



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 496

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 60947-4-1

YES

EMC compatibility

yes

**DC coil operating**

DC rated control voltage	V	125
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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
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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
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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
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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

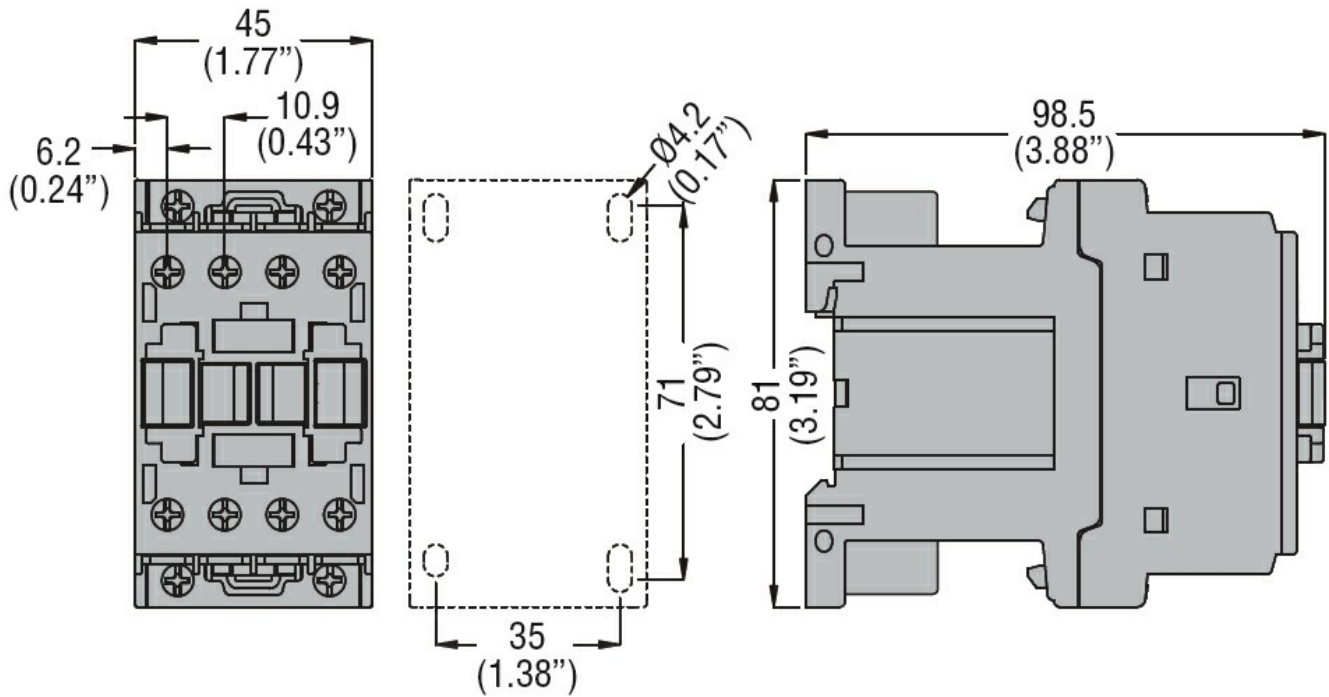
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**Resistance & Protection**

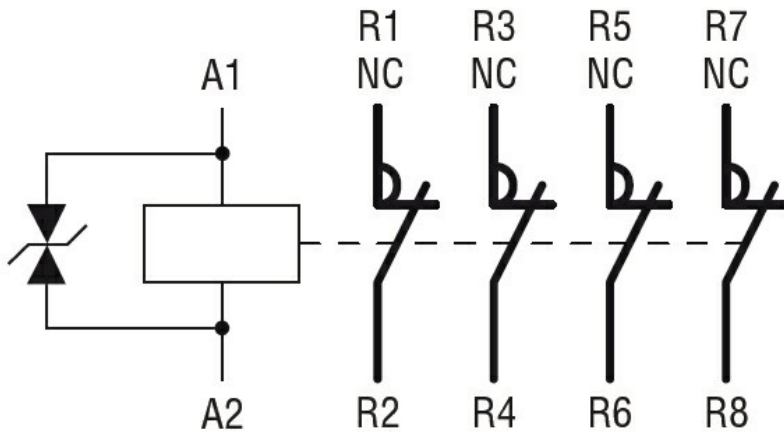
Pollution degree

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