



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 (≤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 _{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 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 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	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

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

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

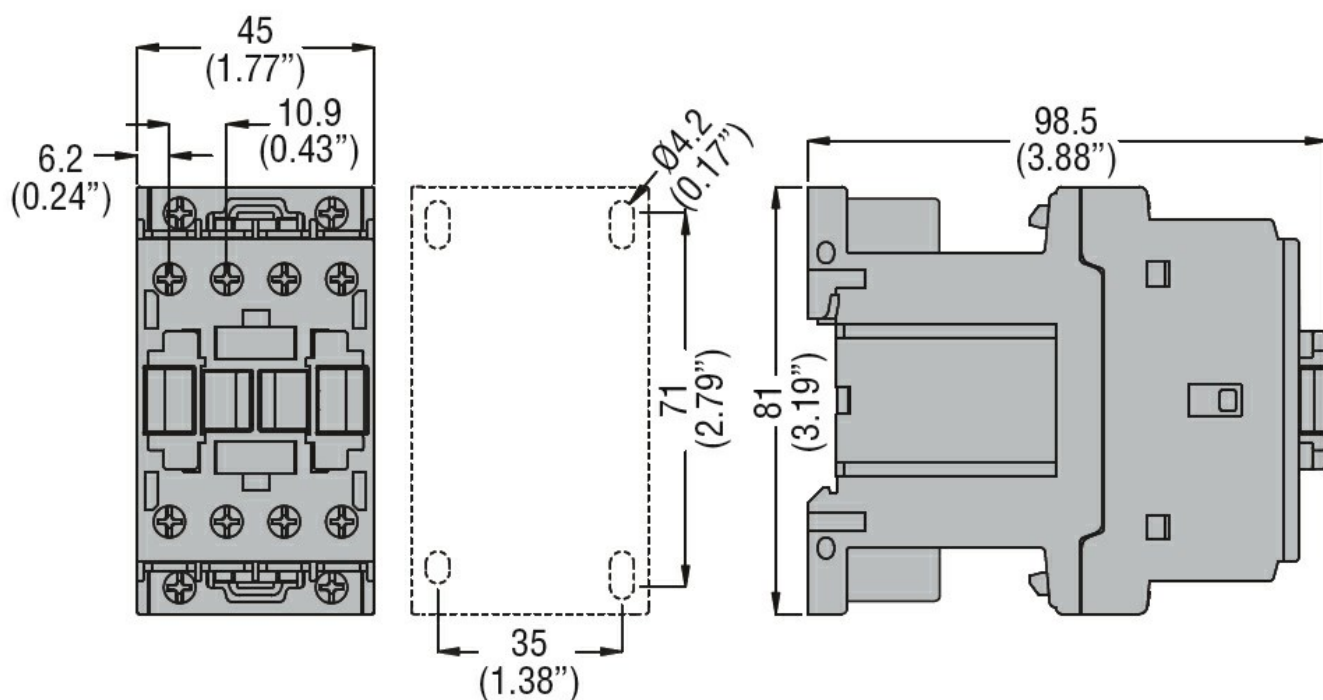
min	°C	-60
max	°C	80

Max altitude	m	3000
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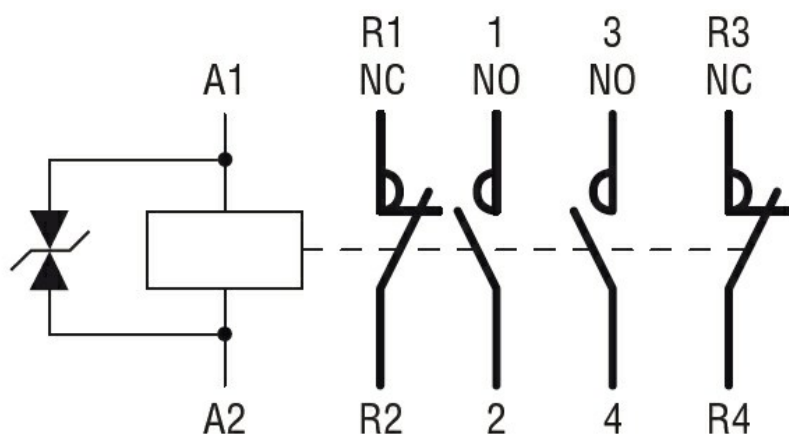
Resistance & Protection

Pollution degree	3
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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