



Product designation Product type designation			Power contactor BF09
Contact characteristics			51.00
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	-0 A) (		10
	≤24V	A	18
	48V	A	18
	75V	A	17
	110V	A	12
IEC may ourrant to in DC1 with L/D < 1mg with 2 pales in series	220V	A	1
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series	20 AV /	۸	20
	≤24V	A	20
	48V	A	20
	75V 110V	A	20
	110V	А	15



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, AC COIL 60HZ, 48VAC, 1NO AUXILIARY CONTACT

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## 220V А 10 IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series ≤24V 20 А 48V А 20 75V 20 A 110V А 16 220V А 12 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 2 110V А 220V А \_ IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series ≤24V A 13 48V А 11 75V А 10 110V 7 А 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 А 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 А 15 75V 15 А 110V А 12 220V А 7 Short-time allowable current for 10s (IEC/EN60947-1) Δ 150

Short-time allowable current for Tos (IEC/EN00947-1)		A	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	lbin	1.1
	max	lbin	1.5
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1

min

lbin

0.8



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Max number of wires	simultaneously connectable	max	Ibin Nr.	0.74
Conductor section	Sinditaneously connectable		INI.	Z
	AWG/Kcmil			
	Awontenii	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	ection according to IEC/EN 60529			IP20 when
-				properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN ra
				35mm
Weight			g	362
Conductor section				
	AWG/kcmil conductor section			40
Auxiliary contact cha	ractoriation	max		10
Thermal current Ith	raciensiics		А	10
EC/EN 60947-5-1 d	osignation		A	A600 - P600
EC/EN 00947-5-1 u	-			A000 - F000
Operating current AC	`15			
Operating current AC	215	2201/	۸	2
Operating current AC	215	230V	A	3
Operating current AC	215	400V	А	1.9
Operating current AC		400V 500V	A A	1.9 1.4
Operating current DC	212	400V	А	1.9
	212	400V 500V 110V	A A A	1.9 1.4 5.7
Operating current DC	212	400V 500V 110V 24V	A A A	1.9 1.4 5.7 5.7
Operating current DC	212	400V 500V 110V 24V 48V	A A A A	1.9 1.4 5.7 5.7 2.9
Operating current DC	212	400V 500V 110V 24V	A A A	1.9 1.4 5.7 5.7
Operating current DC	212	400V 500V 110V 24V 48V 60V	A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3
Operating current DC	212	400V 500V 110V 24V 48V 60V 110V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25
Operating current DC	212	400V 500V 110V 24V 48V 60V 110V 125V	A A 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	212	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A 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
Dperating current DC	212	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A 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
Operating current DC Operating current DC	212	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A 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 Operating current DC Operations Vechanical life	212	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A 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 20000000
Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	212	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A 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 20000000
Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	212	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A 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 20000000
Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	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 Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 2000000
Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	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 Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 2000000



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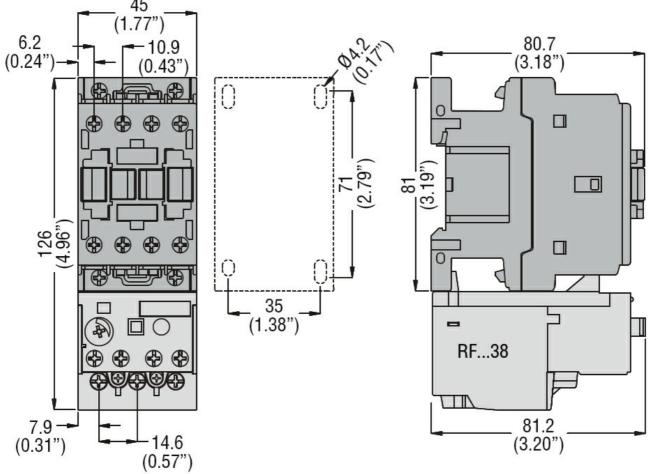
48VAC, 1NO AUXILIARY CONTACT

			V	48
AC operating voltage				
of 6	0Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out		0/11	
		min	%Us	20
		max	%Us	55
AC average coil consumptio				
010	0Hz coil powered at 60Hz	in ruch	\/A	75
		in-rush	VA	75 9
Dissinction at holding <20°C		holding	VA W	2.5
Dissipation at holding ≤20°C	, 50HZ		VV	2.5
Max cycles frequency			ovoloo/b	2600
Mechanical operation Operating times			cycles/h	3600
Average time for Us control				
in A	C			
III A	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 th	ree-phase AC motor			
		at 480V	Α	7.6
		at 600V	A	0.375
Yielded mechanical perform				
for s	single-phase AC motor			0.75
		110/120V	HP	0.75
		0.2017	HP	2
-		230V		
for t	three-phase AC motor			2
for t	hree-phase AC motor	200/208V	HP	3
for t	hree-phase AC motor	200/208V 220/230V	HP HP	3
for t	three-phase AC motor	200/208V 220/230V 460/480V	HP HP HP	3 5
	hree-phase AC motor	200/208V 220/230V	HP HP	3
General USE		200/208V 220/230V 460/480V	HP HP HP	3 5
General USE	three-phase AC motor	200/208V 220/230V 460/480V 575/600V	HP HP HP HP	3 5 7.5
General USE Con	ntactor	200/208V 220/230V 460/480V	HP HP HP	3 5
General USE Con		200/208V 220/230V 460/480V 575/600V AC current	HP HP HP HP	3 5 7.5 25
General USE Con	ntactor	200/208V 220/230V 460/480V 575/600V AC current AC voltage	HP HP HP A	3 5 7.5 25 600
General USE Con	ntactor	200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current	HP HP HP A A	3 5 7.5 25 600 10
General USE Con	ntactor	200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current DC voltage	HP HP HP A V A V	3 5 7.5 25 600 10 250
General USE Con	ntactor iliary contacts	200/208V 220/230V 460/480V 575/600V AC current AC voltage AC current	HP HP HP A A	3 5 7.5 25 600 10



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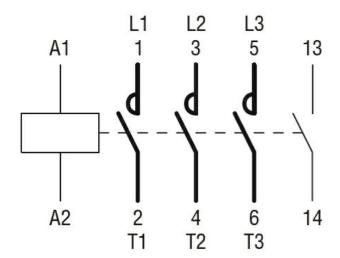
		Short circuit current	kA	100
		Fuse rating	А	30
		Fuse class		J
;	Standard fault			
		Short circuit current	kA	5
		Fuse rating	А	60
Contact rating of auxiliary	y contacts according to UL			A600 - P600
Ambient conditions				
Temperature				
(	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protection				
Pollution degree				3
Dimensions				
	5			



## Wiring diagrams

BF0910A04860





## 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