



Product designation			Power contactor
Product type designation			BF09
Contact characteristics			2.00
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
operational inequality	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	25
Operational current le			
operational surrounts	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)	A	4.9
Rated operational power AC-3 (T≤55°C)	7.0 . (1001)		
ration operational power ris o (1-55 o)	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)			
Traise operational porter (1=10 0)	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
			. •



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 20 Α 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 9 Α 75V 8 2 110V Α 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 7 110V Α 220V Α 2 IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series ≤24V Α 15 48V 15 75V Α 13 110V Α 11 220V 6 IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series ≤24V Α 15 48V Α 15 75V 15 Α 110V Α 12 220V 7 Short-time allowable current for 10s (IEC/EN60947-1) Α 150 Protection fuse 25 gG (IEC) Α 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) 2.5 $m\Omega$ Power dissipation per pole (average value) W 1.6 lth W AC-3 0.2 Tightening torque for terminals min Nm 1.5 max Nm 1.8 min Ibin 1.1 Ibin 1.5 max Tightening torque for coil terminal min Nm 0.8 max Nm 1 min Ibin 8.0



		max	Ibin	0.74
Max number of wires	simultaneously connectable		Nr.	2
Conductor section	1110 116			
	AWG/Kcmil			4.0
	Florible w/s has somewhat a south	max		10
	Flexible w/o lug conductor section	min	mm²	1
		min	mm²	6
	Flexible c/w lug conductor section	max	1111111	0
	rickible 6/w rug conductor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			<u>.</u>
		min	mm²	1
		max	mm²	4
Dower terminal protect	ation according to IEC/EN COE20			IP20 when
	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight Conductor section			g	366
Conductor section	AWG/kcmil conductor section			
	AVVG/KCITIII COTIQUCTOF Section	max		10
Auxiliary contact chara	acteristics	max		10
Thermal current Ith			Α	10
IEC/EN 60947-5-1 de	signation			A600 - P600
Operating current AC				
		230V	Α	3
		400V	Α	1.9
		500V	Α	1.4
Operating current DC	12			
		110V	Α	5.7
Operating current DC	13			
				5 7
		24V	A	5.7
		48V	Α	2.9
		48V 60V	A A	2.9 2.3
		48V 60V 110V	A A A	2.9 2.3 1.25
		48V 60V 110V 125V	A A A	2.9 2.3 1.25 1.1
		48V 60V 110V 125V 220V	A A A A	2.9 2.3 1.25 1.1 0.55
Operations		48V 60V 110V 125V	A A A	2.9 2.3 1.25 1.1
Operations Mechanical life		48V 60V 110V 125V 220V	A A A A	2.9 2.3 1.25 1.1 0.55
•		48V 60V 110V 125V 220V	A A A A A cycles	2.9 2.3 1.25 1.1 0.55 0.2
Mechanical life		48V 60V 110V 125V 220V	A A A A	2.9 2.3 1.25 1.1 0.55 0.2
Mechanical life Electrical life Safety related data	0d according to EN/ISO 13489-1	48V 60V 110V 125V 220V	A A A A A cycles	2.9 2.3 1.25 1.1 0.55 0.2
Mechanical life Electrical life Safety related data	0d according to EN/ISO 13489-1	48V 60V 110V 125V 220V	A A A A A cycles	2.9 2.3 1.25 1.1 0.55 0.2
Mechanical life Electrical life Safety related data		48V 60V 110V 125V 220V 600V	A A A A A Cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 2000000
Mechanical life Electrical life Safety related data Performance level B1		48V 60V 110V 125V 220V 600V	A A A A A Cycles cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000
Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility	r	48V 60V 110V 125V 220V 600V	A A A A A Cycles cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000 20000000 20000000
Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi	r	48V 60V 110V 125V 220V 600V	A A A A A Cycles cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000 20000000 yes

