



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
Rated operational power AC-1 ($T \leq 40^\circ\text{C}$)		
	230V	kW 62
	400V	kW 110
	500V	kW 136
	690V	kW 187
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

$\leq 24\text{V}$	A	165
48V	A	82
75V	A	70
110V	A	80
220V	A	7

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series

$\leq 24\text{V}$	A	165
48V	A	195
75V	A	110
110V	A	120
220V	A	120

IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 4 poles in series

$\leq 24\text{V}$	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
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Protection fuse

gG (IEC)	A	250
aM (IEC)	A	160

Making capacity (RMS value)

A	1500
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Breaking capacity at voltage

440V	A	1200
500V	A	1025
690V	A	905

Resistance per pole (average value)

m?	0.45
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Power dissipation per pole (average value)

I_{th}	W	12
AC3	W	10.1

Tightening torque for terminals

min	Nm	6
max	Nm	7
min	lbin	35.4
max	lbin	44.3

Tightening torque for coil terminal

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

Max number of wires simultaneously connectable

Nr.	2
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Conductor section

AWG/Kcmil

max	2/0
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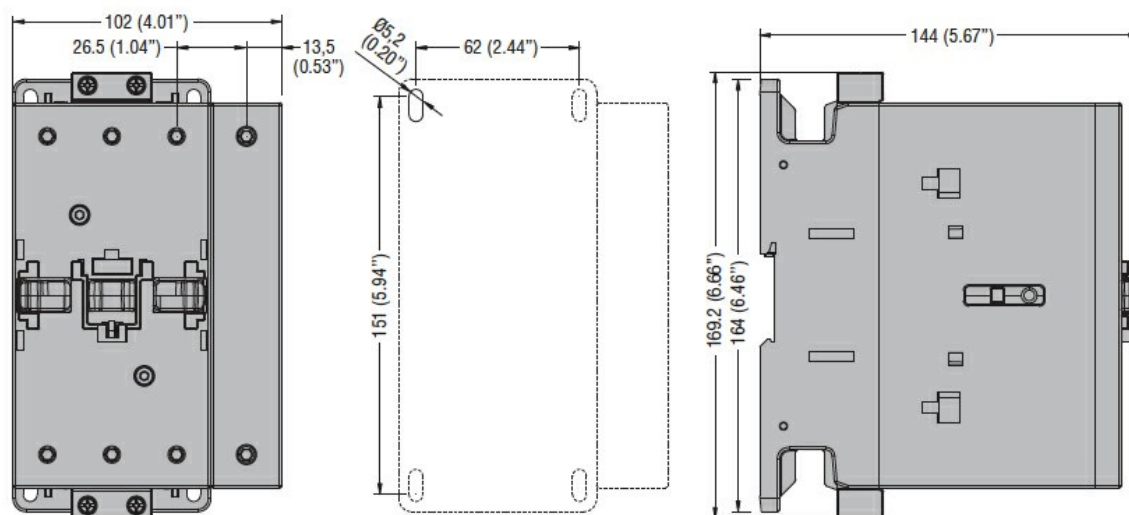
Flexible w/o lug conductor section

min	mm ²	1.5
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Flexible c/w lug conductor section	max	mm ²	70
	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	2460
Conductor section			
AWG/kcmil conductor section			
	max		2/0
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
Mirror contacts according to IEC/EN 60947-4-1			yes
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 50/60Hz, 60Hz			
	min	V	20
	max	V	48
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 ≤20°C 50Hz			W 1.3...1.5
DC coil operating			
DC rated control voltage			

		min	V	20
		max	V	48
DC operating voltage				
pick-up		min	%Us	85 Us min
		max	%Us	110 Us max
drop-out				
		max	%Us	≤70 Us min
Average coil consumption ≤20°C				
		in-rush	W	70...80
		holding	W	1.3...1.5
Max cycles frequency				
Mechanical operation			cycles/h	2000
Operating times				
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
UL technical data				
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		m	3000
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 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