



Product designation

Power contactor

Product type designation

BFD80

Contact characteristics

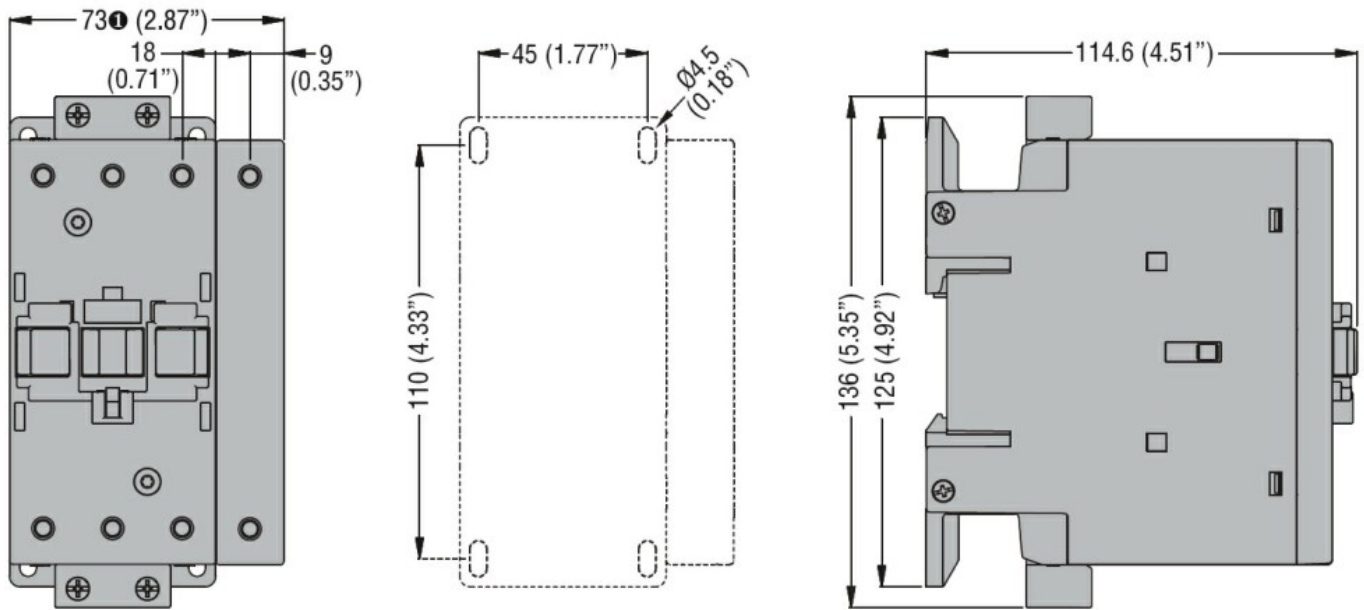
Number of poles	Nr.	4
Rated insulation voltage U_i IEC/EN	V	1000
Rated impulse withstand voltage U_{imp}	kV	8
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I_{th}	A	115
IEC max current I_e in DC1 with $L/R \leq 1ms$ with 4 poles in series	400V	A 115
	600V	A 100
	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)	m Ω	0.6
Power dissipation per pole (average value)	I_{th}	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 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

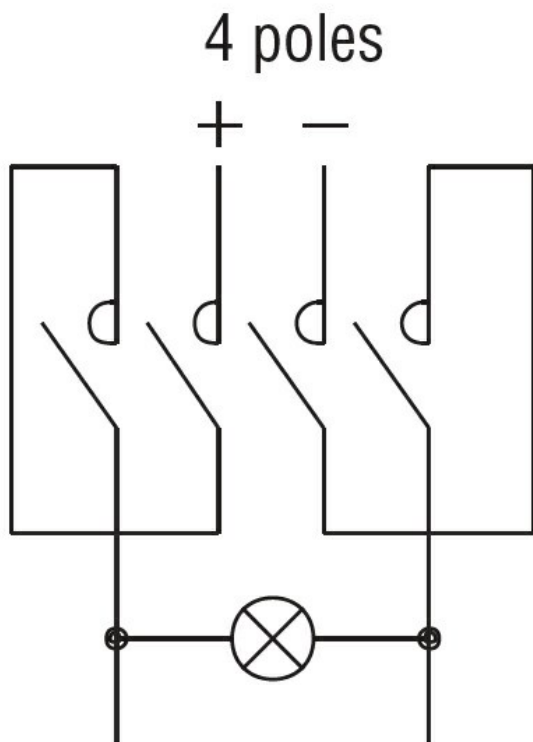
	normal allowable	Vertical plan ±30°	
Fixing		Screw / DIN rail 35mm	
Weight	g	1280	
Conductor section	AWG/kcmil conductor section		
	max	2	
Operations			
Mechanical life	cycles	15000000	
Safety related data			
Performance level B10d according to EN/ISO 13489-1	mechanical load	cycles	15000000
EMC compatibility		yes	
AC coil operating			
Rated AC voltage at 50/60Hz, 60Hz	min	V	60
	max	V	110
Rated AC voltage at 50/60Hz		V	110
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
pick-up	min	%Us	80 Us min
	max	%Us	110 Us max
drop-out			
	max	%Us	≤70 Us min
of 50/60Hz coil powered at 60Hz			
pick-up	min	%Us	80 Us min
	max	%Us	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	VA	35...120
	holding	VA	1.5...3.7
of 50/60Hz coil powered at 60Hz			
	in-rush	VA	35...120
	holding	VA	1.5...3.7
of 60Hz coil powered at 60Hz			
	in-rush	VA	210
	holding	VA	15
Dissipation at holding ≤20°C 50Hz		W	1...2.5
DC coil operating			
DC rated control voltage			
	min	V	60
	max	V	110
DC rated control voltage		V	110
DC operating voltage			
pick-up			
	min	%Us	≤80 Us min
	max	%Us	≤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	115
4 poles in series DC1				
		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



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