



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
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 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)	m Ω	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 $\pm 30^\circ$
Fixing		Screw / DIN rail 35mm

Weight	g	1240
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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 U_s control

in AC

Closing NO

min	ms	12
max	ms	28

Opening NO

min	ms	8
max	ms	22

in DC

Closing NO

Opening NO	min	ms	40
	max	ms	85
	min	ms	20
	max	ms	55

UL technical data

Rated operational voltage AC (UL)	V	600
General USE		

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

Ambient conditions

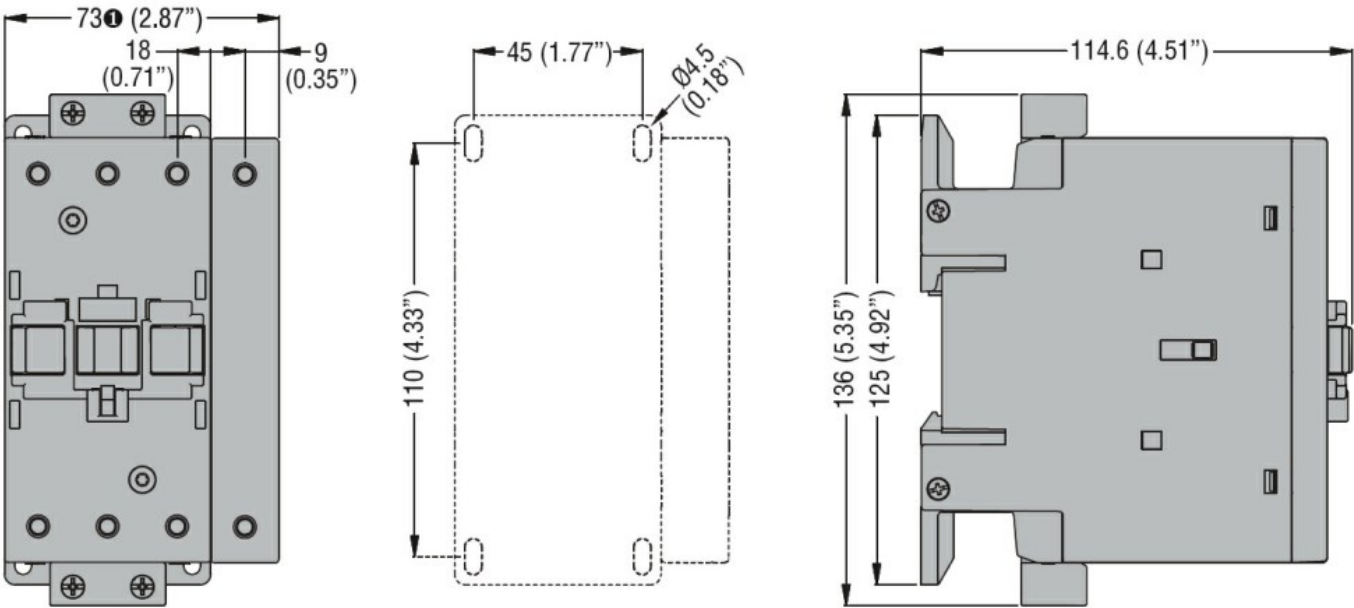
Temperature	Operating temperature	min	°C	-50
		max	°C	70
	Storage temperature	min	°C	-60
		max	°C	80

Max altitude	m	3000
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Resistance & Protection

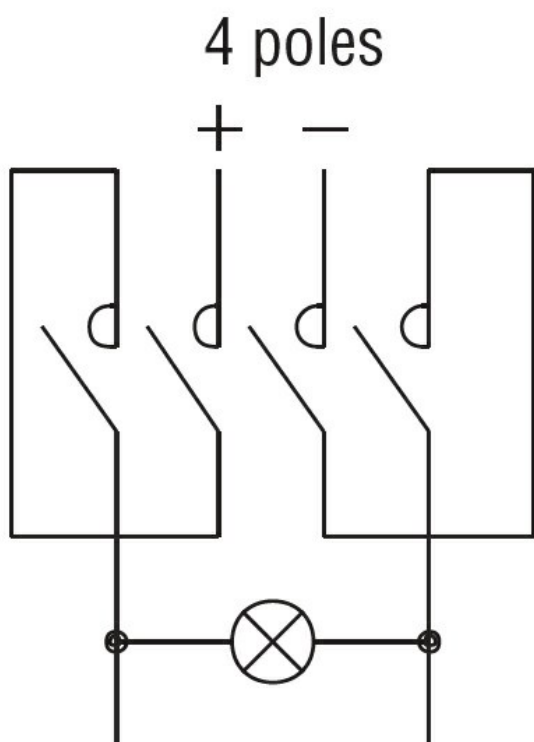
Pollution degree	3
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Dimensions



① BFD80T2 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