





Product designation		Power contactor
Product type designation		BF09
Contact characteristics	Nle	2
Number of poles	Nr.	3
Rated insulation voltage Ui IEC/EN	kV	690
Rated impulse withstand voltage Uimp	KV	6
Operational frequency	U≂	25
min	Hz	25
IEC Conventional free air thermal current Ith	Hz A	400 25
	A	20
Operational current le	۸	25
AC-1 (≤40°C) AC-1 (≤55°C)	A A	20
AC-1 (≤33 C) AC-1 (≤70°C)	A	18
AC-1 (≤70 C) AC-3 (≤440V ≤55°C)	A	9
AC-4 (400V)	A	4.9
Rated operational power AC-3 (T≤55°C)		4.3
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
	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		
≤24V	Α	20
401/	Α	20
48V		
48V 75V 110V	A A	20 15





	220V	Α	10	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series		<u> </u>	-	
	≤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	Α	10	
	110V	Α	7	
150	220V	Α	2	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series		_		
	≤24V	Α	15	
	48V	Α	15	
	75V	Α	13	
	110V	Α	11	
150 LL : B00 B05 '11 L/B : 45 LL : 11	220V	Α	6	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	-04)/		4.5	
	≤24V	A	15	
	48V	A	15	
	75V 110V	A	15	
	220V	A	12 7	
Short-time allowable current for 10s (IEC/EN60947-1)	220 V	A 	150	
Protection fuse			130	
Protection ruse	gG (IEC)	۸	25	
	aM (IEC)	A	10	
Making capacity (RMS value)	aivi (IEC)	A A	90	
Breaking capacity (Kivis Value)		A	90	
breaking capacity at voltage	440V	Α	72	
	500V	A	72 72	
	690V	A	72 71	
Resistance per pole (average value)	090 V	mΩ	2.5	
Power dissipation per pole (average value)		11122	2.0	
i ower dissipation per pole (average value)	Ith	W	1.6	
	AC-3	W	0.2	
Tightening torque for terminals	AC-3	V V	0.2	
rightening torque for terminals	min	Nm	1.5	
	max	Nm	1.5 1.8	
	min	lbin	1.0	
	max	lbin	1.1	
Tightening torque for coil terminal	Παλ	ווטו	1.0	
rightening torque for con terrinia	min	Nm	0.8	
	max	Nm	1	
	min	lbin	0.8	
	111111	10111	0.0	





Max number of wires		max	lbin	0.74
	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
	El. The Arterior Later and Co.	max		10
	Flexible w/o lug conductor section			4
		min	mm²	1
	Flexible c/w lug conductor section	max	mm²	6
	Flexible C/W lug conductor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	IIIax	111111	4
	r lexible with insulated space lug conductor section	min	mm²	1
		max	mm²	4
		max	111111	IP20 when
Power terminal prote	ction according to IEC/EN 60529			properly wired
Mechanical features				, .,,
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	360
Conductor section	ANA/O/I			
	AWG/kcmil conductor section			40
Auxiliary contact char	ractoristics	max		10
Thermal current Ith	acteristics		А	10
IEC/EN 60947-5-1 de	esignation			A600 - P600
Operating current AC				A000 1 000
operating carrent 710	.10			
		230\/	Δ	3
		230V 400V	A A	3 1 9
		400V	Α	1.9
Operating current DC	212			
Operating current DC	212	400V 500V	A A	1.9 1.4
		400V	Α	1.9
		400V 500V	A A	1.9 1.4 5.7
		400V 500V	A A	1.9 1.4
		400V 500V 110V 24V	A A A	1.9 1.4 5.7 5.7
		400V 500V 110V 24V 48V	A A A A	1.9 1.4 5.7 5.7 2.9
		400V 500V 110V 24V 48V 60V	A A A A A	1.9 1.4 5.7 5.7 2.9 2.3
		400V 500V 110V 24V 48V 60V 110V	A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25
Operating current DC		400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current DC		400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life		400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life		400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data	213	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data		400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current DC Operations Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000
Operations Mechanical life Electrical life Safety related data Performance level B	10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Mirror contats accord	10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000
Operations Mechanical life Electrical life Safety related data Performance level B	10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000



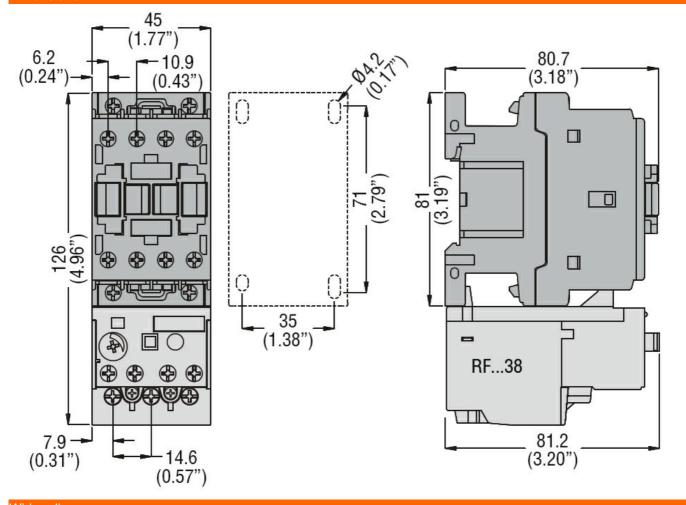


AC operating voltage	Z		V	48
C	of 60Hz coil powered at 60Hz			
	pick-up			
	•	min	%Us	80
		max	%Us	110
	drop-out		,,,,,	
	a. op 0 a.	min	%Us	20
		max	%Us	55
AC average coil consum	ntion at 20°C	max	7003	00
-				
C	of 60Hz coil powered at 60Hz	in and	١/٨	7.5
		in-rush	VA	75
		holding	VA	9
Dissipation at holding ≤20	J°C 50Hz		W	2.5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
verage time for Us cont	rol			
<u> </u>	n AC			
	Closing NO			
	Closing 140	min	ms	8
		max	ms	24
	Opening NO	IIIax	1113	24
	Opening NO	min	m.a	10
		min	ms	10
	<u> </u>	max	ms	20
	Closing NC			
		min	ms	14
		max	ms	28
	Opening NC			
		min	ms	7
		max	ms	18
JL technical data				
Full-load current (FLA) fo	r three-phase AC motor			
	·	at 480V	Α	7.6
		at 600V	Α	0.375
/ielded mechanical nerfo	ormance	ut 000 v		
•		at 000 v		
•	ormance or single-phase AC motor			0.75
·		110/120V	HP	0.75
f. _	or single-phase AC motor			0.75 2
f. _		110/120V 230V	HP HP	2
f. _	or single-phase AC motor	110/120V 230V 200/208V	HP HP	3
_	or single-phase AC motor	110/120V 230V 200/208V 220/230V	HP HP HP	3 3
f. _	or single-phase AC motor	110/120V 230V 200/208V 220/230V 460/480V	HP HP HP HP	3 3 5
f. _	or single-phase AC motor	110/120V 230V 200/208V 220/230V	HP HP HP	3 3
f. f	or single-phase AC motor	110/120V 230V 200/208V 220/230V 460/480V	HP HP HP HP	3 3 5
f f General USE	or single-phase AC motor	110/120V 230V 200/208V 220/230V 460/480V	HP HP HP HP	3 3 5
f f General USE	or single-phase AC motor or three-phase AC motor	110/120V 230V 200/208V 220/230V 460/480V 575/600V	HP HP HP HP HP	3 3 5 7.5
f f Seneral USE	or single-phase AC motor or three-phase AC motor Contactor	110/120V 230V 200/208V 220/230V 460/480V	HP HP HP HP	3 3 5
Feneral USE	or single-phase AC motor or three-phase AC motor	110/120V 230V 200/208V 220/230V 460/480V 575/600V	HP HP HP HP HP	2 3 3 5 7.5
Feneral USE	or single-phase AC motor or three-phase AC motor Contactor	110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current	HP HP HP HP HP	2 3 3 5 7.5 25
f f Seneral USE	or single-phase AC motor or three-phase AC motor Contactor	110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current	HP HP HP HP HP	2 3 3 5 7.5 25 600 10
f f Seneral USE	or single-phase AC motor or three-phase AC motor Contactor	110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current DC voltage	HP HP HP HP HP V A	2 3 3 5 7.5 25 600 10 250
f f Seneral USE	or single-phase AC motor or three-phase AC motor Contactor Auxiliary contacts	110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current	HP HP HP HP HP	2 3 3 5 7.5 25 600 10



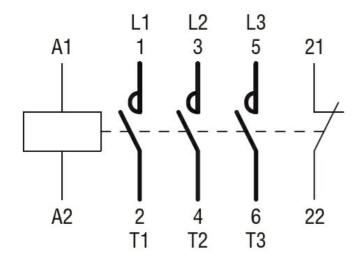


		Short circuit current	kA	100
		Fuse rating	Α	30
		Fuse class		J
Sta	andard fault			
		Short circuit current	kA	5
		Fuse rating	Α	60
Contact rating of auxiliary c	ontacts according to UL			A600 - P600
Ambient conditions				
Temperature				
Op	erating temperature			
		min	°C	-50
		max	°C	70
Sto	orage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protection				
Pollution degree				3
Dimensions				



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

CCC

cULus

EAC

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching