





Product designation Product type designation			Power contactor 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		Α	25
Operational current le			
·	AC-1 (≤40°C)	Α	25
	AC-1 (≤55°C)	Α	20
	AC-1 (≤70°C)	Α	18
	AC-3 (≤440V ≤55°C)	Α	9
	AC-4 (400V)	Α	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 ≤ 1ms with 1 poles in series			
· ·	≤24V	Α	15
	48V	Α	13
	75V	Α	12
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
·	≤24V	Α	18
	48V	Α	18
	75V	Α	17
	110V	Α	12
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
·	≤24V	Α	20
	48V	Α	20
	75V	Α	20
	110V	Α	15





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	220V	Α	10
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	20
	48V	Α	20
	75V	Α	20
	110V	Α	16
	220V	Α	12
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	10
	48V	Α	9
	75V	Α	8
	110V	Α	2
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	13
	48V	Α	11
	75V	A	10
	110V	A	7
	220V	A	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	22U V		
TEC max current le in DO3-DO3 with E/R > 13ms with 3 poles in series	~2A\/	۸	15
	≤24V 48V	A	15 15
		A	15
	75V	A	13
	110V	A	11
	220V	Α	6
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series		_	
	≤24V	Α	15
	48V	Α	15
	75V	Α	15
	110V	Α	12
	220V	Α	7
Short-time allowable current for 10s (IEC/EN60947-1)		Α	150
Protection fuse			
	gG (IEC)	Α	25
	aM (IEC)	Α	10
Making capacity (RMS value)		Α	90
Breaking capacity at voltage			
	440V	Α	72
	500V	Α	72
	690V	Α	71
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			<del></del>
. The storpasson por polo (arolago raido)	lth	W	1.6
	AC-3	W	0.2
Tightening torque for terminals	7.0 0	V V	V. <u>~</u>
rightening torque for terminals	min	Nm	1.5
		Nm	1.8
	max		
	min	lbin Ibin	1.1
Tightonian tourns for sail towning!	max	lbin	1.5
Tightening torque for coil terminal	•		0.0
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8





		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	1110/14			
	AWG/Kcmil			4.0
	Clavible w/o live an diretor postion	max		10
	Flexible w/o lug conductor section	min	mama <sup>2</sup>	1
		min	mm² mm²	1 6
	Flexible c/w lug conductor section	max	111111	0
	r lexible 6/w lug corluction section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			•
	r loxible mar inediated opade lag confederer cooler	min	mm²	1
		max	mm²	4
D (	('			IP20 when
Power terminal protect	tion according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	358
Conductor section				
	AWG/kcmil conductor section			
A 10	and the second s	max		10
Auxiliary contact chara Thermal current Ith	acteristics		A	10
	aignation		<u> </u>	10 A600 B600
IEC/EN 60947-5-1 de	•		A	A600 - P600
IEC/EN 60947-5-1 de	•	2201/		A600 - P600
IEC/EN 60947-5-1 de	•	230V	A	A600 - P600 3
IEC/EN 60947-5-1 de	•	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de Operating current AC	15		A	A600 - P600 3
IEC/EN 60947-5-1 de Operating current AC	15	400V 500V	A A A	3 1.9 1.4
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V 500V 110V	A A A	3 1.9 1.4 5.7
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V 500V 110V 24V	A A A	3 1.9 1.4 5.7
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V 500V 110V	A A A	3 1.9 1.4 5.7
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V 500V 110V 24V 48V	A A A A	3 1.9 1.4 5.7 5.7
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V 500V 110V 24V 48V 60V	A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V 500V 110V 24V 48V 60V 110V	A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1
IEC/EN 60947-5-1 de Operating current AC  Operating current DC  Operating current DC  Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC  Mechanical life	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC  Electrical life	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	12	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	12 13 Od according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 20000000
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	12 13 Od according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 20000000 20000000
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi	12 13 Od according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 20000000 20000000 yes
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	12 13 Od according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 20000000 20000000



	0/60Hz			V	110
AC operating voltage					
	of 50/60Hz coil powered	d at 50Hz			
		pick-up			
			min	%Us	80
			max	%Us	110
		drop-out		0/11	
			min	%Us	20
	-f F0/001  !	1 -4 001  -	max	%Us	55
	of 50/60Hz coil powered				
		pick-up	min	%Us	85
			max	%Us	110
		drop-out	Παλ	/603	110
		diop out	min	%Us	20
			max	%Us	55
AC average coil cons	umption at 20°C		· · · · · · · · · · · · · · · · · · ·		
	of 50/60Hz coil powered	d at 50Hz			
	2. 23. 23. 12 35 ii porioro	<del></del>	in-rush	VA	75
			holding	VA	9
	of 50/60Hz coil powered	d at 60Hz			
	•		in-rush	VA	70
			holding	VA	6.5
	of 60Hz coil powered at	60Hz			
			in-rush	VA	75
			holding	VA	9
Dissipation at holding	≤20°C 50Hz			W	2.5
Max cycles frequency					
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us c	ontrol				
	in AC	Clasing NO			
	in AC	Closing NO	min	ma	0
	in AC	Closing NO	min	ms	8
	in AC	•	min max	ms ms	8 24
	in AC	Closing NO Opening NO	max	ms	24
	in AC	•	max min	ms ms	10
	in AC	Opening NO	max	ms	24
	in AC	•	max min	ms ms	10
	in AC	Opening NO	max min max	ms ms ms	24 10 20
	in AC	Opening NO	max min max min	ms ms ms	24 10 20 14
	in AC	Opening NO Closing NC	max min max min	ms ms ms	24 10 20 14
	in AC	Opening NO Closing NC	max min max min max	ms ms ms ms	24 10 20 14 28
		Opening NO Closing NC Opening NC	max min max min max min	ms ms ms ms ms	24 10 20 14 28 7
	in AC  ) for three-phase AC moto	Opening NO Closing NC Opening NC	max min max min max min max	ms ms ms ms ms	24 10 20 14 28 7 18
		Opening NO Closing NC Opening NC	max min max min max min max	ms ms ms ms ms ms	24 10 20 14 28 7 18
Full-load current (FLA	) for three-phase AC moto	Opening NO Closing NC Opening NC	max min max min max min max	ms ms ms ms ms	24 10 20 14 28 7 18
Full-load current (FLA	) for three-phase AC moto	Opening NO Closing NC Opening NC	max min max min max min max	ms ms ms ms ms ms	24 10 20 14 28 7 18
Full-load current (FLA	) for three-phase AC moto	Opening NO Closing NC Opening NC	max min max min max min max at 480V at 600V	ms ms ms ms ms A A	24 10 20 14 28 7 18 7.6 0.375
Full-load current (FLA	) for three-phase AC moto	Opening NO Closing NC Opening NC	max min max min max min max  at 480V at 600V	ms ms ms ms ms A A	24 10 20 14 28 7 18 7.6 0.375
JL technical data Full-load current (FLA rielded mechanical po	) for three-phase AC moto erformance for single-phase AC mo	Opening NO Closing NC Opening NC	max min max min max min max at 480V at 600V	ms ms ms ms ms A A	24 10 20 14 28 7 18 7.6 0.375
ull-load current (FLA	) for three-phase AC moto	Opening NO Closing NC Opening NC	max min max min max min max  at 480V at 600V	ms ms ms ms ms A A	24 10 20 14 28 7 18 7.6 0.375

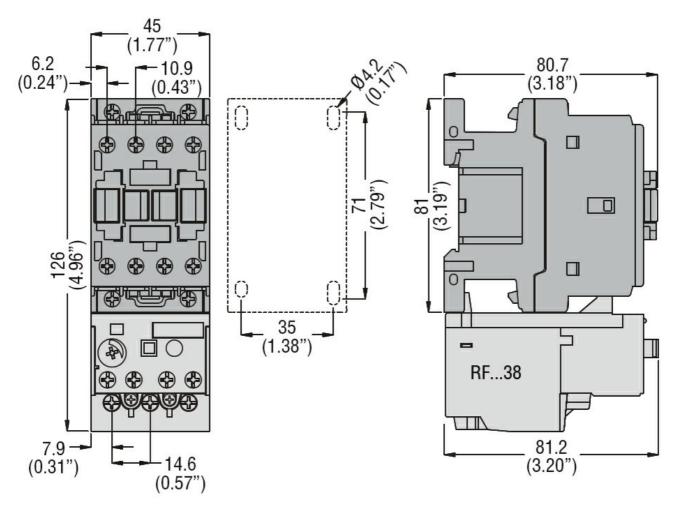




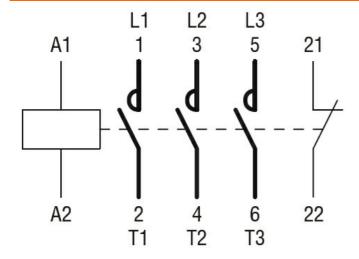
		220/230V	HP	3
		460/480V	HP	5
		575/600V	HP	7.5
General USE				
	Contactor			
		AC current	Α	25
	Auxiliary contacts			
	·	AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protect	tion fuse, 600V			
	High fault			
	· ·	Short circuit current	kA	100
		Fuse rating	Α	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	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				

**ENERGY AND AUTOMATION** 

### THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, AC COIL 50/60HZ, 110VAC, 1NC AUXILIARY CONTACT



### 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

BF0901A110



### BF0901A110

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, AC COIL 50/60HZ, 110VAC, 1NC AUXILIARY CONTACT

CCC		
cULus		
EAC		

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching