



Product designation

Power contactor

Product type designation

BF18

**Contact characteristics**

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 $\Omega$	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°	
Fixing			Screw / DIN rail 35mm
Weight	g		360
Conductor section	AWG/kcmil conductor section		
	max	10	
Auxiliary contact characteristics			
Thermal current I <sub>th</sub>	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 mechanical load	cycles	1600000
		cycles	20000000
Mirror contacts according to IEC/EN 60947-4-1	YES		
EMC compatibility	yes		
AC coil operating			
Rated AC voltage at 60Hz	V		120
AC operating voltage	of 60Hz coil powered at 60Hz		
	pick-up		
	min	%U <sub>s</sub>	80
	max	%U <sub>s</sub>	110
	drop-out		
	min	%U <sub>s</sub>	20
	max	%U <sub>s</sub>	55
AC average coil consumption at 20°C	of 60Hz coil powered at 60Hz		
	in-rush holding	VA	75
		VA	9
Dissipation at holding ≤20°C 50Hz	W		2.5
Max cycles frequency			
Mechanical operation	cycles/h		3600
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

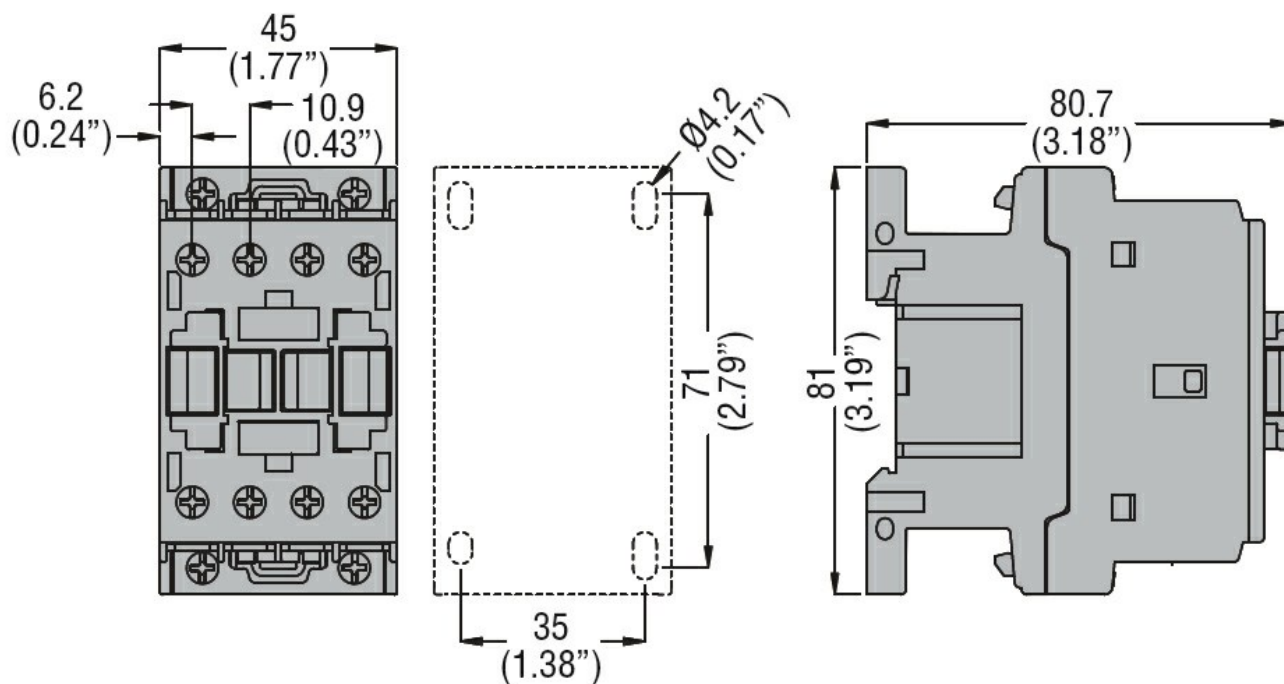
m 3000

#### Resistance & Protection

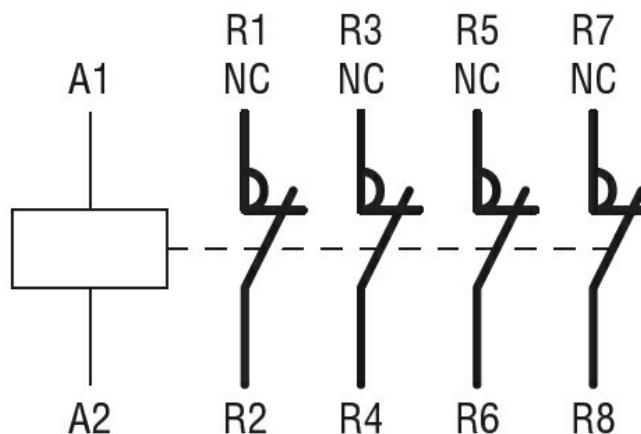
Pollution degree

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