

			20 20 20
Product designation Product type designation			Power contactor BF50
Contact characteristics			5. 00
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
oporational modulonoy	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	90
Operational current le		- , ,	
operational current to	AC-1 (≤40°C)	Α	90
	AC-1 (≤55°C)	A	75
	AC-1 (≤70°C)	A	65
	AC-3 (≤440V ≤55°C)	Α	50
	AC-4 (400V)	A	28
Rated operational power AC-3 (T≤55°C)	710 4 (4007)		20
Traise operational power 710 0 (1=00 0)	230V	kW	11
	400V	kW	22
	415V	kW	22
	440V	kW	22
	500V	kW	22
	690V	kW	30
	1000V	kW	30
Poted energtional current AC 2 (T<55°C)	1000 V	KVV	30
Rated operational current AC-3 (T≤55°C)	230V	۸	E0
		A	50
	400V	A	50
	415V	A	50
	440V	A	50
	500V	A	44
	690V	A	39
D-1-1	1000V	Α	23
Rated operational power AC-1 (T≤40°C)	0001	1-147	0.4
	230V	kW	34
	400V	kW	59
	500V	kW	74
150	690V	kW	102
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series	-0.01		45
	≤24V	A	45
	48V	A	40
	75V	Α	40
	110V	A	8
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series		_	
	≤24V	Α	60



	48V	Α	60
	75V	Α	60
	110V	Α	50
	220V	Α	7
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
'	≤24V	Α	60
	48V	Α	60
	75V	Α	60
	110V	Α	55
	220V	A	75
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	220 V		10
120 max dunion to in 201 with 2/1 = 1mo with 4 poles in 30/100	≤24V	Α	60
	48V	A	60
	75V		
		A	60
	110V	A	60
150	220V	Α	90
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	.0.43.4		
	≤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			
	≤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	Α	30
	220V	Α	40
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	2201	- / (10
120 max danoni io in 200 200 min 21(= 10me min 1 polee in conce	≤24V	Α	55
	48V	A	55 55
	75V	A	55 55
	75V 110V	A	45
	220V		50
Short-time allowable current for 10s (IEC/EN60947-1)	22U V	A A	400
Protection fuse		Α	400
FIGUREGUOTITUSE	~C (IEO)	۸	100
	gG (IEC)	A	100
	aM (IEC)	Α	50
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
Tightening torque for terminals			



		min	Nm	4
		max	Nm	5
		min	Ibin	2.95
		max	Ibin	3.69
Tightening torque for o	coil terminal			
		min	Nm	0.8
		max	Nm	1
		min	Ibin	0.8
		max	Ibin	0.74
Max number of wires s	simultaneously connectable		Nr.	2
Conductor section	•			
	AWG/Kcmil			
		max		2
	Flexible w/o lug conductor section			
	Tioxibio W/o lag conductor decitor	min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section	Παλ	111111	
	r lexible c/w lug corludctor section	min	mm²	1.5
		min		35
Dawer tarminal protect	tion according to IFC/FN COFOO	max	mm²	
	tion according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	1020
Conductor coction				
Conductor section				
Conductor Section	AWG/kcmil conductor section			
Conductor section	AWG/kcmil conductor section	max		2
Operations Operations	AWG/kcmil conductor section	max		2
	AWG/kcmil conductor section	max	cycles	15000000
Operations	AWG/kcmil conductor section	max		
Operations Mechanical life Electrical life	AWG/kcmil conductor section	max	cycles cycles	15000000
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 B10	0d according to EN/ISO 13489-1		cycles	15000000 1400000 1400000 15000000
Operations Mechanical life Electrical life Safety related data Performance level B10 Mirror contats according		rated load	cycles	15000000 1400000 1400000 15000000 yes
Operations Mechanical life Electrical life Safety related data Performance level B10 Mirror contats according EMC compatibility	0d according to EN/ISO 13489-1	rated load	cycles	15000000 1400000 1400000 15000000
Operations Mechanical life Electrical life Safety related data Performance level B10 Mirror contats accordin EMC compatibility AC coil operating	0d according to EN/ISO 13489-1 ng 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 B10 Mirror contats accordin EMC compatibility AC coil operating Rated AC voltage at 5	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1	rated load	cycles	15000000 1400000 1400000 15000000 yes
Operations Mechanical life Electrical life Safety related data Performance level B10 Mirror contats accordin EMC compatibility AC coil operating	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz	rated load	cycles cycles cycles	15000000 1400000 1400000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B10 Mirror contats accordin EMC compatibility AC coil operating Rated AC voltage at 5	Od according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz	rated load	cycles cycles cycles	15000000 1400000 1400000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B10 Mirror contats accordin EMC compatibility AC coil operating Rated AC voltage at 5	0d according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz	rated load mechanical load	cycles cycles cycles	15000000 1400000 1400000 15000000 yes yes
Operations Mechanical life Electrical life Safety related data Performance level B10 Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	Od according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz	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 B10 Mirror contats accordin EMC compatibility AC coil operating Rated AC voltage at 5	od according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz 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 B10 Mirror contats accordin EMC compatibility AC coil operating Rated AC voltage at 5	Od according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz	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 B10 Mirror contats accordin EMC compatibility AC coil operating Rated AC voltage at 5	od according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz pick-up	rated load mechanical load 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 B10 Mirror contats accordin EMC compatibility AC coil operating Rated AC voltage at 5	od according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz 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 B10 Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	od according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz 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 B10 Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	Od according to EN/ISO 13489-1 ng to IEC/EN 609474-4-1 0/60Hz of 50/60Hz coil powered at 50Hz 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 B10 Mirror contats accordin EMC compatibility AC coil operating Rated AC voltage at 5	Od according to EN/ISO 13489-1 Ing to IEC/EN 609474-4-1 O/60Hz of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	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 B10 Mirror contats accordin EMC compatibility AC coil operating Rated AC voltage at 5	Od according to EN/ISO 13489-1 Ing to IEC/EN 609474-4-1 O/60Hz of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	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

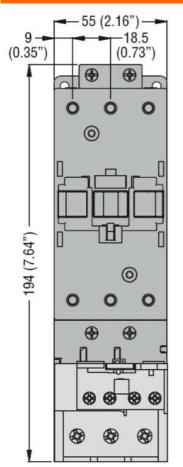


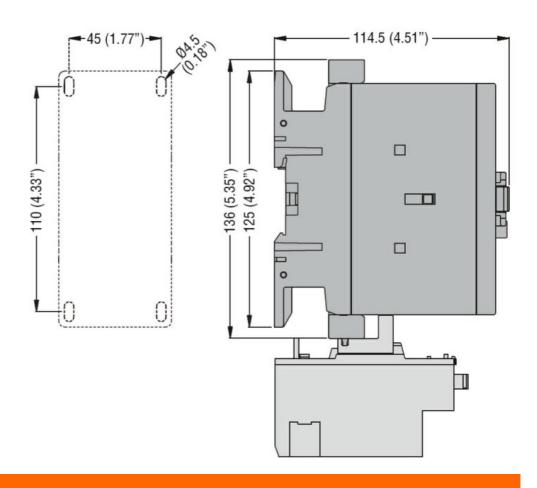
	drop-out			
	·	min	%Us	40
		max	%Us	55
AC average coil consu	umption at 20°C			
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	210
		holding	VA	15
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	195
		holding	VA	13
	of 60Hz coil powered at 60Hz			
		in-rush	VA	210
		holding	VA	15
Dissipation at holding			W	5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us c	ontrol			
	in AC			
	Closing NO			
		min	ms	12
		max	ms	28
	Opening NO			
		min	ms	8
		max	ms	22
UL technical data				
Full-load current (FLA) for three-phase AC motor			
		at 480V	Α	52
		at 600V	Α	41
Yielded mechanical pe	erformance			
	for single-phase AC motor			
		110/120V	HP	5
		230V	HP	10
	for three-phase AC motor			
		200/208V	HP	15
		220/230V	HP	20
		460/480V	HP	40
		575/600V	HP	40
General USE				
	Contactor			
		AC current	Α	90
Short-circuit protection	n fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	150
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	150
		Fuse class		RK5
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50



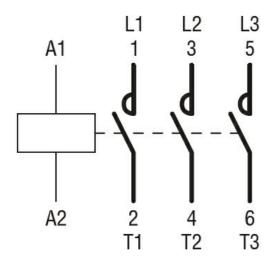
max	°C	70
min	°C	-60
max	°C	80
	m	3000
		3
	min	min °C max °C

Dimensions





Wiring diagrams



Certifications and compliance

Compliance



BF5000A230

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

	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