



Power contactor
BFD80

Product designation

Product type designation

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 $L/R \leq 1ms$ 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	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
allowable vertical plan
 $\pm 30^\circ$

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

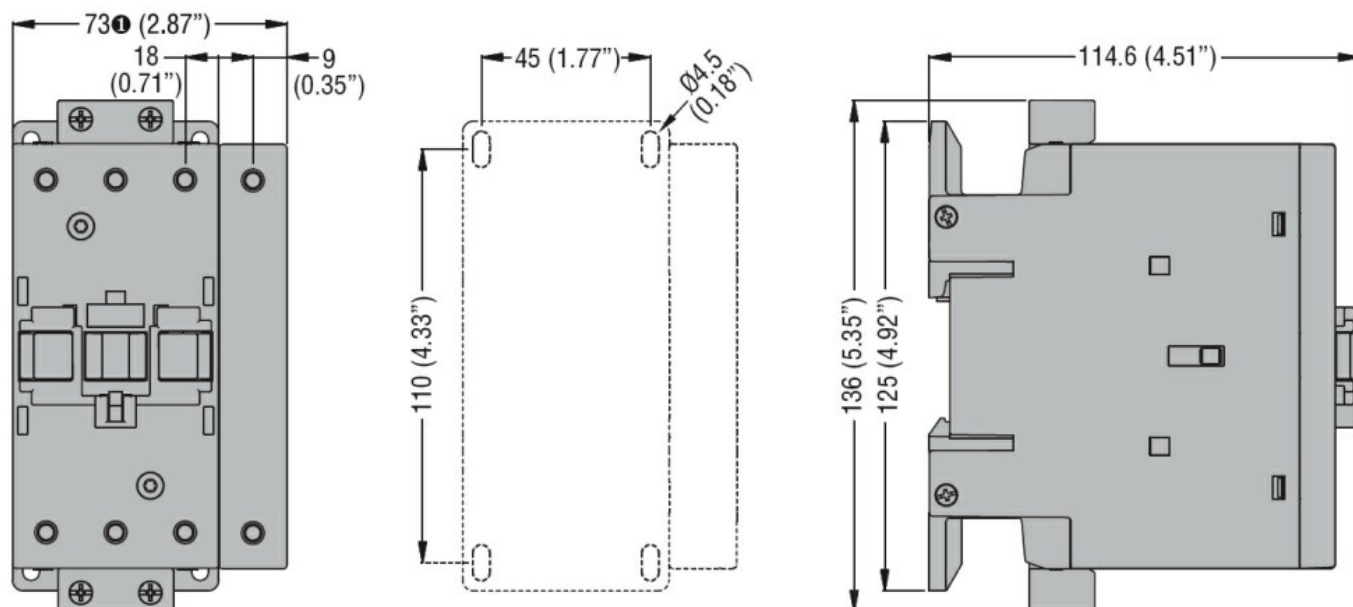
m 3000

Resistance & Protection

Pollution degree

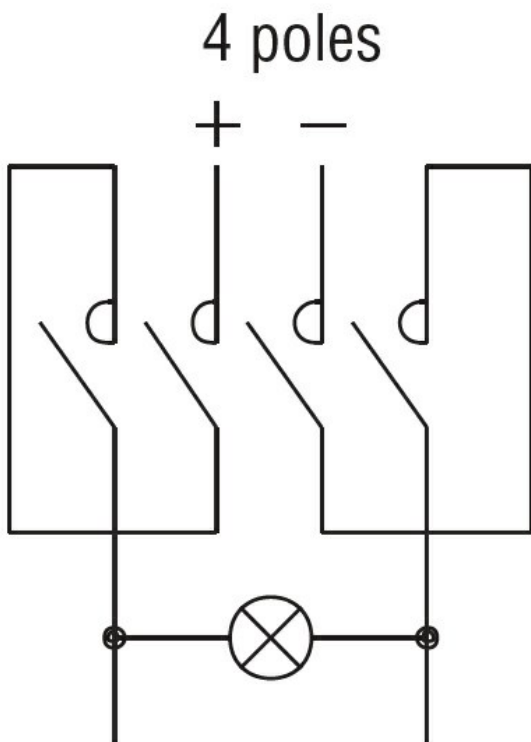
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Dimensions



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