



Product designation				Power contactor
Product type designation				BFD80
<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	160
	400V		A	115
600V		A	100	
800V		A	90	
1000V		A	80	
Short-time allowable current for 10s (IEC/EN60947-1)			A	640
Protection fuse	gG (IEC)		A	125
	aM (IEC)		A	80
Resistance per pole (average value)			m $\Omega$	0.6
Power dissipation per pole (average value)	I <sub>th</sub>		W	7.9
	min		Nm	4
max		Nm	5	
min		l <sub>bin</sub>	2.95	
max		l <sub>bin</sub>	3.69	
Tightening torque for coil terminal	min		Nm	0.8
	max		Nm	1
min		l <sub>bin</sub>	0.8	
max		l <sub>bin</sub>	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 allowable	Vertical plan ±30°
Fixing		Screw / DIN rail 35mm
Weight		g 1240
Conductor section	AWG/kcmil conductor section	
	max	2

### Operations

Mechanical life	cycles	15000000
-----------------	--------	----------

### Safety related data

Performance level B10d according to EN/ISO 13489-1	mechanical load	cycles	15000000
EMC compatibility			yes

### AC coil operating

Rated AC voltage at 60Hz	V	24
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	210
		VA	15
Dissipation at holding ≤20°C 50Hz		W	5

### Max cycles frequency

Mechanical operation	cycles/h	3600
----------------------	----------	------

### Operating times

Average time for Us control in AC				
Closing NO	min	ms	12	
	max	ms	28	
Opening NO	min	ms	8	
	max	ms	22	
in DC				
Closing NO	min	ms	40	
	max	ms	85	
Opening NO	min	ms	20	
	max	ms	55	

### UL technical data

General USE	Contactor	AC current	A	115
	4 poles in series DC1			

600V A 100

**Ambient conditions**

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

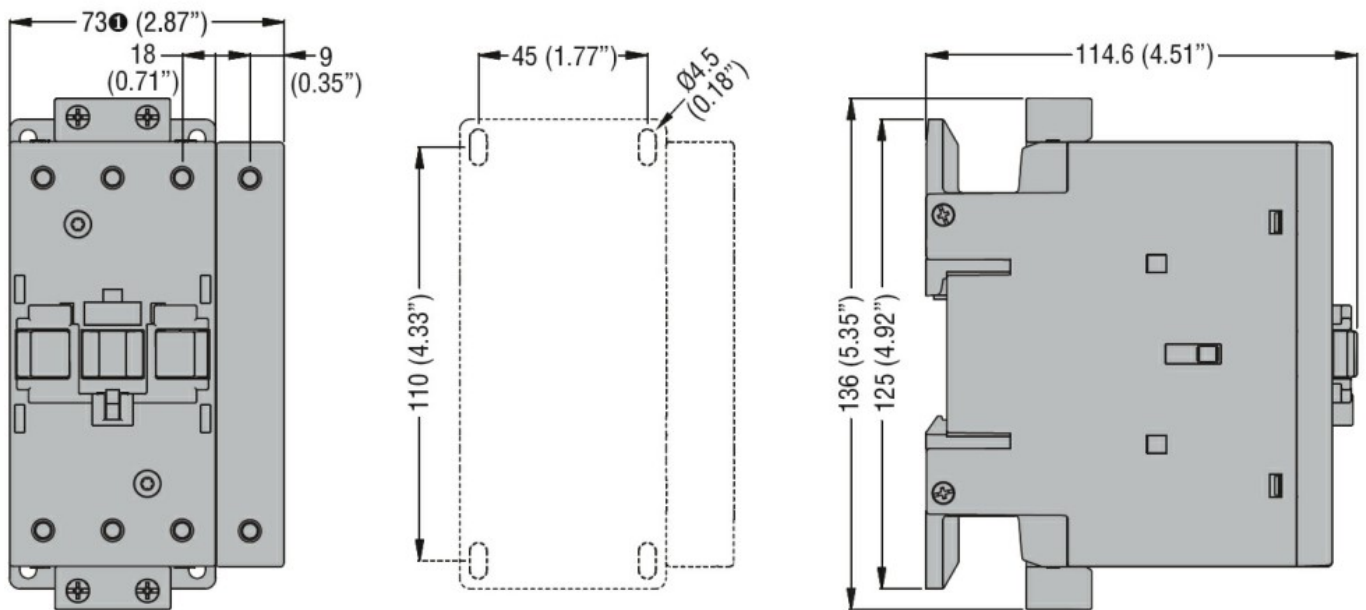
m	3000
---	------

**Resistance & Protection**

Pollution degree

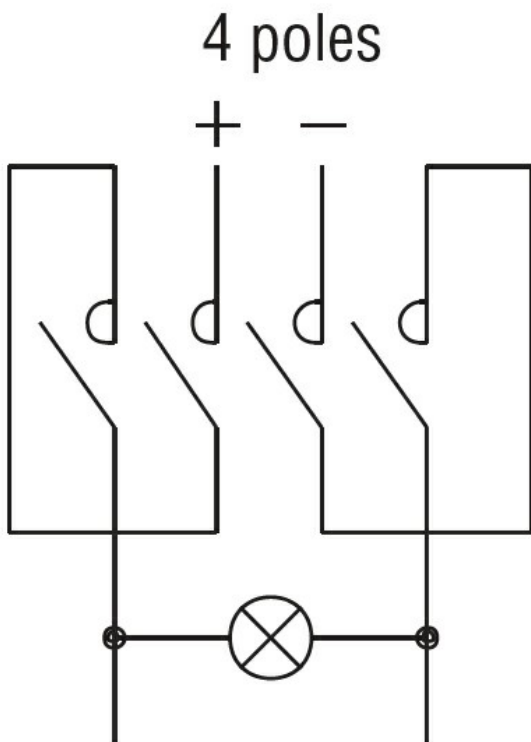
3

**Dimensions**



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/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

#### Certificates

cULus

### ETIM classification

ETIM 8.0

EC002552 -  
Power contactor,  
DC switching