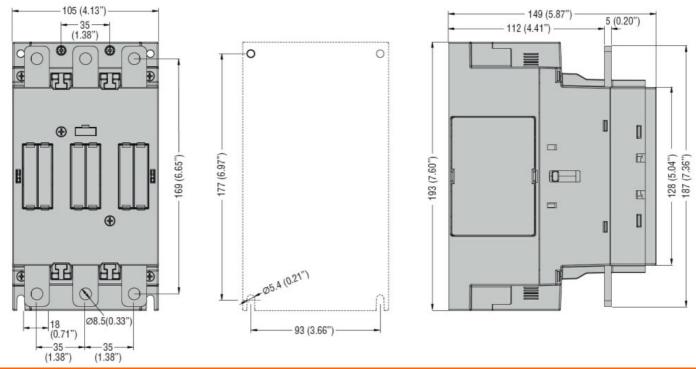
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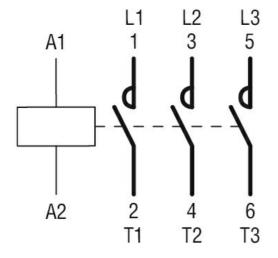
	drop-out			
Average coil consump	tion <20°C	max	%Us	≤70 Us min
Average con consump	1011 320 0	in-rush	W	160230
		holding	W	1.53.0
Max cycles frequency		J		
Mechanical operation			cycles/h	1000
Operating times				
Average time for Us co				
	in AC			
	Closing NO			
		min	ms	50
	On aning NO	max	ms	100
	Opening NO	min	me	30
		min max	ms ms	75
UL technical data		IIIdX	1113	75
Yielded mechanical pe	rformance			
	for three-phase AC motor			
		200/208V	HP	75
		220/230V	HP	75
		460/480V	HP	150
		575/600V	HP	200
General USE				
	Contactor			
		AC current	Α	350
Short-circuit protection				
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	400
	Standard fault	Fuse class		J
	Standard radit	Short circuit current	kA	10
		Fuse rating	A	400
		Fuse class	/ \	RK5
Ambient conditions		. 400 0.400		
Temperature				
•	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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Wiring diagrams



Certifications and compliance

Certificates

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching