



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 498

Conductor section

AWG/kcmil conductor section				
		max		10

Operations

Mechanical life cycles 20000000

Electrical life cycles 1600000

Safety related data

Performance level B10d according to EN/ISO 13489-1

rated load cycles 1600000
mechanical load cycles 20000000

Mirror contacts according to IEC/EN 60947-4-1

YES

EMC compatibility

yes

DC coil operating

DC rated control voltage V 24

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 W 5.4
holding 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
<hr/>				
	in DC			
	Closing NO			
		min	ms	54
		max	ms	66
	Opening NO			
		min	ms	14
		max	ms	17
	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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Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

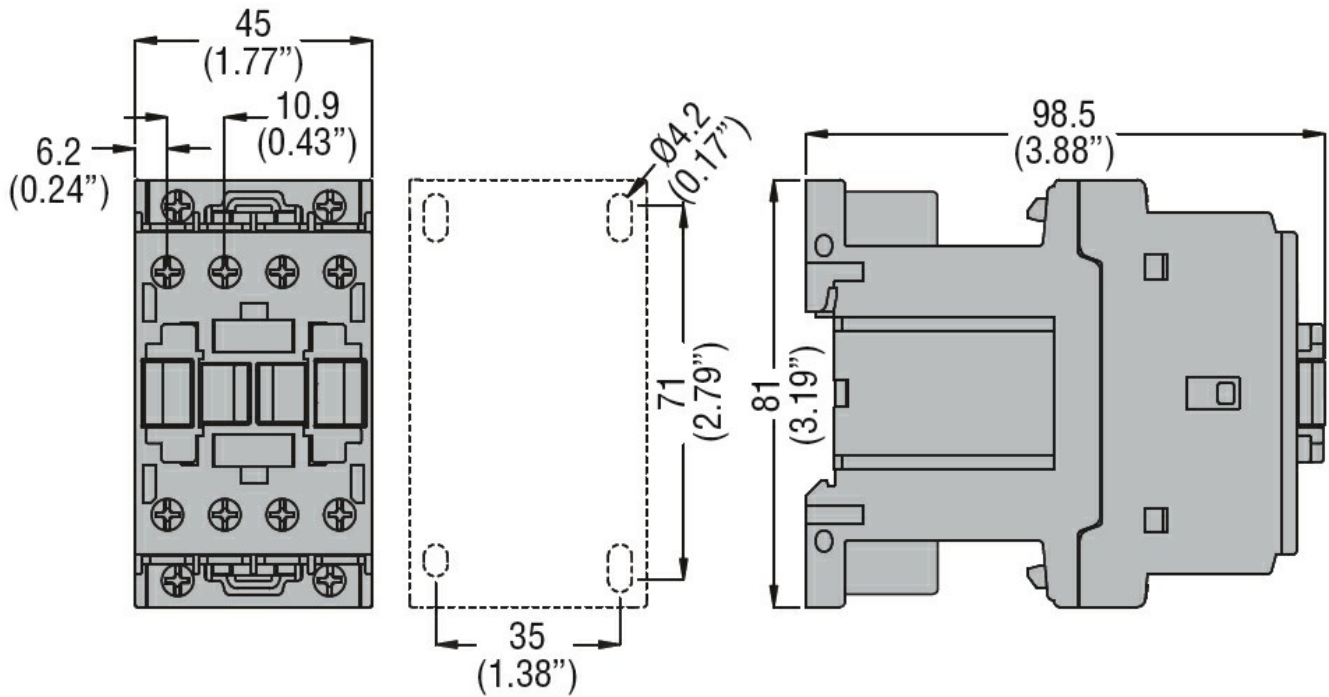
m	3000
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Resistance & Protection

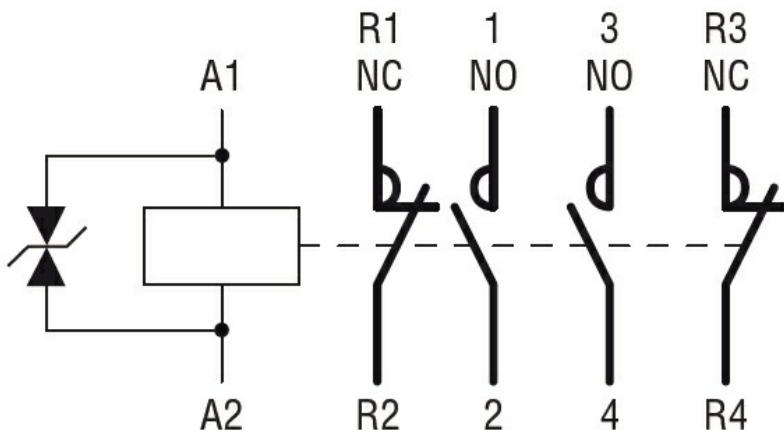
Pollution degree

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