



Product designation

Power contactor

Product type designation

BFD80

### Contact characteristics

Number of poles	Nr.	3
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 100
	600V	A 100
	800V	A 76
	1000V	A 60
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 $\Omega$	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 <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

### 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
<b>Operations</b>			
Mechanical life		cycles	15000000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1			
	mechanical load	cycles	15000000
EMC compatibility			yes
<b>AC coil operating</b>			
Rated AC voltage at 60Hz		V	120
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
<b>Max cycles frequency</b>			
Mechanical operation		cycles/h	3600
<b>Operating times</b>			
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
<b>UL technical data</b>			
General USE			
	Contactor		
	AC current	A	115
	4 poles in series DC1		
	600V	A	100
<b>Ambient conditions</b>			

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

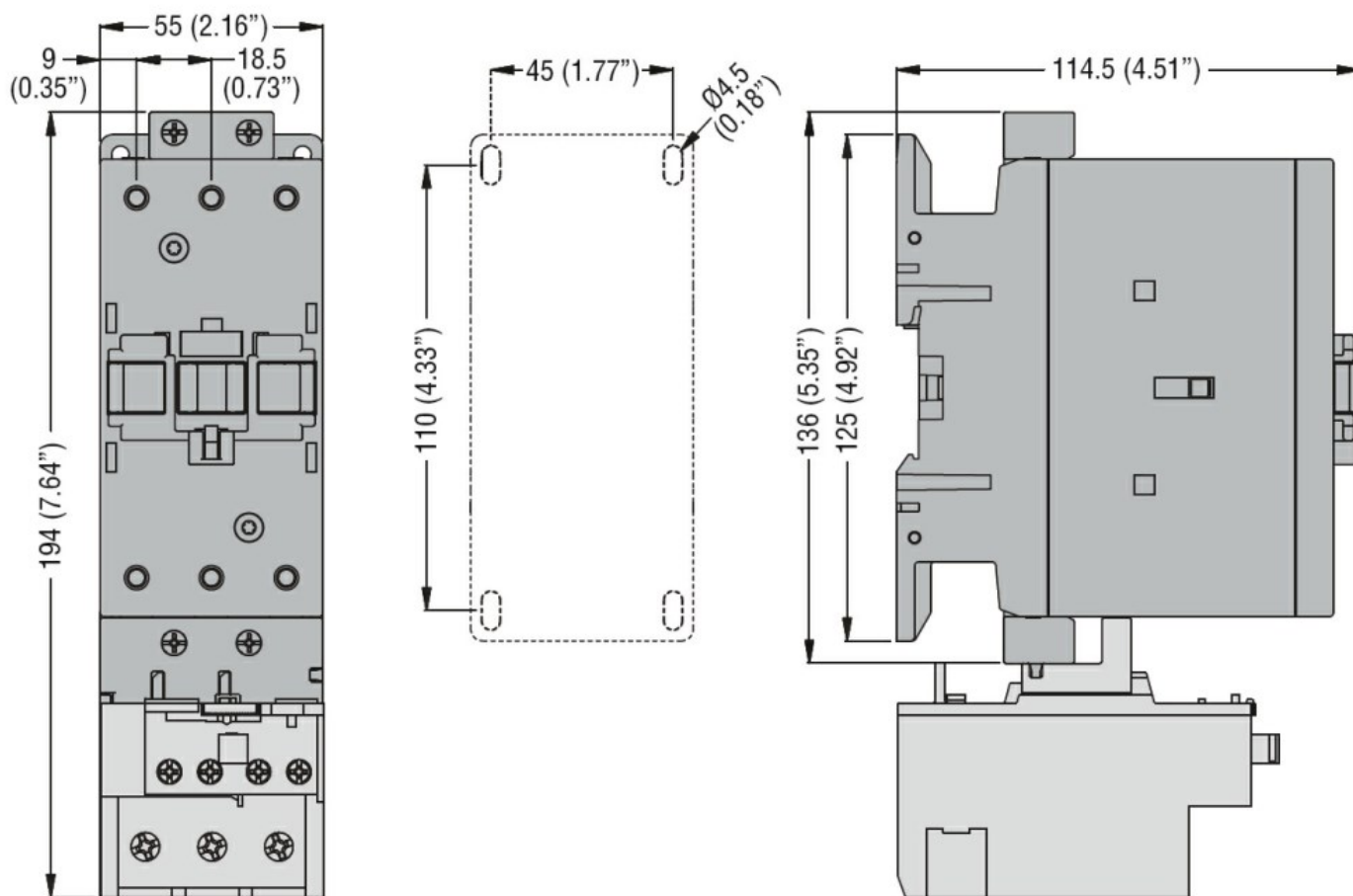
m	3000
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Resistance & Protection

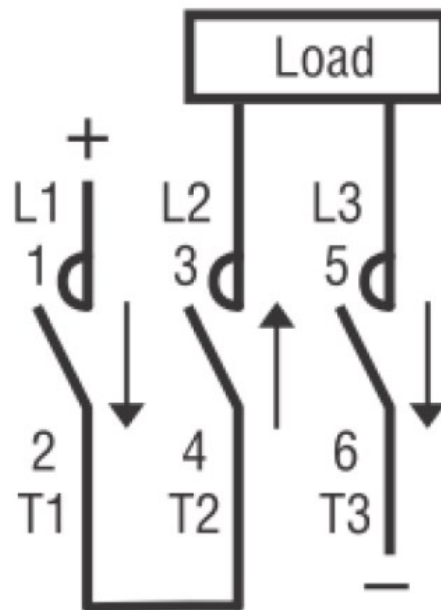
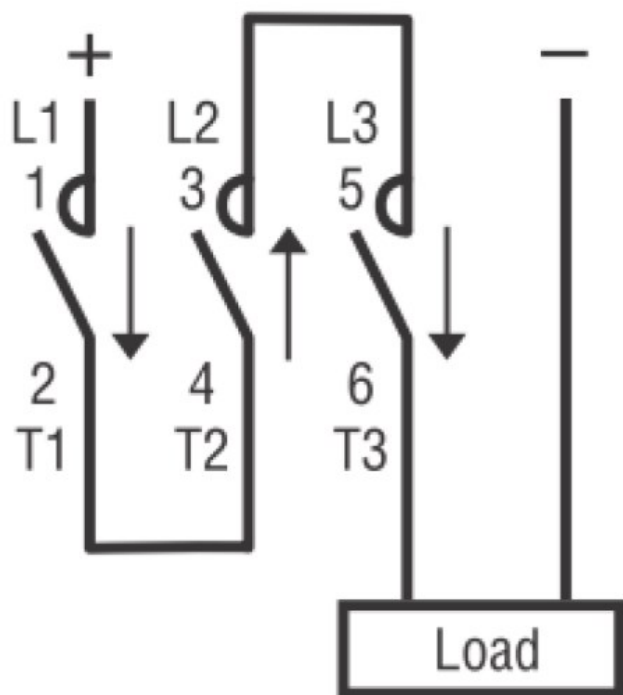
Pollution degree

3

Dimensions



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

#### ETIM classification

ETIM 8.0

EC002552 -  
Power contactor,  
DC switching