

# THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 150A, AC COIL 60HZ, 220VAC



Product designation Power contactor Product type designation BF150

Product type designation			BF150
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	165
Operational current le			
	AC-1 (≤40°C)	Α	165
	AC-1 (≤55°C)	Α	135
	AC-1 (≤70°C)	Α	118
	AC-3 (≤440V ≤55°C)	Α	150
	AC-4 (400V)	Α	70
Rated operational power AC-3 (T≤55°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≤55°C)			
	230V	Α	150
	400V	Α	150
	415V	Α	150
	440V	Α	150
	500V	Α	128
	690V	Α	113
	1000V	Α	51
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	165
	48V	Α	165
	75V	Α	150
	110V	Α	10
	220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	165
	48V	Α	165
	75V	Α	165
	110V	Α	150
	220V	Α	14

IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series



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	≤24V	Α	165
	48V	Α	165
	75V	Α	165
	110V	Α	160
	220V	Α	150
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	165
	48V	Α	165
	75V	Α	165
	110V	Α	165
	220V	Α	165
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	165
	48V	Α	60
	75V	Α	44
	110V	Α	6
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	165
	48V	Α	82
	75V	A	70
	110V	Α	80
	220V	A	7
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	220 V		
ile max current le in bes-bes with L/N = 15ms with 5 poles in series	≤24V	Α	165
	48V	A	195
	75V		
	75V 110V	A	110
		A	120
150	220V	Α	120
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	<b>2041</b> /	^	405
	≤24V	A	165
	48V	A	130
	75V	A	130
	110V	Α	150
	220V	Α	150
Short-time allowable current for 10s (IEC/EN60947-1)		Α	1200
Protection fuse	0 (1= 0)		0.50
	gG (IEC)	Α	250
	aM (IEC)	Α	160
Making capacity (RMS value)		Α	1500
Breaking capacity at voltage			
	440V	Α	1200
	500V	Α	1025
	690V	Α	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	lbin	4.4
	max	Ibin	5.2



