BF0910D012

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL, 12VDC, 1NO AUXILIARY CONTACT

Product designation			Power contactor
Product type designation			BF09
Contact characteristics			
Number of poles		nr.	3
Rated insulation voltage Ui		V	690
Rated impulse withstand voltage Uimp		kV	6
Operating frequency			
	Operational frequency min	Hz	25
	Operational frequency max	Hz	400
Conventional free air thermal current Ith		A	25
Operating current			
	Operational current AC1 (≤40°C)	A	25
	Operational current AC3 (≤440V ≤55°C)	A	9
	Operational current AC4 (400V)	A	4.9
Rated operational power AC1 (T≤40°C)			
	230V	kW	9.5
	400V	kW	16
	500V	kW	21
	690V	kW	27
Rated operational power AC3A (T≤55°C)			
	Rated operational power AC3 (T≤55°C) 230V	kW	2.2
	Rated operational power AC3 (T≤55°C) 400V	kW	4.2
	Rated operational power AC3 (T≤55°C) 415V	kW	4.5
	Rated operational power AC3 (T≤55°C) 440V	kW	4.8
	Rated operational power AC3 (T≤55°C) 500V	kW	5.5
	Rated operational power AC3 (T≤55°C) 690V	kW	7.5
Short-time allowable current for 10s (IEC/EN60947-1)		A	150
Protection fuse			
	gG (IEC)	A	25
	aM (IEC)	A	10
Making capacity (RMS value)		A	90
Breaking capacity at voltage			
	Breaking capacity 440V	A	72
	Breaking capacity 500V	A	72
	Breaking capacity 690V	A	71
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
	Power dissipation pole (average value) Ith	W	1.6
	AC3	W	0.2
Tightening torque for terminals			
	min	Nm	1.5
	max	Nm	1.8
	min	lbft	1.1
	max	lbft	1.5
Tightening torque for coil terminal			

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		min	Nm	0.8
		max	Nm	1
		min	lbft	0.8
		max	lbft	0.74
max number of wires simultaneously connectable			nr.	2
Conductor section				
	AWG			
		min		16
		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 protection according to IEC/EN 60529				IP20 when wired
Auxiliary contact characteristics				
Type of contact				1 NO
Thermal current Ith			A	10
IEC/EN 60947-5-1 designation				A600 - P600
Operational current AC1 (≤40°C)			A	25
Operating current AC15				
		230V	A	3
		400V	A	1.9
		500V	A	1.4
Operating current DC12				
		110V	A	5.7
Operating current DC13				
		24V	A	5.7
		48V	A	2.9
		60V	A	2.3
		110V	A	Screw / DIN rail 35mm
		125V	A	0.6
		220V	A	0.2
		600V	A	1.2
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Operating position				
		normal		Vertical plan
		allowable		±30°
Mounting				Screw / DIN rail 35mm
Weight			g	0.492

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Operations				
Mechanical life			Cycles	20000000
Electrical life			Cycles	2000000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
		rated load	Cicli	2000000
		mechanical load	Cicli	20000000
Mirror contats according to IEC/EN 609474-4-1				yes
EMC compatibility				yes
DC coil operating				
DC rated control voltage				
		min	V	6
		max	V	250
DC operating voltage				
	pick-up			
		min	%Us	0.7
		max	%Us	1.25
	drop-out			
		min	%Us	0.1
		max	%Us	0.40
Average coil consuption ≤20°C				
		in-rush	W	5.4
		holding	W	5.4
Max cycles frequency				
Mechanical operations			Cycles/h	3600
Operating times				
Average time for Us control				
	in AC			
		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	A	7.6
		at 600V	A	0.375
Yielded mechanical performance				
	for single-phase AC motor			
		at 110/120V	hp	0.75
		at 230V	hp	2
	for three-phase AC motor			
		at 200/208V	hp	3
		at 220/230V	hp	3
		at 460/480V	hp	5
		at 575/600V	hp	7.5

