



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		A	25
Operational current le			
	AC-1 (≤40°C)	A	25
	AC-1 (≤55°C)	A	20
	AC-1 (≤70°C)	A	18
	AC-3 (≤440V ≤55°C)	A	9
	AC-4 (400V)	A	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	A	15
	48V	A	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	А	18
	75V	А	17
	110V	А	12
	220V	A	1
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series			
	≤24V	А	20
	48V	А	20
	75V	А	20
	110V	А	15



## BF0910L048 THREE-POLE CONTAC

CTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL LOW
CONSUMPTION, 48VDC, 1NO AUXILIARY CONTACT

	220V	А	10	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
· ·	≤24V	А	20	
	48V	A	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	2201	Α	12	
IEC max current le in DC3-DC3 with E/K = 15ms with 1 poles in series	≤24V	^	10	
	≤24V 48V	A	10	
		A	9	
	75V	A	8	
	110V	A	2	
	220V	A	-	
IEC max current le in DC3-DC5 with L/R $\leq$ 15ms with 2 poles in series				
	≤24V	А	13	
	48V	А	11	
	75V	А	10	
	110V	А	7	
	220V	А	2	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series				
	≤24V	А	15	
	48V	А	15	
	75V	А	13	
	110V	A	11	
	220V	A	6	
IEC max current le in DC3-DC5 with L/R $\leq$ 15ms with 4 poles in series	2201	7	0	
	≤24V	А	15	
	48V	A	15	
	48V 75V	A	15	
	110V	A	12	
	220V	A A	7	
		Δ	150	
Short-time allowable current for 10s (IEC/EN60947-1)		Λ		
Short-time allowable current for 10s (IEC/EN60947-1) Protection fuse				
	gG (IEC)	А	25	
Protection fuse	gG (IEC) aM (IEC)	A A	25 10	
Protection fuse Making capacity (RMS value)		А	25	
Protection fuse		A A	25 10	
Protection fuse Making capacity (RMS value)		A A	25 10	
Protection fuse Making capacity (RMS value)	aM (IEC)	A A A	25 10 90	
Protection fuse Making capacity (RMS value)	aM (IEC) 440V	A A A	25 10 90 72	
Protection fuse Making capacity (RMS value)	aM (IEC) 440V 500V	A A A A	25 10 90 72 72	
Protection fuse Making capacity (RMS value) Breaking capacity at voltage Resistance per pole (average value)	aM (IEC) 440V 500V	A A A A A	25 10 90 72 72 71	
Protection fuse Making capacity (RMS value) Breaking capacity at voltage	aM (IEC) 440V 500V 690V	A A A A A MΩ	25 10 90 72 72 71 2.5	
Protection fuse Making capacity (RMS value) Breaking capacity at voltage Resistance per pole (average value)	aM (IEC) 440V 500V 690V	A A A A A MΩ W	25 10 90 72 72 71 2.5 1.6	
Protection fuse Making capacity (RMS value) Breaking capacity at voltage Resistance per pole (average value) Power dissipation per pole (average value)	aM (IEC) 440V 500V 690V	A A A A A MΩ	25 10 90 72 72 71 2.5	
Protection fuse Making capacity (RMS value) Breaking capacity at voltage Resistance per pole (average value)	aM (IEC) 440V 500V 690V Ith AC-3	A A A A MΩ W W	25 10 90 72 72 71 2.5 1.6 0.2	
Protection fuse Making capacity (RMS value) Breaking capacity at voltage Resistance per pole (average value) Power dissipation per pole (average value)	aM (IEC) 440V 500V 690V Ith AC-3 min	A A A A A MΩ W W W	25 10 90 72 72 71 2.5 1.6 0.2 1.5	
Protection fuse Making capacity (RMS value) Breaking capacity at voltage Resistance per pole (average value) Power dissipation per pole (average value)	aM (IEC) 440V 500V 690V Ith AC-3 min max	A A A A A A MΩ W W W Nm Nm	25 10 90 72 72 71 2.5 1.6 0.2 1.5 1.8	
Protection fuse Making capacity (RMS value) Breaking capacity at voltage Resistance per pole (average value) Power dissipation per pole (average value)	aM (IEC) 440V 500V 690V Ith AC-3 min max min	A A A A A A MΩ W W W Nm Nm Ibin	25 10 90 72 72 71 2.5 1.6 0.2 1.5 1.8 1.1	
Protection fuse         Making capacity (RMS value)         Breaking capacity at voltage         Resistance per pole (average value)         Power dissipation per pole (average value)         Tightening torque for terminals	aM (IEC) 440V 500V 690V Ith AC-3 min max	A A A A A A MΩ W W W Nm Nm	25 10 90 72 72 71 2.5 1.6 0.2 1.5 1.8	
Protection fuse Making capacity (RMS value) Breaking capacity at voltage Resistance per pole (average value) Power dissipation per pole (average value)	aM (IEC) 440V 500V 690V Ith AC-3 min max min max	A A A A A MΩ W W W Nm Ibin Ibin	25 10 90 72 72 71 2.5 1.6 0.2 1.5 1.8 1.1 1.5	
Protection fuse         Making capacity (RMS value)         Breaking capacity at voltage         Resistance per pole (average value)         Power dissipation per pole (average value)         Tightening torque for terminals	aM (IEC) 440V 500V 690V Ith AC-3 min max min max min max	A A A A A MΩ W W W Nm Ibin Ibin Ibin	25 10 90 72 72 71 2.5 1.6 0.2 1.5 1.8 1.1 1.5 1.8 1.1 1.5 0.8	
Protection fuse         Making capacity (RMS value)         Breaking capacity at voltage         Resistance per pole (average value)         Power dissipation per pole (average value)         Tightening torque for terminals	aM (IEC) 440V 500V 690V Ith AC-3 min max min max	A A A A A MΩ W W W Nm Ibin Ibin	25 10 90 72 72 71 2.5 1.6 0.2 1.5 1.8 1.1 1.5	



# THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL LOW CONSUMPTION, 48VDC, 1NO AUXILIARY CONTACT

		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	AWG/Kcmil			
		max		10
	Flexible w/o lug conductor section	max		10
		min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section			
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
		min	mm²	1
		max	mm²	4
Power terminal prote	ction according to IEC/EN 60529			IP20 when
-	clion according to rec/en 00529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN ra
				35mm
Weight			g	500
Conductor section				
	AWG/kcmil conductor section			4.0
	in staviation	max		10
Auxiliary contact char Thermal current Ith			A	10
IEC/EN 60947-5-1 de	signation		A	A600 - P600
Operating current AC				A000 - F 000
Operating current AC		230V	А	3
		200V 400V	A	1.9
		500V	A	1.4
Operating current DC	12	0001	73	1.4
opolating current De		110V	А	5.7
Operating current DC	13	1100	7.	0.1
		24V	А	5.7
		48V	A	2.9
		60V	A	2.3
		110V	A	1.25
		125V	А	1.1
		220V	А	0.55
		600V	А	0.2
Operations				
Mechanical life			cycles	20000000
Mechanical life Electrical life			cycles cycles	20000000 2000000
Mechanical life Electrical life Safety related data			-	
Operations Mechanical life Electrical life Safety related data Performance level B <sup>*</sup>	10d according to EN/ISO 13489-1		-	
Mechanical life Electrical life Safety related data		rated load	-	2000000 2000000
Mechanical life Electrical life Safety related data Performance level B	me	rated load chanical load	cycles	2000000
Mechanical life Electrical life Safety related data Performance level B			cycles cycles	2000000 2000000



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AC operating voltage

of 50/60Hz coil powered at 50Hz

drop-out
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		diop-out	max	%Us	55
DC coil operating					
DC rated control voltage	ge			V	48
DC operating voltage					
	pick-up				
			min	%Us	80
	<u> </u>		max	%Us	110
	drop-out			0/11-	10
			min	%Us	10
Average seil sensum	tion <20°C		max	%Us	40
Average coil consump	$1000 \leq 20 \text{ C}$		in ruch	14/	0.4
			in-rush	W	2.4
Max cycles frequency			holding	W	2.4
Max cycles nequency Mechanical operation				cycles/h	2600
Operating times				cycles/fi	3000
Average time for Us co	ontrol				
A WEIAGE LITTE TOF US O	in AC				
		Closing NO			
			min	ms	8
			max	ms	24
		Opening NO	max	mo	21
		e porg e	min	ms	10
			max	ms	20
		Closing NC			
		C C	min	ms	14
			max	ms	28
		Opening NC			
			min	ms	7
			max	ms	18
	in DC				
		Closing NO			
			min	ms	75
		<b>•</b> • • • •	max	ms	91
		Opening NO			
			min	ms	15
			max	ms	19
UL technical data	for three stars	AC motor			
Full-load current (FLA)	) for three-phase		of 4001/	۸	7.6
			at 480V at 600V	A A	7.6 0.375
Yielded mechanical pe	arformance			A	0.375
neided mechanical pe	for single-phas	e AC motor			
	ior single-pilds		110/120V	HP	0.75
			230V	HP	2
	for three-phase	e AC motor	230 V		-
			200/208V	HP	3
			220/230V	HP	3
			460/480V	HP	5
			575/600V	HP	7.5
General USE				-	-

General USE

BF0910L048



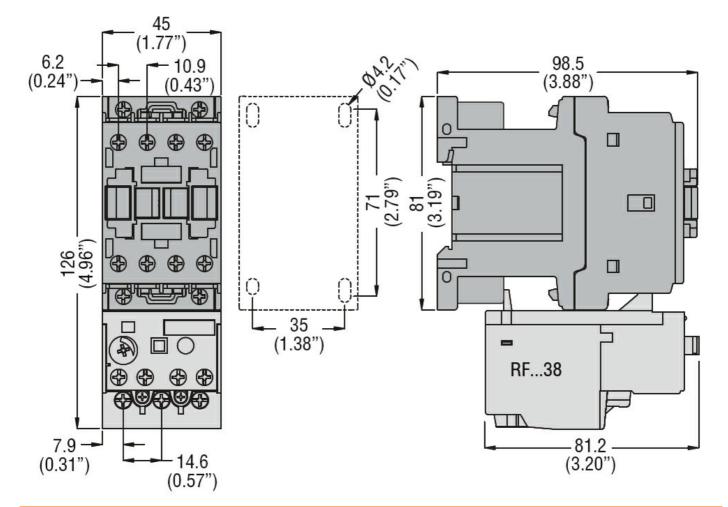
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	Contactor			
		AC current	А	25
	Auxiliary contacts			
		AC voltage	V	600
		AC current	А	10
		DC voltage	V	250
		DC current	А	1
Short-circuit protect	ion fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	А	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	А	60
Contact rating of au	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
Dimensions				

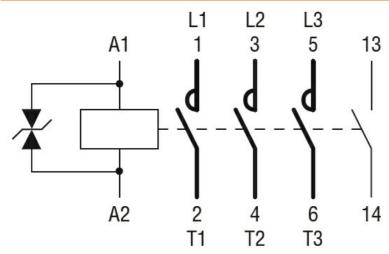
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Wiring diagrams



### 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	

Certificates



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	CCC
	cULus
	EAC
sification	

ETIM 8.0

ETIM class

EC000066 -Power contactor, AC switching