



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

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

DC coil operating

DC rated control voltage V 220

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 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
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in DC			
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

m 3000

Resistance & Protection

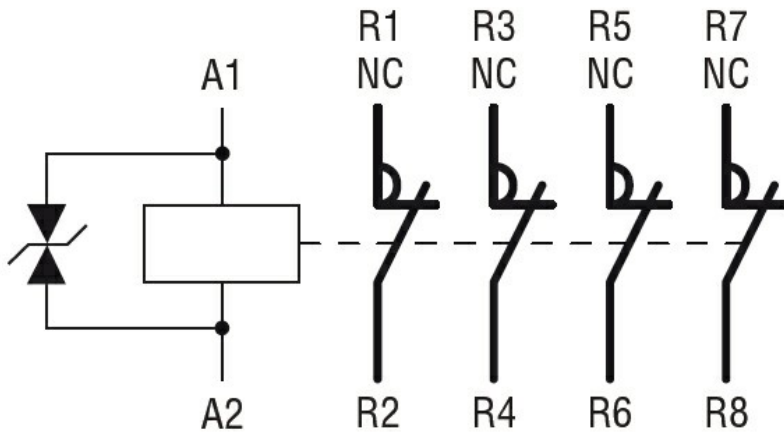
Pollution degree

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