

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	
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 ≤ 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 _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
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
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 _{th}	W	12
	AC3	W	10.1
Tightening torque for terminals	min	Nm	6
	max	Nm	7
	min	I _{bin}	4.4
	max	I _{bin}	5.2
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
	max	mm ²	70
Power terminal protection according to IEC/EN 60529	IP20 front		
Mechanical features			
Operating position	normal		Vertical plan

	allowable		±30°
Fixing			Screw / DIN rail 35mm
Weight		g	2020
Operations			
Mechanical life		cycles	15000000
Electrical life		cycles	800000
Safety related data			
EMC compatibility			Yes
Rated AC voltage at 60Hz		V	120
AC coil operating			
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
AC average coil consumption at 20°C			
	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
Max cycles frequency			
Mechanical operation		cycles/h	1500
Operating times			
Average time for Us control			
	in AC		
	Closing NO	min	ms 45
		max	ms 32
	Opening NO	min	ms 9
		max	ms 24
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			
	Contactors		
		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