



Product designation	Power contactor		
Product type designation	BF18		
<b>Contact characteristics</b>			
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)	mΩ	2.5	
Power dissipation per pole (average value)	Ith	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 500

**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

**DC coil operating**

DC rated control voltage

V 110

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

**Operating times**

Average time for Us control

in AC

Closing NO

min	ms	8
max	ms	24

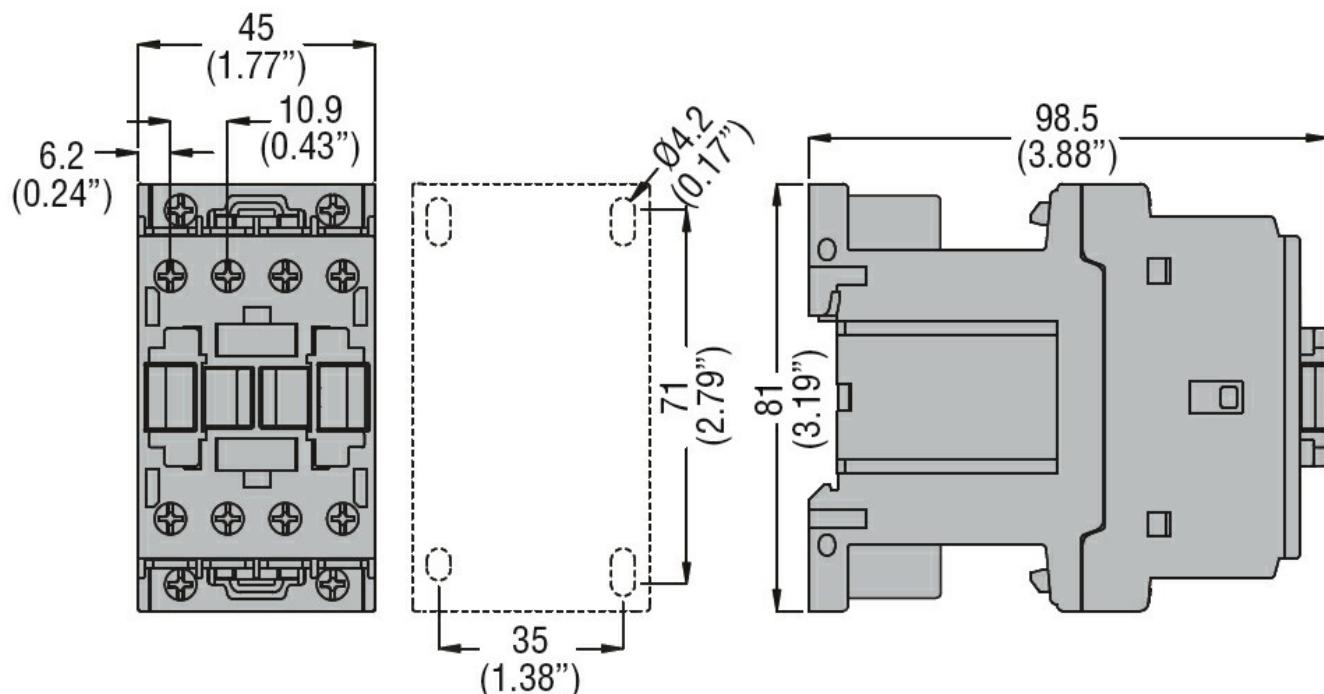
Opening NO

min	ms	10
max	ms	20

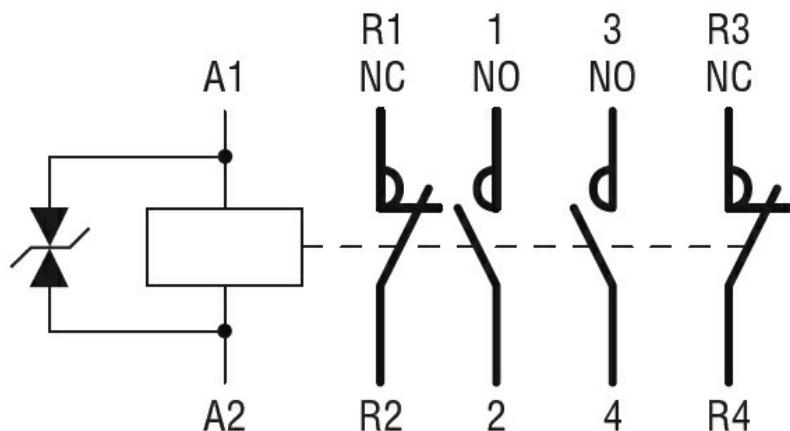
Closing NC

min	ms	14
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		max	ms	28
	Opening NC	min	ms	7
		max	ms	18
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in DC				
	Closing NO	min	ms	54
		max	ms	66
	Opening NO	min	ms	14
		max	ms	17
	Closing NC	min	ms	24
		max	ms	30
	Opening NC	min	ms	47
		max	ms	57
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<b>UL technical data</b>				
Rated operational voltage AC (UL)			V	600
Full-load current (FLA) for three-phase AC motor				
	at 480V	A		14
	at 600V	A		17
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Yielded mechanical performance				
for single-phase AC motor				
	110/120V	HP		1
	230V	HP		3
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for three-phase AC motor				
	200/208V	HP		5
	220/230V	HP		5
	460/480V	HP		10
	575/600V	HP		15
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<b>General USE</b>				
Contactor				
	AC current	A		32
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<b>Ambient conditions</b>				
Temperature				
Operating temperature				
	min	°C		-50
	max	°C		70
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Storage temperature				
	min	°C		-60
	max	°C		80
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Max altitude				
		m		3000
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<b>Resistance &amp; Protection</b>				
Pollution degree				
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<b>Dimensions</b>				



#### 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