



Product designation	Power contactor		
Product type designation	BF18		
Contact characteristics			
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)	m?	2.5	
Power dissipation per pole (average value)	I _{th}	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 ² 1
	max	mm ² 6
Flexible c/w lug conductor section	min	mm ² 1
	max	mm ² 4
Flexible with insulated spade lug conductor section	min	mm ² 1
	max	mm ² 4

Power terminal protection according to IEC/EN 60529

IP20 when wired

Mechanical features

Operating position

normal allowable	Vertical plan ±30°
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Fixing

Screw / DIN rail
35mm

Weight

g 500

Conductor section

AWG/kcmil conductor section	max	10
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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

DC coil operating

DC rated control voltage

V 24

DC operating voltage

pick-up

min %Us 80
max %Us 110

drop-out

min %Us 10
max %Us 40

Average coil consumption ≤20°C

in-rush W 2.4
holding W 2.4

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
		max	ms	28
Opening NC				
		min	ms	7
		max	ms	18
<hr/>				
in DC				
Closing NO				
		min	ms	75
		max	ms	91
Opening NO				
		min	ms	15
		max	ms	19
Closing NC				
		min	ms	24
		max	ms	30
Opening NC				
		min	ms	67
		max	ms	81

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

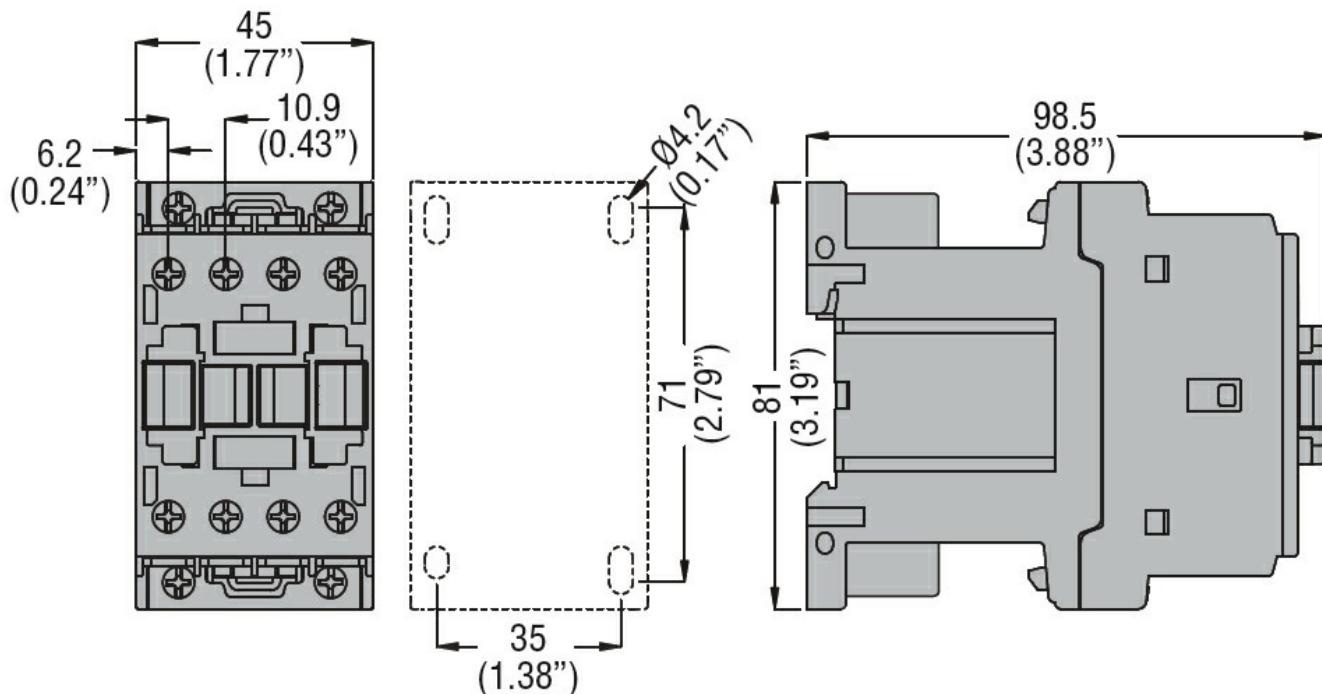
m 3000

Resistance & Protection

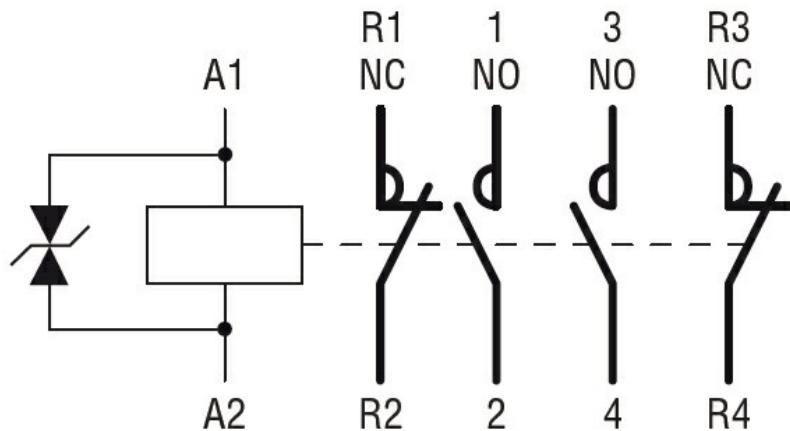
Pollution degree

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