



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 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
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 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
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	–
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
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
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
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)			
	Ith	W	12
	AC-3	W	10.1
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	I _{bin}	0.59
		max	I _{bin}	0.74
Max number of wires simultaneously connectable			Nr.	2
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	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
		mechanical load	cycles	15000000
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 50/60Hz, 60Hz		min	V	100
		max	V	250
AC operating voltage	of 50/60Hz coil powered at 50Hz			
	pick-up	min	%U _s	80 U _s min
		max	%U _s	110 U _s max
	drop-out	max	%U _s	≤70 U _s min
	of 50/60Hz coil powered at 60Hz			
	pick-up	min	%U _s	80 U _s min
		max	%U _s	110 U _s max
	drop-out	max	%U _s	≤70 U _s 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	100		
		max	V	250		
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			
			Rated operational voltage AC (UL)		V	600
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

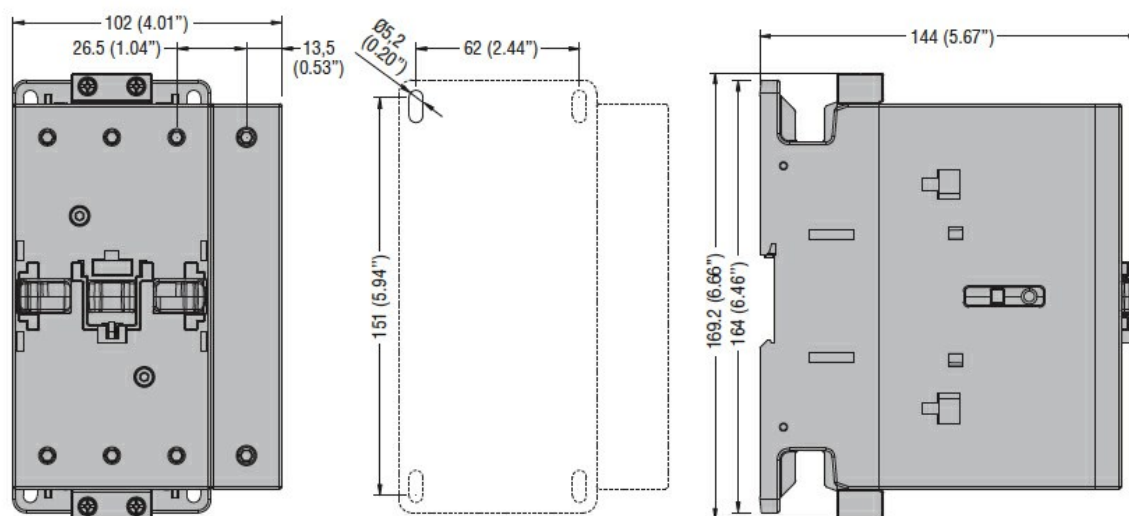
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Resistance & Protection

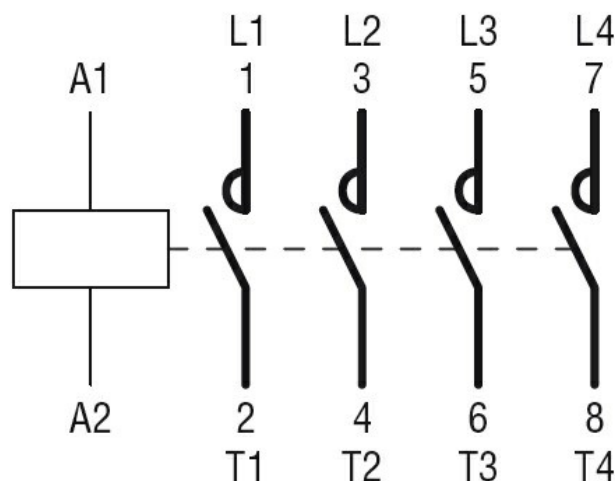
Pollution degree

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

EAC

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching