



Product designation	Power contactor		
Product type designation	BF18		
<b>Contact characteristics</b>			
Number of poles	Nr.	4	
Rated insulation voltage $U_i$ IEC/EN	V	690	
Rated impulse withstand voltage $U_{imp}$	kV	6	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current $I_{th}$	A	32	
Operational current $I_e$	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)	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	Ibin	1.1
	max	Ibin	1.5
Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8
	max	Ibin	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°
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Fixing

Screw / DIN rail  
35mm

Weight

g 360

**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	cycles	1600000
mechanical load	cycles	20000000

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

min	ms	8
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Opening NO	max	ms	24
	min	ms	10
Closing NC	max	ms	20
	min	ms	14
Opening NC	max	ms	28
	min	ms	7
	max	ms	18

**UL technical data**

Rated operational voltage AC (UL)	V	600
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
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**

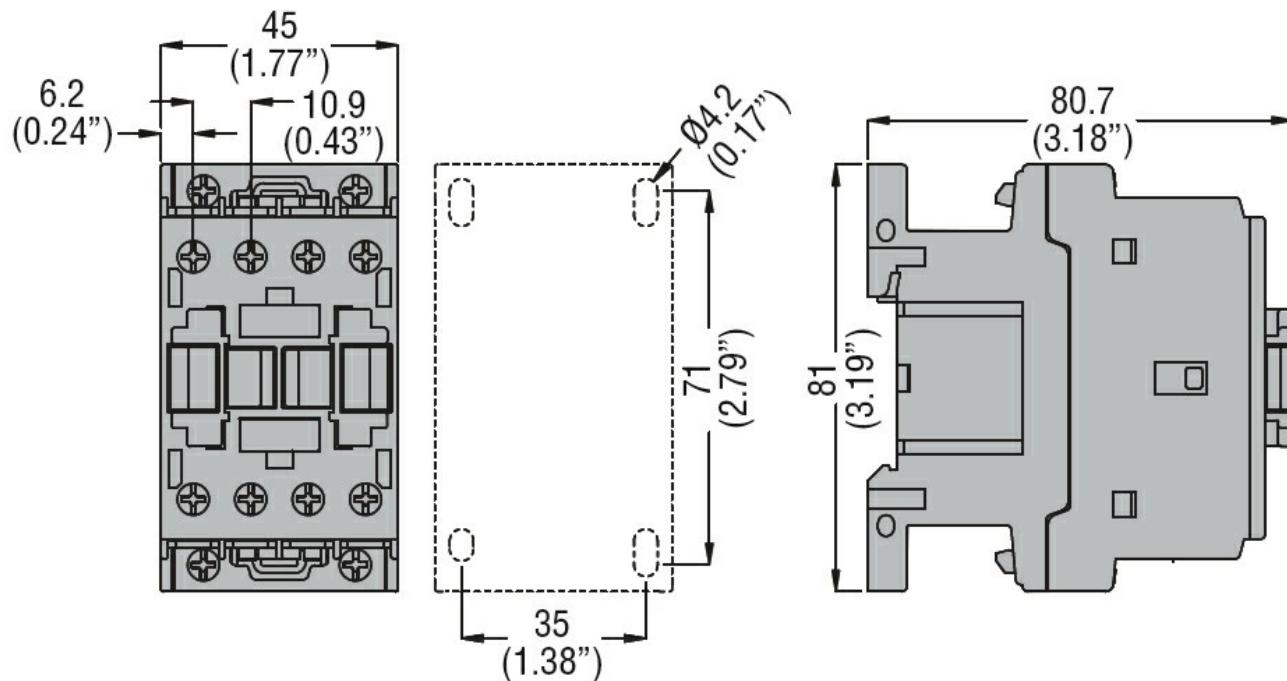
Operating temperature	min	°C	-50
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80

Max altitude m 3000

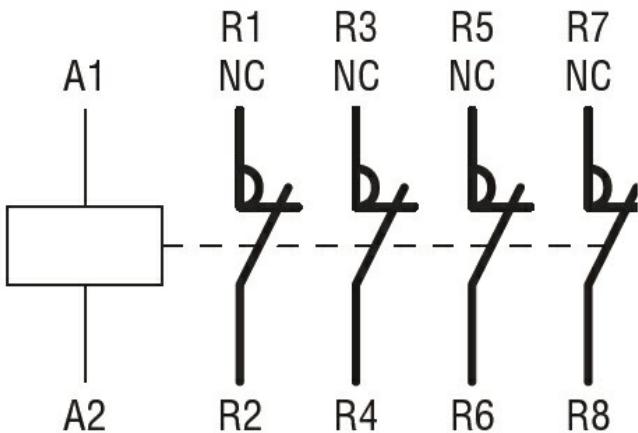
**Resistance & Protection**

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/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