



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	
Operational current le	AC-1 ($\leq 55^{\circ}\text{C}$)	A	130
IEC max current le in DC1 with $L/R \leq 1\text{ms}$ 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?	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	0.8
	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°
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Fixing

	Screw / DIN rail 35mm
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Weight

	g	1240
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Conductor section

AWG/kcmil conductor section	max	2
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Operations

Mechanical life

	cycles	15000000
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Safety related data

Performance level B10d according to EN/ISO 13489-1

	mechanical load	cycles	15000000
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EMC compatibility
AC coil operating

Rated AC voltage at 50/60Hz	V	110
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AC operating voltage

of 50/60Hz coil powered at 50Hz			
pick-up	min	%Us	80
	max	%Us	110

drop-out	min	%Us	20
	max	%Us	55

of 50/60Hz coil powered at 60Hz			
pick-up	min	%Us	85
	max	%Us	110

drop-out	min	%Us	20
	max	%Us	55

AC average coil consumption at 20°C

of 50/60Hz coil powered at 50Hz	in-rush	VA	210
	holding	VA	15

of 50/60Hz coil powered at 60Hz	in-rush	VA	195
	holding	VA	13

of 60Hz coil powered at 60Hz	in-rush	VA	210
	holding	VA	15

Dissipation at holding ≤20°C 50Hz	W	5
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Max cycles frequency	cycles/h	3600
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Mechanical operation		
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Operating times		
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Average time for Us control		
in AC		

Closing NO	min	ms	12
	max	ms	28

Opening NO	min	ms	8
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in DC	max	ms	22
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

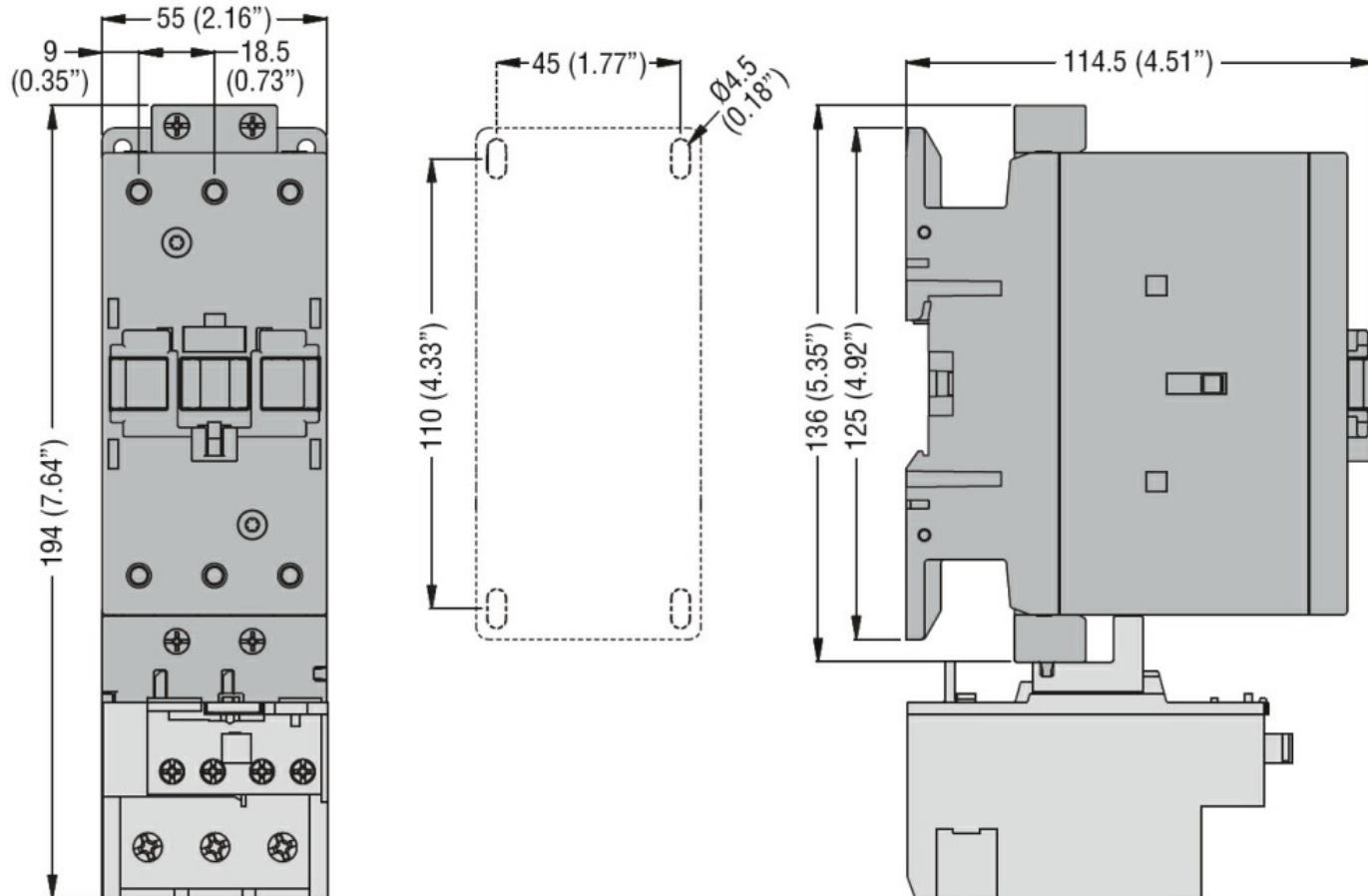
m 3000

Resistance & Protection

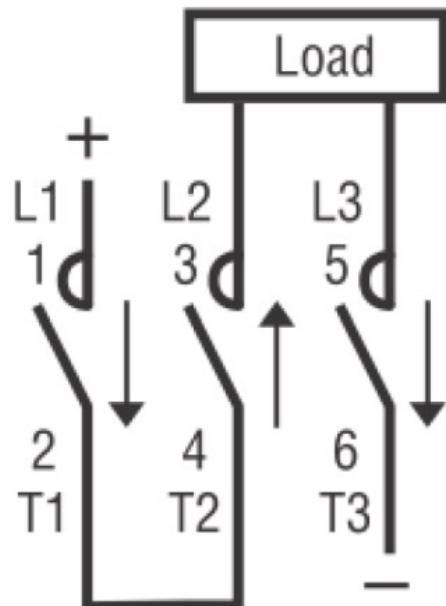
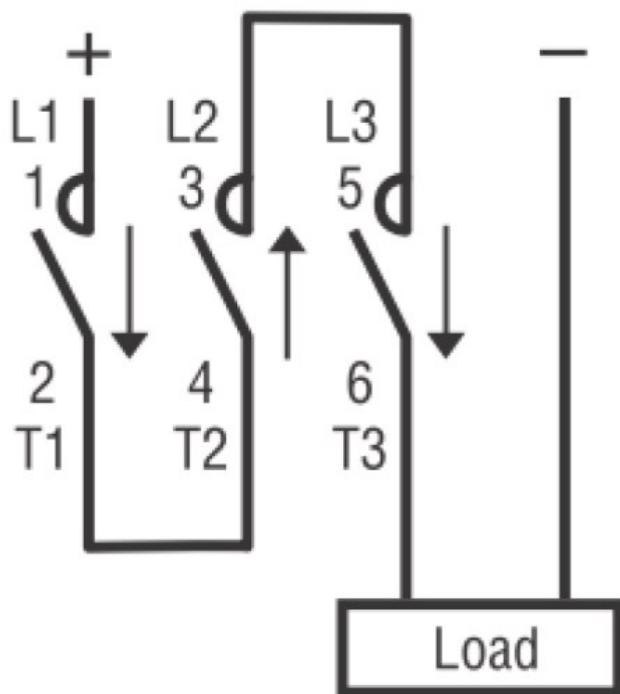
Pollution degree

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