



Product designation				Power contactor
Product type designation				BF18
<b>Contact characteristics</b>				
Number of poles	nr.			3
Rated insulation voltage $U_i$ IEC/EN	V			690
Rated impulse withstand voltage $U_{imp}$	kV			6
Operational frequency	min	Hz	25	
	max	Hz	400	
Conventional free air thermal current $I_{th}$ IEC/EN	A			32
Operational current $I_e$	AC-1 ( $\leq 40^\circ\text{C}$ )	A	32	
	AC-3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ )	A	18	
	AC-4 (400V)	A	8.5	
Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )	230V	kW	12	
	400V	kW	21	
	500V	kW	26	
	690V	kW	36	
Rated operational power AC-3 ( $T \leq 55^\circ\text{C}$ )	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	440V	A	144	
	500V	A	120	
	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 NO
Thermal current I <sub>th</sub>		A	10
IEC/EN 60947-5-1 designation			A600 - P600
Operational current I <sub>e</sub> AC-1 (≤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
Operational position	Operating position normal Operating position allowable		Vertical plan ±30°
Mounting	Screw / DIN rail 35mm		
Weight		g	0.492

### Operations

Mechanical life	Cycles	20000000
Electrical life	Cycles	1600000

### Safety related data

Performance level B10d according to EN/ISO 13489-1

	rated load mechanical load	Cicli Cicli	1600000 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 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

for single-phase AC motor			
Yielded mechanical performance at 110/120V	hp	1	
Yielded mechanical performance at 230V	hp	3	
for three-phase AC motor			
Yielded mechanical performance at 200/208V	hp	5	
Yielded mechanical performance at 220/230V	hp	5	
Yielded mechanical performance at 460/480V	hp	10	
Yielded mechanical performance at 575/600V	hp	15	

Contact rating of auxiliary contacts according to UL  
General USE

A600 - P600

Contactor

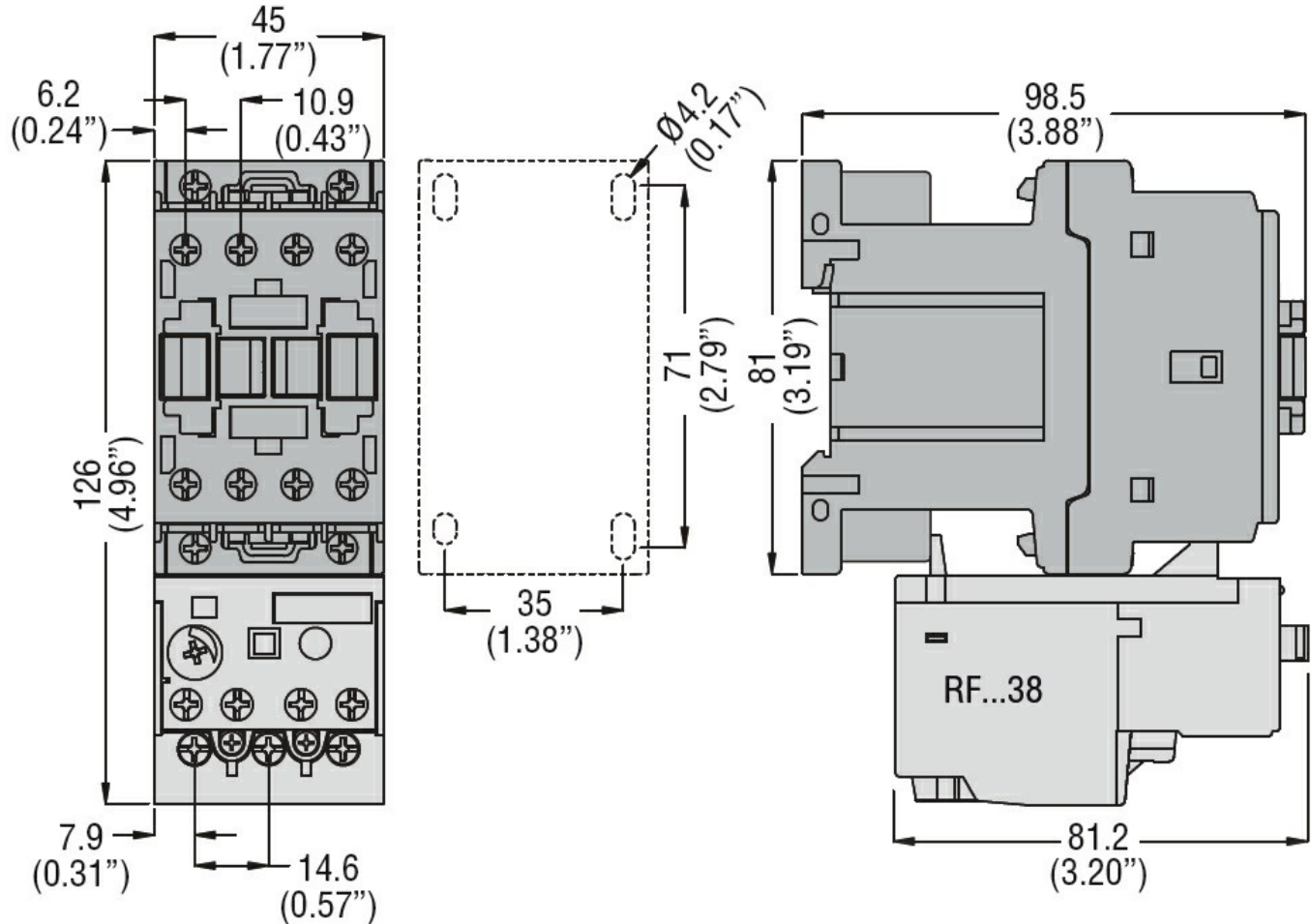
AC current A 32

Other features

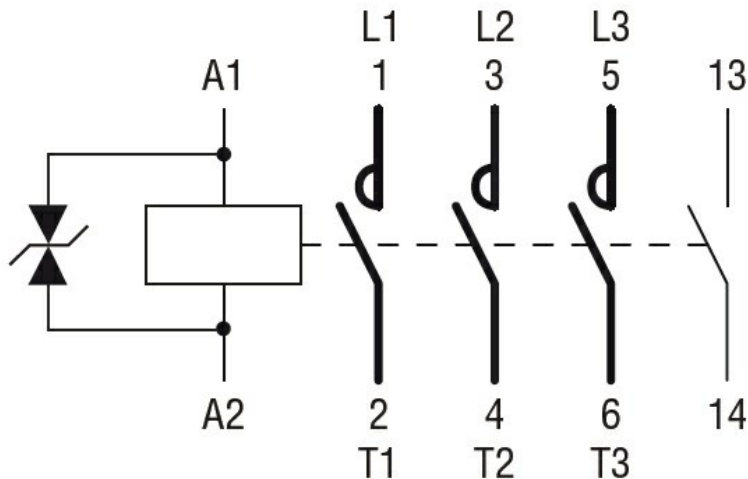
Pollution degree

3

Dimensions



Wiring diagrams



Certifications and compliance

Certifications

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