

Product designation	Power contactor				
Product type designation	BFD80				
Contact characteristics					
Number of poles	Nr.	3			
Rated insulation voltage U_i IEC/EN	V	1000			
Rated impulse withstand voltage U_{imp}	kV	8			
Operational frequency	min	Hz	25		
	max	Hz	400		
IEC Conventional free air thermal current I_{th}	A	115			
Operational current I_e	AC-1 ($\leq 40^\circ\text{C}$)	A	160		
IEC max current I_e 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)	I_{th}	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	$\pm 30^\circ$			
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	24
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 altitude

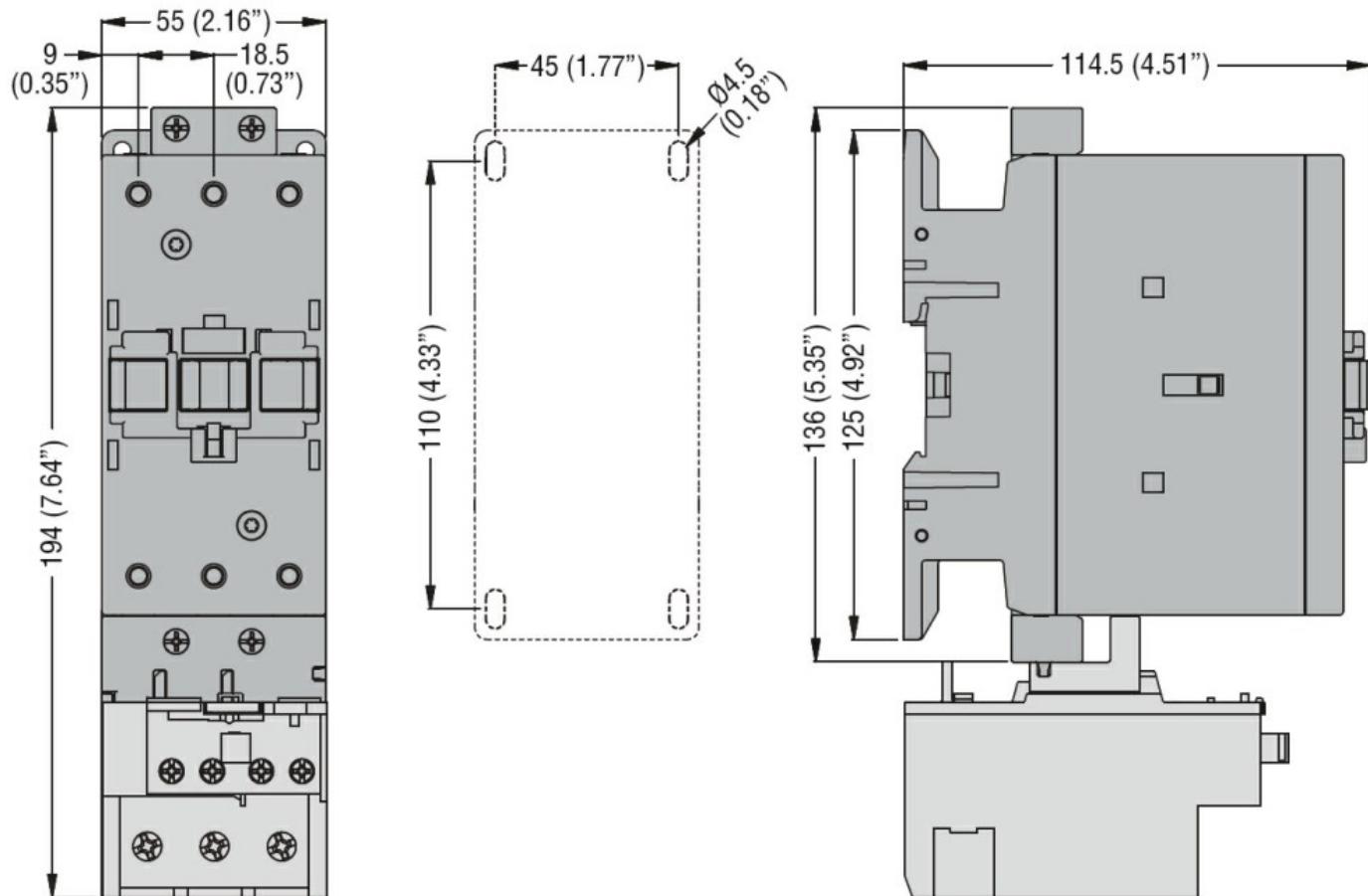
max °C 80
m 3000

Resistance & Protection

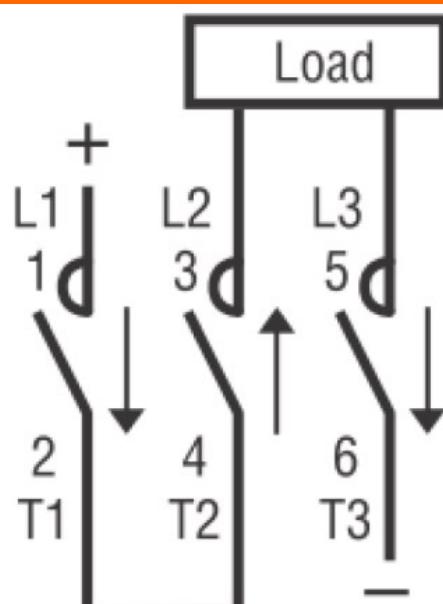
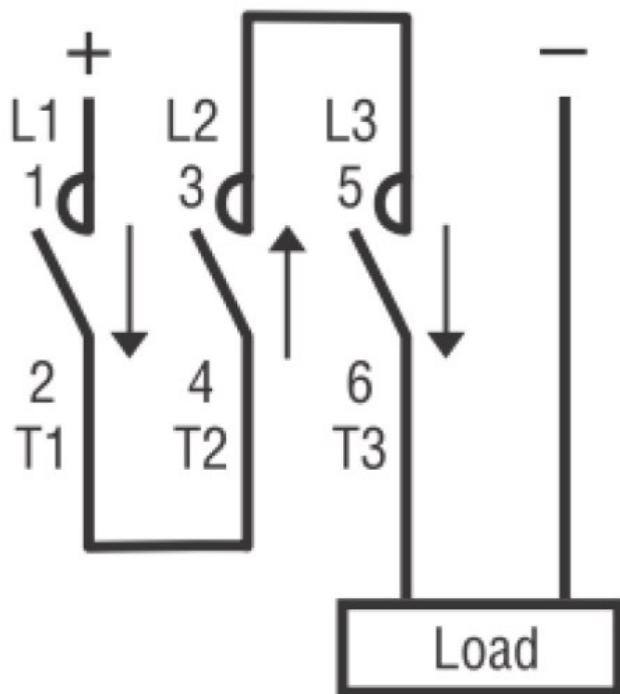
Pollution degree

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