



Product designation

Power contactor

Product type designation

BF150

**Contact characteristics**

Number of poles	Nr.	3
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
Rated operational power AC-3 ( $T \leq 55^\circ\text{C}$ )	230V kW	45
	400V kW	75
	415V kW	75
	440V kW	75
	500V kW	90
	690V kW	110
	1000V kW	55
Rated operational current AC-3 ( $T \leq 55^\circ\text{C}$ )	230V A	150
	400V A	150
	415V A	150
	440V A	150
	500V A	128
	690V A	113
	1000V A	51
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		

	≤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>	4.4
	max	I <sub>bin</sub>	5.2

### Tightening torque for coil terminal

min	Nm	0.8
max	Nm	1
min	lbin	0.59
max	lbin	0.74

### Conductor section

AWG/Kcmil

max	2/0
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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 ±30°
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#### Fixing

Screw / DIN rail  
35mm

#### Weight

g 2020

### Operations

#### Mechanical life

cycles 15000000

#### Electrical life

cycles 800000

### Safety related data

Performance level B10d according to EN/ISO 13489-1

rated load	cycles	800000
mechanical load	cycles	15000000

#### EMC compatibility

yes

### AC coil operating

#### Rated AC voltage at 60Hz

V 48

#### AC operating voltage

of 50/60Hz coil powered at 50Hz  
drop-out

max	%Us	55
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of 60Hz coil powered at 60Hz  
pick-up

min	%Us	80
max	%Us	110

drop-out

min	%Us	20
max	%Us	55

#### AC average coil consumption at 20°C

of 60Hz coil powered at 60Hz

in-rush	VA	300
holding	VA	20

#### Dissipation at holding ≤20°C 50Hz

W 6.5

### Max cycles frequency

#### Mechanical operation

cycles/h 1500

### Operating times

#### Average time for Us control

in AC

Closing NO

min	ms	45
max	ms	32

Opening NO

min	ms	9
max	ms	24

**UL technical data**

Rated operational voltage AC (UL)	V	600
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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
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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	-50
max	°C	70

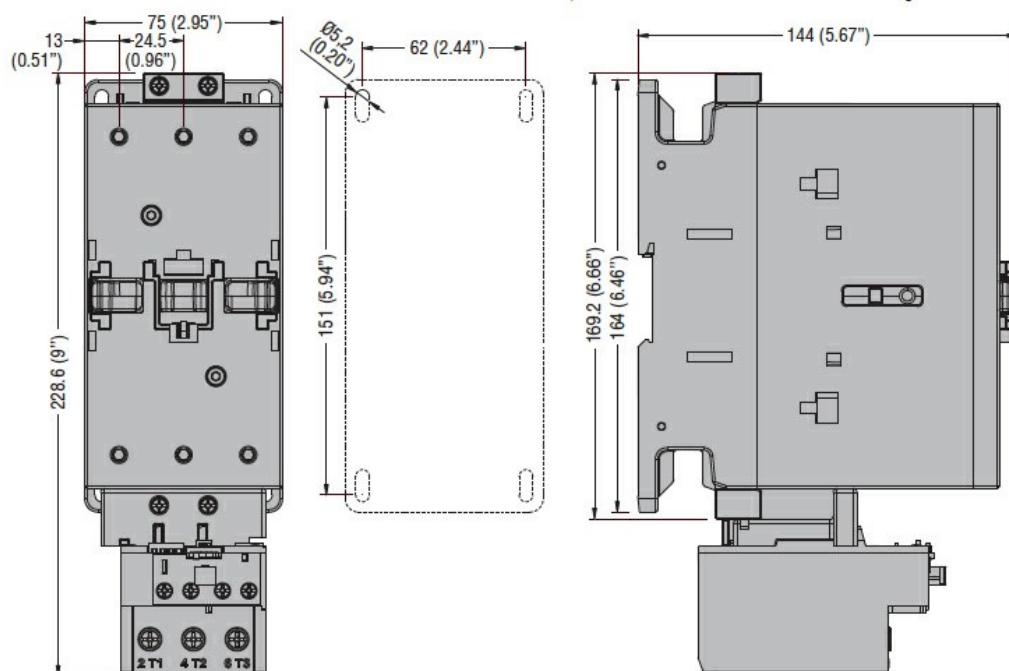
Storage temperature

min	°C	-60
max	°C	80

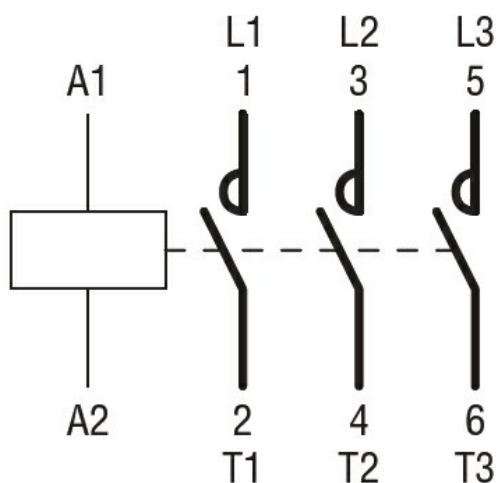
Max altitude

m	3000
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**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

CCC

cULus

#### ETIM classification

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching