



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	100	
	600V	A	100	
	800V	A	76	
	1000V	A	60	
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	$I_{bft}$	0.59		
max	$I_{bft}$	0.74		
Max number of wires simultaneously connectable	nr.			2
Conductor section	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			vertical plan
	allowable			$\pm 30^\circ$

Fixing				Screw / DIN rail 35mm
Weight	g			1280
<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, 60Hz	min	V	20	
	max	V	250	
AC operating voltage				
of 50/60Hz coil powered at 50Hz				
pick-up	min	%Us	80 Us min	
	max	%Us	110 Us max	
drop-out	max	%Us	≤70 Us min	
of 50/60Hz coil powered at 60Hz				
pick-up	min	%Us	80 Us min	
	max	%Us	110 Us max	
drop-out	max	%Us	≤70 Us min	
AC operating voltage at 20°C				
of 50/60Hz coil powered at 50Hz	in-rush	VA	35...120	
	holding	VA	1.5...3.7	
of 50/60Hz coil powered at 60Hz	in-rush	VA	35...120	
	holding	VA	1.5...3.7	
of 60Hz coil powered at 60Hz	in-rush	VA	210	
	holding	VA	15	
Dissipation at holding ≤20°C 50Hz	W	1...2.5		
<b>DC coil operating</b>				
DC rated control voltage	min	V	20	
DC operating voltage				
pick-up	min	%Us	≤80 Us min	
	max	%Us	≤110 Us max	
drop-out	max	%Us	≤70 Us min	
Average coil consumption ≤20°C	in-rush	W	23...68	
	holding	W	1.2...1.9	
<b>Max cycles frequency</b>				
Mechanical operation	cycles/h	1500		
<b>Operating times</b>				
Average time for Us control				

in AC

Closing NO	min	ms	40
	max	ms	85
Opening NO	min	ms	20
	max	ms	55

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	-40
max	°C	70

Storage temperature

min	°C	-50
max	°C	80

Max altitude

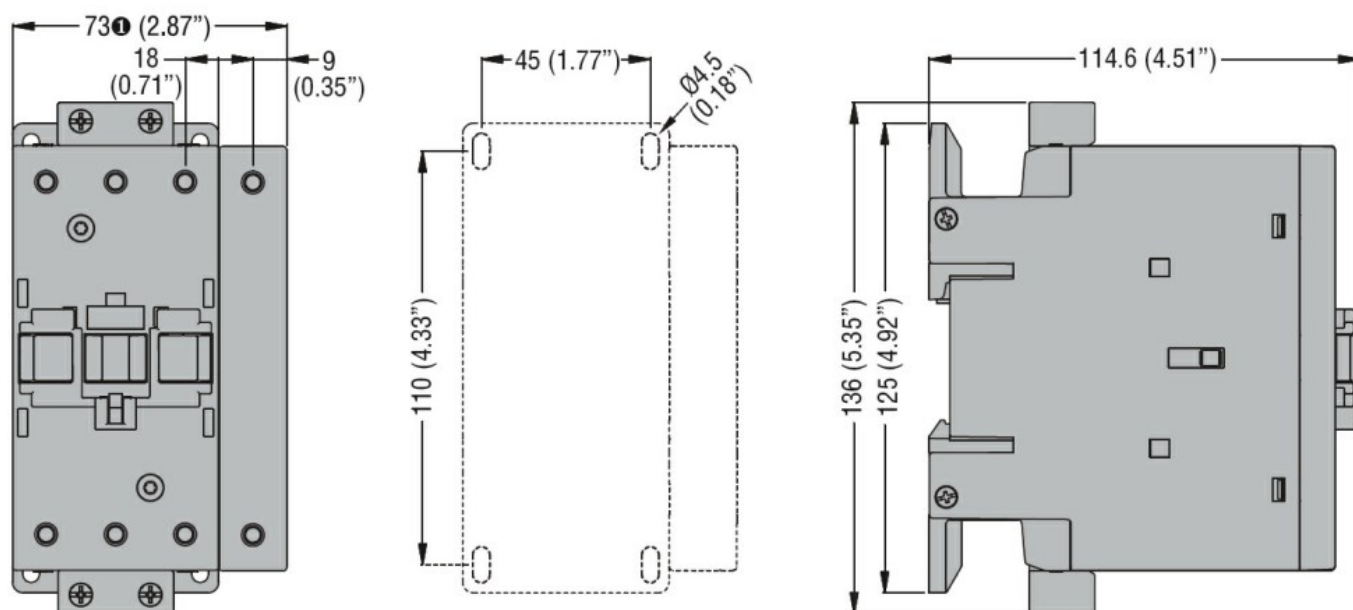
m	3000
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**Resistance & Protection**

Pollution degree

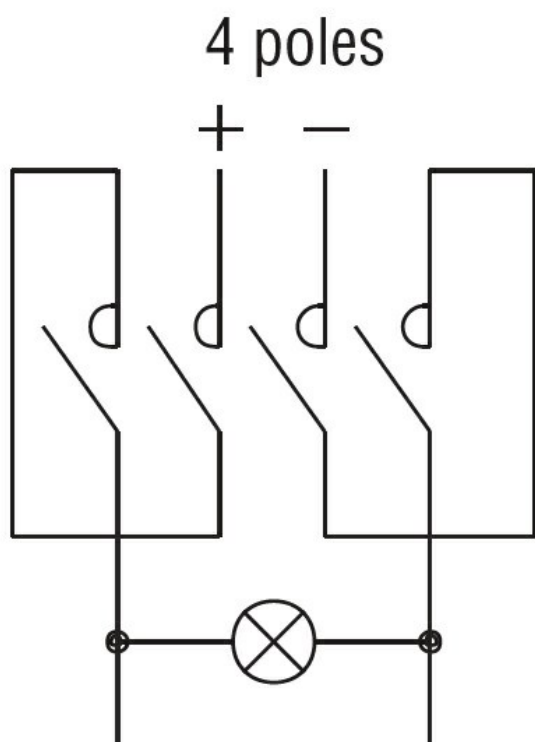
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**Dimensions**



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 60947-4-1

#### Certificates

cULus