



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 60Hz			V 230
AC operating voltage			
of 60Hz coil powered at 60Hz			
pick-up			
		min	%Us 80
		max	%Us 110
drop-out			
		min	%Us 20
		max	%Us 55
AC average coil consumption at 20°C			
of 60Hz coil powered at 60Hz			
		in-rush holding	VA 75
			VA 9
Dissipation at holding ≤20°C 50Hz			W 2.5
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

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

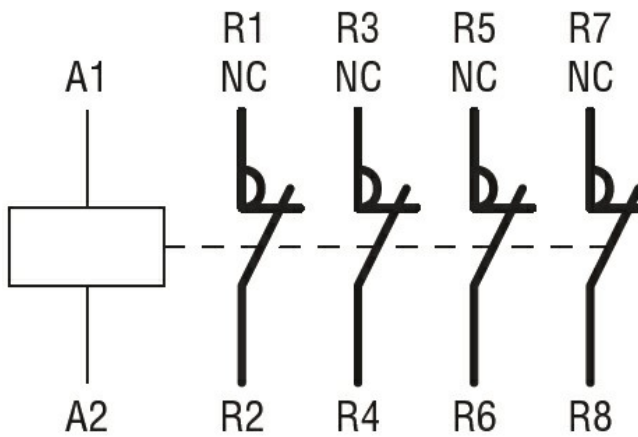
Pollution degree

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