

# THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 50A, AC COIL 60HZ, 230VAC



			30 10 10
Product designation			Power contactor
Product type designation			BF50
Contact characteristics			2.00
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			<del>-</del>
or comercian are question	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	90
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)	Α	28
Rated operational power AC-3 (T≤55°C)	7.0 . (1001)		
· · · · · · · · · · · · · · · · · · ·	230V	kW	11
	400V	kW	22
	415V	kW	22
	440V	kW	22
	500V	kW	22
	690V	kW	30
	1000V	kW	22
Rated operational current AC-3 (T≤55°C)	10001		
Traise sporational carronity to a (1-00 c)	230V	Α	50
	400V	A	50
	415V	A	50
	440V	A	50
	500V	A	44
	690V	A	39
	1000V	A	23
Rated operational power AC-1 (T≤40°C)	1000 V		20
Nated operational power AO-1 (1340 O)	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	090 V	KVV	102
ILO max ounchi le in DO i with L/N > ims with i poles in selles	≤24V	٨	45
	≤24V 48V	A A	45 40
	46 V 75 V		
		A	40
	110V	A	8
IEC may current to in DC1 with L/B < 1mg with 2 pales in series	220V	Α	<del>_</del>
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	<b>-21</b> 1	Λ	60
	≤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 CUITOR TO IT DOO DOO WILL ETC = TOTIO WILL 2 POICS III SCITES	≤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	Ibin	2.95
		max	Ibin	3.69
Tightening torque for	coil terminal			
		min	Nm	0.8
		max	Nm	1
		min	lbin	0.8
May number of wires	simultaneously connectable	max	Ibin Nr.	0.74
Conductor section	Simultaneously connectable		INI.	
Conductor Section	AWG/Kcmil			
	AWG/Remiii	max		2
	Flexible w/o lug conductor section	IIIdA		
	Tiexible w/o lag conductor section	min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section	HIGA	111111	
		min	mm²	1.5
		max	mm²	35
Power terminal protect	ction according to IEC/EN 60529			IP20 front
Mechanical features	3			
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	1020
Conductor section				
Conductor section	AWG/kcmil conductor section			
Conductor section	AWG/kcmil conductor section	max		2
Operations	AWG/kcmil conductor section	max		
Operations Mechanical life	AWG/kcmil conductor section	max	cycles	15000000
Operations  Mechanical life  Electrical life	AWG/kcmil conductor section	max	cycles cycles	
Operations Mechanical life Electrical life Safety related data		max		15000000
Operations Mechanical life Electrical life Safety related data	AWG/kcmil conductor section  Od according to EN/ISO 13489-1		cycles	15000000 1400000
Operations Mechanical life Electrical life Safety related data		rated load	cycles	15000000 1400000 1400000
Operations Mechanical life Electrical life Safety related data Performance level B1	0d according to EN/ISO 13489-1		cycles	15000000 1400000 1400000 15000000
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats according		rated load	cycles	15000000 1400000 1400000 15000000 yes
Operations Mechanical life Electrical life Safety related data Performance level B1  Mirror contats according	0d according to EN/ISO 13489-1	rated load	cycles	15000000 1400000 1400000 15000000
Operations Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accordi EMC compatibility AC coil operating	od according to EN/ISO 13489-1 ing to IEC/EN 609474-4-1	rated load	cycles cycles cycles	15000000 1400000 1400000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 6	od according to EN/ISO 13489-1 ing to IEC/EN 609474-4-1	rated load	cycles	15000000 1400000 1400000 15000000 yes
Operations Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accordi EMC compatibility AC coil operating	Od according to EN/ISO 13489-1 ing to IEC/EN 609474-4-1	rated load	cycles cycles cycles	15000000 1400000 1400000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 6	ing to IEC/EN 609474-4-1  60Hz  of 60Hz coil powered at 60Hz	rated load	cycles cycles cycles	15000000 1400000 1400000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 6	Od according to EN/ISO 13489-1 ing to IEC/EN 609474-4-1	rated load mechanical load	cycles cycles cycles	15000000 1400000 1400000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 6	ing to IEC/EN 609474-4-1  60Hz  of 60Hz coil powered at 60Hz	rated load mechanical load min	cycles cycles cycles	15000000 1400000 1400000 150000000 yes yes 230
Operations Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 6	of 60Hz coil powered at 60Hz pick-up	rated load mechanical load	cycles cycles cycles	15000000 1400000 1400000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 6	ing to IEC/EN 609474-4-1  60Hz  of 60Hz coil powered at 60Hz	rated load mechanical load min max	cycles cycles cycles	15000000 1400000 1400000 15000000 yes yes 230
Operations Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 6	of 60Hz coil powered at 60Hz pick-up	rated load mechanical load min max min	cycles cycles cycles V  %Us %Us %Us	15000000 1400000 1400000 15000000 yes yes 230
Operations Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 6 AC operating voltage	of 60Hz coil powered at 60Hz pick-up	rated load mechanical load min max	cycles cycles cycles	15000000 1400000 1400000 15000000 yes yes 230
Operations Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 6	of 60Hz coil powered at 60Hz pick-up  drop-out	rated load mechanical load min max min	cycles cycles cycles V  %Us %Us %Us	15000000 1400000 1400000 15000000 yes yes 230
Operations Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 6 AC operating voltage	of 60Hz coil powered at 60Hz pick-up	rated load mechanical load min max min max	cycles cycles cycles V  %Us %Us %Us %Us %Us	15000000 1400000 1400000 15000000 yes yes 230 80 110 20 55
Operations Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accord EMC compatibility AC coil operating Rated AC voltage at 6 AC operating voltage	of 60Hz coil powered at 60Hz pick-up  drop-out	rated load mechanical load min max min	cycles cycles cycles V  %Us %Us %Us	15000000 1400000 1400000 15000000 yes yes 230



