



			•
Product designation			Power contacto
Product type designation			BF18
Contact characteristics			-
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	32
Operational current le			
	AC-1 (≤40°C)	А	32
	AC-1 (≤55°C)	А	26
	AC-1 (≤70°C)	А	23
	AC-3 (≤440V ≤55°C)	А	18
	AC-4 (400V)	А	8.5
Rated operational power AC-3 (T≤55°C)			
	230V	kW	4
	400V	kW	7.5
	415V	kW	9
	440V	kW	9
	500V	kW	10
	690V	kW	10
Rated operational power AC-1 (T≤40°C)			
	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
IEC max current le in DC1 with $L/R \le 1$ ms with 1 poles in series			
	≤24V	А	17
	48V	А	15
	75V	А	15
	110V	А	6
	220V	А	-
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series			
	≤24V	А	20
	48V	А	20
	75V	А	20
	110V	А	13
	220V	Α	1
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series			
-	≤24V	А	22
	48V	А	22
	75V	Α	20

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**BF1801D220** THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, DC COIL, 220VDC, 1NC AUXILIARY CONTACT

ENERGY AND AUTOMATION	1NC AUXILIARY CONTACT		
	220V	А	11
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	А	22
	48V	А	22
	75V	А	20
	110V	Α	18
	220V	А	13
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 1 poles in series			
	≤24V	А	12
	48V	А	11
	75V	А	11
	110V	А	2
	220V	А	_

	220 V	A	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	А	15
	48V	А	13
	75V	А	13
	110V	А	8
	220V	А	2
IEC max current le in DC3-DC5 with L/R $\leq$ 15ms with 3 poles in series			
	≤24V	А	18
	48V	А	18
	75V	А	16
	110V	А	12
	220V	А	6
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 4 poles in series			
	≤24V	А	18
	48V	А	18
	75V	А	16
	110V	А	13
	220V	Α	8
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200
Protection fuse			
	gG (IEC)	А	32
	aM (IEC)	А	20
Making capacity (RMS value)		А	180
Breaking capacity at voltage			
	440V	А	144
	500V	А	120
	690V	А	94
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
	Ith	W	2.6
	AC-3	W	0.8

Tightening torque f	or terminals
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- give mig ter que ter terminare			
	min	Nm	1.5
	max	Nm	1.8
	min	lbin	1.1
	max	lbin	1.5
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8

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lbin 0.74 max Max number of wires simultaneously connectable Nr. 2 Conductor section AWG/Kcmil max 10 Flexible w/o lug conductor section min mm<sup>2</sup> 1 mm<sup>2</sup> 6 max Flexible c/w lug conductor section 1 min mm<sup>2</sup> max mm<sup>2</sup> 4 Flexible with insulated spade lug conductor section mm<sup>2</sup> 1 min mm<sup>2</sup> 4 max IP20 when Power terminal protection according to IEC/EN 60529 properly wired Mechanical features Operating position Vertical plan normal ±30° allowable Screw / DIN rail Fixing 35mm Weight 500 g Conductor section AWG/kcmil conductor section 10 max Auxiliary contact characteristics Thermal current Ith А 10 IEC/EN 60947-5-1 designation A600 - P600 Operating current AC15 230V А 3 400V 1.9 А 500V А 1.4 Operating current DC12 110V А 5.7 **Operating current DC13** 24V А 5.7 48V А 2.9 60V A 2.3 110V А 1.25 125V А 1.1 220V А 0.55 600V 0.2 А Operations Mechanical life 20000000 cycles Electrical life 1600000 cycles Safety related data Performance level B10d according to EN/ISO 13489-1 1600000 rated load cycles mechanical load 20000000 cycles Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes DC coil operating

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**INC AUXILIARY CONTACT** 

DO note di se introl control					000
DC rated control voltage	je			V	220
DC operating voltage	nial				
	pick-up		min	%Us	70
			max	%Us	125
	drop-out		Παλ	/003	125
	ulop-out		min	%Us	10
			max	%Us	40
Average coil consumpt	tion ≤20°C			,	
<b>o</b> 1			in-rush	W	5.4
			holding	W	5.4
Max cycles frequency					
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us co	ontrol				
	in AC				
		Closing NO			
			min	ms	8
			max	ms	24
		Opening NO			4.0
			min	ms	10
			max	ms	20
		Closing NC	min	ms	14
			max	ms	28
		Opening NC	Пал	1115	20
		oponing No	min	ms	7
			max	ms	18
	in DC				
		Closing NO			
		-	min	ms	54
			max	ms	66
		Opening NO			
			min	ms	14
			max	ms	17
		Closing NC			<b>.</b>
			min	ms	24
		Opening NC	max	ms	30
			min	ms	47
			max	ms	57
UL technical data					
	for three-phase AC mo	otor			
- ( - )	,		at 480V	А	14
			at 600V	А	17
Yielded mechanical pe	rformance				
	for single-phase AC n	notor			
			110/120V	HP	1
			230V	HP	3
	for three-phase AC m	otor			
			200/208V	HP	5
			220/230V	HP	5
			460/480V	HP	10
			575/600V	HP	15

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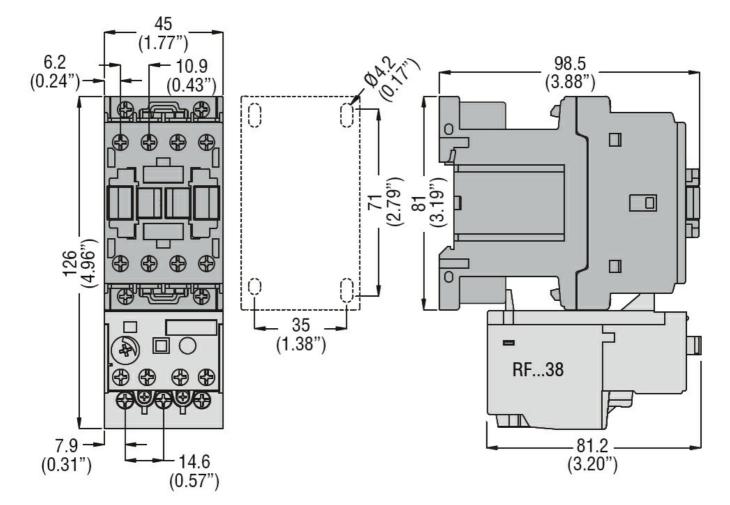
ENERGY AND AUTOMATION				
General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
		AC voltage	V	600
		AC current	А	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protect	tion fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	А	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	A	80
	xiliary contacts according to UL			A600 - P600
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
	-	max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Prote	ction			
Pollution degree				3

Pc Dimensions

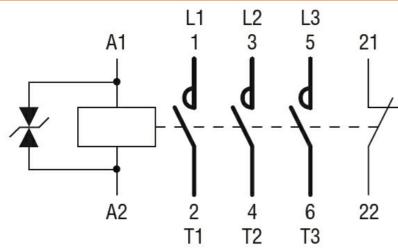
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Wiring diagrams



## 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
Cartificatos	

Certificates



## **BF1801D220** THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, DC COIL, 220VDC, 1NC AUXILIARY CONTACT

	CCC
	cULus
	EAC
sification	

ETIM 8.0

ETIM clas

EC000066 -Power contactor, AC switching

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