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Departing position	Tightoning torque for o	oil torminal			
Max	rightening torque for c	on terminal	min	Nm	0.8
AWG/Kcmil   AWG/Kcmil   AWG/Kcmil   AWG/Kcmil   AWG/Kcmil   Flexible w/o lug conductor section   Flexible w/o lug conductor section   AWG/Kcmil   AW					
AWG/Kcmil					
AWG/Kcmil					
AWG/Kcmil   Flexible w/o lug conductor section   Flexible w/o lug conductor section   Flexible c/w lug conductor section   min m/m m/m m/m m/m m/m m/m m/m m/m m/m m/	Conductor section		тах	10111	0.7 1
Plexible w/o lug conductor section   Plexible w/o lug conductor section   Plexible c/w lug conductor section   Plexible		AWG/Kcmil			
Flexible w/o lug conductor section			max		2/0
Per		Flexible w/o lug conductor section			
Plexible c/w lug conductor section   min		<b></b>	min	mm²	1.5
Flexible c/w lug conductor section					
Min		Flexible c/w lug conductor section			
Prower terminal protection according to IEC/EN 60529   IP20 front		3 · · · · · · · · · · · · · · · · · · ·	min	mm²	1.5
December terminal protection according to IEC/EN 60529         IP20 front           Mechanical features         Vertical plan allowable stands allowable stan					
Departing position	Power terminal protect	tion according to IEC/EN 60529			
Departing position	Mechanical features				
Normal allowable   Some   Screw / DIN rail allowable   Some   Some / DIN rail allowable   Some / DIN rail allow	Operating position				
AWG/kcmil conductor section	. 01		normal		Vertical plan
Screw   DIN rail   35mm   3					
Meight   g   2020	<b>-</b>				
AWG/kcmil conductor section    Max   2/0	Fixing				
AWG/kcmil conductor section    Max   2/0	Weight			g	2020
Decrations           Mechanical life         cycles         15000000           Electrical life         cycles         800000           Safety related data         FMC compatibility         yes           AC coil operating         V         220           AC coil operating voltage         V         220           AC operating voltage         amax         %Us         55           of 60Hz coil powered at 60Hz         min         %Us         80           pick-up         min         %Us         80           drop-out         max         %Us         110           drop-out         min         %Us         20           AC average coil consumption at 20°C         in-rush         %Us         300           AC average coil consumption at 20°C         in-rush         VA         300           holding         VA         20           Dissipation at holding <20°C 50Hz	Conductor section				
Decrations           Mechanical life         cycles         15000000           Electrical life         cycles         800000           Safety related data         FMC compatibility         yes           AC coil operating         V         220           AC coil operating voltage         V         220           AC operating voltage         max         %Us         55           of 60Hz coil powered at 60Hz pick-up         min         %Us         80           Max         %Us         110         40           drop-out         min         %Us         80           Max         %Us         55           AC average coil consumption at 20°C         min         %Us         55           AC average coil consumption at 20°C         in-rush value         300 holding         VA         20           Dissipation at holding <20°C 50Hz		AWG/kcmil conductor section			
Operations           Mechanical life         cycles         15000000           Electrical life         cycles         800000           Safety related data           EMC compatibility         yes           AC coil operating           Rated AC voltage at 60Hz         V         220           AC operating voltage           of 50/60Hz coil powered at 50Hz drop-out         max         %Us         55           of 60Hz coil powered at 60Hz pick-up         min         %Us         80           drop-out         min         %Us         110           drop-out         min         %Us         55           AC average coil consumption at 20°C of 60Hz coil powered at 60Hz         in-rush holding         VA         300 holding           AC average coil consumption at 20°C of 60Hz coil powered at 60Hz         in-rush holding         VA         300 holding           Dissipation at holding ≤20°C 50Hz         W         6.5           Max cycles frequency         Cycles/h         1500           Operating times			max		2/0
Mechanical life         cycles         15000000           Electrical life         cycles         800000           Safety related data         Safety related data           EMC compatibility         yes           AC coil operating         V         220           AC operating voltage         of 50/60Hz coil powered at 50Hz drop-out         max         %Us         55           of 60Hz coil powered at 60Hz pick-up         min         %Us         80           max         %Us         110           drop-out         min         %Us         55           AC average coil consumption at 20°C of 60Hz coil powered at 60Hz         in-rush holding         %Us         55           AC average coil consumption at 20°C of 60Hz coil powered at 60Hz         in-rush holding         VA         300 holding           Dissipation at holding ≤20°C 50Hz         W         6.5           Max cycles frequency         Wechanical operation         cycles/h         1500	Operations				
Electrical life cycles 800000  Safety related data  EMC compatibility yes  AC coil operating  Rated AC voltage at 60Hz  of 50/60Hz coil powered at 50Hz drop-out  max %Us 55  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 60Hz coil powered at 60Hz in-rush VA 300 holding VA 20  Dissipation at holding ≤20°C 50Hz  Max cycles frequency  Mechanical operation  Cycles/h 1500  Deparating times	Mechanical life			cycles	15000000
Safety related data  EMC compatibility  AC coil operating  Rated AC voltage at 60Hz  AC operating voltage  of 50/60Hz coil powered at 50Hz drop-out  max	Electrical life				
EMC compatibility  AC coil operating  Rated AC voltage at 60Hz  AC operating voltage  of 50/60Hz coil powered at 50Hz drop-out  max %Us 55  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 60Hz coil powered at 60Hz in-rush VA 300 holding VA 20  Dissipation at holding ≤20°C 50Hz  Mechanical operation  Cycles/h 1500  Departing times				.,	
AC coil operating  Rated AC voltage at 60Hz  AC operating voltage  of 50/60Hz coil powered at 50Hz drop-out  max %Us 55  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 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  Deparating times					ves
Rated AC voltage at 60Hz  AC operating voltage  of 50/60Hz coil powered at 50Hz drop-out  max %Us 55  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 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  Deparating times					
AC operating voltage  of 50/60Hz coil powered at 50Hz drop-out  max %Us 55  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 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		)Hz		V	220
of 50/60Hz coil powered at 50Hz drop-out    max   %Us   55     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 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     Departing times     Operating times     Color     Col					
drop-out   max   %Us   55     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 60Hz coil powered at 60Hz   in-rush   VA   300   holding   VA   20     Dissipation at holding ≤20°C 50Hz   W   6.5     Max cycles frequency   Wechanical operation   cycles/h   1500   Operating times	are specially grandy	of 50/60Hz coil powered at 50Hz			
max   %Us   55     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 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     Departing times   cycles/h   1500     drop-out   min   %Us   80     max   %Us   110     max   %Us   110     max   wus   55     max   cycles   cycles/h   1500     c					
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 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		arop out			55
pick-up         min       %Us       80         max       %Us       110         drop-out       min       %Us       20         max       %Us       55         AC average coil consumption at 20°C       of 60Hz coil powered at 60Hz       in-rush       VA       300         bolding       VA       20       20       20       20         Dissipation at holding ≤20°C 50Hz       W       6.5       4         Max cycles frequency       W       6.5         Mechanical operation       cycles/h       1500         Operating times			max	%Us	
min wull will will will will will will will		of 60Hz coil powered at 60Hz	max	%Us	33
max   %Us   110     drop-out   min   %Us   20     max   %Us   55     AC average coil consumption at 20°C     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			max	%Us	
drop-out  min %Us 20 max %Us 55  AC average coil consumption at 20°C of 60Hz coil powered at 60Hz  in-rush VA 300 holding VA 20  Dissipation at holding ≤20°C 50Hz  We 6.5  Max cycles frequency  Mechanical operation  cycles/h 1500  Operating times					
min %Us 20 max %Us 55  AC average coil consumption at 20°C 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			min	%Us	80
max %Us 55  AC average coil consumption at 20°C		pick-up	min	%Us	80
AC average coil consumption at 20°C  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		pick-up	min max	%Us %Us	80 110
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		pick-up	min max min	%Us %Us %Us	80 110 20
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	AC average coil consu	pick-up drop-out	min max min	%Us %Us %Us	80 110 20
holding VA 20   Dissipation at holding ≤20°C 50Hz W 6.5   Max cycles frequency   Mechanical operation cycles/h 1500   Operating times	AC average coil consu	pick-up drop-out Imption at 20°C	min max min	%Us %Us %Us	80 110 20
Dissipation at holding ≤20°C 50Hz  Wax cycles frequency  Mechanical operation  Cycles/h 1500  Operating times	AC average coil consu	pick-up drop-out Imption at 20°C	min max min max	%Us %Us %Us %Us	80 110 20 55
Max cycles frequency Mechanical operation cycles/h 1500 Operating times	AC average coil consu	pick-up drop-out Imption at 20°C	min max min max in-rush	%Us %Us %Us %Us	80 110 20 55
Mechanical operation cycles/h 1500  Operating times	-	pick-up  drop-out  Imption at 20°C  of 60Hz coil powered at 60Hz	min max min max in-rush	%Us %Us %Us %Us VA	80 110 20 55 300 20
Operating times	Dissipation at holding s	pick-up  drop-out  Imption at 20°C  of 60Hz coil powered at 60Hz	min max min max in-rush	%Us %Us %Us %Us VA	80 110 20 55 300 20
	Dissipation at holding :	pick-up  drop-out  Imption at 20°C  of 60Hz coil powered at 60Hz	min max min max in-rush	%Us %Us %Us %Us VA VA VA	80 110 20 55 300 20 6.5
	Dissipation at holding s Max cycles frequency Mechanical operation	pick-up  drop-out  Imption at 20°C  of 60Hz coil powered at 60Hz	min max min max in-rush	%Us %Us %Us %Us VA VA VA	80 110 20 55 300 20 6.5

