



Power contactor  
BF150

Product designation

Product type designation

**Contact characteristics**

Number of poles	Nr.	4
Rated insulation voltage U <sub>i</sub> IEC/EN	V	1000
Rated impulse withstand voltage U <sub>imp</sub>	kV	8
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I <sub>th</sub>	A	165
Operational current I <sub>e</sub>	AC-1 (≤40°C)	A 165
	AC-1 (≤55°C)	A 135
	AC-1 (≤70°C)	A 118
	AC-3 (≤440V ≤55°C)	A 150
	AC-4 (400V)	A 70
Rated operational current AC-3 (T≤55°C)	230V	A 150
	400V	A 150
	415V	A 150
	440V	A 150
	500V	A 128
	690V	A 113
	1000V	A 51
Rated operational power AC-1 (T≤40°C)	230V	kW 62
	400V	kW 110
	500V	kW 136
	690V	kW 187
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 1 poles in series	≤24V	A 165
	48V	A 165
	75V	A 150
	110V	A 10
	220V	A –
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 2 poles in series	≤24V	A 165
	48V	A 165
	75V	A 165
	110V	A 150
	220V	A 14
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 3 poles in series	≤24V	A 165
	48V	A 165
	75V	A 165

	110V	A	160
	220V	A	150
IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	165
	48V	A	165
	75V	A	165
	110V	A	165
	220V	A	165
IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	165
	48V	A	60
	75V	A	44
	110V	A	6
	220V	A	–
IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	165
	48V	A	82
	75V	A	70
	110V	A	80
	220V	A	7
IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	165
	48V	A	195
	75V	A	110
	110V	A	120
	220V	A	120
IEC max current I <sub>e</sub> in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	165
	48V	A	130
	75V	A	130
	110V	A	150
	220V	A	150
Short-time allowable current for 10s (IEC/EN60947-1)		A	1200
Protection fuse			
	gG (IEC)	A	250
	aM (IEC)	A	160
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1200
	500V	A	1025
	690V	A	905
Resistance per pole (average value)		mΩ	0.45
Power dissipation per pole (average value)			
	I <sub>th</sub>	W	12
	AC-3	W	10.1
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	I <sub>bin</sub>	35.4
	max	I <sub>bin</sub>	44.3
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
Electrical life		cycles	800000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	800000
Mirror contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			yes
<b>AC coil operating</b>			
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	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 $\leq 20^{\circ}\text{C}$ 50Hz		W	1.3...1.5
<b>DC coil operating</b>			
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
Average coil consumption $\leq 20^{\circ}\text{C}$			
	in-rush	W	70...80
	holding	W	1.3...1.5
<b>Max cycles frequency</b>			
Mechanical operation		cycles/h	2000
<b>Operating times</b>			
Average time for Us control			
in AC			
	Closing NO		
	min	ms	45
	max	ms	90
	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
<b>UL technical data</b>			
Yielded mechanical performance			
for three-phase AC motor			
	200/208V	HP	50
	220/230V	HP	50
	460/480V	HP	100
	575/600V	HP	125
General USE			
Contactor			
	AC current	A	165
Short-circuit protection fuse, 600V			
High fault			
	Short circuit current	kA	100
	Fuse rating	A	200
	Fuse class		J
Standard fault			
	Short circuit current	kA	10

Fuse rating A 250  
Fuse class RK5

**Ambient conditions**

Temperature

Operating temperature

min °C -40  
max °C 70

Storage temperature

min °C -50  
max °C 80

Max altitude

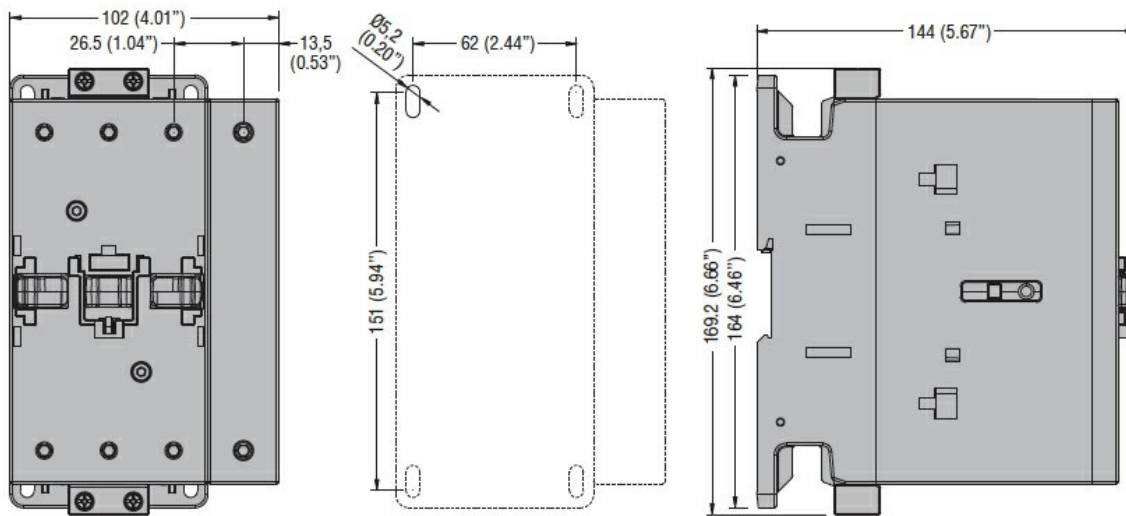
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**Resistance & Protection**

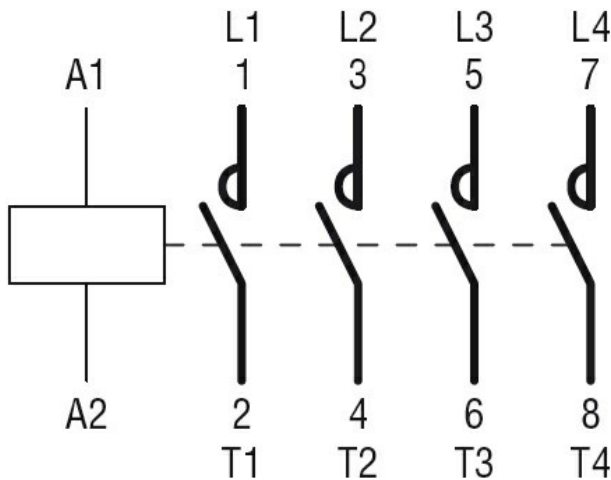
Pollution degree

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

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Certificates

CCC  
cULus  
EAC

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ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching