



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 le	AC-1 ($\leq 55^{\circ}\text{C}$)	A	0
IEC max current le in DC1 with $L/R \leq 1\text{ms}$ 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)	$\text{m}\Omega$	0.6	
Power dissipation per pole (average value)	Ith	W	7.9
Tightening torque for terminals	min	Nm	4
	max	Nm	5
	min	$Ibin$	2.95
	max	$Ibin$	3.69
Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	$Ibin$	0.8
	max	$Ibin$	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°
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Fixing

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
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EMC compatibility

AC coil operating	yes
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Rated AC voltage at 50/60Hz

AC operating voltage	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 ≤20°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			
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in AC	Closing NO	min	ms	12
		max	ms	28

Opening NO	min	ms	8
	max	ms	22

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

UL technical data

Rated operational voltage AC (UL)	V	600
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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

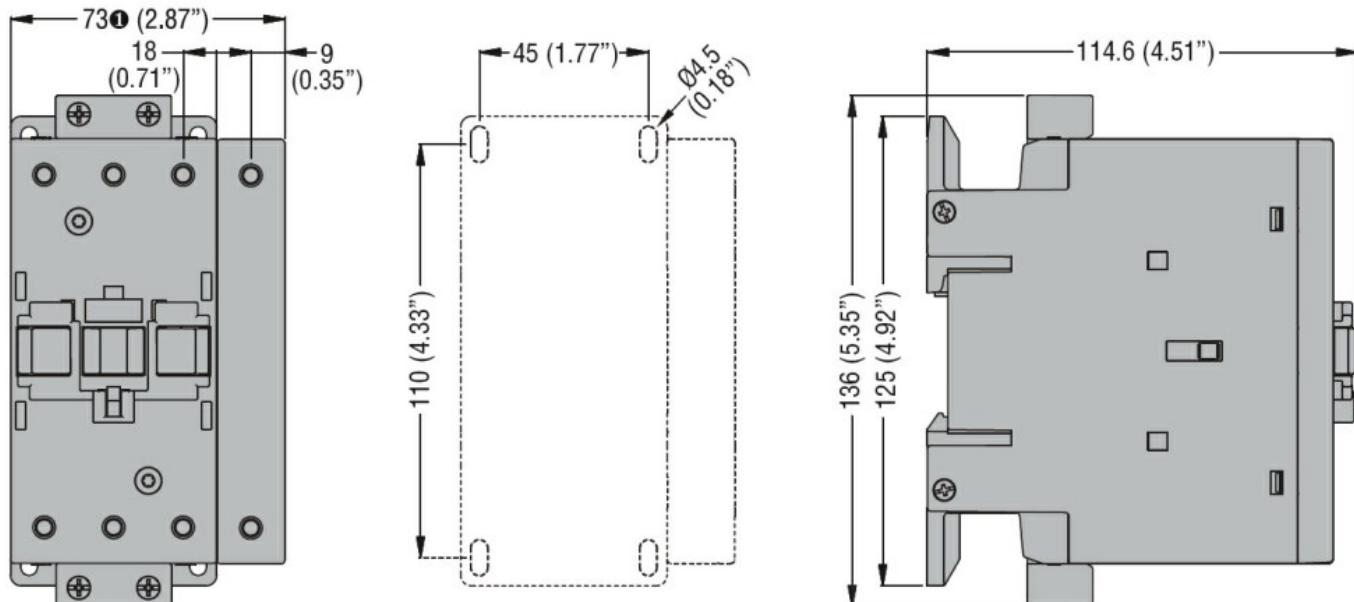
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Resistance & Protection

Pollution degree

3

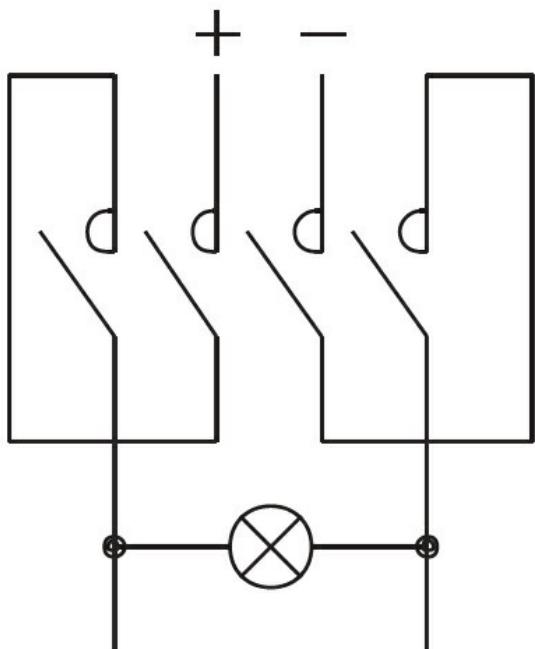
Dimensions



① BF80T2 82mm/3.23"

Wiring diagrams

4 poles



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