



Product designation			Power contactor
Product type designation			BF09
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		А	25
Operational current le			
	AC-1 (≤40°C)	А	25
	AC-1 (≤55°C)	А	20
	AC-1 (≤70°C)	А	18
	AC-3 (≤440V ≤55°C)	А	9
	AC-4 (400V)	А	4.9
Rated operational power AC-3 (T≤55°C)			
	230V	kW	2.2
	400V	kW	4.2
	415V	kW	4.5
	440V	kW	4.8
	500V	kW	5.5
	690V	kW	7.5
Rated operational power AC-1 (T≤40°C)			
	230V	kW	9.5
	400V	kW	16
	500V	kW	21
	690V	kW	27
IEC max current le in DC1 with $L/R \le 1$ ms with 1 poles in series			
	≤24V	А	15
	48V	А	13
	75V	A	12
	110V	А	6
	220V	A	_
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series			
· · · · · · · · · · · · · · · · · · ·	≤24V	А	18
	48V	A	18
	75V	A	17
	110V	A	12
	220V	A	1
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series	2201		•
	≤24V	А	20
	48V	A	20
	48V 75V	A	20
	110V	A	15
	1100	А	10

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	220V	А	10	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
	≤24V	А	20	
	48V	А	20	
	75V	A	20	
	110V			
		A	16	
	220V	A	12	
IEC max current le in DC3-DC5 with L/R $\leq$ 15ms with 1 poles in series				
	≤24V	Α	10	
	48V	А	9	
	75V	А	8	
	110V	А	2	
	220V	A	_	
	2200	A	_	
IEC max current le in DC3-DC5 with L/R $\leq$ 15ms with 2 poles in series				
	≤24V	A	13	
	48V	А	11	
	75V	А	10	
	110V	А	7	
	220V	A	2	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	2201		2	
The max current is in DOS-DOS with $L/R \ge 1000$ with 5 poiss in series	-0.07		4 5	
	≤24V	Α	15	
	48V	А	15	
	75V	Α	13	
	110V	А	11	
	220V	А	6	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series				
	≤24V	А	15	
	48V			
		A	15	
	75V	А	15	
	110V	А	12	
	220V	Α	7	
Short-time allowable current for 10s (IEC/EN60947-1)		А	150	
Protection fuse				
	gG (IEC)	А	25	
	aM (IEC)	A	10	
Making capacity (RMS value)		А	90	
Breaking capacity at voltage				
	440V	А	72	
	500V	А	72	
	690V	А	71	
Resistance per pole (average value)		mΩ	2.5	
Power dissipation per pole (average value)		22111	2.0	
rower ursthautt her hole (average value)		147	4.0	
	Ith	W	1.6	
	AC-3	W	0.2	
Tightening torque for terminals				
	min	Nm	1.5	
	max	Nm	1.8	
	min	Ibin	1.1	
	max	Ibin	1.5	
Tightoning torque for coil terminal	Παλ		1.0	
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 А 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 2000000 cycles Safety related data Performance level B10d according to EN/ISO 13489-1 2000000 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** 

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DC rated control voltage	ge			V	220
DC operating voltage					
	pick-up		min	0/110	70
			min	%Us %Us	70 125
	drop-out		max	7005	120
	ulop-out		min	%Us	10
			max	%Us	40
Average coil consump	tion ≤20°C				
			in-rush	W	5.4
			holding	W	5.4
Max cycles frequency					
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us co					
	in AC	Closing NO			
		Closing NO	min	me	8
			max	ms ms	o 24
		Opening NO	Παλ	113	<b>∠</b> -T
			min	ms	10
			max	ms	20
		Closing NC			
			min	ms	14
			max	ms	28
		Opening NC			
			min	ms	7
	. <u> </u>		max	ms	18
	in DC				
		Closing NO	min	ms	54
			max	ms	66
		Opening NO	Тах	mo	00
		- p g e	min	ms	14
			max	ms	17
		Closing NC			
			min	ms	24
		_	max	ms	30
		Opening NC			4-
			min	ms	47
III to chaical data			max	ms	57
UL technical data Full-load current (FLA)	for three-phase /	AC motor			
i uii-ioau cuitetti (rLA)	nor unee-phase A		at 480V	А	7.6
			at 600V	A	0.375
Yielded mechanical pe	erformance				
	for single-phase	e AC motor			
	5 - F		110/120V	HP	0.75
			230V	HP	2
	for three-phase	AC motor			
	-		200/208V	HP	3
			220/230V	HP	3
			460/480V	HP	5
			575/600V	HP	7.5

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The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding

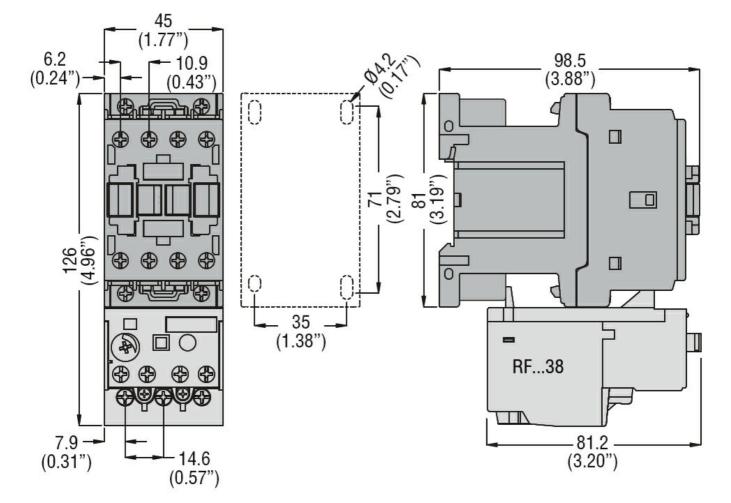


General USE				
	Contactor			
		AC current	А	25
	Auxiliary contacts			
		AC voltage	V	600
		AC current	А	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protecti				
	High fault			
		Short circuit current	kA	100
		Fuse rating	А	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	60
	kiliary 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 & Protec	ction			
Impact resistance				""
Pollution degree				3
Dimensions				

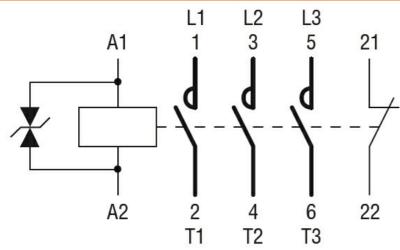
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Wiring diagrams



## 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
0	

Certificates

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## **BF0901D220** THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL, 220VDC, 1NC AUXILIARY CONTACT

	CCC	
	cULus	
	EAC	
ssification		

ETIM 8.0

ETIM cla

EC000066 -Power contactor, AC switching

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