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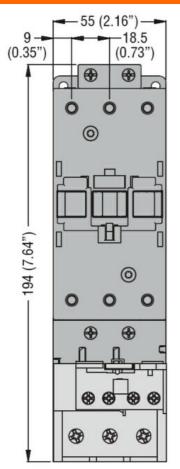
Dissipation at holding	<20°C 50Hz		W	5
Max cycles frequency	20 0 30112		VV	3
Mechanical operation			cycles/h	3600
Operating times			0,0100/11	0000
Average time for Us co	antrol			
Tiverage time for 05 of	in AC			
	Closing NO			
	Closhing 140	min	ms	12
		max	ms	28
	Opening NO	THO A	1110	
	openg	min	ms	8
		max	ms	22
	in DC			
	Closing NO			
	3.33g . 13	min	ms	40
		max	ms	85
	Opening NO	man	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 onigio phase to meter	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			

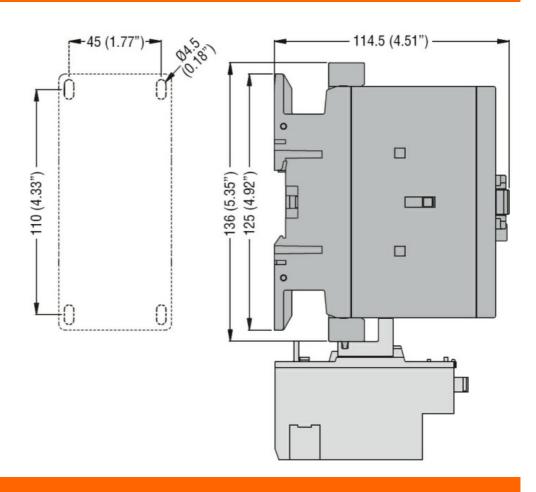
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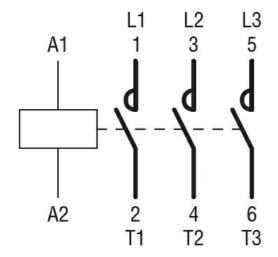
Pollution degree 3

#### **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** 

### BF5000A23060

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

Certificates				
	CCC			
	cULus			
CTIM algorification	20			

ETIM 8.0

EC000066 -Power contactor, AC switching