



Product designation				Power contactor
Product type designation				BFD80
Contact characteristics				
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 Ω			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	lbin	2.95	
	max	lbin	3.69	
	Tightening torque for coil terminal			
	min	Nm	0.8	
max	Nm	1		
min	lbft	0.8		
max	lbft	0.74		
Max number of wires simultaneously connectable	nr.			2
Conductor section				
Flexible w/o lug conductor section				
	min	mm ²	1.5	
	max	mm ²	35	
Flexible c/w lug conductor section				
	min	mm ²	1.5	
	max	mm ²	35	
Power terminal protection according to IEC/EN 60529				IP20 front
Mechanical features				
Operating position				
	normal			vertical plan
	allowable			$\pm 30^\circ$

Fixing				Screw / DIN rail 35mm
Weight	g			1240
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 50/60Hz, 60Hz	min	V	12	
	max	V	600	
AC operating voltage				
of 50/60Hz coil powered at 50Hz				
pick-up				
	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 operating voltage 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	
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

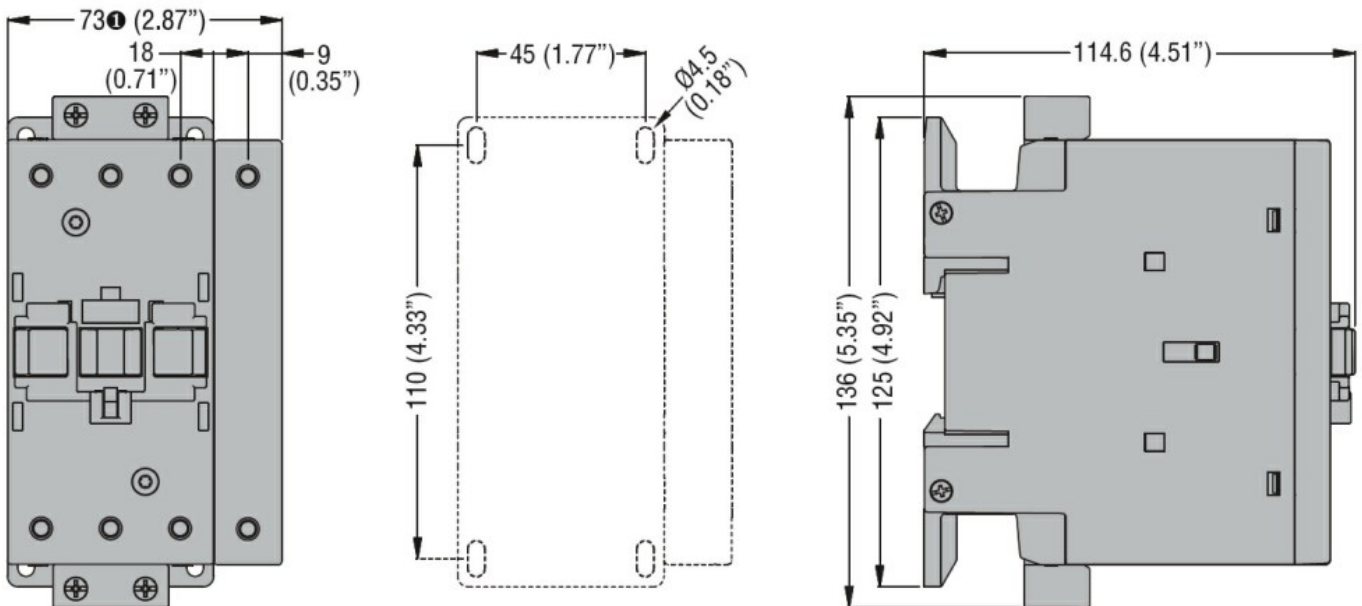
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Resistance & Protection

Pollution degree

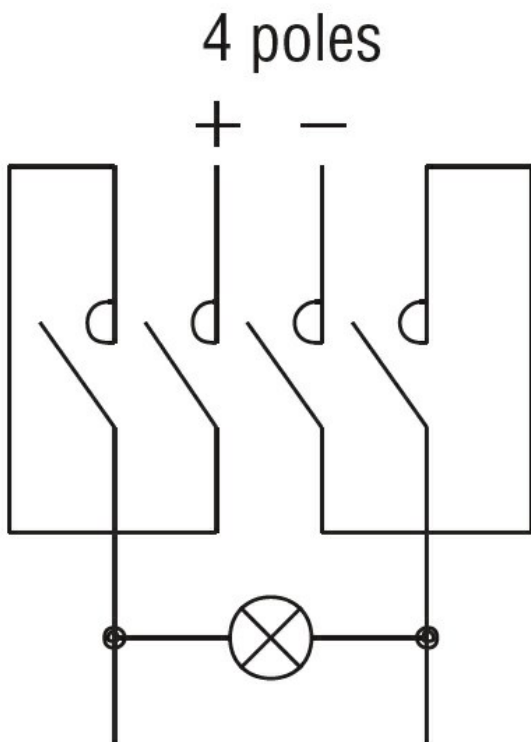
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Dimensions



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