



Product designation
Product type designation

Power contactor
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 max	Hz Hz 25 400
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 600V 800V 1000V	A A A A 115 100 90 80
Short-time allowable current for 10s (IEC/EN60947-1)	A	640
Protection fuse	gG (IEC) aM (IEC)	A A 125 80
Resistance per pole (average value)	mΩ	0.6
Power dissipation per pole (average value)	I_{th} W	7.9
Tightening torque for terminals	min max min max	Nm Nm lbin lbin 4 5 2.95 3.69
Tightening torque for coil terminal	min max min max	Nm Nm lbin lbin 0.8 1 0.8 0.74
Max number of wires simultaneously connectable	Nr.	2
Conductor section	AWG/Kcmil	
	max	2
Flexible w/o lug conductor section	min max	mm ² mm ² 1.5 35
Flexible c/w lug conductor section	min max	mm ² mm ² 1.5 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	12476
Conductor section	AWG/kcmil conductor section			
		max		2
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			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
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

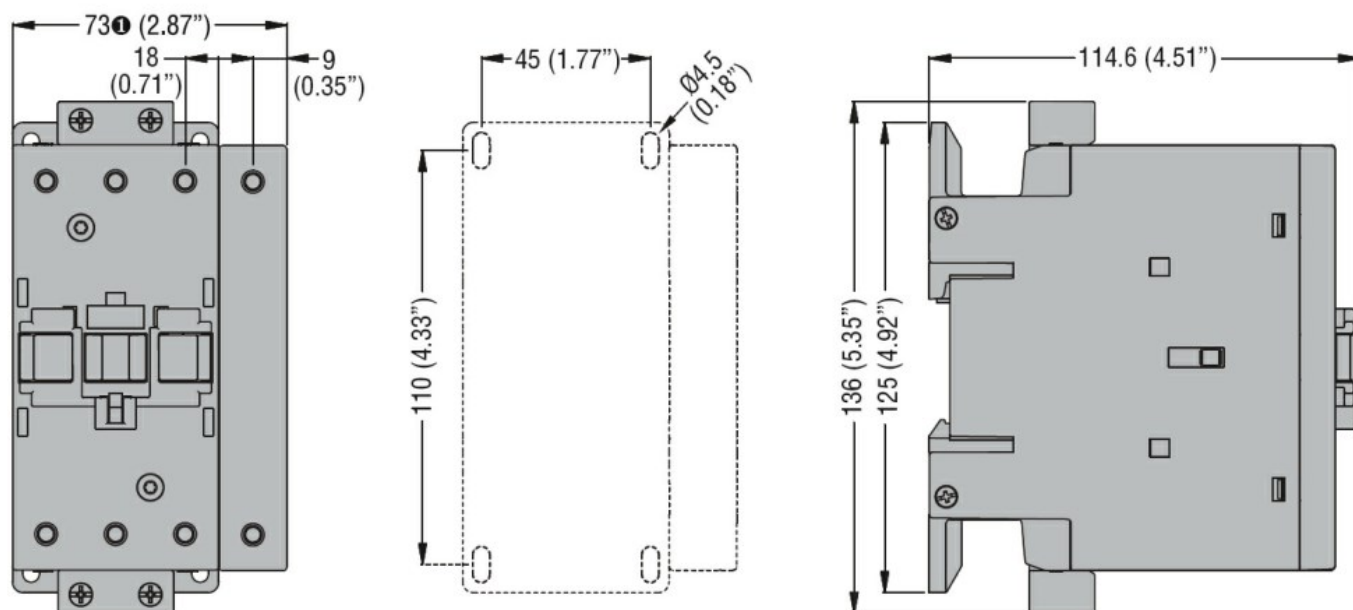
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Resistance & Protection

Pollution degree

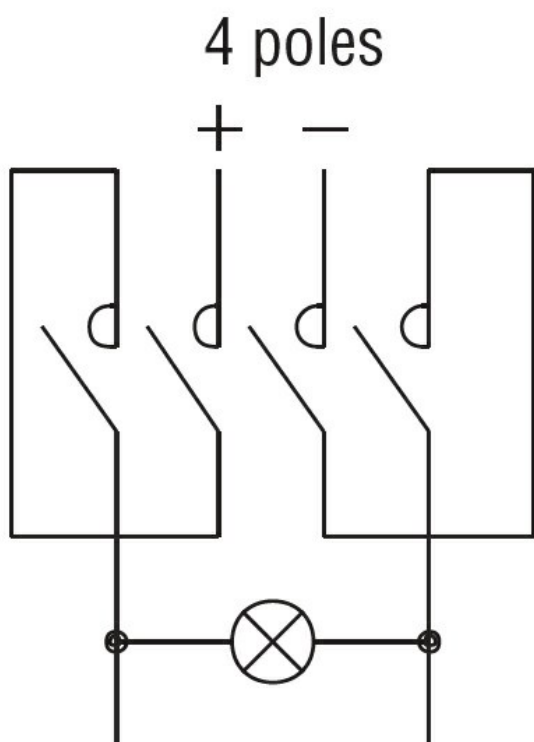
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Dimensions



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/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