



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
Operational current $I_e$	AC-1 (=40°C)		A	160
	400V	A	165	
IEC max current $I_e$ in DC1 with L/R = 1ms with 4 poles in series	600V	A	165	
	800V	A	125	
	1000V	A	100	
			A	1200
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)			lth	W
				12
Tightening torque for terminals	min	Nm	6	
	max	Nm	7	
	min	lbin	4.4	
	max	lbin	5.2	
Tightening torque for coil terminal	min	Nm	0.8	
	max	Nm	1	
	min	lbin	0.59	
	max	lbin	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

### Mechanical features

Operating position	normal allowable	Vertical plan $\pm 30^\circ$
Fixing		Screw / DIN rail 35mm
Weight		g 2460
Conductor section	AWG/kcmil conductor section	
	max	2/0

### Operations

Mechanical life	cycles	15000000
-----------------	--------	----------

### Safety related data

EMC compatibility	yes
-------------------	-----

### AC coil operating

Rated AC voltage at 50/60Hz, 60Hz	min	V	100
	max	V	250
Rated AC voltage at 50/60Hz		V	230
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

### DC coil operating

DC rated control voltage	min	V	100
	max	V	250
DC rated control voltage		V	230
DC operating voltage			
pick-up	min	%Us	80 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

**Max cycles frequency**

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**

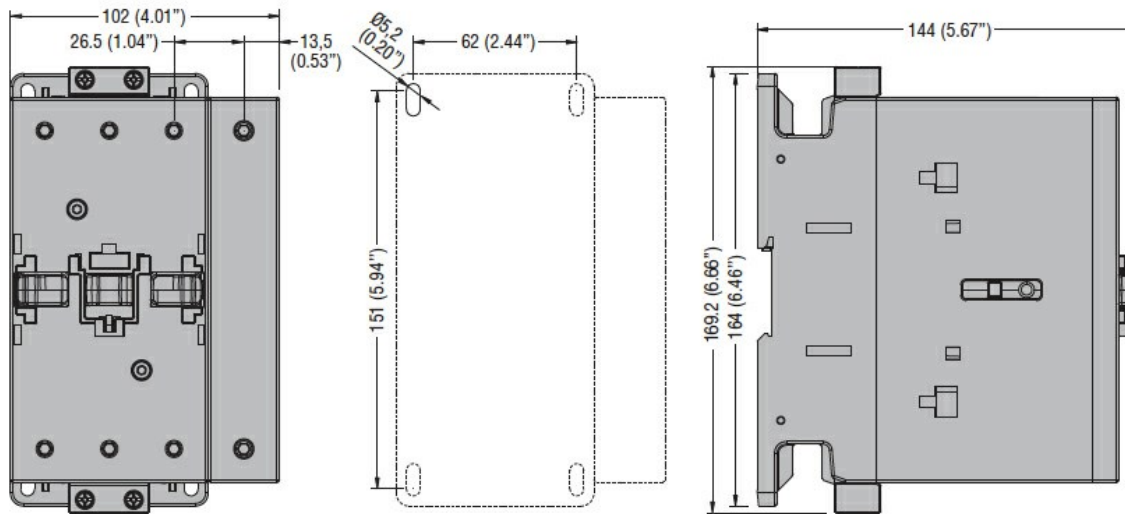
Temperature			
	Operating temperature		
		min	°C -40
		max	°C 70
	Storage temperature		
		min	°C -50
		max	°C 80

Max altitude		m	3000
--------------	--	---	------

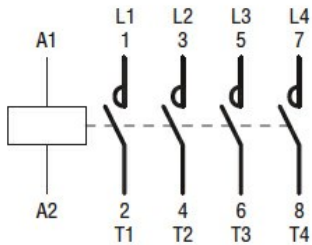
**Resistance & Protection**

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