



Product designation			Power contactor
Product type designation			BF09
Contact characteristics			
Number of poles		Nr.	4
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-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	A	20
	110V	A	15
150	220V	Α	10
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			22
	≤24V	A	20
	48V	A	20
	75V	A	20
	110V	A	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 may current le in [	DC3-DC5 with L/R ≤ 15ms with 2 poles in series	220 V		
ILO IIIAX CUITEIILIE III I	DC3-DC3 With L/IX = 13/118 With 2 poles in series	<04)/	۸	40
		≤24V	A	13
		48V	A	11
		75V	Α	10
		110V	Α	7
		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	A	11
		220V	A	6
IEC may ourrest to in 1	DC2 DC5 with L/P < 15mg with 1 males in cories	ZZUV	^	U
iec max current le in t	DC3-DC5 with L/R ≤ 15ms with 4 poles in series	40 AV /		4 =
		≤24V	Α	15
		48V	Α	15
		75V	Α	15
		110V	Α	12
		220V	Α	7
Short-time allowable c	eurrent for 10s (IEC/EN60947-1)		Α	150
Protection fuse				
		gG (IEC)	Α	25
		aM (IEC)	A	10
Making capacity (RMS	valua	aivi (ILO)	A	90
				90
Breaking capacity at vo	onage	4.403.4		
		440V	Α	72
		500V	Α	72
		690V	Α	71
Resistance per pole (a	average value)		$m\Omega$	2.5
Power dissipation per	pole (average value)			
		lth	W	1.6
		AC-3	W	0.2
Tightening torque for to	erminals			
		min	Nm	1.5
			Nm	1.8
		max		
		min	Ibin	1.1
		max	Ibin	1.5
Tightening torque for c	coll terminal			
		min	Nm	0.8
		max	Nm	1
		min	lbin	0.8
		max	lbin	0.74
Max number of wires s	simultaneously connectable		Nr.	2
Conductor section	•		<del>-</del>	
	AWG/Kcmil			
	AVVO/NOTIII			10
	Elegation (classical and control of control	max		10
	Flexible w/o lug conductor section		_	
		min	mm²	1



		max	mm²	6
	Flexible c/w lug conductor section			
	-	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug cond	uctor section		
		min	mm²	1
		max	mm²	4
Power terminal protect	ction according to IEC/EN 60529			IP20 when properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	356
Conductor section				
	AWG/kcmil conductor section			
		max		10
Operations				
Mechanical life			cycles	2000000
Electrical life			cycles	2000000
Safety related data	0.1			
Performance level B1	0d according to EN/ISO 13489-1	اد ما اد مدد		0000000
		rated load	cycles	2000000
Mirror contate accordi	ng to IEC/EN 600474 4 4	mechanical load	cycles	20000000
EMC compatibility	ng to IEC/EN 609474-4-1			yes
AC coil operating				yes
/ to con operating				
	50/60Hz		V	230
Rated AC voltage at 5	50/60Hz		V	230
			V	230
Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz		V	230
Rated AC voltage at 5		min		
Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz	min max		
Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz		%Us	80
Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up		%Us	80
Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out	max	%Us %Us	80 110
Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz	max min	%Us %Us %Us	80 110 20
Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up drop-out	max min max	%Us %Us %Us %Us	80 110 20 55
Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz	max min max min	%Us %Us %Us %Us	80 110 20 55
Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz pick-up	max min max	%Us %Us %Us %Us	80 110 20 55
Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz	max min max min max	%Us %Us %Us %Us %Us	80 110 20 55 85 110
Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz pick-up	max min max  min max  min max  min	%Us %Us %Us %Us %Us	80 110 20 55 85 110
Rated AC voltage at 5 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz pick-up  drop-out	max min max min max	%Us %Us %Us %Us %Us	80 110 20 55 85 110
Rated AC voltage at 5	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz pick-up  drop-out	max min max  min max  min max  min	%Us %Us %Us %Us %Us	80 110 20 55 85 110
Rated AC voltage at 5 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz pick-up  drop-out	max min max min max min max	%Us %Us %Us %Us %Us %Us %Us	80 110 20 55 85 110 20 55
Rated AC voltage at 5 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz pick-up  drop-out	max min max min max min max in-rush	%Us %Us %Us %Us %Us %Us	80 110 20 55 85 110 20 55
Rated AC voltage at 5 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz pick-up  drop-out  umption at 20°C of 50/60Hz coil powered at 50Hz	max min max min max min max	%Us %Us %Us %Us %Us %Us %Us	80 110 20 55 85 110 20 55
Rated AC voltage at 5 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz pick-up  drop-out	max min max min max min max in-rush holding	%Us %Us %Us %Us %Us %Us %Us VA	80 110 20 55 85 110 20 55
Rated AC voltage at 5 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz pick-up  drop-out  umption at 20°C of 50/60Hz coil powered at 50Hz	max min max min max min max in-rush holding in-rush	%Us %Us %Us %Us %Us %Us	80 110 20 55 85 110 20 55
Rated AC voltage at 5 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz pick-up  drop-out  umption at 20°C of 50/60Hz coil powered at 50Hz	max min max min max min max in-rush holding	%Us %Us %Us %Us %Us %Us %Us VA VA	80 110 20 55 85 110 20 55 75 9
Rated AC voltage at 5 AC operating voltage	of 50/60Hz coil powered at 50Hz pick-up  drop-out  of 50/60Hz coil powered at 60Hz pick-up  drop-out  drop-out  umption at 20°C of 50/60Hz coil powered at 50Hz  of 50/60Hz coil powered at 60Hz	max min max min max min max in-rush holding in-rush	%Us %Us %Us %Us %Us %Us %Us VA VA	80 110 20 55 85 110 20 55 75 9

