



Product designation
Product type designation

Power contactor
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 current AC-3 ($T \leq 55^\circ\text{C}$)	230V	A 150
	400V	A 150
	415V	A 150
	440V	A 150
	500V	A 128
	690V	A 113
	1000V	A 51
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
<hr/>			
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series	≤24V	A	165
	48V	A	165
	75V	A	165
	110V	A	160
	220V	A	150
<hr/>			
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series	≤24V	A	165
	48V	A	165
	75V	A	165
	110V	A	165
	220V	A	165
<hr/>			
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	≤24V	A	165
	48V	A	60
	75V	A	44
	110V	A	6
	220V	A	–
<hr/>			
IEC max current Ie 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
<hr/>			
IEC max current Ie 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
<hr/>			
IEC max current Ie 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
<hr/>			
Short-time allowable current for 10s (IEC/EN60947-1)		A	1200
<hr/>			
Protection fuse	gG (IEC)	A	250
	aM (IEC)	A	160
<hr/>			
Making capacity (RMS value)		A	1500
<hr/>			
Breaking capacity at voltage	440V	A	1200
	500V	A	1025
	690V	A	905
<hr/>			
Resistance per pole (average value)		mΩ	0.45
<hr/>			
Power dissipation per pole (average value)	Ith	W	12
	AC-3	W	10.1
<hr/>			
Tightening torque for terminals			

	min	Nm	6
	max	Nm	7
	min	Ibin	35.4
	max	Ibin	44.3
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.59
	max	Ibin	0.74
Conductor section			
AWG/Kcmil			
	max		2/0
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 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 60947-4-1			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			
	pick-up		
	min	%Us	85 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	85 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
<hr/>				
of 50/60Hz coil powered at 60Hz		in-rush	VA	70...175
		holding	VA	1.7...3.5
<hr/>				
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	20
		max	V	48
<hr/>				
DC operating voltage				
pick-up		min	%Us	80 Us min
		max	%Us	110 Us max
<hr/>				
drop-out		max	%Us	≤70 Us min
<hr/>				
Average coil consumption ≤20°C				
		in-rush	W	70...80
		holding	W	1.3...1.5
<hr/>				
Max cycles frequency				
Mechanical operation			cycles/h	2000
<hr/>				
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
<hr/>				
in DC				
Closing NO		min	ms	45
		max	ms	90
Opening NO		min	ms	24
		max	ms	60
<hr/>				
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
<hr/>				
General USE				
Contactor		AC current	A	165
<hr/>				
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

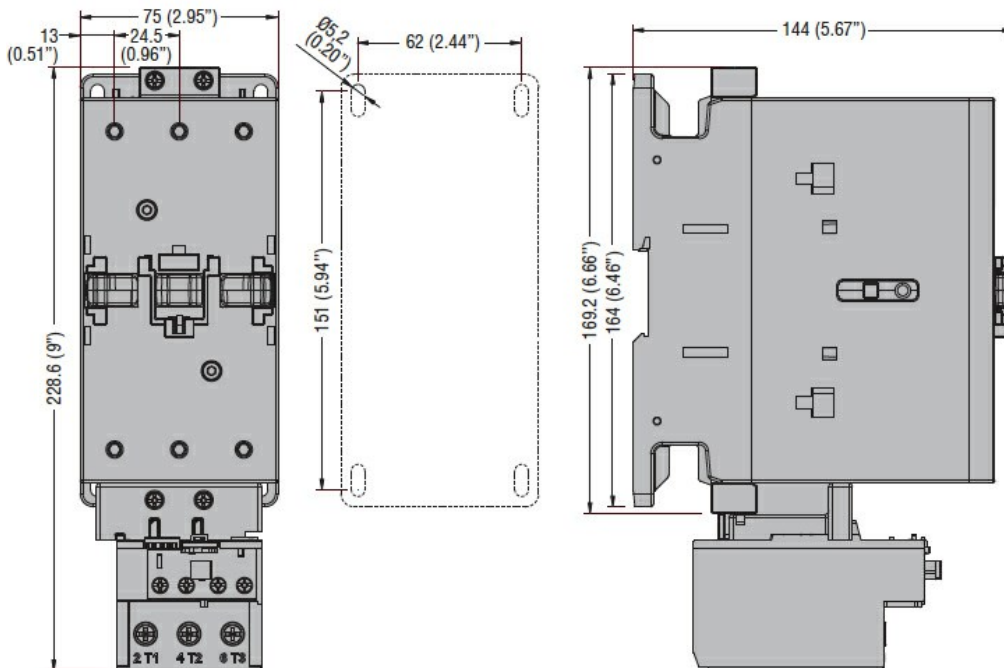
m 3000

Resistance & Protection

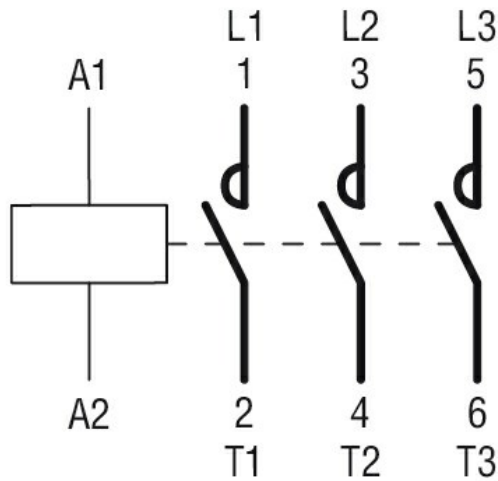
Pollution degree

3

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

ETIM classification

ETIM 8.0

EC000066 -
 Power contactor,
 AC switching