



Product designation
Product type designation

Power contactor
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 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)		m?	0.45
Power dissipation per pole (average value)			
	Ith	W	12
	AC3	W	10.1
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
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 ±30°
Fixing		Screw / DIN rail 35mm
Weight	g	2420

Conductor section

AWG/kcmil conductor section

max 2/0

Operations

Mechanical life cycles 15000000

Electrical life cycles 800000

Safety related data

EMC compatibility yes

AC coil operating

Rated AC voltage at 50/60Hz V 48

AC operating voltage

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

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

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

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

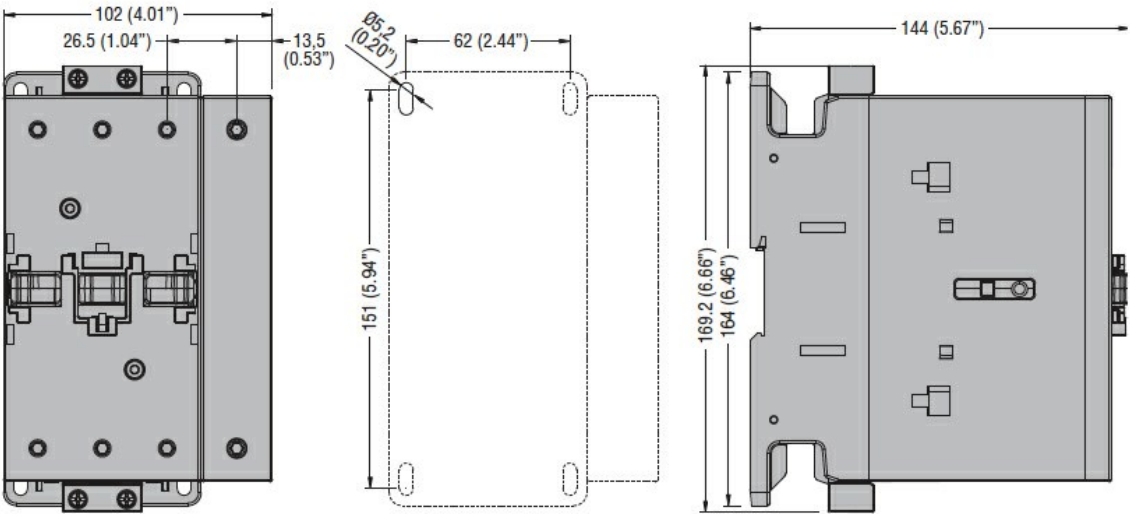
min	°C	-50
max	°C	70

Storage temperature

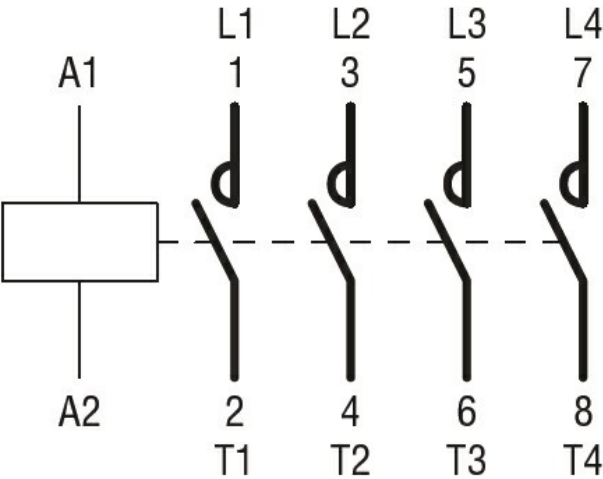
min	°C	-60
max	°C	80

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 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