



Product designation				Power contactor
Product type designation				BF18
<b>Contact characteristics</b>				
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
	AC-3	W		0.8
Tightening torque for terminals	min	Nm		1.5
	max	Nm		1.8
	min	I <sub>bin</sub>		1.1
	max	I <sub>bin</sub>		1.5
Tightening torque for coil terminal	min	Nm		0.8
	max	Nm		1
	min	I <sub>bin</sub>		0.8
	max	I <sub>bin</sub>		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 properly wired

### Mechanical features

Operating position	normal allowable	Vertical plan ±30°
Fixing		Screw / DIN rail 35mm
Weight		g 356

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	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	24
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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**Ambient conditions**

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

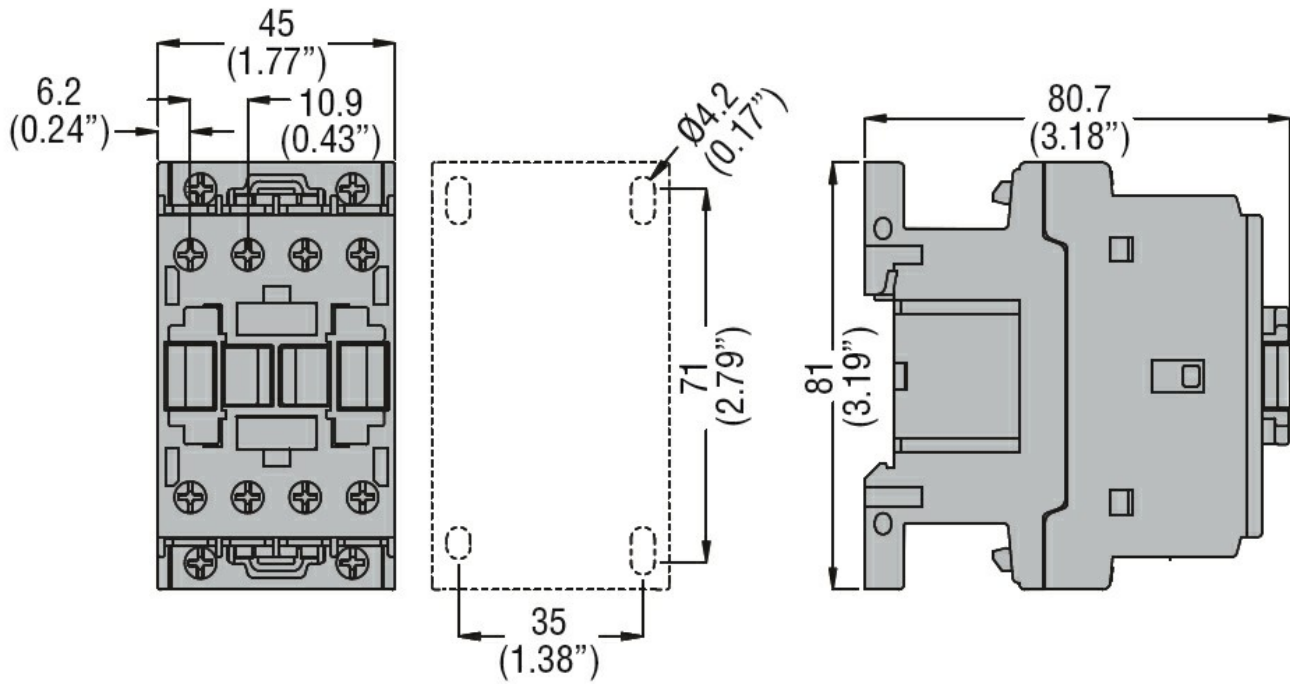
m	3000
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**Resistance & Protection**

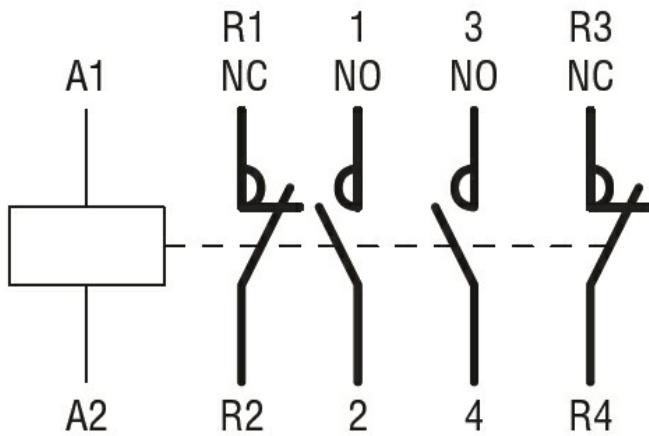
Pollution degree

3

**Dimensions**



### Wiring diagrams



### Certifications and compliance

#### Compliance

CSA C22.2 n° 60947-1  
CSA C22.2 n° 60947-4-1  
IEC/EN/BS 60947-1  
IEC/EN/BS 60947-4-1  
UL 60947-1  
UL 60947-4-1

#### Certificates

CCC  
cULus  
EAC

### ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching