



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 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	115
	600V A	100
	800V A	90
	1000V A	80
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)	mΩ	0.6
Power dissipation per pole (average value)	I_{th} W	7.9
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_{bin}	0.8
	max I_{bin}	0.74
Max number of wires simultaneously connectable	Nr.	2
Conductor section	AWG/Kcmil	
	max	2
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	
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	48	
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

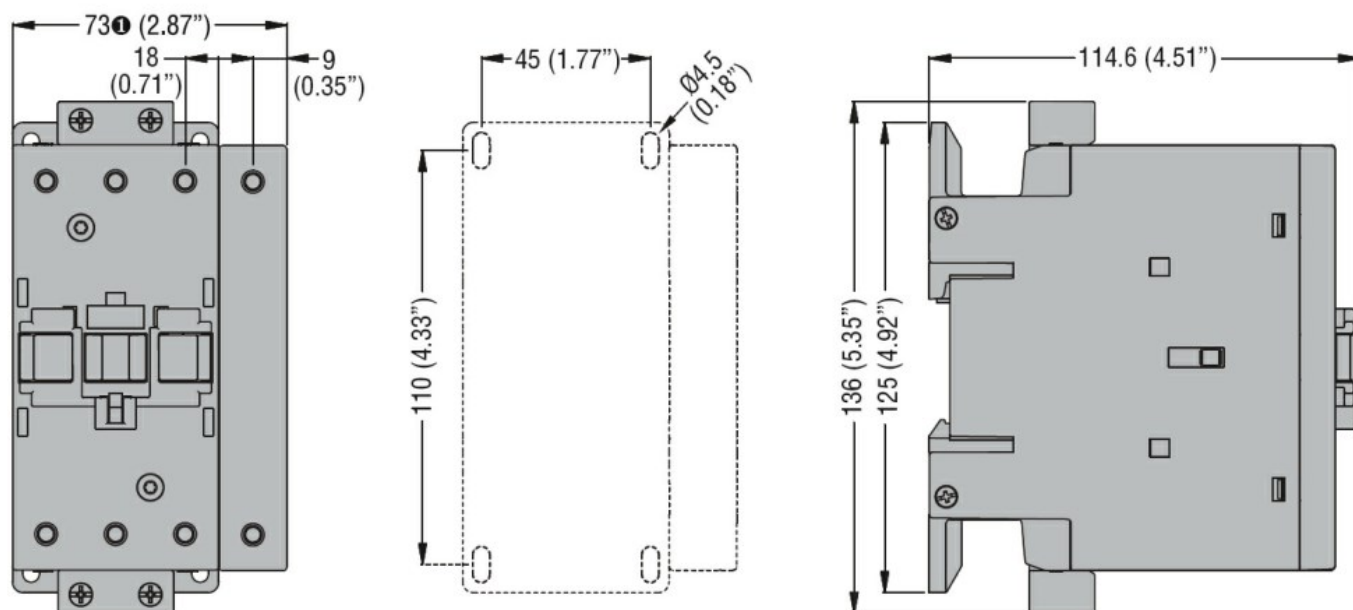
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Resistance & Protection

Pollution degree

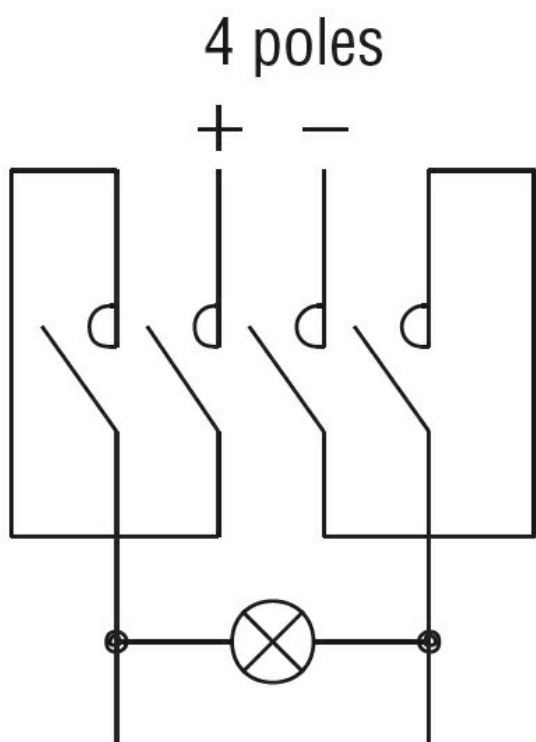
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Dimensions



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