



Product designation	Power contactor		
Product type designation	BF18		
<b>Contact characteristics</b>			
Number of poles	Nr.	4	
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	A	32	
Operational current Ie	AC-1 ( $\leq 40^{\circ}\text{C}$ )	A	32
	AC-1 ( $\leq 55^{\circ}\text{C}$ )	A	26
	AC-1 ( $\leq 70^{\circ}\text{C}$ )	A	23
	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
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?	2.5	
Power dissipation per pole (average value)	Ith	W	2.6
	AC3	W	0.8
Tightening torque for terminals	min	Nm	1.5
	max	Nm	1.8
	min	lbin	1.1
	max	lbin	1.5
Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8
	max	lbin	0.74
Max number of wires simultaneously connectable	Nr.	2	

Conductor section

AWG/Kcmil	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

**Mechanical features**

Operating position

normal	Vertical plan
allowable	±30°

Fixing

Screw / DIN rail  
35mm

Weight

g 500

Conductor section

AWG/kcmil conductor section	max	10
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**Auxiliary contact characteristics**

Thermal current Ith

A 32

IEC/EN 60947-5-1 designation

A600 - P600

**Operations**

Mechanical life

cycles 20000000

Electrical life

cycles 1600000

**Safety related data**

Performance level B10d according to EN/ISO 13489-1

rated load	cycles	1600000
mechanical load	cycles	20000000

Mirror contacts according to IEC/EN 609474-4-1

YES

EMC compatibility

yes

**DC coil operating**

DC rated control voltage

V 220

DC operating voltage

pick-up	min	%Us	70
	max	%Us	125

drop-out	min	%Us	10
	max	%Us	40

Average coil consumption ≤20°C

in-rush	W	5.4
holding	W	5.4

**Max cycles frequency**

Mechanical operation

cycles/h 3600

**Operating times**

Average time for Us control

in AC	Closing NO
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	min	ms	8
	max	ms	24
Opening NO			
	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 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			
	110/120V	HP	1
	230V	HP	3
for three-phase AC motor			
	200/208V	HP	5
	220/230V	HP	5
	460/480V	HP	10
	575/600V	HP	15

#### General USE

Contactor	AC current	A	32
Auxiliary contacts			
	AC voltage	V	600
	AC current	A	10
	DC voltage	V	250
	DC current	A	1

Contact rating of auxiliary contacts according to UL SI - A600

#### Ambient conditions

##### Temperature

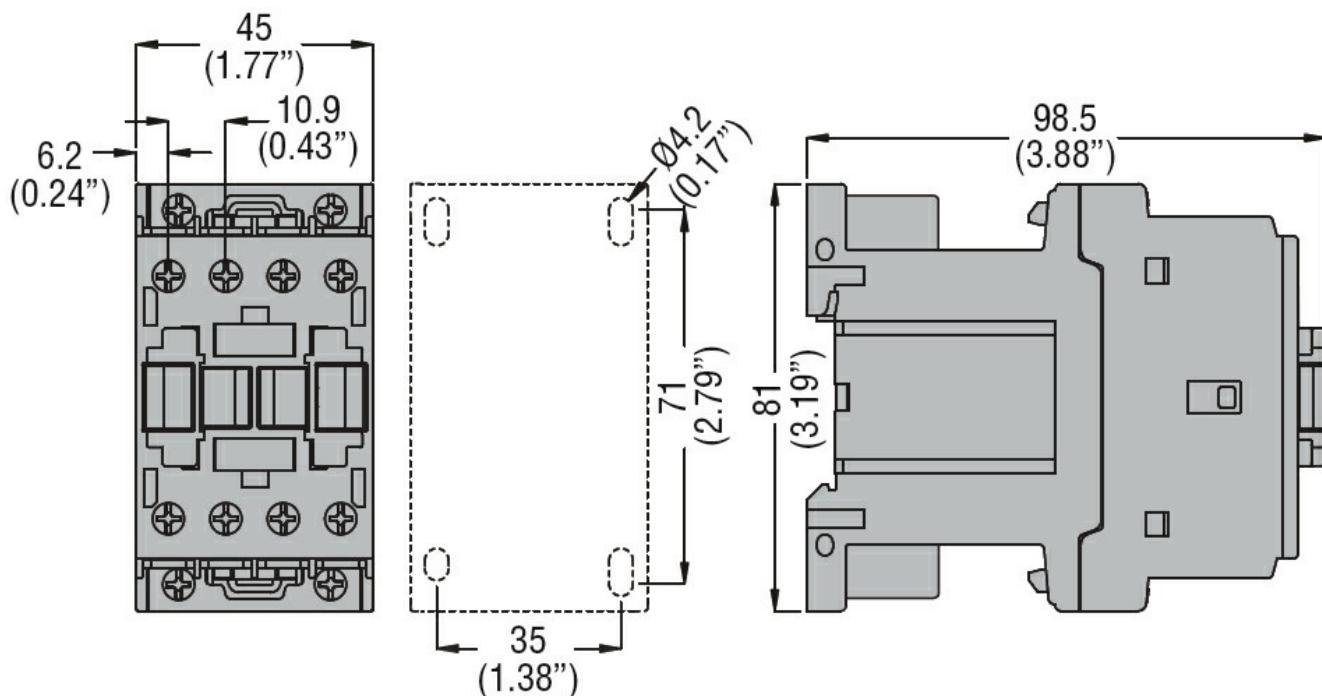
Operating temperature	min	°C	-50
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80

Max altitude m 3000

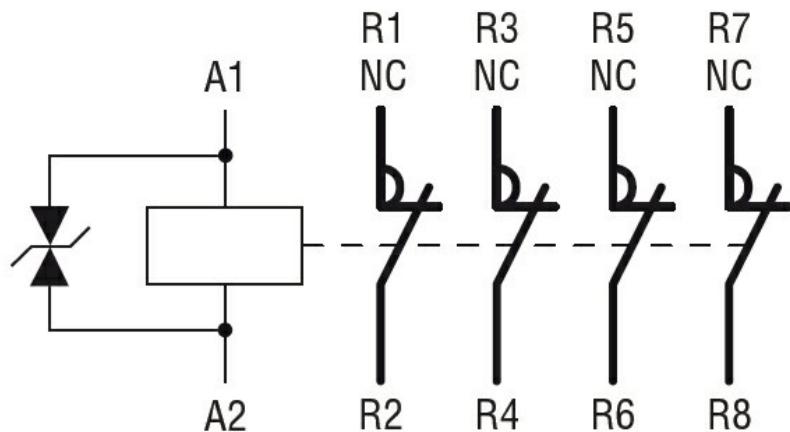
#### Resistance & Protection

Pollution degree 3

#### Dimensions



#### Wiring diagrams



#### Certifications and compliance

##### Compliance

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

##### Certificates

CCC

cULus

EAC

#### ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching