

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 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	Vertical plan	
	allowable	±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 460

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

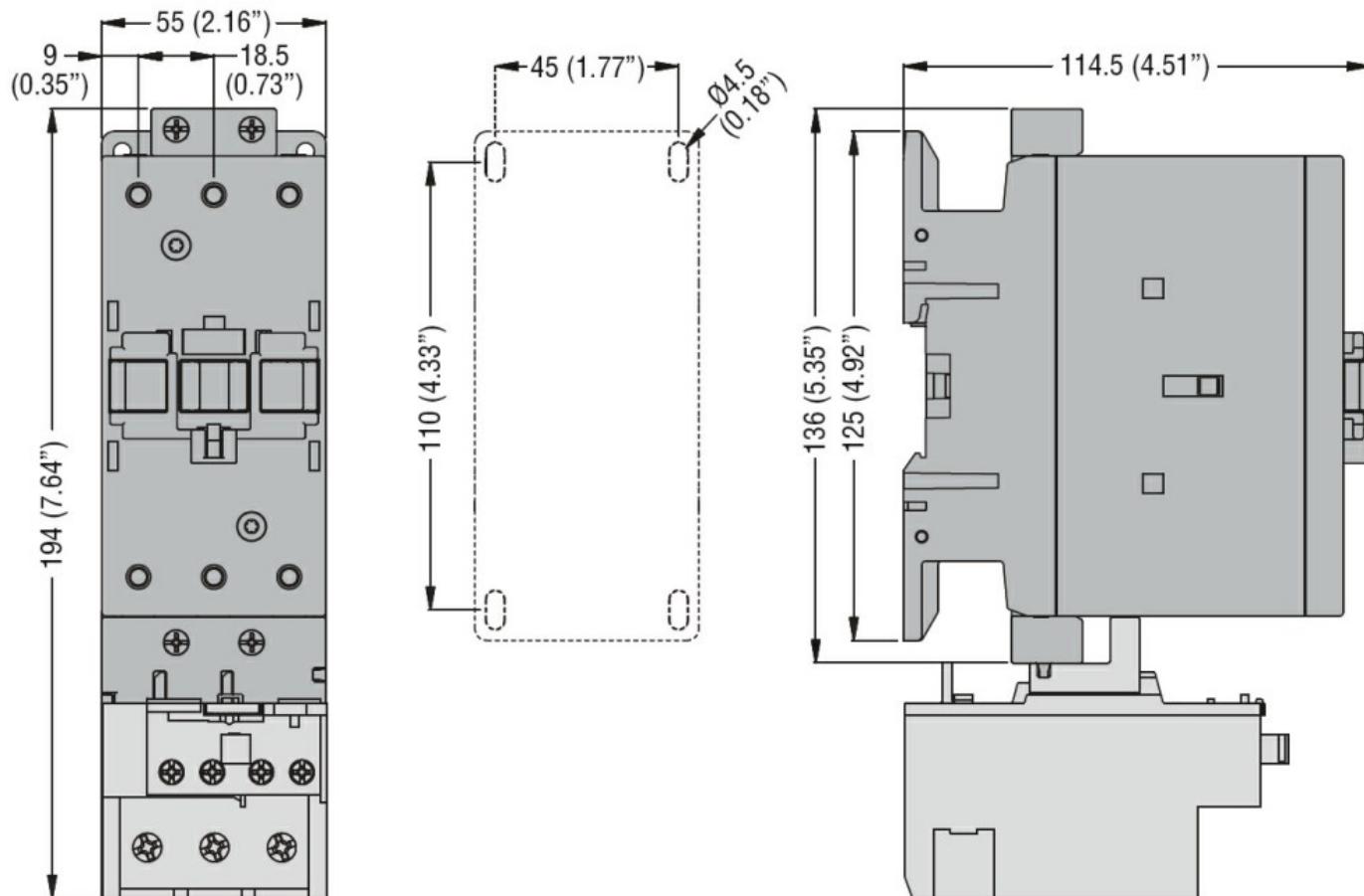
m 3000

Resistance & Protection

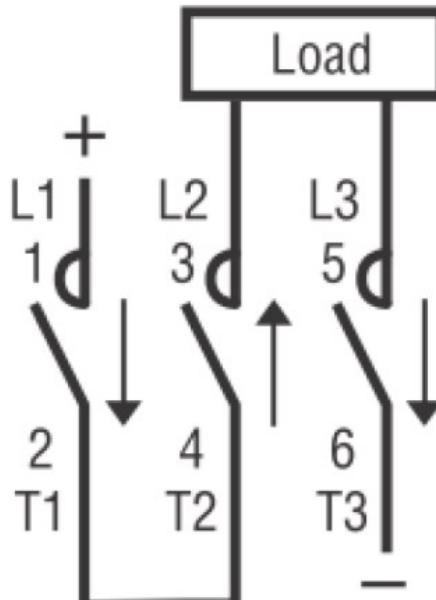
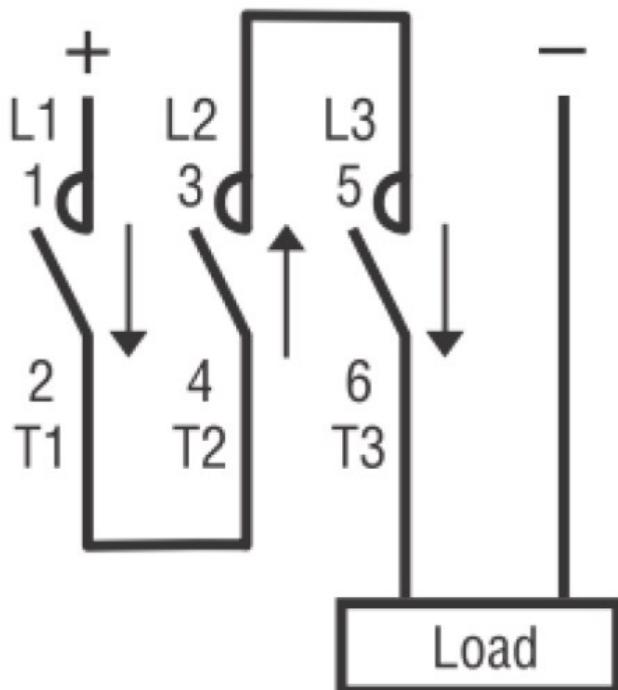
Pollution degree

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