

### THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 50A, AC COIL 60HZ,



Product designation Power contactor Product type designation **BF50** Contact characteristics Nr. 3 Number of poles Rated insulation voltage Ui IEC/EN ٧ 1000 k۷ Rated impulse withstand voltage Uimp 8 Operational frequency min Н 25 Hz 400 max IEC Conventional free air thermal current Ith 90 Α Operational current le AC-1 (≤40°C) Α 90 AC-1 (≤55°C) Α 75 AC-1 (≤70°C) Α 65 AC-3 (≤440V ≤55°C) Α 50 AC-4 (400V) 28 Rated operational power AC-3 (T≤55°C) kW 11 230V 400V kW 22 415V kW 22 440V kW 22 500V kW 22 690V kW 30 1000V kW 30 Rated operational current AC-3 (T≤55°C) 230V Α 50 400V Α 50 415V 50 Α 440V 50 Α 500V 44 690V 39 Α 1000V Α 23 Rated operational power AC-1 (T≤40°C) 230V kW 34 400V kW 59 500V kW 74 690V kW 102 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V 45 Α 48V Α 40 75V Α 40 110V Α 8 220V Α IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V Α 60



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	48V	Α	60
	75V	Α	60
	110V	Α	50
	220V	A	7
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	220 V		
in series	<b>-211</b> /	۸	00
	≤24V	A	60
	48V	Α	60
	75V	Α	60
	110V	Α	55
	220V	Α	75
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	60
	48V	Α	60
	75V	A	60
	110V	A	60
	220V	Α	90
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	30
	48V	Α	25
	75V	Α	22
	110V	Α	3
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series		- , ,	
TEO THAX CUITOTIC IN BOO BOO WILL ETC = TOTAL WILL 2 POICS IN SCIECE	≤24V	Α	35
	48V	Α	35
	75V	Α	30
	110V	Α	25
	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	50
	48V	Α	50
	75V	Α	45
	110V	A	30
	220V		40
150	220 V	Α	40
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	.0.43.4		
	≤24V	Α	55
	48V	Α	55
	75V	Α	55
	110V	Α	45
	220V	Α	50
Short-time allowable current for 10s (IEC/EN60947-1)		Α	400
Protection fuse			
	gG (IEC)	Α	100
	aM (IEC)	A	50
Making consoity (PMC value)	aivi (ILO)		
Making capacity (RMS value)		Α	500
Breaking capacity at voltage		_	
	440V	Α	400
	500V	Α	352
	690V	Α	312
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
	Ith	W	6.5
	AC-3	W	2
Tightoning targue for tarminals	AU-3	VV	
Tightening torque for terminals			





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		min	Nm	4
		max	Nm	5
		min	lbin	2.95
		max	lbin	3.69
Tightening torque for	coil terminal			
		min	Nm	0.8
		max	Nm	1
		min	lbin	0.8
		max	lbin	0.74
Max number of wires	simultaneously connectable		Nr.	2
Conductor section	·			
	AWG/Kcmil			
		max		2
	Flexible w/o lug conductor section			
	3 · · · · · · · · · · · · · · · · · · ·	min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	35
Power terminal protect	ction according to IEC/EN 60529	THOX		IP20 front
Mechanical features	Alon decording to 120/214 00025			11 20 110111
Operating position				
Operating position		normal		Vertical plan
		allowable		±30°
	_	allowable		Screw / DIN rail
Fixing				35mm
Weight				1020
Conductor section			g	1020
Conductor Section	AWG/kcmil conductor section			
	AVVG/KCITIII CONDUCTOR Section	may		2
Operations		max		
Operations Mechanical life			ovoloo	1500000
			cycles	15000000
Electrical life			cycles	1400000
Safety related data				
Performance level B1	0d according to EN/ISO 13489-1			4.400000
		rated load	cycles	1400000
		mechanical load	cycles	15000000
	ing to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 6	60Hz		V	24
·			V	24
Rated AC voltage at 6	of 60Hz coil powered at 60Hz		V	24
Rated AC voltage at 6				
Rated AC voltage at 6	of 60Hz coil powered at 60Hz	min	%Us	80
Rated AC voltage at 6	of 60Hz coil powered at 60Hz	min max		
Rated AC voltage at 6	of 60Hz coil powered at 60Hz		%Us	80
Rated AC voltage at 6	of 60Hz coil powered at 60Hz pick-up		%Us %Us %Us	80 110 20
Rated AC voltage at 6 AC operating voltage	of 60Hz coil powered at 60Hz pick-up drop-out	max	%Us %Us	80 110
Rated AC voltage at 6	of 60Hz coil powered at 60Hz pick-up drop-out	max min	%Us %Us %Us	80 110 20
Rated AC voltage at 6 AC operating voltage	of 60Hz coil powered at 60Hz pick-up drop-out	max min	%Us %Us %Us	80 110 20
Rated AC voltage at 6 AC operating voltage	of 60Hz coil powered at 60Hz pick-up drop-out umption at 20°C	max min	%Us %Us %Us	80 110 20
Rated AC voltage at 6 AC operating voltage	of 60Hz coil powered at 60Hz pick-up drop-out umption at 20°C	max min max	%Us %Us %Us %Us	80 110 20 55

