



Product designation				Power contactor
Product type designation				BF18
<b>Contact characteristics</b>				
Number of poles	nr.	3		
Rated insulation voltage $U_i$	V	690		
Rated impulse withstand voltage $U_{imp}$	kV	6		
Operating frequency	Operational frequency min	Hz	25	
	Operational frequency max	Hz	400	
	Conventional free air thermal current $I_{th}$	A	32	
Operating current	Operational current AC1 ( $\leq 40^\circ\text{C}$ )	A	32	
	Operational current AC3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ )	A	18	
	Operational current AC4 (400V)	A	8.5	
Rated operational power AC1 ( $T \leq 40^\circ\text{C}$ )	230V	kW	12	
	400V	kW	21	
	500V	kW	26	
	690V	kW	36	
Rated operational power AC3 ( $T \leq 55^\circ\text{C}$ )	230V	kW	4	
	400V	kW	7.5	
	415V	kW	9	
	440V	kW	9	
	500V	kW	10	
	690V	kW	10	
Short-time allowable current for 10s (IEC/EN60947-1)	A	200		
Protection fuse	gG (IEC)	A	32	
	aM (IEC)	A	20	
Making capacity (RMS value)	A	180		
Breaking capacity at voltage	Breaking capacity 440V	A	144	
	Breaking capacity 500V	A	120	
	Breaking capacity 690V	A	94	
Resistance per pole (average value)	m $\Omega$	2.5		
Power dissipation per pole (average value)	Power dissipation pole (average value) $I_{th}$	W	2.6	
	AC3	W	0.8	
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				

	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	mm <sup>2</sup>	1
	max	mm <sup>2</sup>	6
Flexible c/w lug conductor section	min	mm <sup>2</sup>	1
	max	mm <sup>2</sup>	4
Flexible with insulated spade lug conductor section	min	mm <sup>2</sup>	1
	max	mm <sup>2</sup>	4
Power terminal protection according to IEC/EN 60529	IP20 when wired		
<b>Auxiliary contact characteristics</b>			
Type of contact	1 NC		
Thermal current I <sub>th</sub>	A	10	
IEC/EN 60947-5-1 designation	A600 - P600		
Operational current AC1 (≤40°C)	A	32	
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
<b>Ambient conditions</b>			
Temperature	Operating temperature		
	min	°C	-50
	max	°C	70
	Storage temperature		
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Operating position	normal allowable	Vertical plan ±30°	
Mounting	Screw / DIN rail 35mm		
Weight		g	0.495

**Operations**

Mechanical life	Cycles	20000000
Electrical life	Cycles	1600000

**Safety related data**

Performance level B10d according to EN/ISO 13489-1

	rated load	Cicli	1600000
	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
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  $\leq 20^{\circ}\text{C}$

in-rush	W	5.4
holding	W	5.4

**Max cycles frequency**

Mechanical operations	Cycles/h	3600
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**Operating times**

Average time for Us control

in DC

Closing NO	min	ms	54
	max	ms	66
Opening NO	min	ms	14
	max	ms	17
Closing NC	min	ms	24
	max	ms	30
Opening NC	min	ms	47
	max	ms	57

**UL technical data**

Full-load current (FLA) for three-phase AC motor

at 480V	A	14
at 600V	A	17

Yielded mechanical performance

for single-phase AC motor

at 110/120V	hp	1
at 230V	hp	3

for three-phase AC motor

at 200/208V	hp	5
at 220/230V	hp	5
at 460/480V	hp	10
at 575/600V	hp	15

Contact rating of auxiliary contacts according to UL

A600 - P600

General USE

Contactor

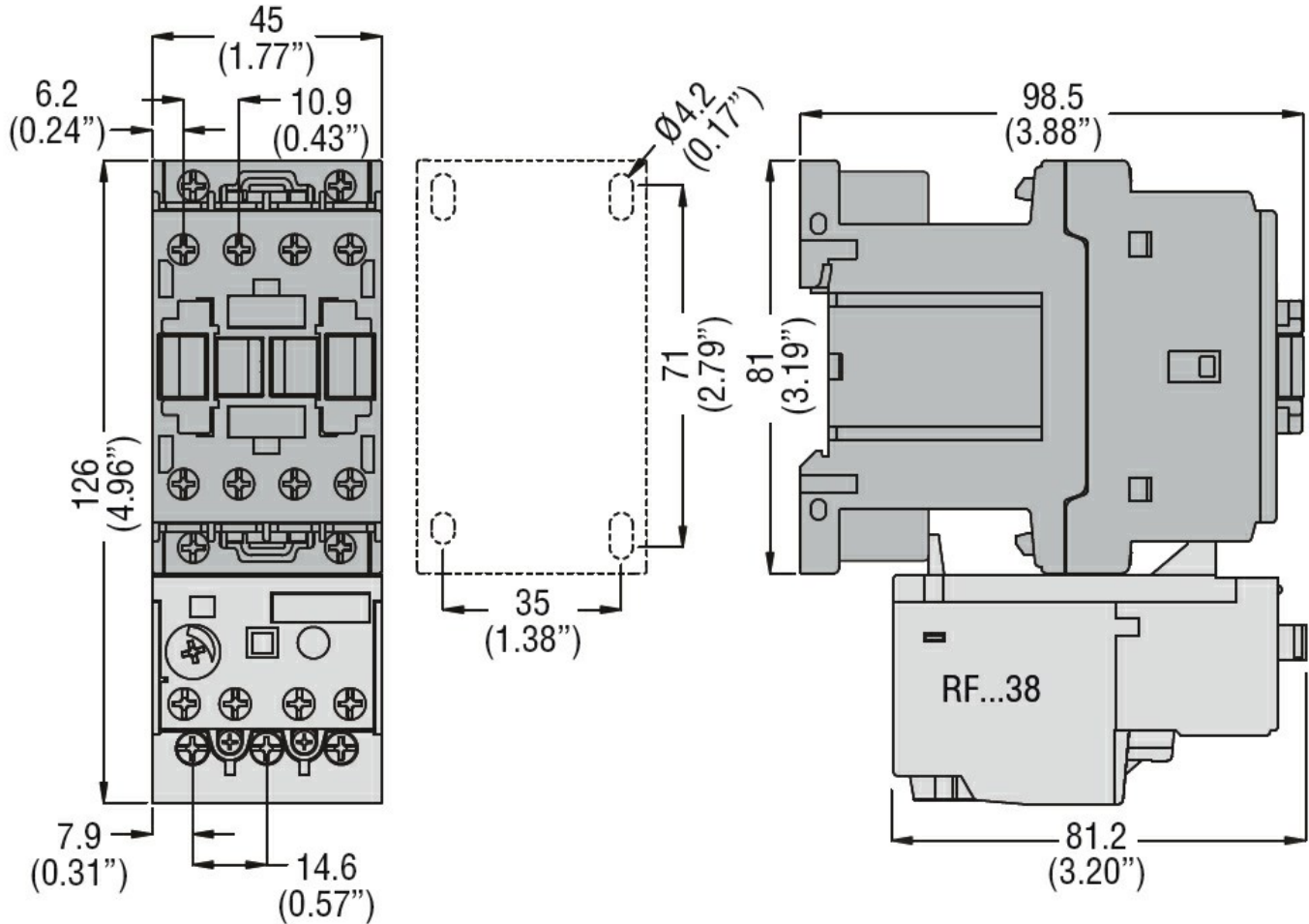
AC current A 32

Other features

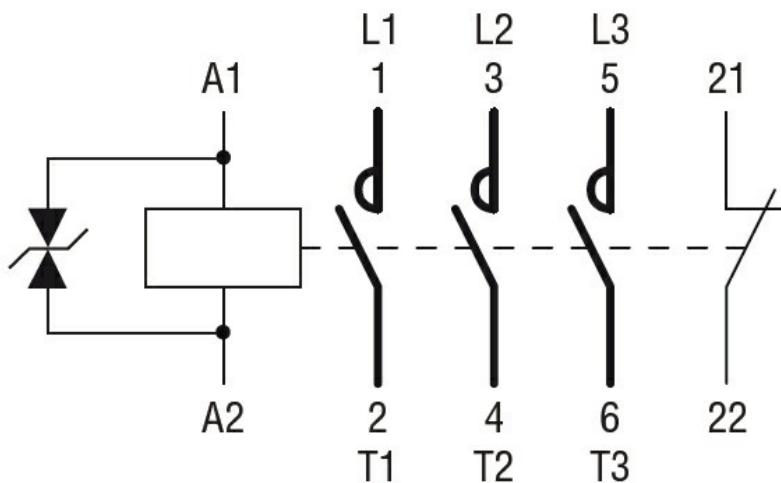
Pollution degree

3

Dimensions



Wiring diagrams



Certifications and compliance

Certifications

CSA C22.2 n° 60947-1

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CSA C22.2 n° 60947-4-1

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IEC/EN 60947-1

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IEC/EN 60947-4-1

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UL 60947-1

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UL 60947-4-1

Compliance

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CCC

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EAC

**ETIM 6 classification**

EC000066 - Power contactor, AC switching