

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
		max	Hz
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
		600V	A
		800V	A
		1000V	A
Short-time allowable current for 10s (IEC/EN60947-1)		A	640
Protection fuse		gG (IEC)	A
		aM (IEC)	A
Resistance per pole (average value)		m?	0.6
Power dissipation per pole (average value)		Ith	W
Tightening torque for terminals		min	Nm
		max	Nm
		min	lbin
		max	lbin
Tightening torque for coil terminal		min	Nm
		max	Nm
		min	lbin
		max	lbin
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
AWG/Kcmil			
		max	2
Flexible w/o lug conductor section			
		min	mm²
		max	mm²
Flexible c/w lug conductor section			
		min	mm²
		max	mm²
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	400
-----------------------------	---	-----

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
---	---

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

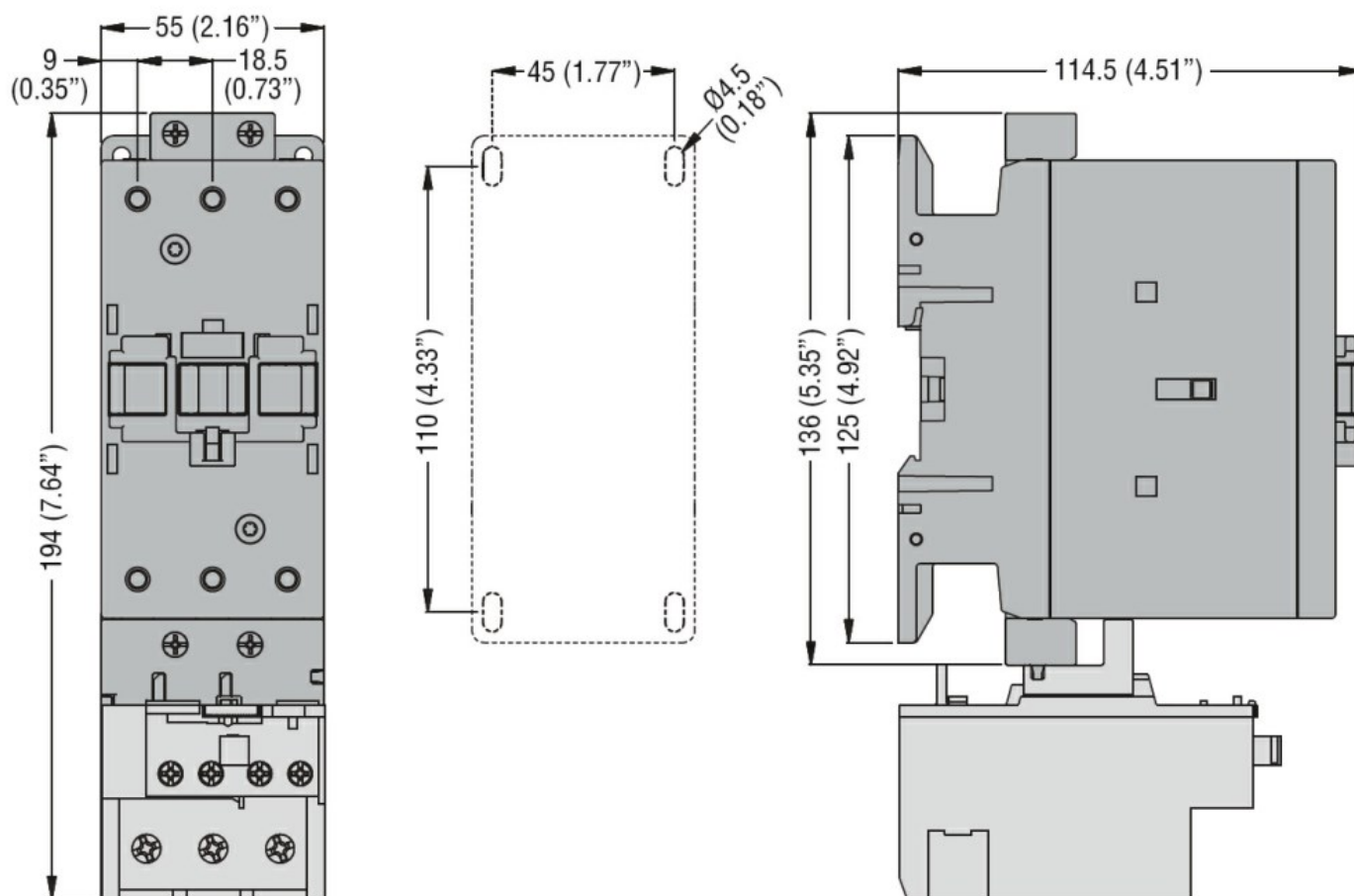
m 3000

Resistance & Protection

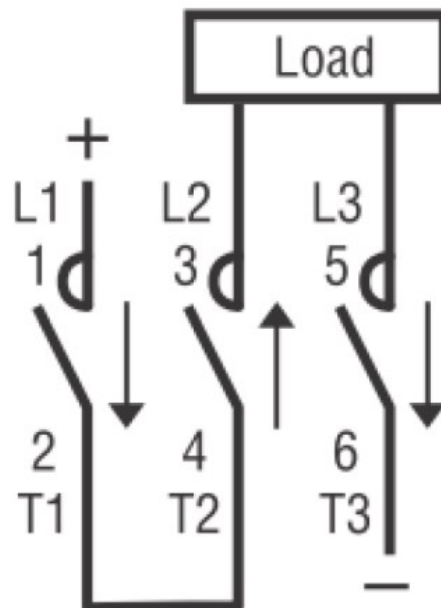
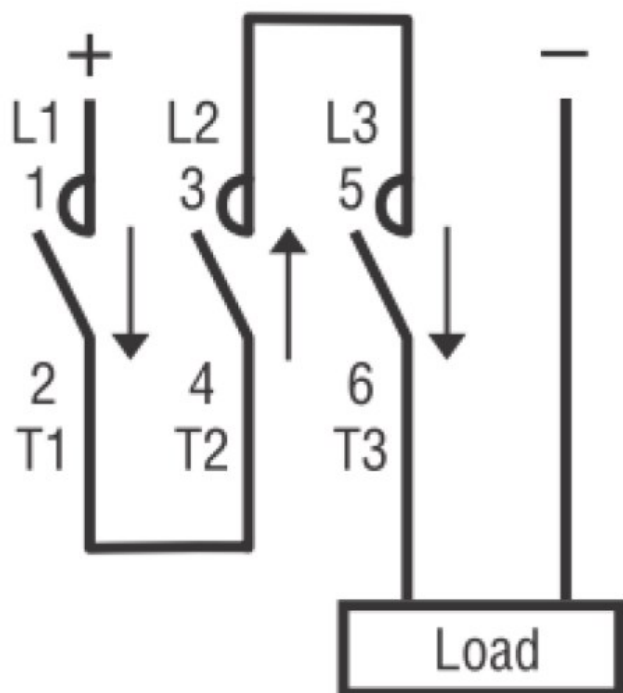
Pollution degree

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