in AC



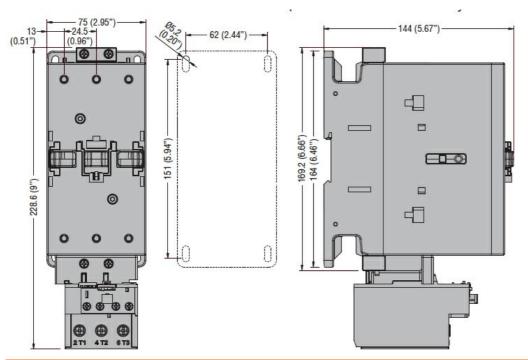


### THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 150A, AC COIL 60HZ,

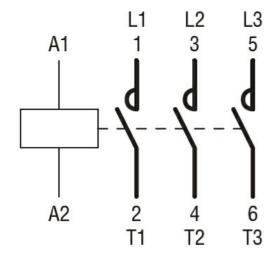
	Closing NO			
		min	ms	45
		max	ms	32
	Opening NO			
		min	ms	9
		max	ms	24
UL technical data				
Yielded mechanical performance				
for three-phase AC m	otor			
		200/208V	HP	50
		220/230V	HP	50
		460/480V	HP	100
		575/600V	HP	125
General USE				
Contactor				
		AC current	Α	165
Short-circuit protection fuse, 600V				
High fault				
		Short circuit current	kA	100
		Fuse rating	Α	200
		Fuse class		J
Standard fault				
		Short circuit current	kA	10
		Fuse rating	Α	250
		Fuse class		RK5
Ambient conditions				
Temperature				
Operating temperature	е			
		min	°C	-50
		max	°C	70
Storage temperature				
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Dimensions				

**ENERGY AND AUTOMATION** 

#### THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 150A, AC COIL 60HZ,



#### 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