



Product designation				Power contactor
Product type designation				BFD150
<b>Contact characteristics</b>				
Number of poles	Nr.			4
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			165
IEC max current $I_e$ in DC1 with $L/R \leq 1$ ms with 4 poles in series	400V	A	165	
	600V	A	165	
	800V	A	125	
	1000V	A	100	
Short-time allowable current for 10s (IEC/EN60947-1)	A			1200
Protection fuse	gG (IEC)	A	250	
	aM (IEC)	A	160	
Resistance per pole (average value)	m $\Omega$			0.45
Power dissipation per pole (average value)	$I_{th}$	W	12	
	Tightening torque for terminals			
	min	Nm	6	
	max	Nm	7	
	min	I <sub>bin</sub>	4.4	
	max	I <sub>bin</sub>	5.2	
Tightening torque for coil terminal	min	Nm	0.8	
	max	Nm	1	
	min	I <sub>bin</sub>	0.59	
	max	I <sub>bin</sub>	0.74	
Max number of wires simultaneously connectable	Nr.			2
Conductor section	AWG/Kcmil			
	max			2/0
Flexible w/o lug conductor section	min	mm <sup>2</sup>	1.5	
	max	mm <sup>2</sup>	70	
Flexible c/w lug conductor section	min	mm <sup>2</sup>	1.5	
	max	mm <sup>2</sup>	70	
Power terminal protection according to IEC/EN 60529				IP20 front
<b>Mechanical features</b>				
Operating position				

	normal allowable	Vertical plan ±30°	
Fixing		Screw / DIN rail 35mm	
Weight	g	2460	
Conductor section	AWG/kcmil conductor section	max	2/0
<b>Operations</b>			
Mechanical life		cycles	15000000
<b>Safety related data</b>			
EMC compatibility			yes
<b>AC coil operating</b>			
Rated AC voltage at 50/60Hz, 60Hz		min	V 20
		max	V 48
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
pick-up		min	%Us 80 Us min
		max	%Us 110 Us max
drop-out		max	%Us ≤70 Us min
of 50/60Hz coil powered at 60Hz			
pick-up		min	%Us 80 Us min
		max	%Us 110 Us max
drop-out		max	%Us ≤70 Us min
AC average coil consumption at 20°C			
of 50/60Hz coil powered at 50Hz		in-rush	VA 70...175
		holding	VA 1.7...3.5
of 50/60Hz coil powered at 60Hz		in-rush	VA 70...175
		holding	VA 1.7...3.5
of 60Hz coil powered at 60Hz		in-rush	VA 70...175
		holding	VA 1.7...3.5
Dissipation at holding ≤20°C 50Hz			W 1.3...1,5
<b>DC coil operating</b>			
DC rated control voltage		min	V 20
		max	V 48
DC operating voltage			
pick-up		min	%Us 85 Us min
		max	%Us 110 Us max
drop-out		max	%Us ≤70 Us min
Average coil consumption ≤20°C		in-rush	W 70...80
		holding	W 1.3...1.5
<b>Max cycles frequency</b>			

Mechanical operation

cycles/h 2000

**Operating times**

Average time for Us control  
in AC

Closing NO

min ms 45  
max ms 40

Opening NO

min ms 24  
max ms 60

in DC

Closing NO

min ms 45  
max ms 90

Opening NO

min ms 24  
max ms 60

**UL technical data**

General USE

Contactor

AC current A 165

4 poles in series DC1

600V A 165

**Ambient conditions**

Temperature

Operating temperature

min °C -40  
max °C 70

Storage temperature

min °C -50  
max °C 80

Max altitude

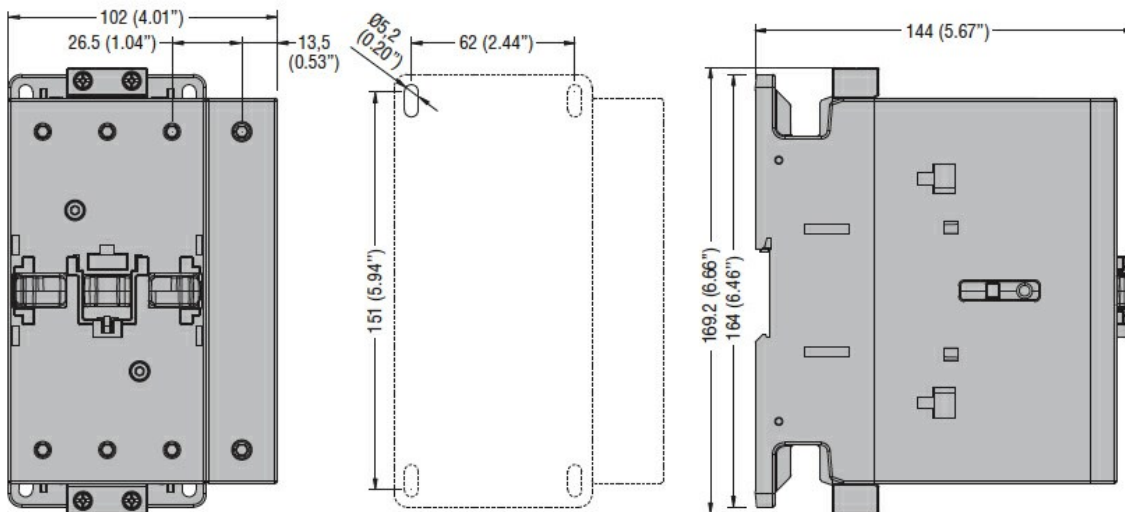
m 3000

**Resistance & Protection**

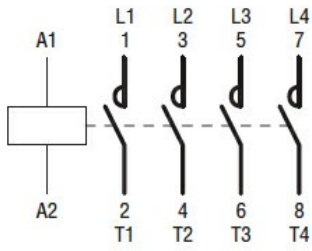
Pollution degree

3

**Dimensions**



**Wiring diagrams**



### Certifications and compliance

#### Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

#### Certificates

cULus

### ETIM classification

ETIM 8.0

EC000066 -  
 Power contactor,  
 AC switching