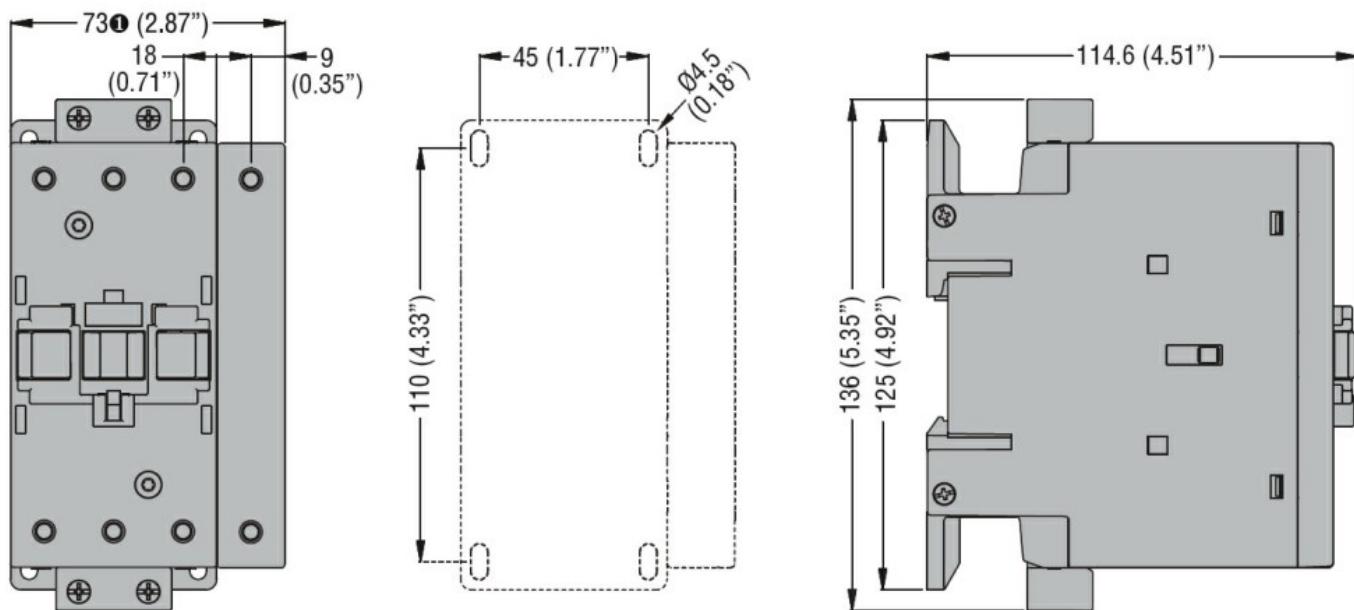




Product designation	Power contactor		
Product type designation	BFD80		
<b>Contact characteristics</b>			
Number of poles	Nr.	4	
Rated insulation voltage $Ui$ IEC/EN	V	1000	
Rated impulse withstand voltage $Uimp$	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current $Ith$	A	115	
IEC max current $Ie$ in DC1 with $L/R = 1\text{ms}$ 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)	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	0.59
	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	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	35
Flexible c/w lug conductor section	min	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	35
Power terminal protection according to IEC/EN 60529	IP20 front		
<b>Mechanical features</b>			
Operating position			

	normal allowable	Vertical plan ±30°
Fixing		Screw / DIN rail 35mm
Weight	g	1280
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, 60Hz	min max	V 20 48
Rated AC voltage at 50/60Hz		V 24
AC operating voltage		
of 50/60Hz coil powered at 50Hz		
pick-up	min max	%Us 80 Us min 110 Us max
drop-out	max	%Us =70 Us min
of 50/60Hz coil powered at 60Hz		
pick-up	min max	%Us 80 Us min 110 Us max
drop-out	max	%Us =70 Us min
AC average coil consumption at 20°C		
of 50/60Hz coil powered at 50Hz	in-rush holding	VA 35...120 1.5...3.7
of 50/60Hz coil powered at 60Hz	in-rush holding	VA 35...120 1.5...3.7
of 60Hz coil powered at 60Hz	in-rush holding	VA 210 15
Dissipation at holding =20°C 50Hz		W 1...2.5
DC coil operating		
DC rated control voltage	min max	V 20 48
DC rated control voltage		V 24
DC operating voltage		
pick-up	min max	%Us 85 Us min 110 Us max
drop-out		

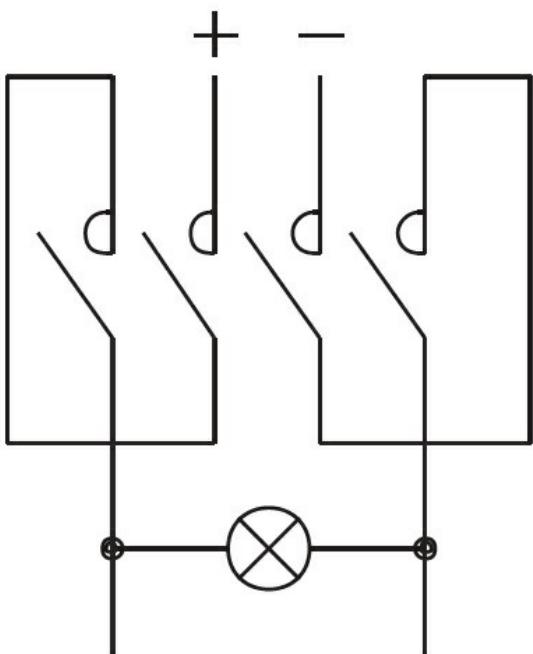
	max	%Us	=70 Us min
Average coil consumption =20°C			
in-rush	W	23...68	
holding	W	1.2...1.9	
Max cycles frequency			
Mechanical operation		cycles/h	1500
Operating times			
Average time for Us control			
in AC			
Closing NO	min	ms	40
	max	ms	85
Opening NO	min	ms	20
	max	ms	55
in DC			
Closing NO	min	ms	40
	max	ms	85
Opening NO	min	ms	20
	max	ms	55
UL technical data			
General USE			
Contactor		AC current	A
4 poles in series DC1			115
		600V	A
			100
Ambient conditions			
Temperature			
Operating temperature	min	°C	-40
	max	°C	70
Storage temperature	min	°C	-50
	max	°C	80
Max altitude		m	3000
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 60947-1

IEC/EN 60947-4-1

UL 60947-4-1

Certificates

cULus

ETIM classification

ETIM 8.0

EC002552 -  
Power contactor,  
DC switching