



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	502
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			
AC operating voltage			
of 50/60Hz coil powered at 50Hz drop-out			
		max	%Us 55
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 holding	W 2.4
			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
	max	ms	28
Opening NC	min	ms	7
	max	ms	18

in DC

Closing NC	min	ms	24
	max	ms	30
Opening NC	min	ms	67
	max	ms	81

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

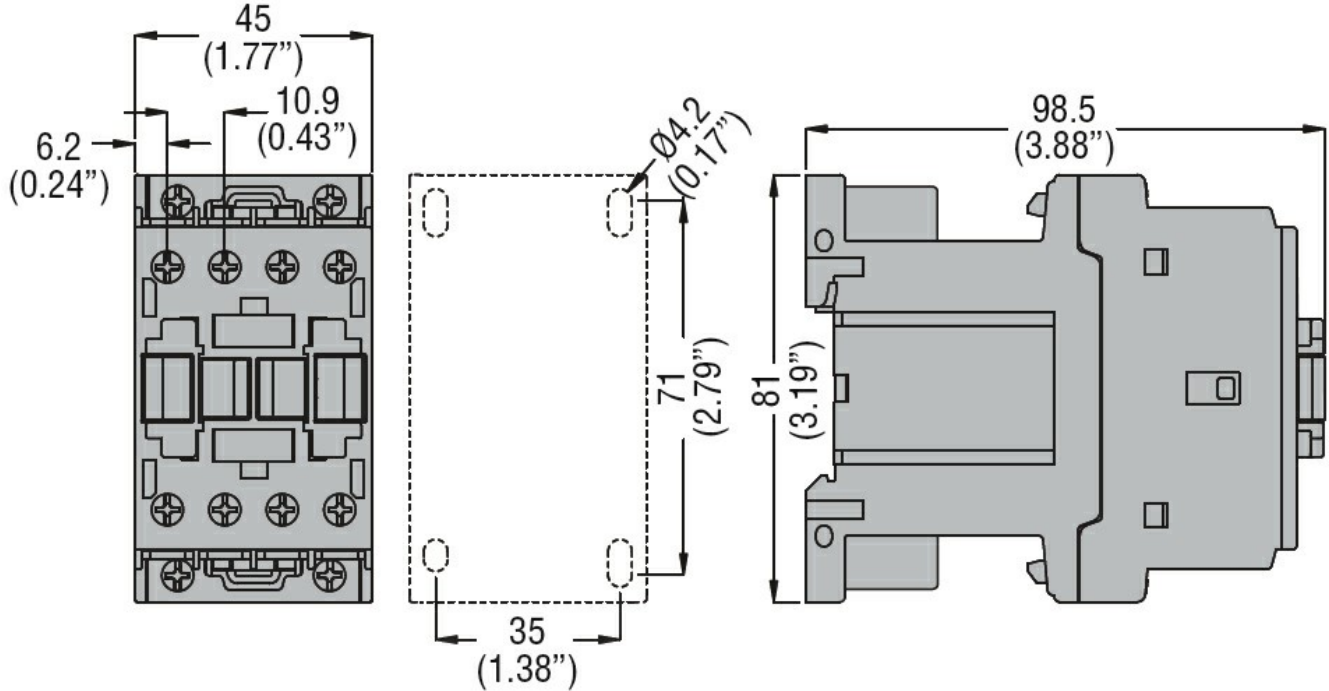
Operating temperature

	min	°C	-50
	max	°C	70

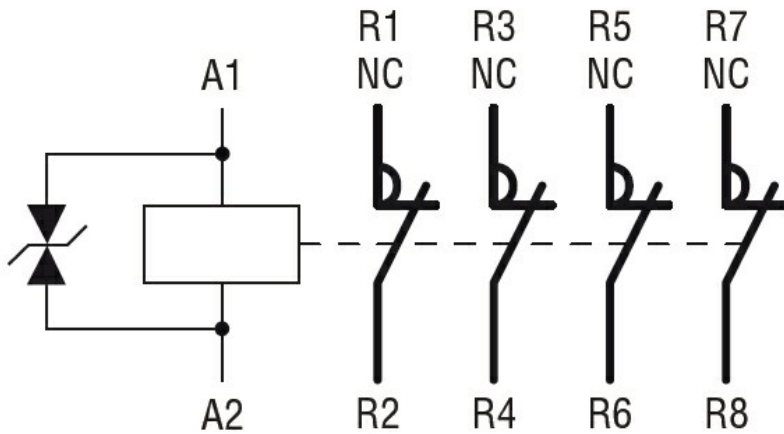
Storage temperature

	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
Certificates	UL 60947-4-1
	CCC
	cULus
	EAC

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching