



Product designation	Power contactor		
Product type designation	BF150		
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	165
	AC-1 ($\leq 55^{\circ}\text{C}$)	A	135
	AC-1 ($\leq 70^{\circ}\text{C}$)	A	118
	AC-3 ($\leq 440\text{V} \leq 55^{\circ}\text{C}$)	A	150
	AC-4 (400V)	A	70
IEC max current I _e in DC1 with L/R $\leq 1\text{ms}$ with 1 poles in series			
	$\leq 24\text{V}$	A	165
	48V	A	165
	75V	A	150
	110V	A	10
	220V	A	—
IEC max current I _e in DC1 with L/R $\leq 1\text{ms}$ with 2 poles in series			
	$\leq 24\text{V}$	A	165
	48V	A	165
	75V	A	165
	110V	A	150
	220V	A	14
IEC max current I _e in DC1 with L/R $\leq 1\text{ms}$ with 3 poles in series			
	$\leq 24\text{V}$	A	165
	48V	A	165
	75V	A	165
	110V	A	160
	220V	A	150
IEC max current I _e in DC1 with L/R $\leq 1\text{ms}$ with 4 poles in series			
	$\leq 24\text{V}$	A	165
	48V	A	165
	75V	A	165
	110V	A	165
	220V	A	165
IEC max current I _e in DC3-DC5 with L/R $\leq 15\text{ms}$ with 1 poles in series			
	$\leq 24\text{V}$	A	165
	48V	A	60
	75V	A	44
	110V	A	6

	220V	A	–
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series	$\leq 24\text{V}$ 48V 75V 110V 220V	A A A A A	165 82 70 80 7
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series	$\leq 24\text{V}$ 48V 75V 110V 220V	A A A A A	165 195 110 120 120
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 4 poles in series	$\leq 24\text{V}$ 48V 75V 110V 220V	A A A A A	165 130 130 150 150
Short-time allowable current for 10s (IEC/EN60947-1)		A	1200
Protection fuse	gG (IEC) aM (IEC)	A A	250 160
Making capacity (RMS value)		A	1500
Breaking capacity at voltage	440V 500V 690V	A A A	1200 1025 905
Resistance per pole (average value)		m?	0.45
Power dissipation per pole (average value)	I _{th} AC3	W W	12 10.1
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
Conductor section	AWG/Kcmil	max	2/0
Flexible w/o lug conductor section	min max	mm ² mm ²	1.5 70
Flexible c/w lug conductor section	min max	mm ² mm ²	1.5 70
Power terminal protection according to IEC/EN 60529			IP20 front
Mechanical features			

Operating position

	normal allowable	Vertical plan ±30°
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Fixing		Screw / DIN rail 35mm
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Weight	g	2420
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Conductor section

AWG/kcmil conductor section

	max	2/0
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Operations		
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Mechanical life	cycles	15000000
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Electrical life	cycles	800000
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Safety related data		
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EMC compatibility		yes
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AC coil operating		
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Rated AC voltage at 50/60Hz	V	230
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AC operating voltage		
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of 50/60Hz coil powered at 50Hz

pick-up

	min	%Us	80
	max	%Us	110

drop-out

	min	%Us	20
	max	%Us	55

of 50/60Hz coil powered at 60Hz

pick-up

	min	%Us	85
	max	%Us	110

drop-out

	min	%Us	40
	max	%Us	55

AC average coil consumption at 20°C		
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of 50/60Hz coil powered at 50Hz

	in-rush	VA	300
	holding	VA	20

of 50/60Hz coil powered at 60Hz

	in-rush	VA	275
	holding	VA	17

of 60Hz coil powered at 60Hz

	in-rush	VA	300
	holding	VA	20

Dissipation at holding ≤20°C 50Hz		W	6.5
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Max cycles frequency			
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Mechanical operation		cycles/h	1500
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Operating times			
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Average time for Us control			
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in AC

Closing NO

	min	ms	45
	max	ms	32

Opening NO

	min	ms	9
	max	ms	24

UL technical data			
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General USE

Contactor	AC current	A	165
Short-circuit protection fuse, 600V High fault	Short circuit current Fuse rating Fuse class	kA A J	100 200 250 RK5
Standard fault	Short circuit current Fuse rating Fuse class	kA A RK5	10 250 70

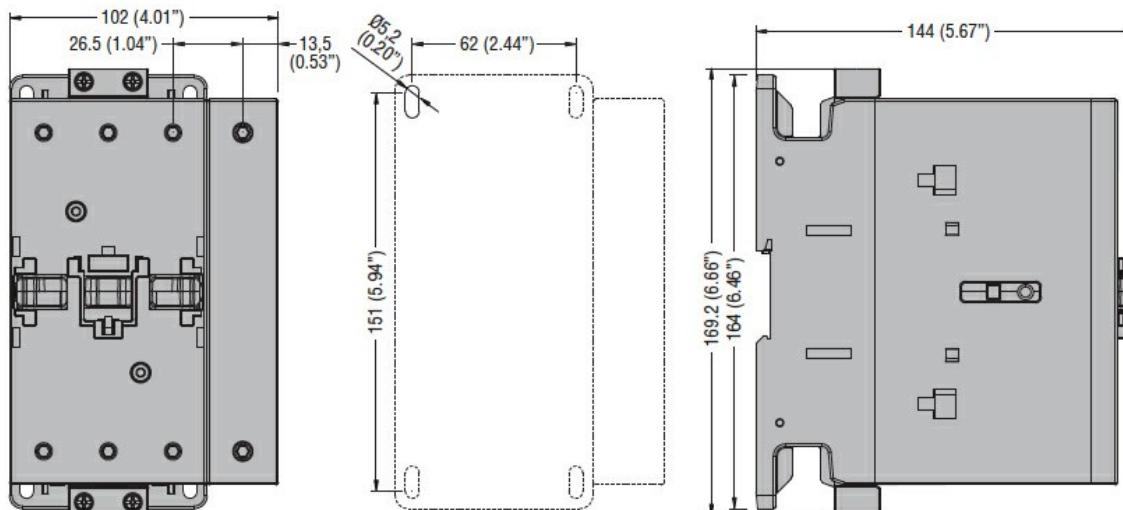
Ambient conditions

Temperature

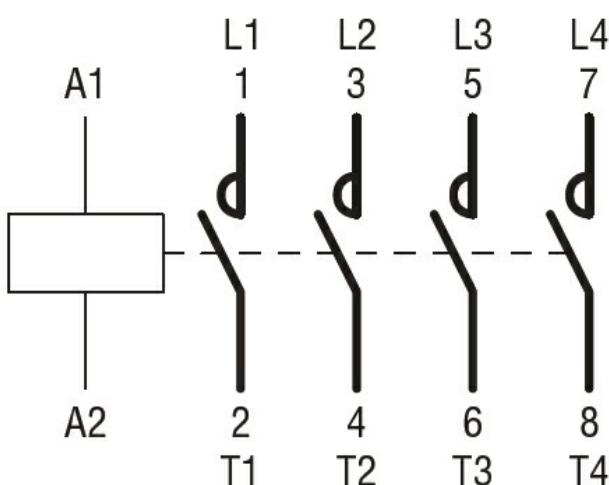
Operating temperature	min	°C	-50
	max	°C	70
Storage temperature	min	°C	-60
	max	°C	80
		m	3000

Max altitude

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

EAC

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching