



Product designation  
Product type designation

Power contactor  
BFD150

**Contact characteristics**

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 max	Hz Hz 25 400
IEC Conventional free air thermal current $I_{th}$	A	165
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 600V 800V 1000V	A A A A 165 165 125 100
Short-time allowable current for 10s (IEC/EN60947-1)	A	1200
Protection fuse	gG (IEC) aM (IEC)	A A 250 160
Resistance per pole (average value)	m $\Omega$	0.45
Power dissipation per pole (average value)	$I_{th}$ W	12
Tightening torque for terminals	min max min max	Nm Nm lbin lbin 6 7 4.4 5.2
Tightening torque for coil terminal	min max min max	Nm Nm lbin lbin 0.8 1 0.59 0.74
Max number of wires simultaneously connectable	Nr.	2
Conductor section	AWG/Kcmil	
	max	2/0
Flexible w/o lug conductor section	min max	mm <sup>2</sup> mm <sup>2</sup> 1.5 70
Flexible c/w lug conductor section	min max	mm <sup>2</sup> mm <sup>2</sup> 1.5 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
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## Safety related data

EMC compatibility	yes
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## AC coil operating

### Rated AC voltage at 50/60Hz, 60Hz

	min	V	100
	max	V	250

### AC operating voltage

of 50/60Hz coil powered at 50Hz  
pick-up

min	%Us	80 Us min
max	%Us	110 Us max

drop-out

min	%Us	20
max	%Us	$\leq 70$ Us min

of 50/60Hz coil powered at 60Hz  
pick-up

min	%Us	80 Us min
max	%Us	110 Us max

drop-out

min	%Us	20
max	%Us	$\leq 70$ 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 $\leq 20^\circ\text{C}$ 50Hz

W	1.3...1,5
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## DC coil operating

### DC rated control voltage

min	V	100
max	V	250

### DC operating voltage

pick-up

min	%Us	80 Us min
max	%Us	110 Us max

drop-out

max	%Us	$\leq 70$ Us min
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Average coil consumption  $\leq 20^{\circ}\text{C}$

in-rush	W	70...80
holding	W	1.3...1.5

Max cycles frequency

Mechanical operation

cycles/h 2000

Operating times

Average time for  $U_s$  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	$^{\circ}\text{C}$	-40
max	$^{\circ}\text{C}$	70

Storage temperature

min	$^{\circ}\text{C}$	-50
max	$^{\circ}\text{C}$	80

Max altitude

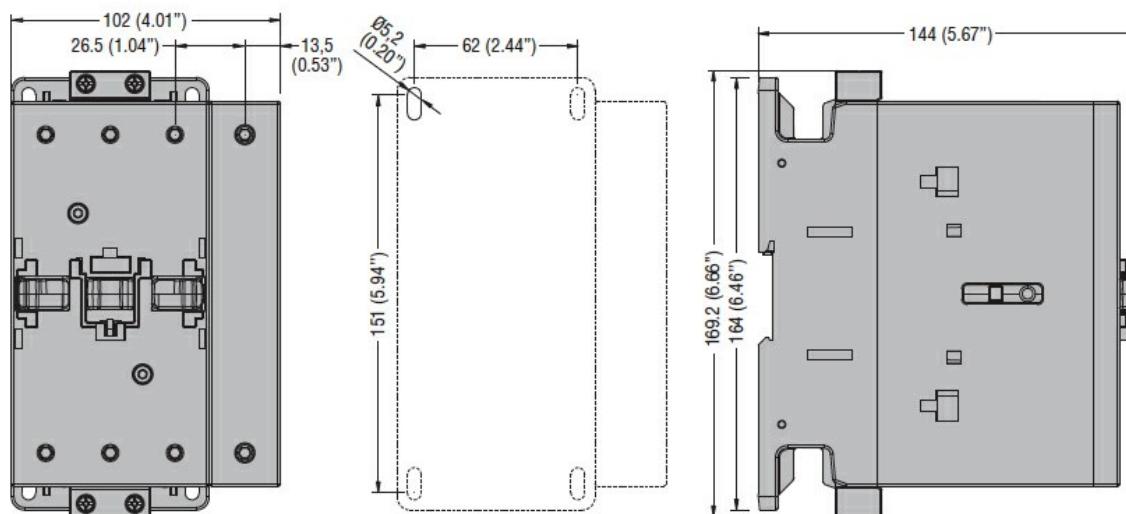
m 3000

Resistance & Protection

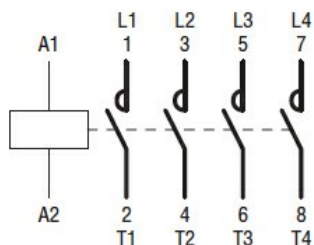
Pollution degree

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