



Product designation			Power contactor
Product type designation			BFD80
Contact characteristics			
Number of poles	Nr.	3	
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 ≤ 1ms with 3 poles in series	400V	A	100
	600V	A	80
	800V	A	65
	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)	mΩ	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	mm²	1.5
	max	mm²	35
	Flexible c/w lug conductor section		
	min	mm²	1.5
	max	mm²	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

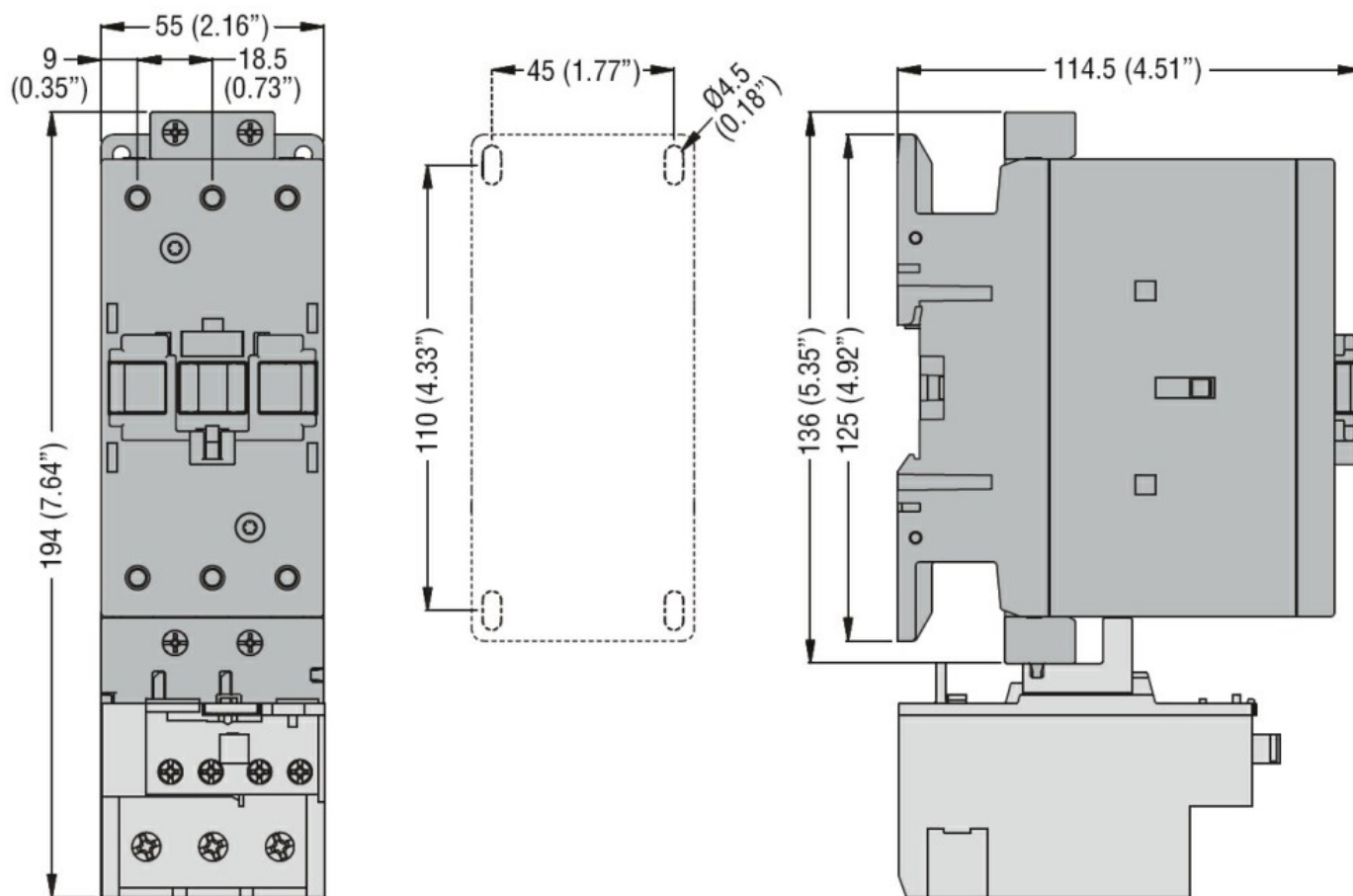
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Resistance & Protection

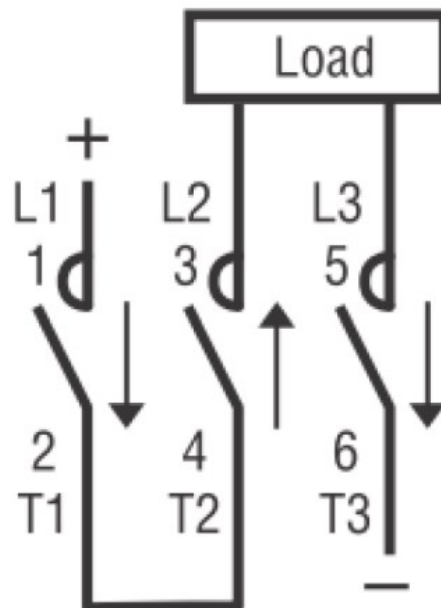
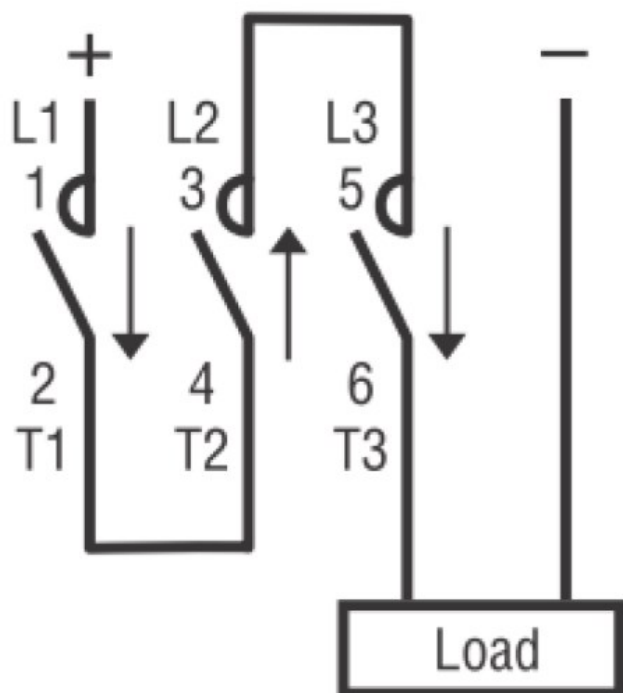
Pollution degree

3

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

ETIM classification

ETIM 8.0

EC002552 -
Power contactor,
DC switching