



Product designation				Power contactor
Product type designation				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	Hz	25	
	max	Hz	400	
IEC Conventional free air thermal current I_{th}	A			165
Operational current I_e	AC-1 ($\leq 40^\circ\text{C}$)		A	160
	400V	A	165	
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ 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 Ω	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 ²	1.5	
	max	mm ²	70	
Flexible c/w lug conductor section	min	mm ²	1.5	
	max	mm ²	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	≤ 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	≤ 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

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	≤ 70 Us min

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
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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

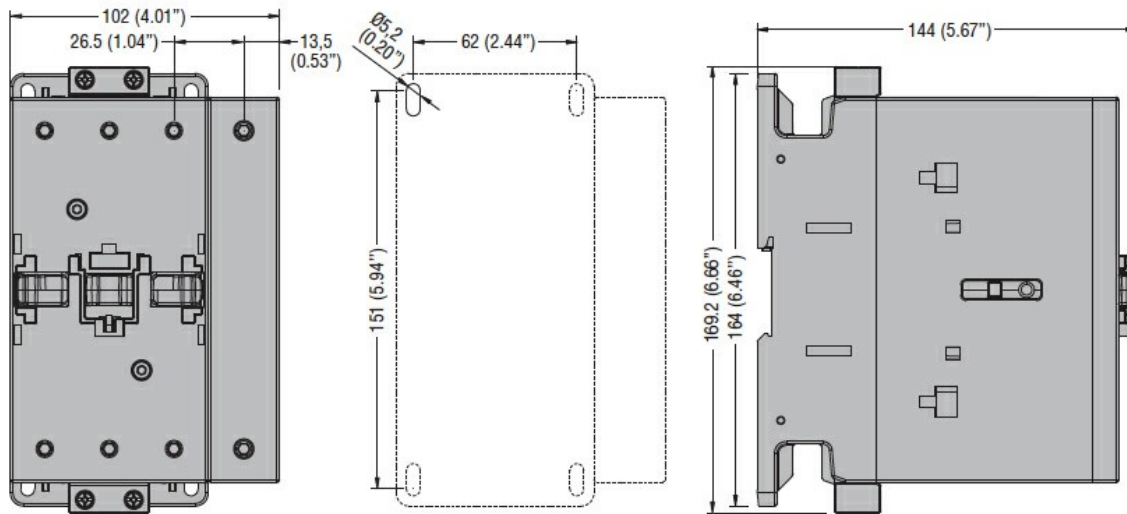
m 3000

Resistance & Protection

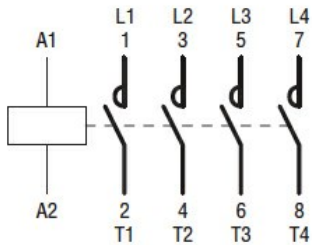
Pollution degree

3

Dimensions [mm (in)]



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