



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 le in DC1 with $L/R \leq 1ms$ 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 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	24
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

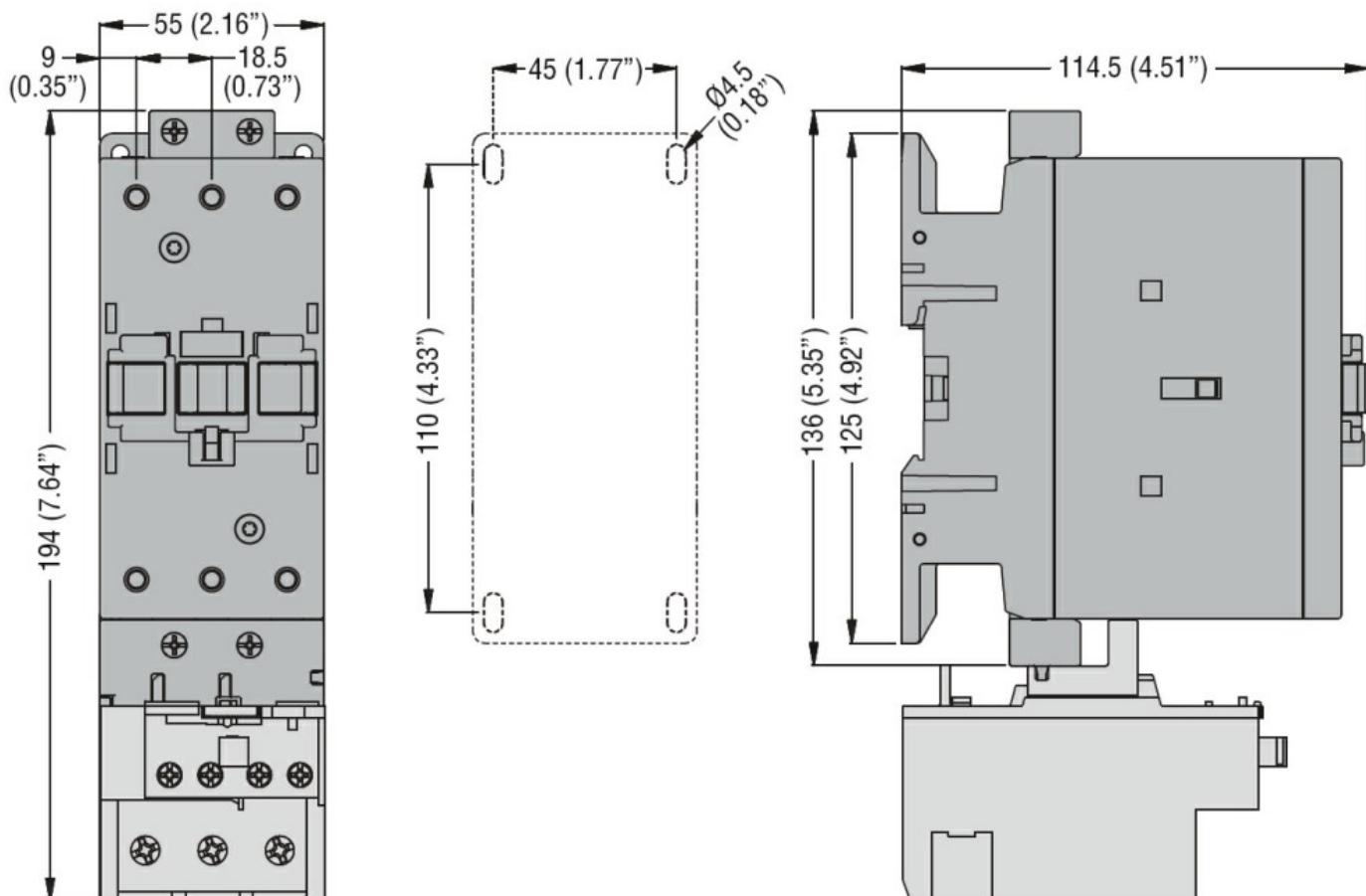
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Resistance & Protection

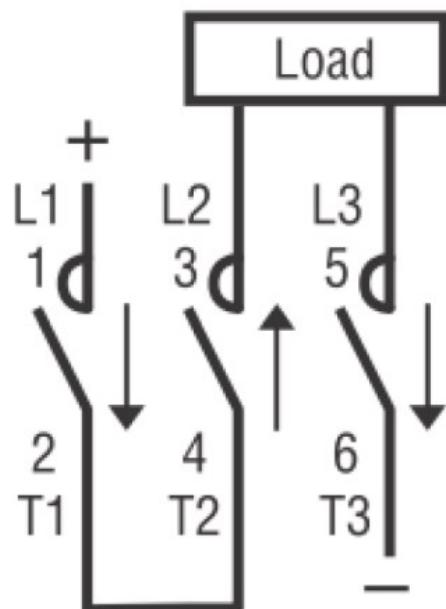
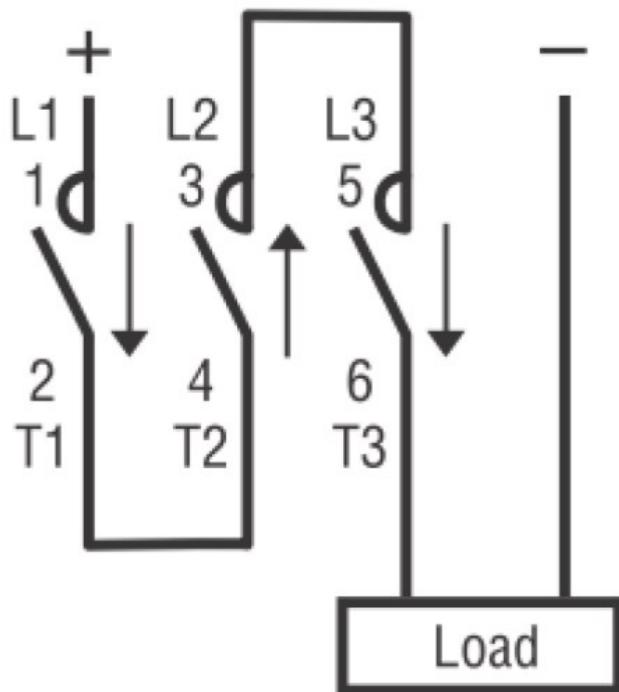
Pollution degree

3

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1.

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-4-1

ETIM classification

ETIM 8.0

EC002552 -
Power contactor,
DC switching