



Product designation Product type designation			Power contactor BF09
Contact characteristics			
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		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)	( /		
	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)			
1 1 - (	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	<del>-</del> <del>-</del>		
	≤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		- •	
poloo iii oonoo	≤24V	Α	20
	48V	Α	20
	75V	A	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	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	220 V		
TEC max current le in DO3-DO3 with E/R > 13ms with 3 poles in series	≤24V	۸	15
	≤24 V 48 V	A	
		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 storpasson por polo (arolago raido)	Ith	W	1.6
	AC-3	W	0.2
Tightening torque for terminals	70 0	V V	V. <u>L</u>
rightening torque for terminals	min	Nm	1.5
		Nm	1.8
	max		
	min	lbin	1.1
Tightonian tourns for sail towning!	max	lbin	1.5
Tightening torque for coil terminal			0.0
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8



		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	1140/14			
	AWG/Kcmil			40
	Florible w/o live conductor coefficie	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	IIIdx	111111	0
	Tickliste of windy contradictor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
		min	mm²	1
		max	mm²	4
Device terminal prote	ation according to IEC/EN COESO			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	496
Conductor section	ANAIC (Incomit a conducation and sting			
	AWG/kcmil conductor section			10
		max		10
Auxiliary contact cha	ractarietice			
Auxiliary contact characterial current Ith	racteristics		Α	10
Thermal current Ith			Α	10 A600 - P600
Thermal current Ith IEC/EN 60947-5-1 d	esignation		A	10 A600 - P600
Thermal current Ith	esignation	230V		A600 - P600
Thermal current Ith IEC/EN 60947-5-1 d	esignation	230V 400V	A A A	
Thermal current Ith IEC/EN 60947-5-1 d	esignation		A	A600 - P600 3
Thermal current Ith IEC/EN 60947-5-1 d	esignation 215	400V	A A	A600 - P600 3 1.9
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	esignation 215	400V	A A	A600 - P600 3 1.9
Thermal current lth IEC/EN 60947-5-1 d Operating current AC Operating current DC	esignation C15	400V 500V	A A A	3 1.9 1.4
Thermal current lth IEC/EN 60947-5-1 d Operating current AC Operating current DC	esignation C15	400V 500V	A A A	3 1.9 1.4
Thermal current lth IEC/EN 60947-5-1 d Operating current AC Operating current DC	esignation C15	400V 500V 110V 24V 48V	A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9
Thermal current lth IEC/EN 60947-5-1 d Operating current AC Operating current DC	esignation C15	400V 500V 110V 24V 48V 60V	A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3
Thermal current lth IEC/EN 60947-5-1 d Operating current AC Operating current DC	esignation C15	400V 500V 110V 24V 48V 60V 110V	A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	esignation C15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1
Thermal current Ith IEC/EN 60947-5-1 d Operating current AC Operating current DC	esignation C15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC	esignation C15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC	esignation C15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 d Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life	esignation C15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations  Mechanical life Electrical life	esignation C15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 decorating current ACCOPERATION COPERATION CURRENT COPERATION	esignation C15 C12 C13	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 decorating current ACCOPERATION CURRENT ACCOPERATION COPERATION CURRENT ACCOPERATION CURRENT ACCOP	esignation C15	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 20000000
Thermal current Ith IEC/EN 60947-5-1 decorating current ACCOPERATION CURRENT ACCOPERATION COPERATION CURRENT ACCOPERATION CURRENT ACCOP	esignation C15 C12 C13 C10	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 20000000
Thermal current Ith IEC/EN 60947-5-1 decorating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	esignation C15 C12 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 A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 20000000 20000000
Thermal current Ith IEC/EN 60947-5-1 decorating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	esignation C15 C12 C13 C10	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 20000000

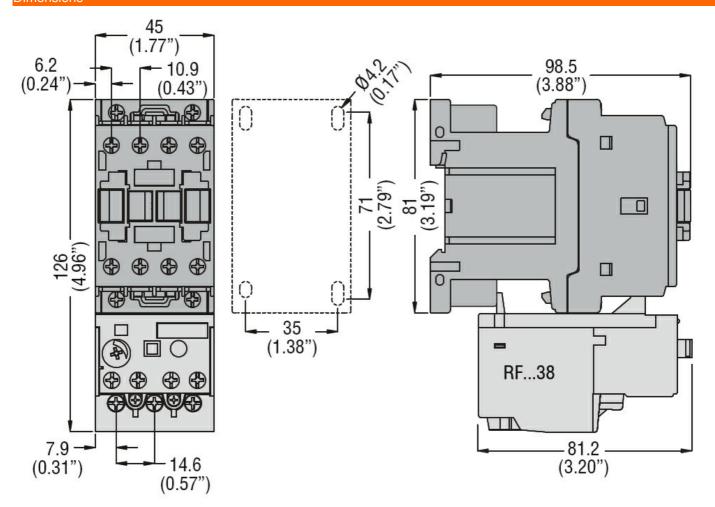


DC rated control voltage	10			V	125
DC operating voltage	, -			<u> </u>	
	pick-up				
	process of		min	%Us	70
			max	%Us	125
	drop-out			,,,,,	
	a. op   oa.		min	%Us	10
			max	%Us	40
Average coil consump	tion ≤20°C		<u></u>		
			in-rush	W	5.4
			holding	W	5.4
Max cycles frequency			3 3		
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us co	ontrol				
	in AC				
		Closing NO			
		3 · · · · · · · · · · · · · · · · · · ·	min	ms	8
			max	ms	24
		Opening NO		-	
		1 . 5	min	ms	10
			max	ms	20
		Closing NC			
		· ·	min	ms	14
			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
			max	ms	17
UL technical data					
Full-load current (FLA)	for three-phase AC	motor			
			at 480V	Α	7.6
			at 600V	Α	0.375
Yielded mechanical pe					
	for single-phase A	AC motor			
			110/120V	HP	0.75
			230V	HP	2
	for three-phase A	C 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
	Auxiliary contacts				
			AC voltage	V	600
			AC current	Α	10

**ENERGY AND AUTOMATION** 

## THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL, 125VDC, 1NO AUXILIARY CONTACT

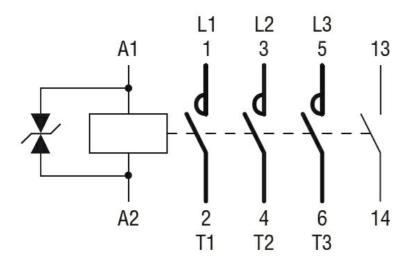
		DC voltage	V	250
		DC current	Α	1
Short-circuit protect	ion fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	60
Contact rating of auxiliary contacts according to UL				A600 - P600
Ambient conditions				
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

**ENERGY AND AUTOMATION** 

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL, 125VDC, 1NO AUXILIARY CONTACT



### 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