

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 ($\leq 40^\circ\text{C}$)	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-3 ($T \leq 55^\circ\text{C}$)	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 ($T \leq 40^\circ\text{C}$)	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)

mΩ	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	I _{bin}	35.4
max	I _{bin}	44.3

Tightening torque for coil terminal

min	Nm	0.8
max	Nm	1
min	I _{bin}	Prodotti finiti
max	I _{bin}	Prodotti finiti

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
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	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
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	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
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