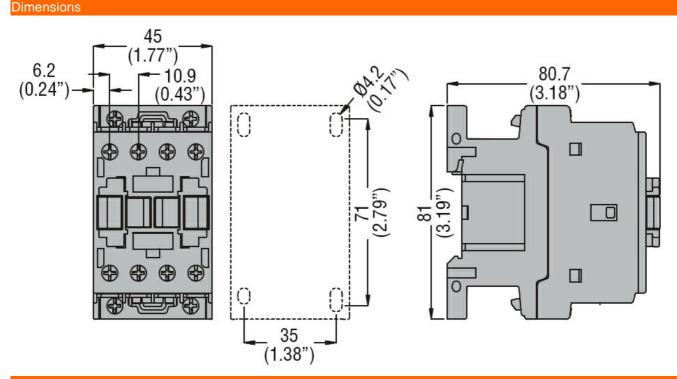


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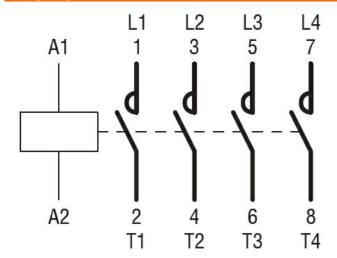
		holding	VA	9
Dissipation at holding :	≤20°C 50Hz		W	2.5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times	antual .			
Average time for Us co	in AC			
	Closing NO			
	Closing IVO	min	ms	8
		max	ms	24
	Opening NO			
	, ,	min	ms	10
		max	ms	20
	Closing NC			
		min	ms	14
		max	ms	28
	Opening NC			
		min	ms	7
THE STATE OF THE S		max	ms	18
UL technical data	for the south south A.C. was to a			
Full-load current (FLA)	for three-phase AC motor	at 400\/	۸	7.0
		at 480V	A	7.6
Yielded mechanical pe	arformanco	at 600V	A	0.375
rielded mechanical pe	for single-phase AC motor			
	for single-phase AC motor	110/120V	HP	0.75
		230V	HP	2
	for three-phase AC motor	200 V		
	for times phase he motor	200/208V	HP	3
		220/230V	HP	3
		460/480V	HP	5
		575/600V	HP	7.5
General USE				
	Contactor			
		AC current	Α	25
Short-circuit protection	fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	30
	Oto a double for the	Fuse class		J
	Standard fault	Chart sins.it seems it	1. 1	E
		Short circuit current	kA ^	5
Ambient conditions		Fuse rating	Α	60
Temperature				
romporature	Operating temperature			
	oporating temperature	min	°C	-50
		max	°C	70
	Storage temperature	max		
	- 3 1	min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protection	on			
Pollution degree				3
The above stavi		andifications at any time. The decoriations	a tashnisal a	- d



## 33.50



## 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