



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	
	Tightening torque for terminals			
Tightening torque for terminals	min	Nm	4	
	max	Nm	5	
	min	$I_{bin}$	2.95	
	max	$I_{bin}$	3.69	
	Tightening torque for coil terminal			
	min	Nm	0.8	
max	Nm	1		
min	$I_{bin}$	0.8		
max	$I_{bin}$	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
<b>Mechanical features</b>				
Operating position				

		normal allowable		Vertical plan ±30°
Fixing				Screw / DIN rail 35mm
Weight			g	12476
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 50/60Hz			V	230
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up	min	%Us	80
		max	%Us	110
	drop-out	min	%Us	20
		max	%Us	55
	of 50/60Hz coil powered at 60Hz			
	pick-up	min	%Us	85
		max	%Us	110
	drop-out	min	%Us	20
		max	%Us	55
AC average coil consumption at 20°C				
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	210
		holding	VA	15
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	195
		holding	VA	13
	of 60Hz coil powered at 60Hz			
		in-rush	VA	210
		holding	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

**UL technical data**

General USE

Contactor	AC current	A	115
4 poles in series DC1	600V	A	100

**Ambient conditions**

Temperature

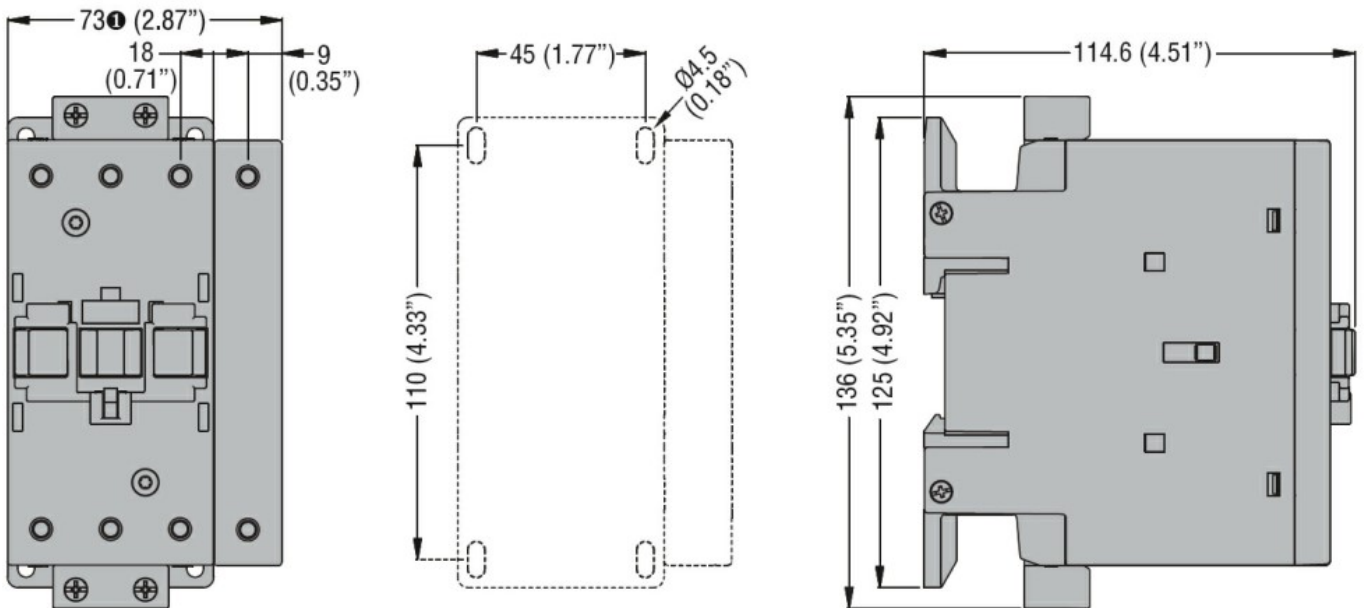
Operating temperature	min	°C	-50
	max	°C	70
Storage temperature	min	°C	-60
	max	°C	80

Max altitude	m	3000
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**Resistance & Protection**

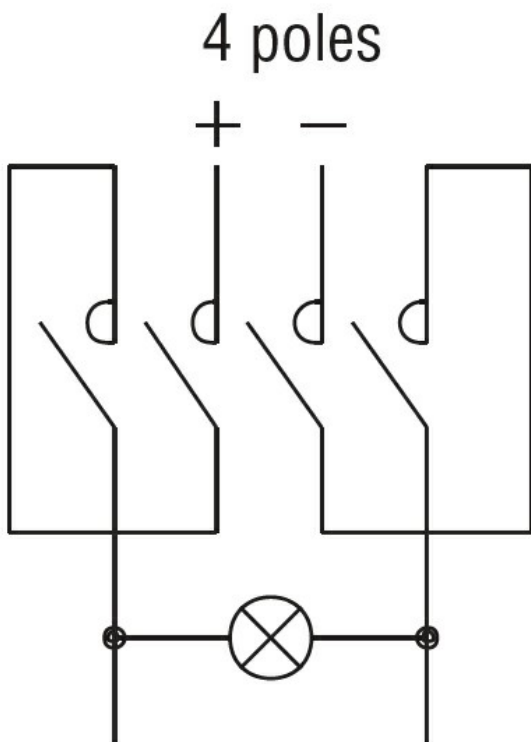
Pollution degree	3
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**Dimensions**



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