



Product designation

Power contactor

Product type designation

BF18

**Contact characteristics**

Number of poles	Nr.	4
Rated insulation voltage U <sub>i</sub> IEC/EN	V	690
Rated impulse withstand voltage U <sub>imp</sub>	kV	6
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I <sub>th</sub>	A	32
Operational current I <sub>e</sub>	AC-1 (≤40°C)	A 32
	AC-1 (≤55°C)	A 26
	AC-1 (≤70°C)	A 23
	AC-3 (≤440V ≤55°C)	A 18
	AC-4 (400V)	A 8.5
Rated operational power AC-1 (T≤40°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)	mΩ	2.5
Power dissipation per pole (average value)	I <sub>th</sub>	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	352
Conductor section				
AWG/kcmil conductor section				
		max	10	
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	230
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
Operating times				
Average time for Us control				
in AC				
Closing NO				

Opening NO	min	ms	8
	max	ms	24
Closing NC	min	ms	10
	max	ms	20
Opening NC	min	ms	14
	max	ms	28
	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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#### Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

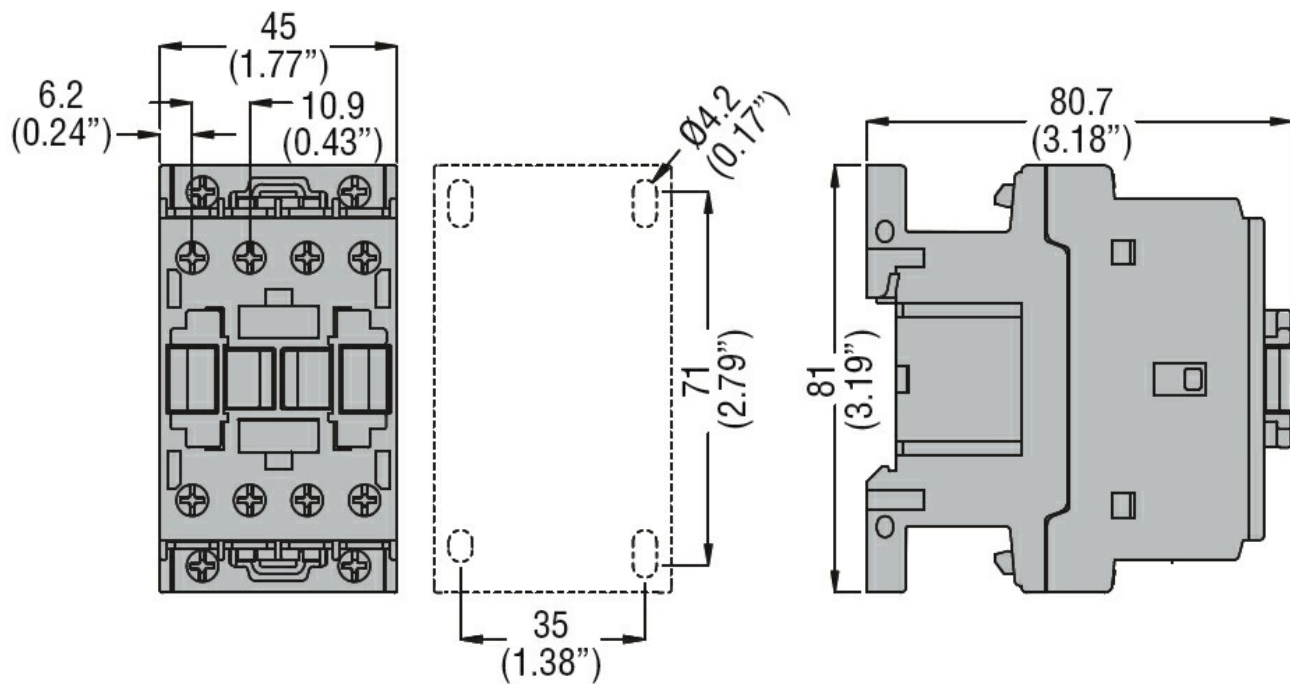
m	3000
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#### Resistance & Protection

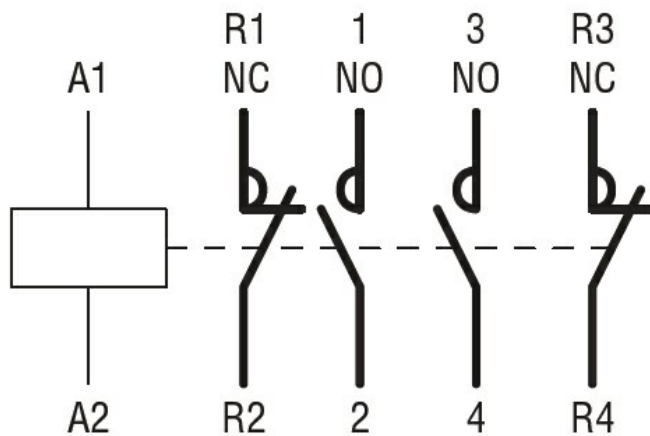
Pollution degree

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