



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	I _{bin}	1.1	
	max	I _{bin}	1.5	
Tightening torque for coil terminal	min	Nm	0.8	
	max	Nm	1	
	min	I _{bin}	0.8	
	max	I _{bin}	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	360

Conductor section	AWG/kcmil conductor section		
	max	10	

Auxiliary contact characteristics

Thermal current Ith	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 contacts according to IEC/EN 60947-4-1 YES

EMC compatibility yes

AC coil operating

Rated AC voltage at 50/60Hz V 48

AC operating voltage	of 50/60Hz coil powered at 50Hz		
	pick-up		
	min	%Us	80
	max	%Us	110
	drop-out		
	min	%Us	20
	max	%Us	55
	of 50/60Hz coil powered at 60Hz		
	pick-up		
	min	%Us	85
	max	%Us	110
	drop-out		
	min	%Us	20
	max	%Us	55

AC average coil consumption at 20°C

of 50/60Hz coil powered at 50Hz

in-rush	VA	75
holding	VA	9

of 50/60Hz coil powered at 60Hz

in-rush	VA	70
holding	VA	6.5

of 60Hz coil powered at 60Hz

in-rush	VA	75
holding	VA	9

Dissipation at holding ≤20°C 50Hz	W	2.5
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Max cycles frequency

Mechanical operation	cycles/h	3600
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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

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

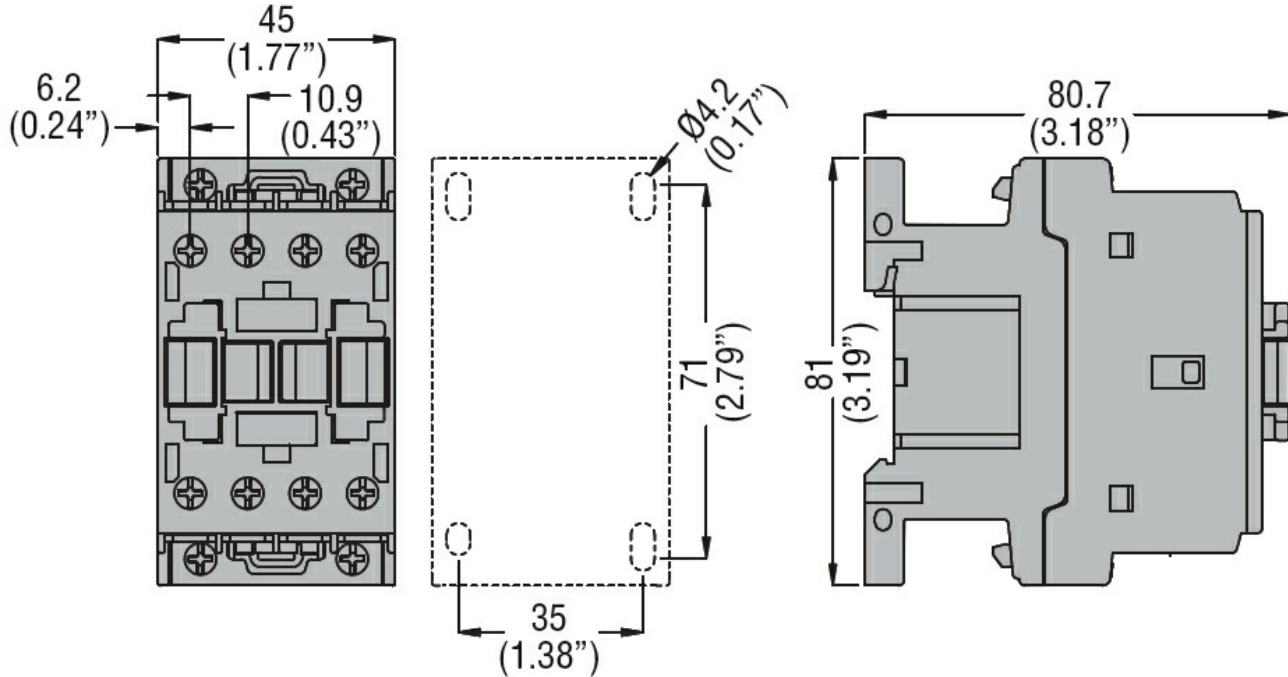
m	3000
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Resistance & Protection

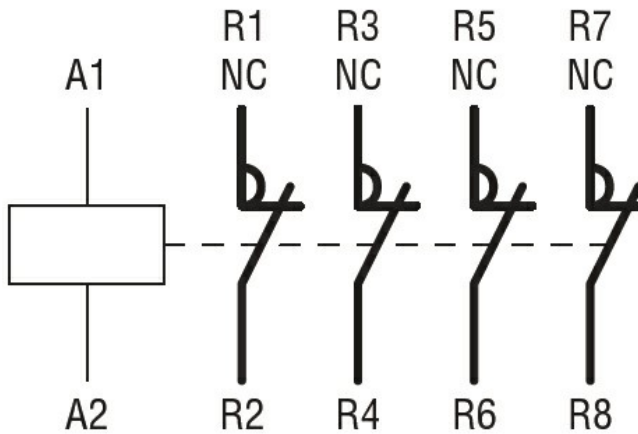
Pollution degree

3

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1
CSA C22.2 n° 60947-4-1
IEC/EN/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