



Product designation	Power contactor		
Product type designation	BF80		
<b>Contact characteristics</b>			
Number of poles	Nr.	4	
Rated insulation voltage $U_i$ IEC/EN	V	1000	
Rated impulse withstand voltage $U_{imp}$	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current $I_{th}$	A	115	
Operational current $I_e$	AC-1 ( $\leq 40^\circ\text{C}$ ) A 115 AC-1 ( $\leq 55^\circ\text{C}$ ) A 95 AC-1 ( $\leq 70^\circ\text{C}$ ) A 80 AC-3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ ) A 80 AC-4 (400V) A 38		
Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )	230V	kW	43
	400V	kW	76
	500V	kW	95
	690V	kW	120
Short-time allowable current for 10s (IEC/EN60947-1)	A	640	
Protection fuse	gG (IEC)	A	125
	aM (IEC)	A	80
Making capacity (RMS value)	A	800	
Breaking capacity at voltage	440V	A	640
	500V	A	625
	690V	A	456
Resistance per pole (average value)	m?	0.6	
Power dissipation per pole (average value)	I <sub>th</sub>	W	7.9
	AC3	W	3.8
Tightening torque for terminals	min	Nm	4
	max	Nm	5
	min	lbin	2.95
	max	lbin	3.69
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	2
Flexible w/o lug conductor section	min	mm <sup>2</sup> 1.5
	max	mm <sup>2</sup> 35
Flexible c/w lug conductor section	min	mm <sup>2</sup> 1.5
	max	mm <sup>2</sup> 35

Power terminal protection according to IEC/EN 60529

IP20 front

Mechanical features

Operating position

normal	Vertical plan
allowable	±30°

Fixing

Screw / DIN rail  
35mm

Weight

g 1360

Conductor section

AWG/kcmil conductor section	max	2
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Operations

Mechanical life	cycles	15000000
Electrical life	cycles	1300000

Safety related data

Performance level B10d according to EN/ISO 13489-1

rated load	cycles	1300000
mechanical load	cycles	15000000

Mirror contacts according to IEC/EN 609474-4-1

YES

EMC compatibility

yes

AC coil operating

Rated AC voltage at 60Hz	V	575
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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	VA	210
	holding	VA	15

Dissipation at holding ≤20°C 50Hz

W 5

Max cycles frequency

cycles/h 3600

Mechanical operation

Operating times	cycles/h	3600
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Average time for Us control

in AC	Closing NO	min	ms	12
		max	ms	28
Opening NO				

		min	ms	8
		max	ms	22
Closing NC				
		min	ms	11
		max	ms	29
Opening NC				
		min	ms	6
		max	ms	14
<hr/>				
in DC				
Closing NO				
		min	ms	40
		max	ms	85
Opening NO				
		min	ms	20
		max	ms	55

**UL technical data**
**Full-load current (FLA) for three-phase AC motor**

at 480V	A	77
at 600V	A	77

**Yielded mechanical performance**
**for three-phase AC motor**

200/208V	HP	25
220/230V	HP	30
460/480V	HP	60
575/600V	HP	75

**General USE**
**Contactor**

AC current	A	115
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**Ambient conditions**
**Temperature**
**Operating temperature**

min	°C	-50
max	°C	70

**Storage temperature**

min	°C	-60
max	°C	80

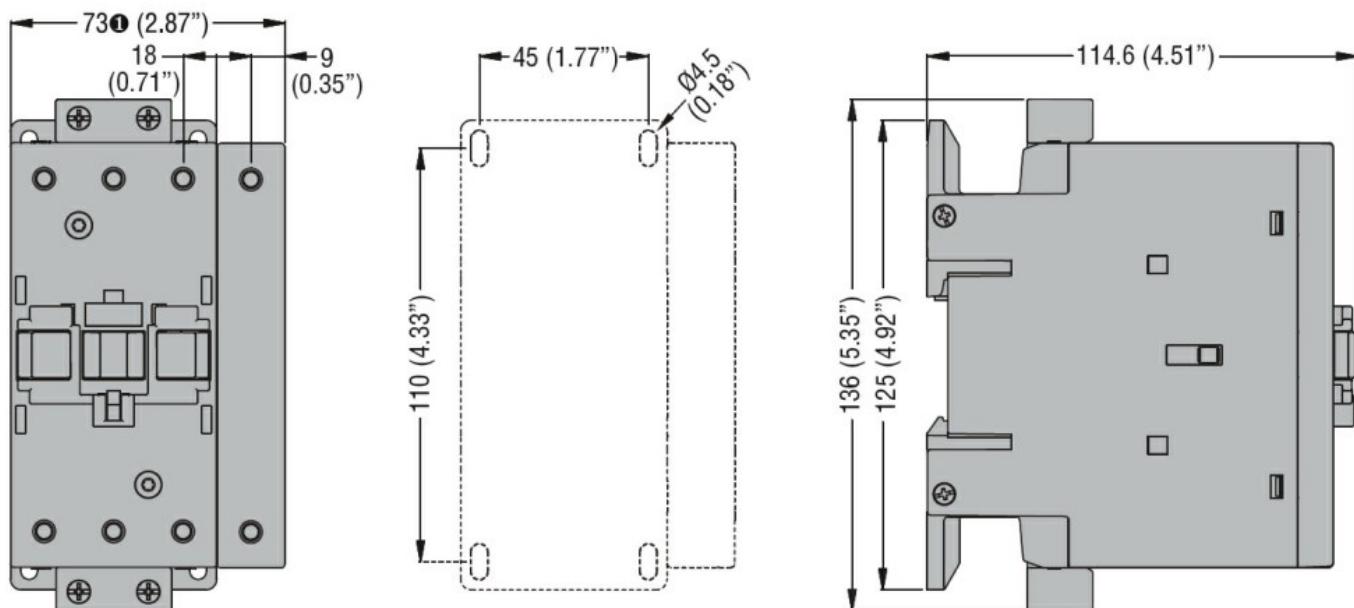
**Max altitude**

m	3000
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**Resistance & Protection**
**Pollution degree**

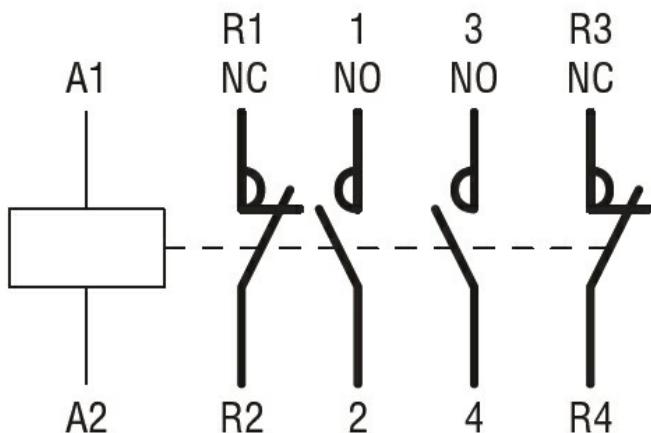
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**Dimensions**



### ① BF80T2 82mm/3.23"

#### Wiring diagrams



#### Certifications and compliance

##### Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

##### Certificates

CCC

cULus

#### ETIM classification

##### ETIM 8.0

EC000066 -  
Power contactor,  
AC switching