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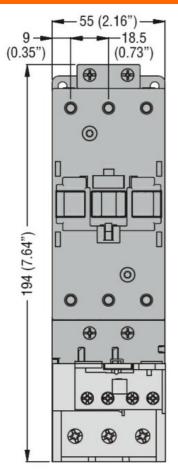
Dissipation at holding	<20°C 50Hz		W	5
Max cycles frequency	20 0 30112		VV	3
Mechanical operation			cycles/h	3600
Operating times			0,0100/11	0000
Average time for Us co	antrol			
Tiverage time for 05 of	in AC			
	Closing NO			
	Closhing 140	min	ms	12
		max	ms	28
	Opening NO	THO A	1110	
	openg	min	ms	8
		max	ms	22
	in DC			
	Closing NO			
	3.33g . 13	min	ms	40
		max	ms	85
	Opening NO	max	5	
		min	ms	20
		max	ms	55
UL technical data				
	for three-phase AC motor			
		at 480V	Α	52
		at 600V	Α	41
Yielded mechanical pe	rformance			
riolada modilambar pe	for single-phase AC motor			
	To single phase the motor	110/120V	HP	5
		230V	HP	10
	for three-phase AC motor	2001	• • • •	
	tor an object of motor	200/208V	HP	15
		220/230V	HP	20
		460/480V	HP	40
		575/600V	HP	40
General USE				
	Contactor			
	Contactor	AC current	Α	90
Short-circuit protection	fuse. 600V	710 00.1011		
2 Should protocolor	High fault			
	<del> </del>	Short circuit current	kA	100
		Fuse rating	A	150
		Fuse class		J
	Standard fault			-
		Short circuit current	kA	5
		Fuse rating	A	150
		Fuse class		RK5
Ambient conditions				
Temperature				
•	Operating temperature			
	, 3 , 1	min	°C	-50
		max	°C	70
	Storage temperature			
	- U - · · · · · · · · · · · · · · ·	min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protection	on			

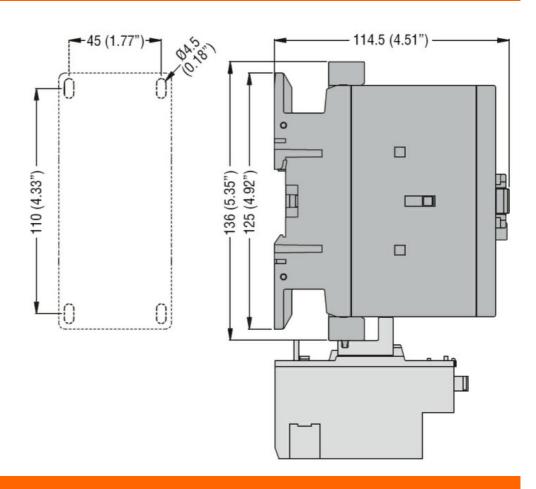
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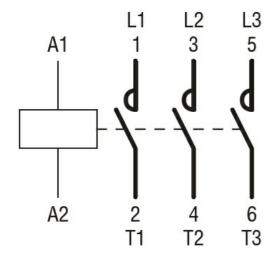
Pollution degree 3

#### **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



**ENERGY AND AUTOMATION** 

### BF5000A02460

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 50A, AC COIL 60HZ,

Certificates			
	CCC		
	cULus		
ETIM alassitisatis			

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching