

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 Ie	AC-1 (≤55°C)	A	130
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	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 50/60Hz V 110

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 $\leq 20^{\circ}\text{C}$ 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

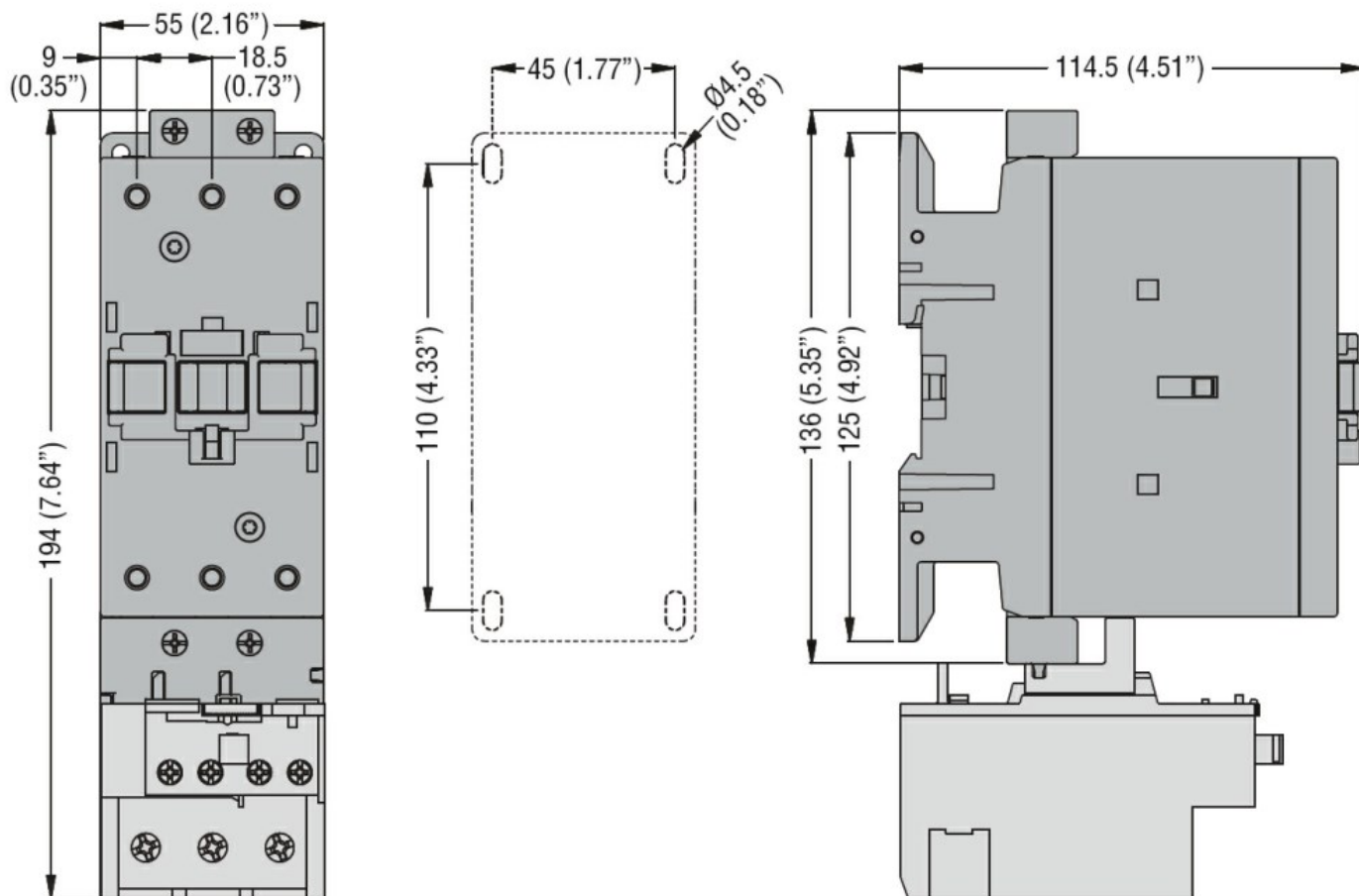
m 3000

Resistance & Protection

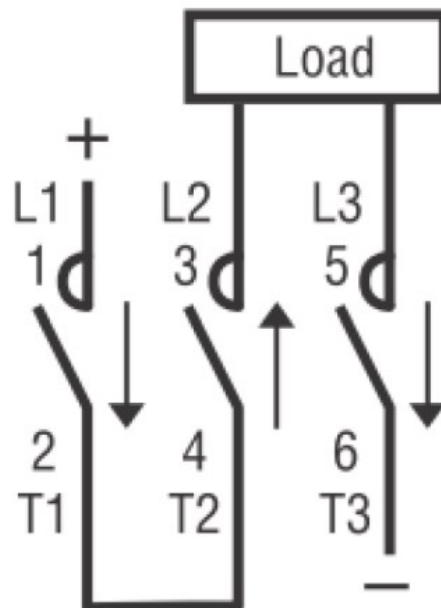
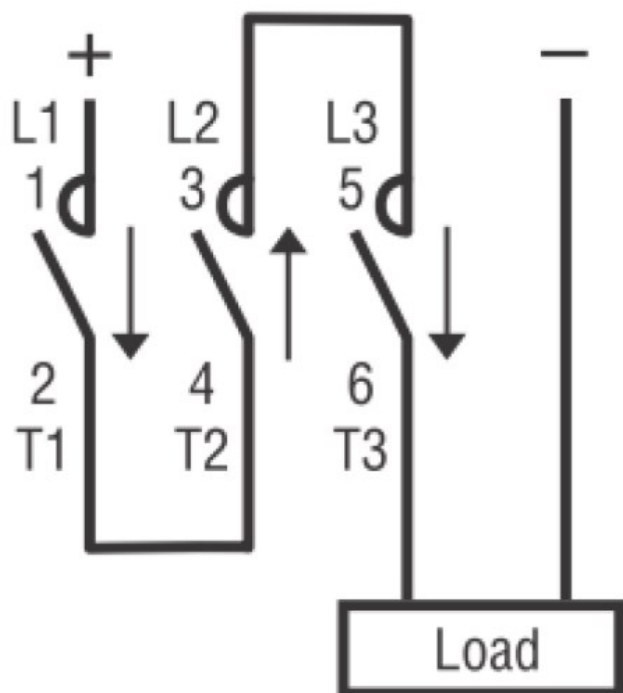
Pollution degree

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