



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 $\Omega$	2.5
Power dissipation per pole (average value)	$I_{th}$	W 2.6
	AC-3	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 <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	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

in DC	Opening NC	max	ms	28
		min	ms	7
		max	ms	18
	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

#### 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

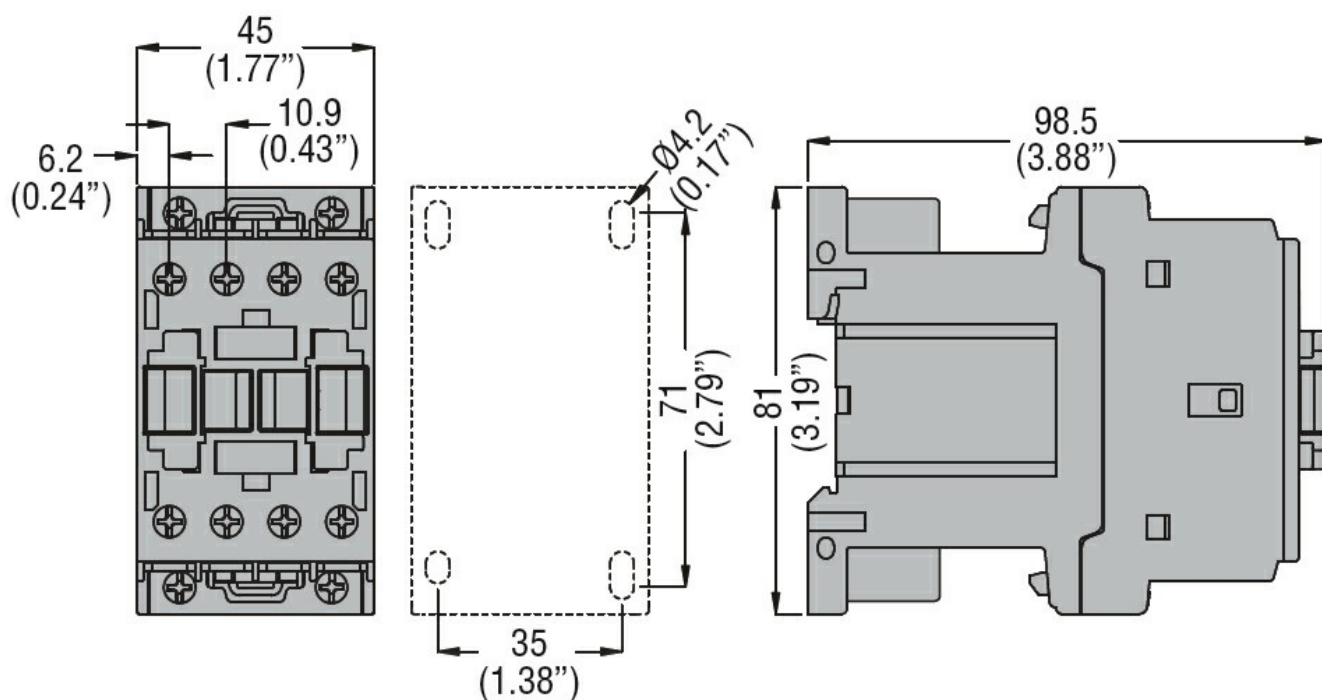
#### General USE

Contactor	AC current	A	32
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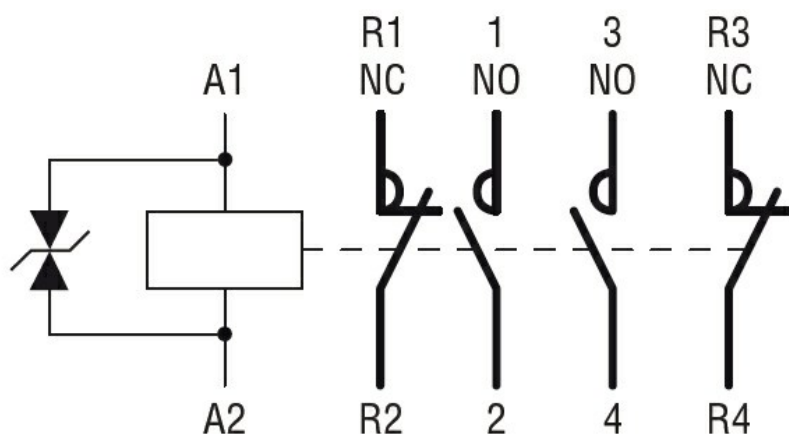
#### Ambient conditions

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