



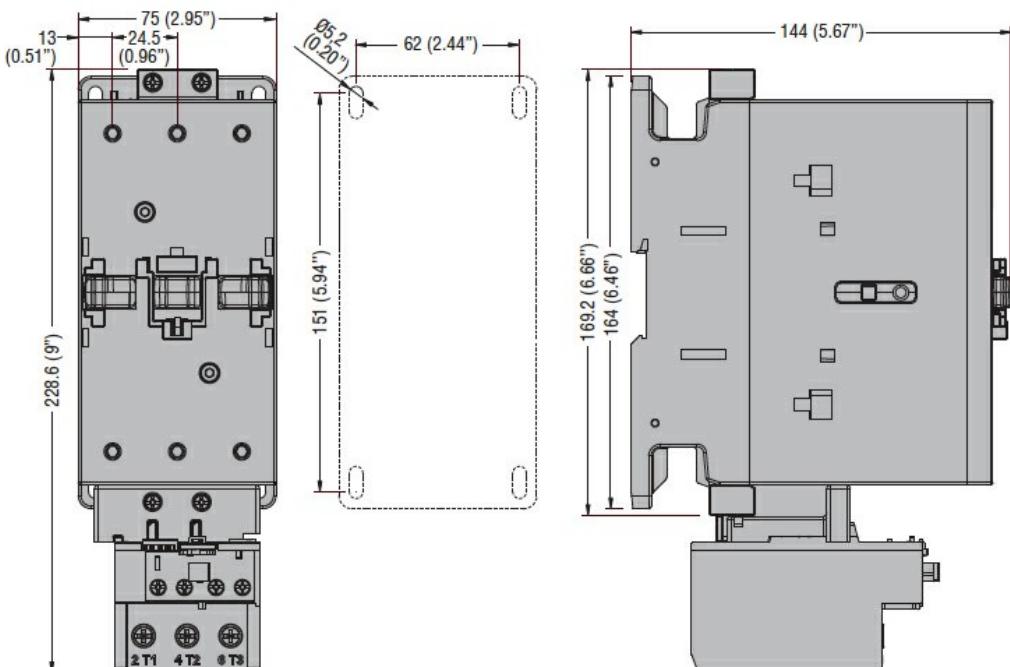
Product designation	Power contactor		
Product type designation	BF150		
Contact characteristics			
Number of poles	Nr.	3	
Rated insulation voltage U_i IEC/EN	V	1000	
Rated impulse withstand voltage U_{imp}	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current I_{th}		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 power AC-1 ($T \leq 40^\circ C$)			
	230V	kW	62
	400V	kW	110
	500V	kW	136
	690V	kW	187
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			
	$\leq 24V$	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			
	$\leq 24V$	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			
	$\leq 24V$	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			
	$\leq 24V$	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			
	$\leq 24V$	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			
	$\leq 24V$	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)			
	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

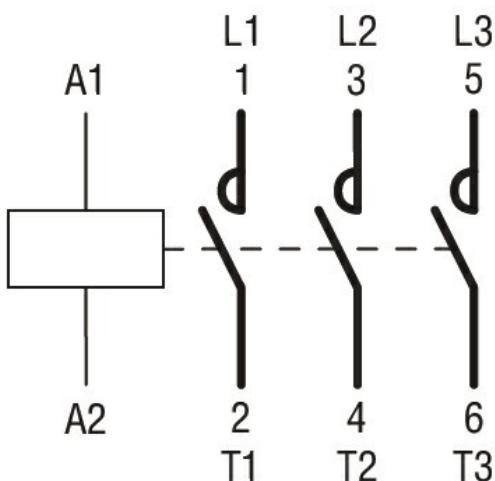
Conductor section	AWG/Kcmil	min	lbin	0.59
		max	lbin	0.74
Flexible w/o lug conductor section		max		2/0
Flexible c/w lug conductor section		min	mm ²	1.5
		max	mm ²	70
Power terminal protection according to IEC/EN 60529				IP20 front
Mechanical features				
Operating position		normal allowable		Vertical plan ±30°
Fixing				Screw / DIN rail 35mm
Weight		g		2060
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 609474-4-1				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	min	%Us	80 Us min
	pick-up	max	%Us	110 Us max
	drop-out	max	%Us	≤70 Us min
	of 50/60Hz coil powered at 60Hz	min	%Us	80 Us min
	pick-up	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

of 60Hz coil powered at 60Hz	holding	VA	1.7...3.5
	in-rush	VA	70...175
	holding	VA	1.7...3.5
Dissipation at holding $\leq 20^{\circ}\text{C}$ 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 $\leq 20^{\circ}\text{C}$	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

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching