



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
Operational current I_e	AC-1 ($\leq 55^\circ\text{C}$)	A 0
	IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ 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	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 ±30°
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

Opening NO	max	ms	85
	min	ms	20
	max	ms	55

UL technical data

General USE

Contactor

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

Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

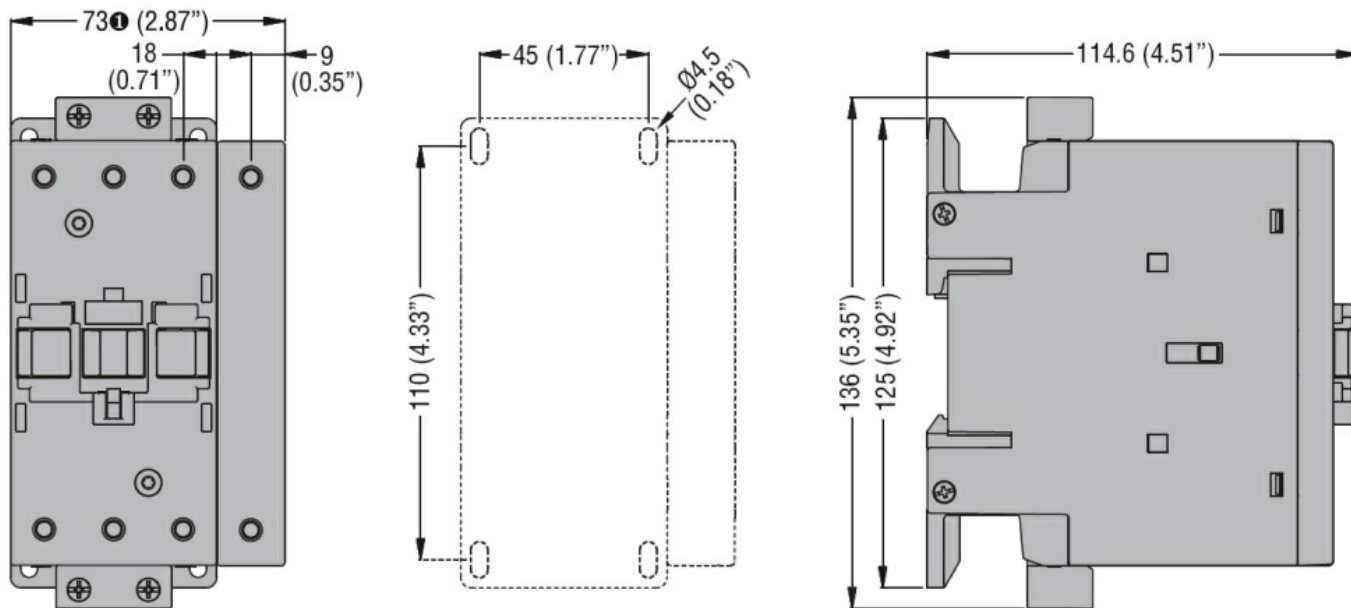
m 3000

Resistance & Protection

Pollution degree

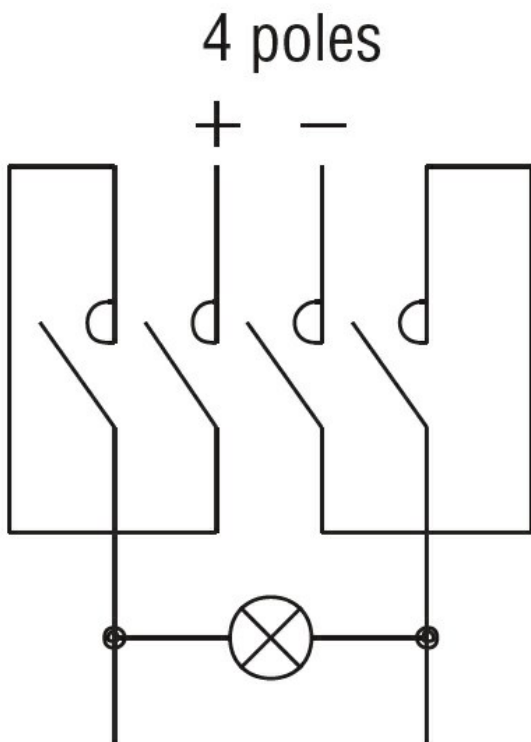
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Dimensions



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