



Product designation			Power contactor
Product type designation			BFD80
Contact characteristics			
Number of poles	Nr.	4	
Rated insulation voltage Ui IEC/EN	V	1000	
Rated impulse withstand voltage Uimp	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	A	115	
Operational current Ie	AC-1 (≤55°C)	A	0
IEC max current Ie in DC1 with L/R ≤ 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)	m?	0.6	
Power dissipation per pole (average value)	Ith	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	lbin	0.8
	max	lbin	0.74
Max number of wires simultaneously connectable	Nr.	2	
Conductor section	AWG/Kcmil		
	max	2	
Flexible w/o lug conductor section	min	mm²	1.5
	max	mm²	35
Flexible c/w lug conductor section	min	mm²	1.5
	max	mm²	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
Conductor section	AWG/kcmil conductor section	
	max	2

Operations

Mechanical life	cycles	15000000
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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	110
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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 $\leq 20^\circ\text{C}$ 50Hz

W	5
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Max cycles frequency

Mechanical operation	cycles/h	3600
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Operating times

Average time for Us control

in AC

Closing NO

min	ms	12
max	ms	28

Opening NO

min	ms	8
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in DC	Closing NO	max	ms	22
		min	ms	40
	Opening NO	max	ms	85
		min	ms	20
		max	ms	55
		min	ms	

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

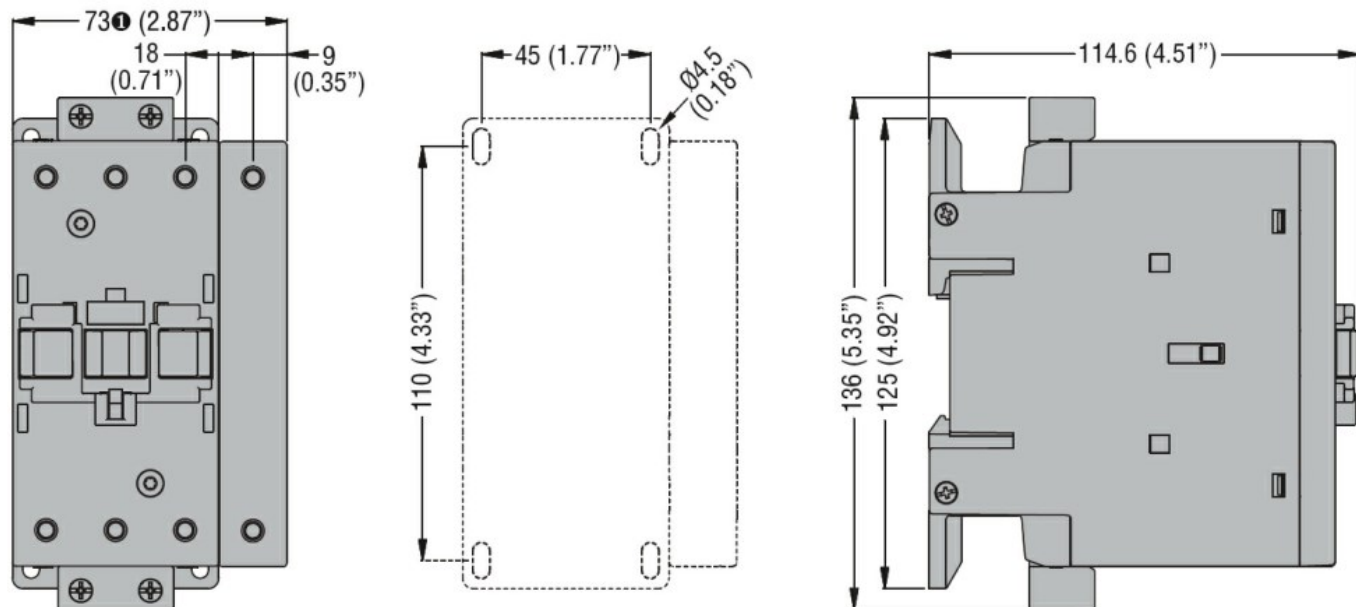
m 3000

Resistance & Protection

Pollution degree

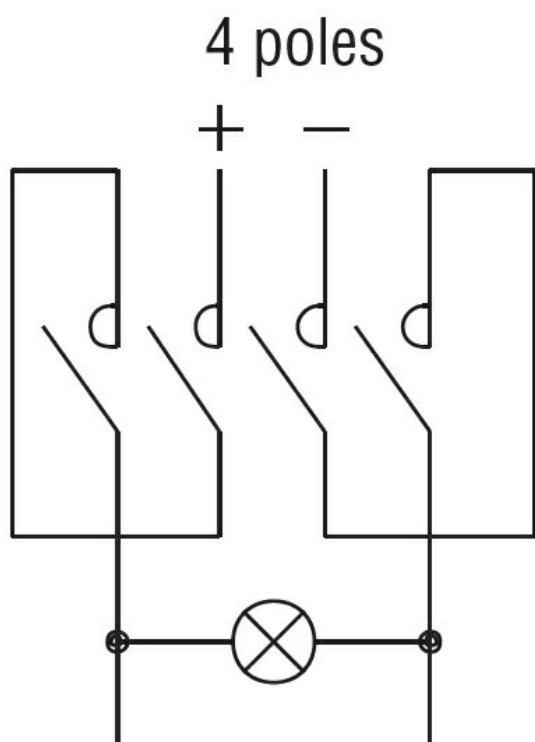
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Dimensions



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

ETIM classification

ETIM 8.0

EC002552 -
Power contactor,
DC switching