electric THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL, 60VDC, 1NO AUXILIARY CONTACT

**ENERGY AND AUTOMATION** 



Product designation			Power contactor
Product type designation  Contact characteristics			BF09
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
operational moduloney	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-3 (T≤55°C)	( /		
1 1 ( /	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
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			· ·
sanda a mara posso in control	≤24V	Α	20
	48V	Α	20
	75V	Α	20
	110V	Α	15
			. •

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	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	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	A	10	
	110V	A	7	
	220V	A	2	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	22U V			
TEO MAX CUITERLIE III DOG-DOG WILLI LIN > 151115 WILLI 3 POLES III SELLES	ZOAV	۸	15	
	≤24V 48V	A	15 15	
		A	15	
	75V	A	13	
	110V	A	11	
	220V	Α	6	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series		_		
	≤24V	Α	15	
	48V	Α	15	
	75V	Α	15	
	110V	Α	12	
	220V	Α	7	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	150	
Protection fuse				
	gG (IEC)	Α	25	
	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)		mΩ	2.5	
Power dissipation per pole (average value)			<del>-</del>	
. The stocketton per pole (artifago raido)	Ith	W	1.6	
	AC-3	W	0.2	
Tightening torque for terminals	7.0 0	V V	V. <u>~</u>	
rightening torque for terminals	min	Nm	1.5	
	max	Nm Ibin	1.8	
	min	lbin Ibin	1.1	
Timbtonian towns for call towns - I	max	lbin	1.5	
Tightening torque for coil terminal			0.0	
	min	Nm	0.8	
	max	Nm	1	
	min	lbin	0.8	



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**ENERGY AND AUTOMATION** 

		max	lbin	0.74
	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
		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 conductor section			
		min	mm²	1
		max	mm²	4
Power terminal prote	ection according to IEC/EN 60529			IP20 when
	<b>3</b>			properly wired
Mechanical features				
Operating position				Manthealal
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	496
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact cha	racteristics			
Thermal current Ith			Α	10
IEC/EN 60947-5-1 d	esignation			A600 - P600
Operating current AC				
	) i i i i i i i i i i i i i i i i i i i			
oporating barrone re	<b>,</b> 10	230V	Α	3
oporating denomination	>10	230V 400V	A A	3 1.9
oporating our one re	,10 ,	400V	A A A	1.9
			Α	
		400V 500V	A A	1.9 1.4
Operating current DO	C12	400V	Α	1.9
Operating current DC	C12	400V 500V 110V	A A	1.9 1.4 5.7
Operating current DC	C12	400V 500V 110V 24V	A A A	1.9 1.4 5.7 5.7
Operating current DC	C12	400V 500V 110V 24V 48V	A A A A	1.9 1.4 5.7 5.7 2.9
Operating current DO	C12	400V 500V 110V 24V 48V 60V	A A A A A	1.9 1.4 5.7 5.7 2.9 2.3
Operating current DO	C12	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 DO	C12	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 DO	C12	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
Operating current DO Operating current DO	C12	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 Operating current DC	C12	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 DO Operating current DO Operations Mechanical life	C12	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 DO Operating current DO Operations Mechanical life Electrical life	C12	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 DO Operating current DO Operations Mechanical life Electrical life Safety related data	C12 C13	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 DO Operating current DO Operations Mechanical life Electrical life Safety related data	C12	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	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
Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	C12 C13 C13 C10 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
Operating current DO Operating current DO Operations Mechanical life Electrical life Safety related data Performance level B	2012 2013 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 Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000
Operating current DO Operating current DO Operations Mechanical life Electrical life Safety related data Performance level B	C12 C13 C13 C10 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



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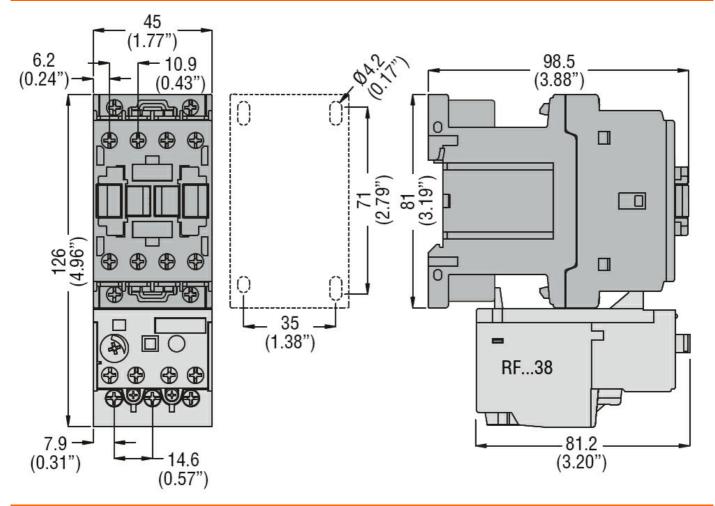
**ENERGY AND AUTOMATION** 

DC rated control voltaç	је			V	60
OC operating voltage					
	pick-up			0/11-	70
			min max	%Us %Us	70 125
	drop-out		IIIdX	/008	125
	arop out		min	%Us	10
			max	%Us	40
Average coil consump	tion ≤20°C				
			in-rush	W	5.4
			holding	W	5.4
Max cycles frequency					
Mechanical operation				cycles/h	3600
Operating times Average time for Us co	ntrol				
Average time for US CC	in AC				
	III AC	Closing NO			
		Closing 110	min	ms	8
			max	ms	24
		Opening NO			
		-	min	ms	10
			max	ms	20
		Closing NC			
			min	ms	14
		Opening NC	max	ms	28
		Opening NC	min	ms	7
			max	ms	, 18
	in DC				
		Closing NO			
		-	min	ms	54
			max	ms	66
		Opening NO	_		
			min	ms	14
III. to abbigal data			max	ms	17
JL technical data Full-load current (FLA)	for three phace	AC motor			
ruii-ioau current (FLA)	ioi iiiiee-piiase	AC IIIotoi	at 480V	Α	7.6
			at 600V	A	0.375
Yielded mechanical pe	rformance		4,000,		0.07.0
•	for single-phas	e AC motor			
			110/120V	HP	0.75
			230V	HP	2
	for three-phase	e AC motor			
			200/208V	HP	3
			220/230V	HP	3
			460/480V	HP HD	5
General USE			575/600V	HP	7.5
Geliciai USE	Contactor				
	Contactor		AC current	Α	25
	Auxiliary contact	 cts	, to ouriont	- / \	
	, 55		AC voltage	V	600
			AC current	Α	10

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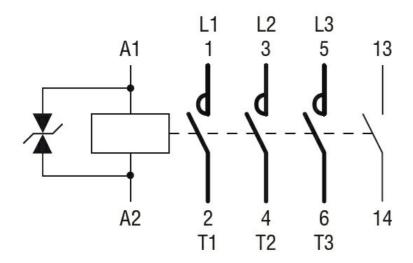
		DC voltage	V	250
		DC current	Α	1
Short-circuit protect	ion fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	60
Contact rating of auxiliary contacts according to UL				A600 - P600
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Prote	ction			
Pollution degree				3
Dimensions				



Wiring diagrams

electric THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL, 60VDC, 1NO
AUXILIARY CONTACT

**ENERGY AND AUTOMATION** 



### 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