



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	0.8
	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 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	1240		
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 60Hz		V	48	
AC operating voltage	of 60Hz coil powered at 60Hz			
	pick-up			
	min	%Us	80	
	max	%Us	110	
	drop-out			
	min	%Us	20	
	max	%Us	55	
AC average coil consumption at 20°C				
	of 60Hz coil powered at 60Hz			
	in-rush	VA	210	
	holding	VA	15	
Dissipation at holding ≤20°C 50Hz		W	5	
Max cycles frequency				
Mechanical operation		cycles/h	3600	
Operating times				
Average time for Us control				
	in AC			
	Closing NO			
	min	ms	12	
	max	ms	28	
	Opening NO			
	min	ms	8	
	max	ms	22	
	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	-50
max	°C	70

Storage temperature

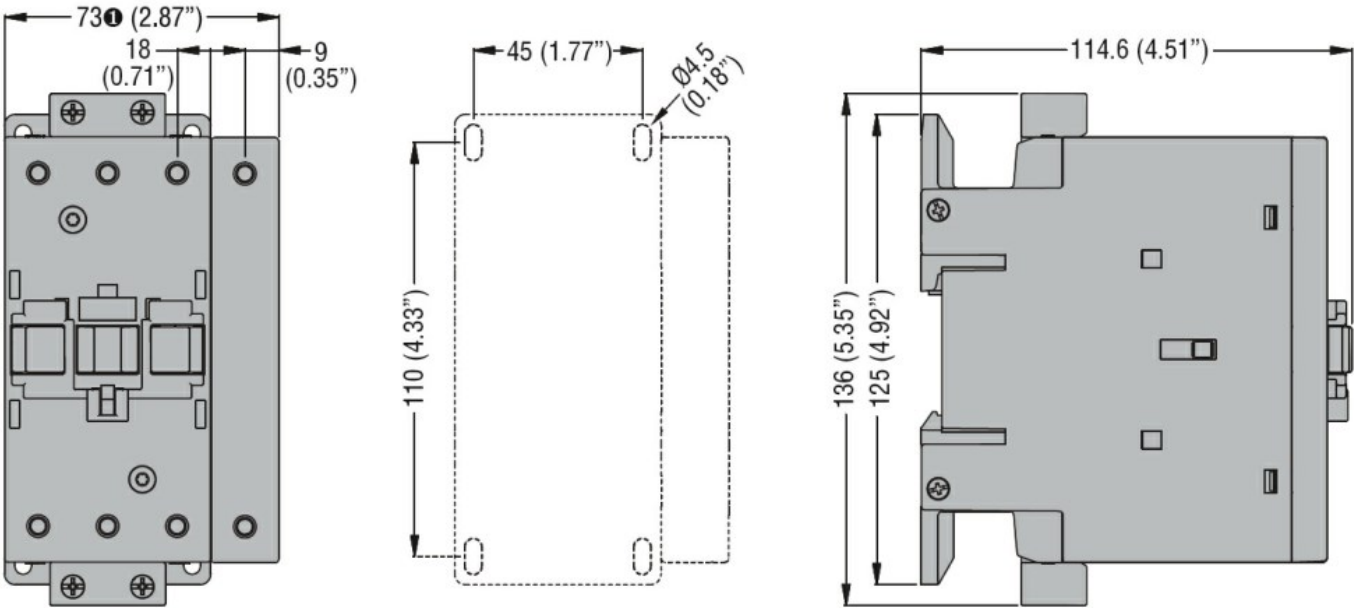
min	°C	-60
max	°C	80

Max altitude	m	3000
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Resistance & Protection

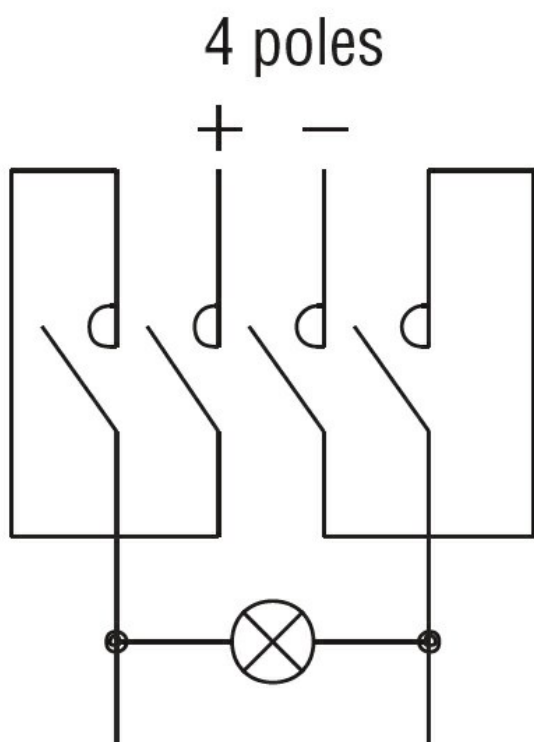
Pollution degree	3
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Dimensions



① 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