



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	
IEC max current $I_e$ in DC1 with $L/R \leq 1$ ms with 4 poles in series	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)	$I_{th}$	W	7.9	
	min	Nm	4	
Tightening torque for terminals	max	Nm	5	
	min	$I_{bin}$	2.95	
	max	$I_{bin}$	3.69	
	min	Nm	0.8	
Tightening torque for coil terminal	max	Nm	1	
	min	$I_{bin}$	0.8	
	max	$I_{bin}$	0.74	
	min	Nm	0.8	
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
<b>Mechanical features</b>				
Operating position				

	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	1240
Conductor section			
	AWG/kcmil conductor section		
		max	2
<b>Operations</b>			
Mechanical life		cycles	15000000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1		mechanical load	cycles 15000000
EMC compatibility			yes
<b>AC coil operating</b>			
Rated AC voltage at 60Hz		V	48
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
<b>Max cycles frequency</b>			
Mechanical operation		cycles/h	3600
<b>Operating times</b>			
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
<b>UL technical data</b>			
General USE			
	Contactors		
		AC current	A 115
	4 poles in series DC1		
		600V	A 100
<b>Ambient conditions</b>			

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

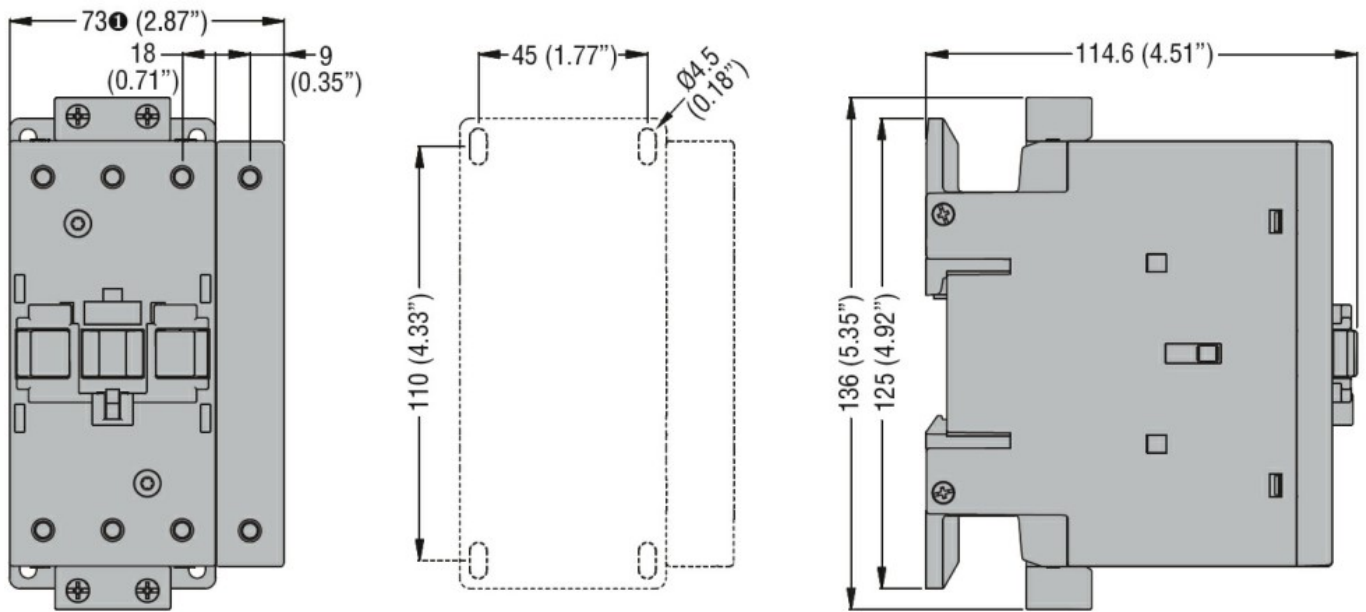
m	3000
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Resistance & Protection

Pollution degree

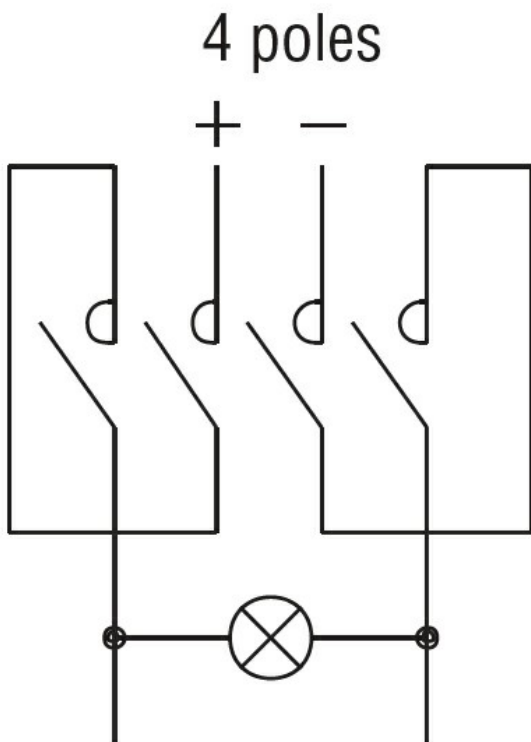
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Dimensions



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/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