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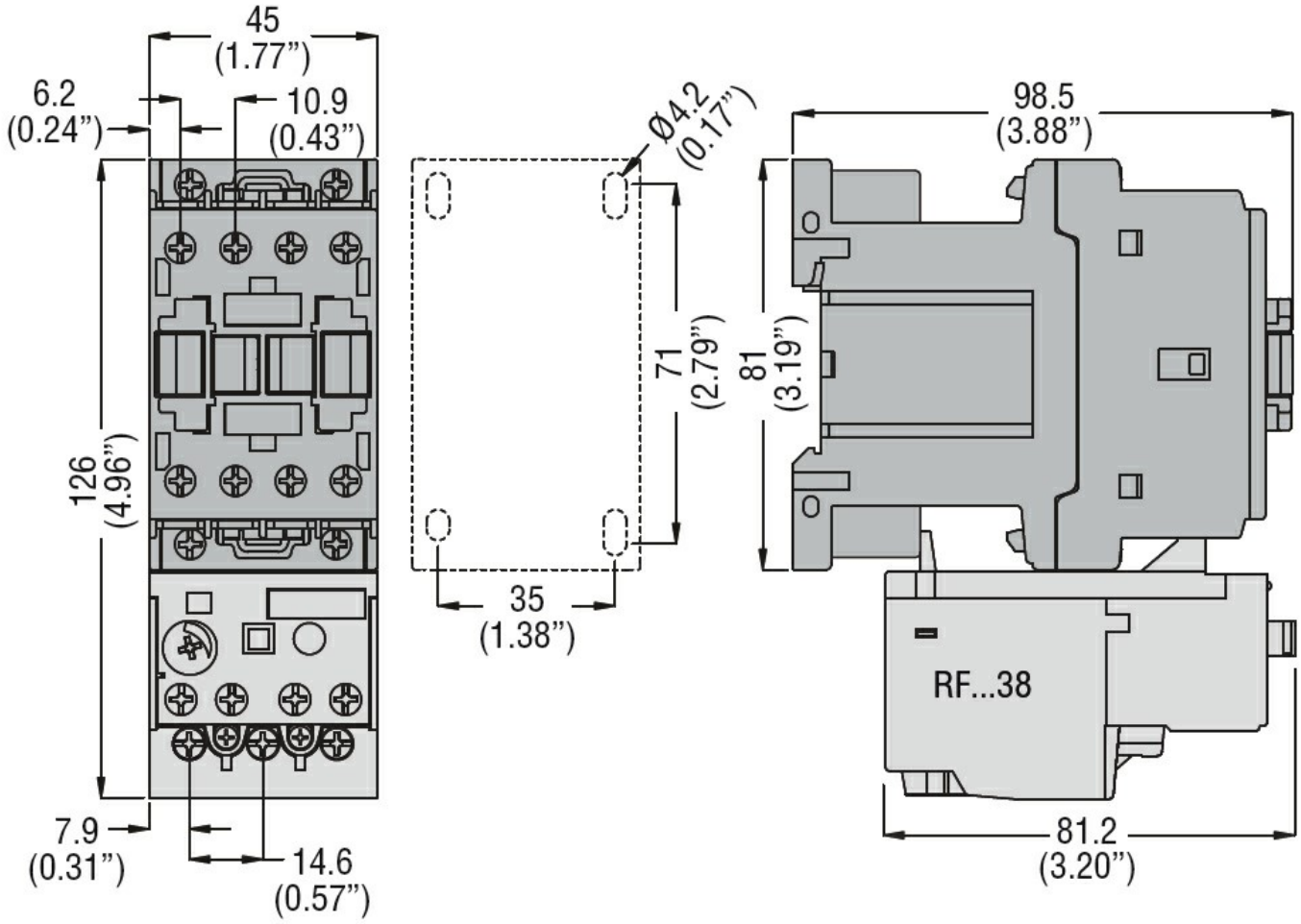
Contact rating of auxiliary contacts according to UL			A600 - P600
General USE			
Contactor			
	AC current	A	25

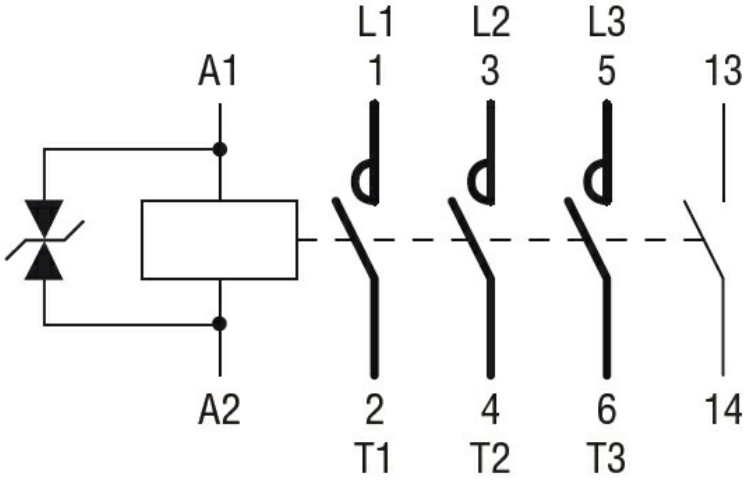
Other features

Pollution degree	3

Dimensions



Wiring diagrams



Certifications and compliance

Certifications

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	CSA C22.2 n° 60947-1
	CSA C22.2 n° 60947-4-1
	IEC/EN 60947-1
	IEC/EN 60947-4-1
	UL 60947-1
	UL 60947-4-1
Compliance	
	CCC
	cULus
	EAC

ETIM 6 classification

EC000066 - Power contactor, AC switching

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