



Product designation			Power contactor
Product type designation			BF18
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	32	
Operating current			
	Operational current AC1 (≤40°C)	A	32
	Operational current AC3 (≤440V ≤55°C)	A	18
	Operational current AC4 (400V)	A	8.5
Rated operational power AC1 (T≤40°C)			
	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
Rated operational power AC3A (T≤55°C)			
	Rated operational power AC3 (T≤55°C) 230V	kW	4
	Rated operational power AC3 (T≤55°C) 400V	kW	7.5
	Rated operational power AC3 (T≤55°C) 415V	kW	9
	Rated operational power AC3 (T≤55°C) 440V	kW	9
	Rated operational power AC3 (T≤55°C) 500V	kW	10
	Rated operational power AC3 (T≤55°C) 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)	mΩ	2.5	
Power dissipation per pole (average value)			
	Power dissipation pole (average value) Ith	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
Auxiliary contact characteristics			
Type of contact			1 NO
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
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 allowable		Vertical plan ±30°
Mounting			Screw / DIN rail 35mm
Weight		g	0.5

### 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
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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 consupcion  $\leq 20^{\circ}\text{C}$

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 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	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

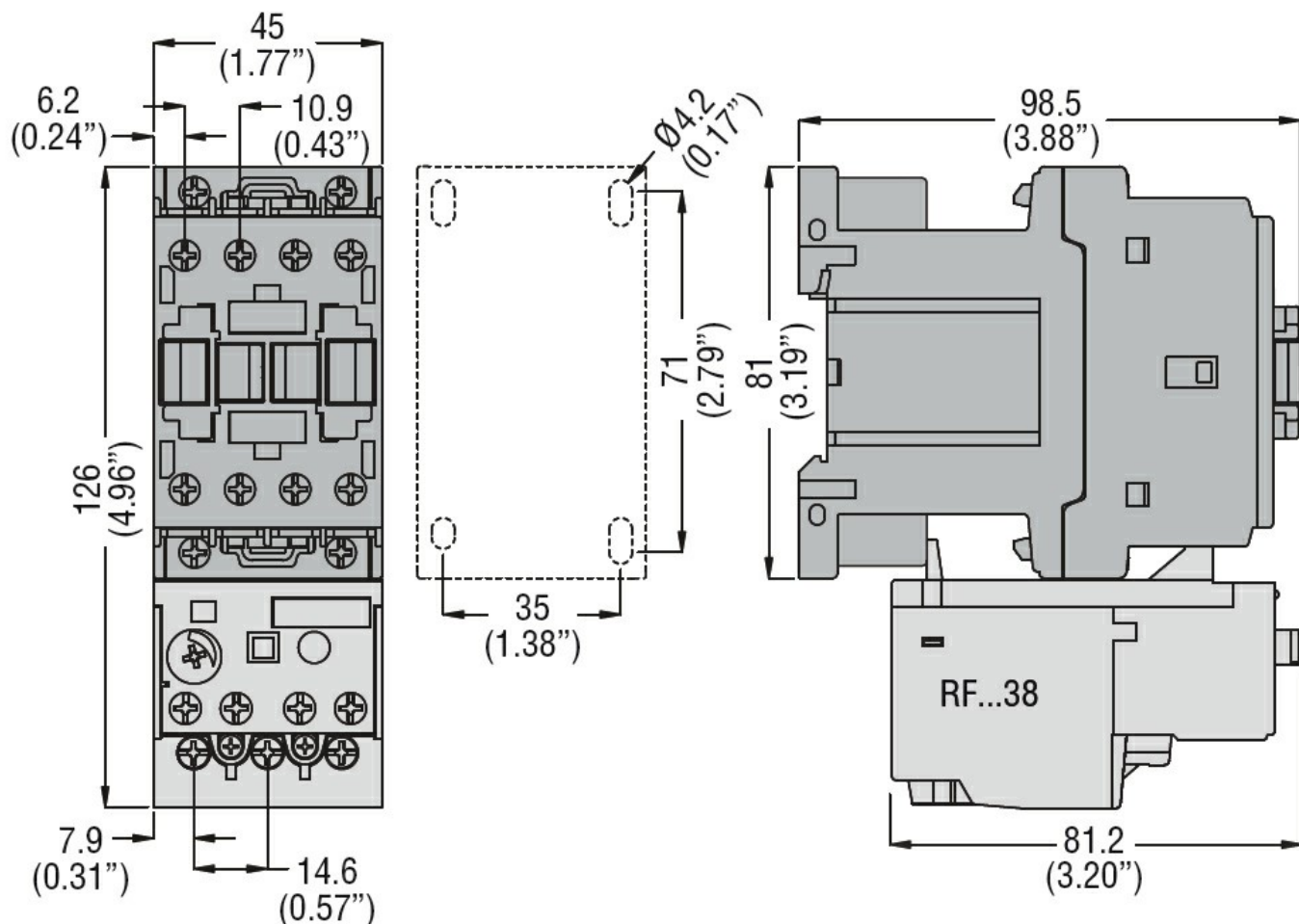
AC current A 32

Other features

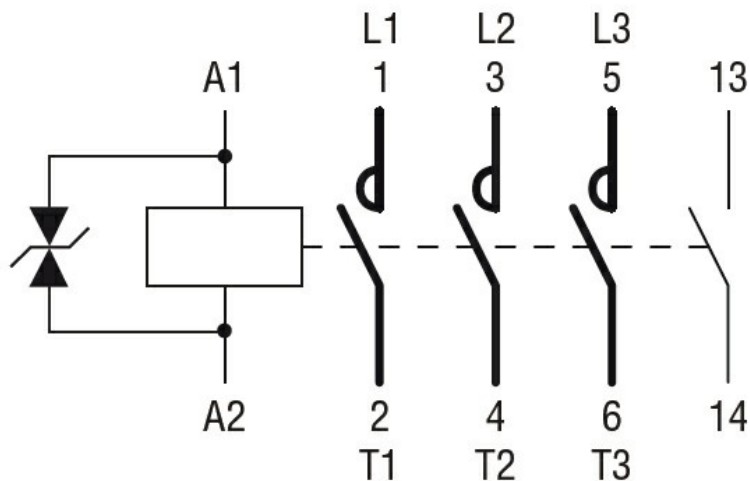
Pollution degree

3

Dimensions



Wiring diagrams



Certifications and compliance

Certifications

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, DC COIL, 60VDC,  
1NO AUXILIARY CONTACT

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