



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
	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°	
Fixing			Screw / DIN rail 35mm
Weight	g		490
Conductor section	AWG/kcmil conductor section		
	max	10	
Auxiliary contact characteristics			
Thermal current I _{th}	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 mechanical load	cycles	1600000
		cycles	20000000
Mirror contats according to IEC/EN 609474-4-1			YES
EMC compatibility	yes		
DC coil operating			
DC rated control voltage	V		12
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 holding	W	5.4
		W	5.4
Max cycles frequency			
Mechanical operation	cycles/h		3600
Operating times			
Average time for U _s control in AC	Closing NO		

in DC	Opening NO	min	ms	8
		max	ms	24
	Closing NC	min	ms	10
		max	ms	20
	Opening NC	min	ms	14
		max	ms	28
		min	ms	7
		max	ms	18
	Closing NC	min	ms	24
		max	ms	30
	Opening NC	min	ms	47
		max	ms	57

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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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

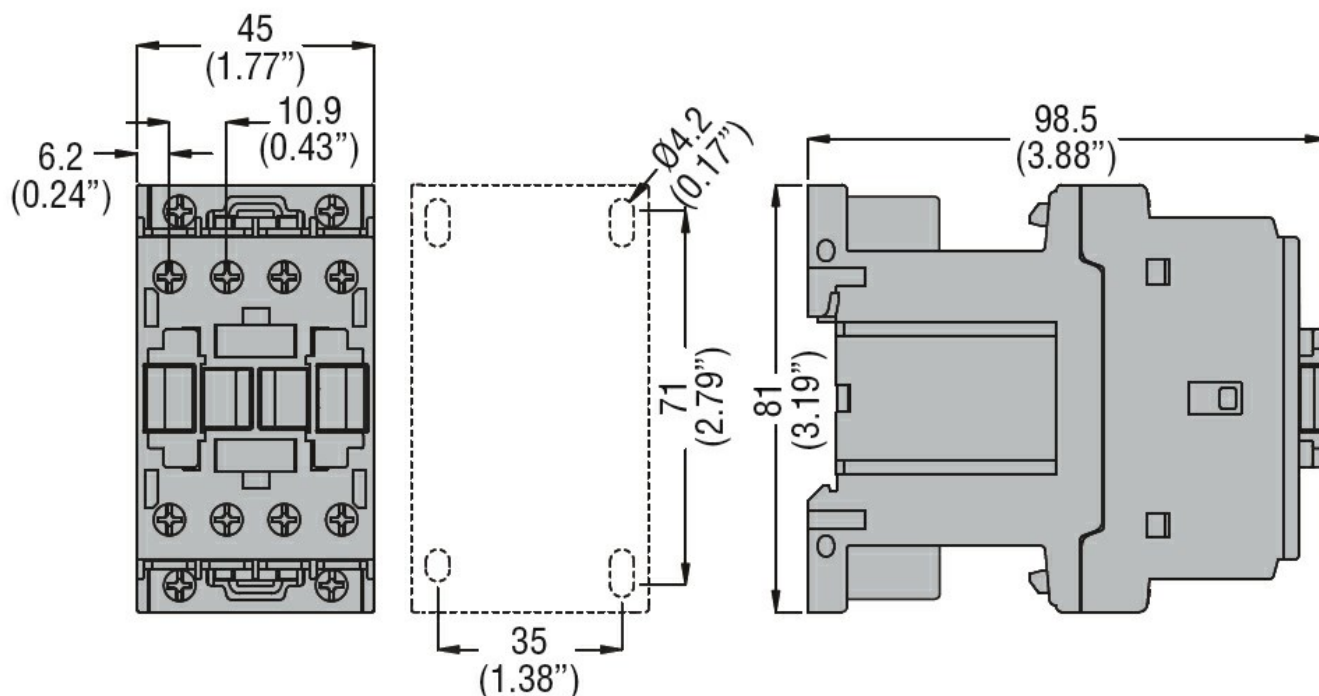
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Resistance & Protection

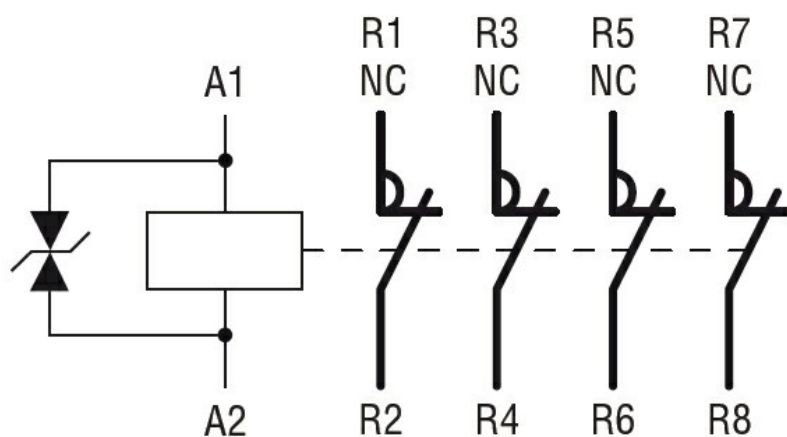
Pollution degree

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