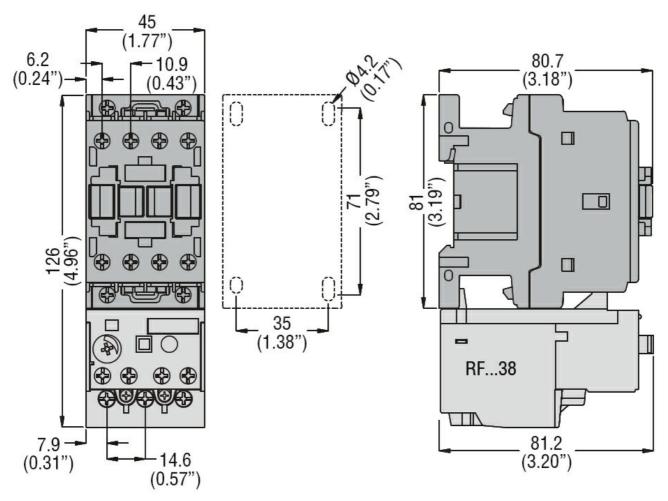


Rated AC voltage at 5	50/60Hz		V	400
C operating voltage	of EO/60Hz and noward at EOHz			
	of 50/60Hz coil powered at 50Hz pick-up			
	pion up	min	%Us	80
		max	%Us	110
	drop-out			
		min	%Us	20
	(50/0011 "	max	%Us	55
	of 50/60Hz coil powered at 60Hz			
	pick-up	min	%Us	85
		max	%Us	110
	drop-out	max	7000	110
		min	%Us	20
		max	%Us	55
AC average coil cons	umption at 20°C			
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	75
	(50/0011 "	holding	VA	9
	of 50/60Hz coil powered at 60Hz	in-rush	VA	70
		holding	VA VA	6.5
	of 60Hz coil powered at 60Hz	riolaing	V/\	0.0
	01 001 12 0011 powerod at 001 12	in-rush	VA	75
		holding	VA	9
Dissipation at holding	≤20°C 50Hz	holding	VA W	2.5
Dissipation at holding Max cycles frequency		holding	W	2.5
Max cycles frequency Mechanical operation		holding		2.5
Max cycles frequency Mechanical operation Operating times		holding	W	2.5
Max cycles frequency Mechanical operation Operating times	control	holding	W	2.5
Max cycles frequency Mechanical operation Operating times	control in AC		W	2.5
Max cycles frequency Mechanical operation Operating times	control	0	W cycles/h	2.5 3600
Max cycles frequency Mechanical operation Operating times	control in AC	O min	W cycles/h	2.5 3600 8
Max cycles frequency Mechanical operation Operating times	control in AC Closing NO	O min max	W cycles/h	2.5 3600
Max cycles frequency Mechanical operation Operating times	control in AC	O min max	W cycles/h	2.5 3600 8
Max cycles frequency Mechanical operation Operating times	control in AC Closing NO	O min max	W cycles/h ms ms	2.5 3600 8 24
Max cycles frequency Mechanical operation Operating times	control in AC Closing NO	O min max	W cycles/h ms ms	2.5 3600 8 24 10 20
Max cycles frequency Mechanical operation Operating times	control in AC Closing No Opening N	O min max	W cycles/h ms ms	2.5 3600 8 24 10 20
Max cycles frequency Mechanical operation Operating times	control in AC Closing No Opening No Closing No	O min max O min max C min max	W cycles/h ms ms ms	2.5 3600 8 24 10 20
Max cycles frequency Mechanical operation Operating times	control in AC Closing No Opening N	O min max IC	w cycles/h	2.5 3600 8 24 10 20 14 28
	control in AC Closing No Opening No Closing No	O min max IC min	w cycles/h	2.5 3600 8 24 10 20 14 28
Max cycles frequency Mechanical operation Operating times Average time for Us o	control in AC Closing No Opening No Closing No	O min max IC	w cycles/h	2.5 3600 8 24 10 20 14 28
Max cycles frequency Mechanical operation Operating times Average time for Us o	control in AC Closing No Opening No Closing No Opening No	O min max IC min	w cycles/h	2.5 3600 8 24 10 20 14 28
Max cycles frequency Mechanical operation Operating times Average time for Us o	control in AC Closing No Opening No Closing No	O min max IO min max C min max IC min max	w cycles/h	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us o	control in AC Closing No Opening No Closing No Opening No	O min max IC min	w cycles/h	2.5 3600 8 24 10 20 14 28
Max cycles frequency Mechanical operation Operating times Average time for Us o	control in AC Closing No Opening No Closing No Opening No	O min max IO min max IC min max IC at 480V	w cycles/h	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us of	control in AC Closing No Opening No Closing No Opening No	O min max IO min max IC min max IC at 480V	w cycles/h	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us of	control in AC Closing No Opening No Closing No Opening	O min max NO min max C min max NC	w cycles/h	2.5 3600 8 24 10 20 14 28 7 18 7.6 0.375
Max cycles frequency Mechanical operation Operating times Average time for Us of	control in AC Closing No Opening No Closing No Opening	O min max IO min max IC min max IC at 480V at 600V	w cycles/h	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us of	control in AC Closing No Opening No Closing No Opening	O min max NO min max C min max NC	w cycles/h	2.5 3600 8 24 10 20 14 28 7 18 7.6 0.375

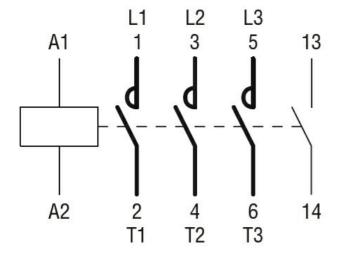


		220/230V	HP	3
		460/480V	HP	5
		575/600V	HP	7.5
General USE		0.0,000		
Conoral CCL	Contactor			
	Contactor	AC current	۸	25
		AC current	A	
	Auxiliary contacts			
		AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protecti	on fuse, 600V			
	High fault			
	riigiriaan	Short circuit current	kA	100
			A	30
		Fuse rating	А	
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	60
Contact rating of aux	ciliary contacts according to UL			A600 - P600
Ambient conditions				
Temperature				
	Operating temperature			
	operating temperature	min	°C	-50
			°C	-50 70
	01	max	U_	10
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protect	tion			
Pollution degree				3
Dimensions				
Dimonolorio -				





Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1

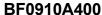
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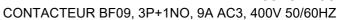
UL 60947-1

UL 60947-4-1

Certificates

CCC







cULus EAC

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching