



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		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	A	15
	48V	A	13
	75V	A	12
	110V	A	6
	220V	A	_
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series	-041/	٨	4.0
	≤24V	A	18
	48V	A	18
	75V 110V	A	17
	110V	A	12
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series	220V	A	1
	≤24V	۸	20
	≤24∨ 48V	A	20 20
	48 V 75 V	A A	20
	110V	A	20 15
	1100	А	10



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, AC COIL 60HZ, 120VAC, 1NO AUXILIARY CONTACT

BF0910A12060

#### 220V А 10 IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series ≤24V А 20 20 48V А 75V 20 A 110V А 16 220V 12 А IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series ≤24V А 10 48V А 9 75V 8 A 110V А 2 220V А \_ IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series ≤24V А 13 48V 11 А 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 15 А 75V 13 А 110V А 11 220V 6 А IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series ≤24V А 15

		~	15
	48V	А	15
	75V	А	15
	110V	А	12
	220V	А	7
Short-time allowable current for 10s (IEC/EN60947-1)		А	150
Protection fuse			
	gG (IEC)	А	25
	aM (IEC)	А	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)			
	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
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1

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min

lbin

0.8



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Max number of wires	simultaneously connectable	max	Ibin Nr.	0.74
Conductor section	simultaneously connectable		INF.	2
Conductor section	AWG/Kcmil			
	AWG/KCIIII	may		10
	Flexible w/o lug conductor section	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	max		0
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	max		<b>T</b>
	The state with insulated space by conductor section	min	mm²	1
		max	mm²	4
		max		IP20 when
Power terminal protect	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
operating peetier		normal		Vertical plan
		allowable		±30°
·				Screw / DIN rai
Fixing				35mm
Weight			g	354
Conductor section			0	
	AWG/kcmil conductor section			
		max		10
Auxiliary contact char	acteristics			
i takinan yi bornator biran				
Thermal current Ith			А	10
			А	10 A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	esignation		A	
Thermal current Ith	esignation	230V	A	
Thermal current Ith IEC/EN 60947-5-1 de	esignation	230V 400V	A	A600 - P600 3
Thermal current Ith IEC/EN 60947-5-1 de	esignation			A600 - P600
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	esignation 15	400V	A A	A600 - P600 3 1.9
Thermal current Ith IEC/EN 60947-5-1 de	esignation 15	400V 500V	A A A	A600 - P600 3 1.9 1.4
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	400V	A A	A600 - P600 3 1.9
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	esignation 15	400V 500V 110V	A A A A	A600 - P600 3 1.9 1.4 5.7
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	400V 500V 110V 24V	A A A A	A600 - P600 3 1.9 1.4 5.7 5.7
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	400V 500V 110V 24V 48V	A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	400V 500V 110V 24V 48V 60V	A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	400V 500V 110V 24V 48V 60V 110V	A 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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	400V 500V 110V 24V 48V 60V 110V 125V	A A 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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC	esignation 15	400V 500V 110V 24V 48V 60V 110V 125V	A A 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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC	esignation 15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A 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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operations Mechanical life	esignation 15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A 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 20000000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operations Mechanical life Electrical life	esignation 15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A 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
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	esignation 15 212 213	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A 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 20000000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	esignation 15	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A 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 2000000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	esignation 15 12 13 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A 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 2000000 2000000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	esignation 15 212 213 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A 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 2000000 2000000 2000000 2000000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	esignation 15 12 13 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A 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 2000000 2000000



Rated AC voltage at 60Hz

BF0910A12060 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, AC COIL 60HZ, 120VAC, INO AUXILIARY CONTACT

V

120

Naleu AC Vollage al 0	0112			v	120	
AC operating voltage						
	of 60Hz coil powered a	at 60Hz				
		pick-up				
			min	%Us	80	
			max	%Us	110	
		drop-out				
			min	%Us	20	
			max	%Us	55	
AC average coil consu	umption at 20°C					
	of 60Hz coil powered a	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 co	ontrol					
	in AC					
		Closing NO				
			min	ms	8	
			max	ms	24	
		Opening NO				
			min	ms	10	
			max	ms	20	
		Closing NC				
			min	ms	14	
			max	ms	28	
		Opening NC				
			min	ms	7	
			max	ms	18	
UL technical data						
Full-load current (FLA)	) for three-phase AC mot	tor				
			at 480V	А	7.6	
			at 600V	А	0.375	
Yielded mechanical pe	erformance					
	for single-phase AC m	otor				
			110/120V	HP	0.75	
			230V	HP	2	
	for three-phase AC mo	otor				
			200/208V	HP	3	
			220/230V	HP	3	

Ge

		575/600V	HP	7.5
General USE				
	Contactor			
		AC current	А	25
	Auxiliary contacts			
		AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
bort oirquit proto	ation fues 6001/			

460/480V

ΗP

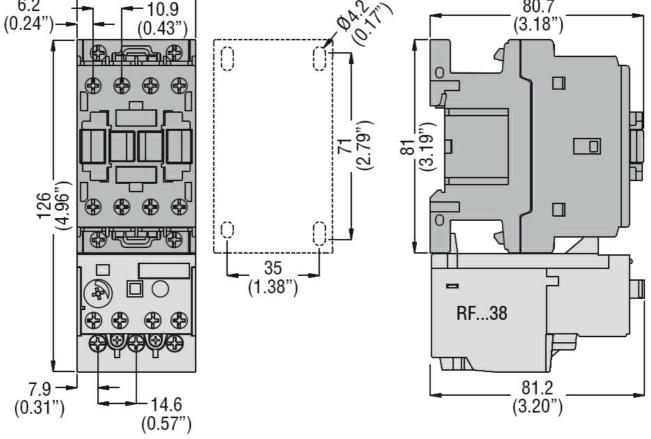
5

# Short-circuit protection fuse, 600V High fault



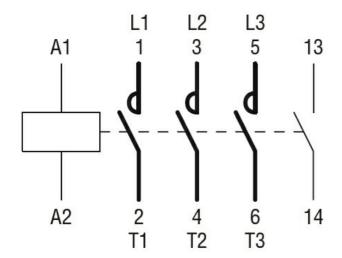
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	Short circuit current	kA	100
	Fuse rating	А	30
	Fuse class		J
Standard fault			
	Short circuit current	kA	5
	Fuse rating	А	60
Contact rating of auxiliary contacts according to	· · · · · · · · · · · · · · · · · · ·		A600 - P600
Ambient conditions			
Temperature			
Operating temperature	e		
	min	°C	-50
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
Dimensions			
$\begin{array}{c} 45 \\ (1.77") \\ 6.2 \\ (0.24") \\ \end{array}$	ak? (3)	0.7	



### Wiring diagrams





# Certifications and compliance

## 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	
	CCC
	cULus
	EAC
ETIM classification	

**ETIM 8.0** 

EC000066 -Power contactor, AC switching