



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 allowable	Vertical plan ±30°
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Fixing

Screw / DIN rail  
35mm

Weight

g 360

Conductor section

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

Thermal current I <sub>th</sub>	A	32
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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

AC coil operating

Rated AC voltage at 60Hz	V	120
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AC operating voltage

of 60Hz coil powered at 60Hz		
pick-up	min	%Us 80
	max	%Us 110
drop-out	min	%Us 20
	max	%Us 55

AC average coil consumption at 20°C

of 60Hz coil powered at 60Hz	in-rush	VA 75
	holding	VA 9

Dissipation at holding ≤20°C 50Hz

W 2.5

Max cycles frequency

Mechanical operation	cycles/h	3600
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Operating times

Average time for Us control  
in AC

Closing NO	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

#### 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
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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

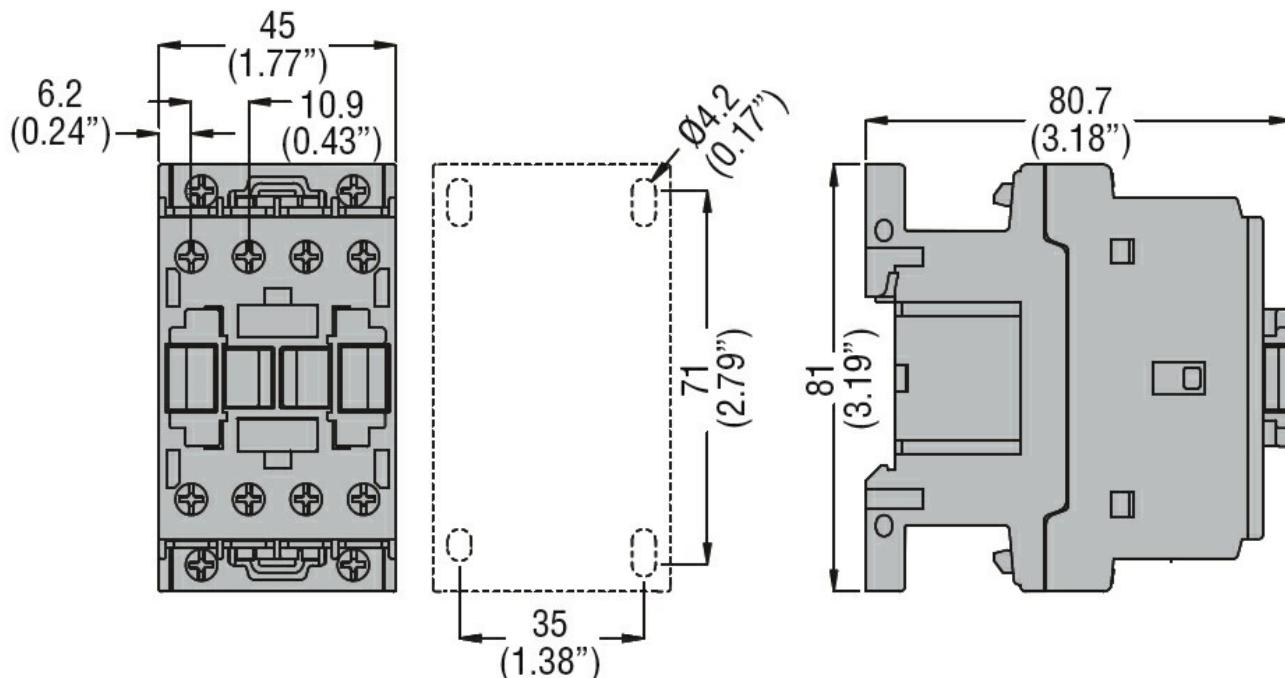
m 3000

Resistance & Protection

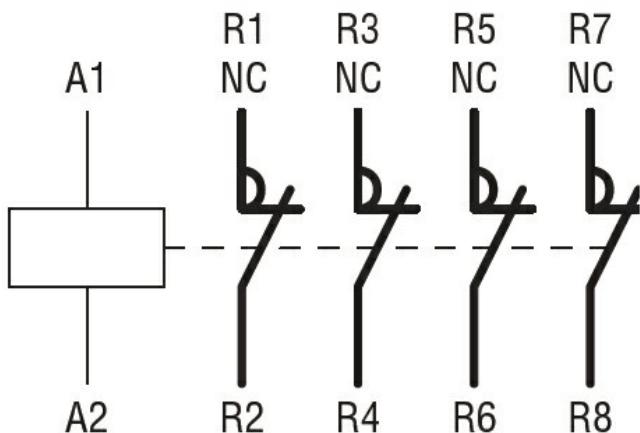
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Pollution degree

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