

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
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IEC max current I _e 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
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IEC max current I _e 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
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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
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Making capacity (RMS value)		A	1500
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Breaking capacity at voltage	440V	A	1200
	500V	A	1025
	690V	A	905
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Resistance per pole (average value)		mΩ	0.45
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Power dissipation per pole (average value)	I _{th}	W	12
	AC3	W	10.1
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Tightening torque for terminals	min	Nm	6
	max	Nm	7
	min	I _{bin}	35.4
	max	I _{bin}	44.3
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Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	I _{bin}	Prodotti finiti
	max	I _{bin}	Prodotti finiti
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Max number of wires simultaneously connectable		Nr.	2
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Conductor section	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
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Power terminal protection according to IEC/EN 60529			IP20 front
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Mechanical features			
Operating position	normal allowable		Vertical plan ±30°

Fixing				Screw / DIN rail 35mm
Weight	g			2460
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	60	
	max	V	110	
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	60	
	max	V	110	
DC operating voltage				
pick-up	min	%Us	80 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
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	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
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Short-circuit protection fuse, 600V					
High fault					
		Short circuit current	kA		100
		Fuse rating	A		200
		Fuse class			J
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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
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Storage temperature					
		min	°C		-50
		max	°C		80
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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