

Product designation				Power contactor
Product type designation				BF150
<b>Contact characteristics</b>				
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	
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 <sub>e</sub> 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 I <sub>e</sub> 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 I <sub>e</sub> 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)		mΩ	0.45
Power dissipation per pole (average value)	I <sub>th</sub>	W	12
	AC3	W	10.1
Tightening torque for terminals	min	Nm	6
	max	Nm	7
	min	I <sub>bin</sub>	4.4
	max	I <sub>bin</sub>	5.2
Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	I <sub>bin</sub>	Prodotti finiti
	max	I <sub>bin</sub>	Prodotti finiti
Conductor section	Flexible w/o lug conductor section		
	min	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	70
	Flexible c/w lug conductor section		
	min	mm <sup>2</sup>	1.5
	max	mm <sup>2</sup>	70
Power terminal protection according to IEC/EN 60529	IP20 front		
<b>Mechanical features</b>			
Operating position	normal		Vertical plan

	allowable			±30°
Fixing				Screw / DIN rail 35mm
Weight		g	2020	
<b>Operations</b>				
Mechanical life		cycles	15000000	
Electrical life		cycles	800000	
<b>Safety related data</b>				
EMC compatibility			Yes	
Rated AC voltage at 60Hz		V	230	
<b>AC coil operating</b>				
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up	min	%Us	80
		max	%Us	110
	drop-out	min	%Us	20
		max	%Us	55
<b>AC average coil consumption at 20°C</b>				
	of 50/60Hz coil powered at 50Hz	in-rush	VA	300
		holding	VA	20
	of 50/60Hz coil powered at 60Hz	in-rush	VA	300
		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
<b>Max cycles frequency</b>				
Mechanical operation			cycles/h	1500
<b>Operating times</b>				
Average time for Us control				
	in AC			
	Closing NO	min	ms	45
		max	ms	32
	Opening NO	min	ms	9
		max	ms	24
<b>UL technical data</b>				
Yielded mechanical performance				
	for three-phase AC motor	200/208V	HP	50
		220/230V	HP	50
		460/480V	HP	100
		575/600V	HP	125
<b>General USE</b>				
	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

**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