



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 ($\leq 40^\circ C$)	A	165
	AC-1 ($\leq 55^\circ C$)	A	135
	AC-1 ($\leq 70^\circ C$)	A	118
	AC-3 ($\leq 440V \leq 55^\circ C$)	A	150
	AC-4 (400V)	A	70
Rated operational power AC-3 ($T \leq 55^\circ C$)			
	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 ($T \leq 55^\circ C$)			
	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 $L/R \leq 1ms$ with 1 poles in series			
	$\leq 24V$	A	165
	48V	A	165
	75V	A	150
	110V	A	10
	220V	A	—
IEC max current I_e in DC1 with $L/R \leq 1ms$ with 2 poles in series			
	$\leq 24V$	A	165
	48V	A	165
	75V	A	165
	110V	A	150
	220V	A	14
IEC max current I_e in DC1 with $L/R \leq 1ms$ with 3 poles in series			

	≤24V	A	165
	48V	A	165
	75V	A	165
	110V	A	160
	220V	A	150
IEC max current Ie 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 Ie 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 Ie 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 Ie 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 Ie 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 _{th}	W	12
	AC-3	W	10.1
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	I _{bin}	4.4
	max	I _{bin}	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
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	Vertical plan
allowable	±30°

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 575

AC operating voltage

of 50/60Hz coil powered at 50Hz	drop-out	max	%Us	≤70 Us min
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		
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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

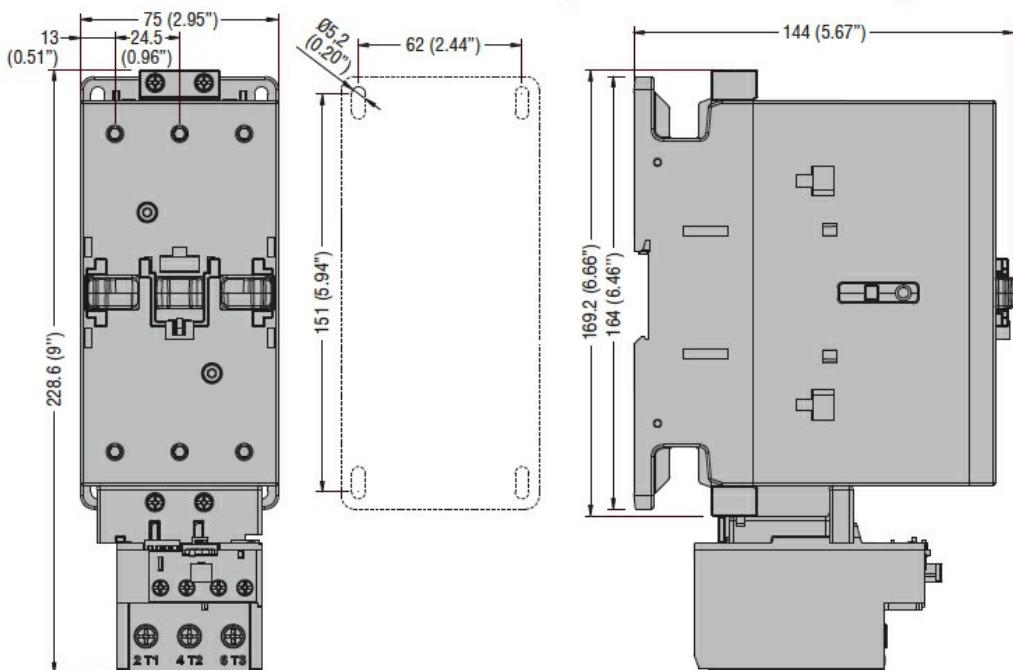
Storage temperature

min	°C	-60
max	°C	80

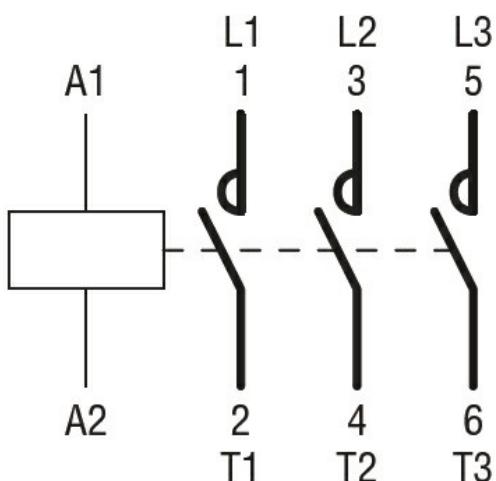
Max altitude

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