

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



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

	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	A	55
	220V	A	75
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	220 V		
120 max current le in 201 with 2/103 mith 4 poles in series	≤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	20 AV	Δ.	0.0
	≤24V	A	30
	48V	Α	25
	75V	Α	22
	110V	Α	3
	220V	A	
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			
·	≤24V	Α	55
	48V	Α	55
	75V	Α	55
	110V	Α	45
	220V	A	50
Short-time allowable current for 10s (IEC/EN60947-1)	,	A	400
Protection fuse			
	gG (IEC)	Α	100
	aM (IEC)	A	50
Making capacity (RMS value)	a.v. (120)		500
Breaking capacity at voltage			300
broaking capacity at voltage	440V	Α	400
	500V	A	352
Decistance per pela (average value)	690V	A	312
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)	1.1	147	0.5
	Ith	W	6.5
	AC-3	W	2
Tightening torque for terminals			





THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 50A, AC COIL 60HZ, 220VAC

		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			
	Tionible W/e lag contactor coolen	min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section	IIIdA	111111	33
	r lexible c/w lug corrudctor section	min	mm²	1.5
				35
Dawar tarminal protect	ation according to IEC/EN COECO	max	mm²	
	ction 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 section				
Conductor section	AWG/kcmil conductor section			
Conductor section	AWG/kcmil conductor section	max		2
Conductor section Operations	AWG/kcmil conductor section	max		2
	AWG/kcmil conductor section	max	cycles	15000000
Operations	AWG/kcmil conductor section	max	cycles cycles	
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 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	0d 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 accordi EMC compatibility AC coil operating Rated AC voltage at 6	0d 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 accordi EMC compatibility AC coil operating Rated AC voltage at 6	Od according to EN/ISO 13489-1 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 accordi 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 accordi EMC compatibility AC coil operating Rated AC voltage at 6	Od according to EN/ISO 13489-1 ing to IEC/EN 609474-4-1 60Hz of 60Hz coil powered at 60Hz	rated load	cycles cycles cycles	15000000 1400000 1400000 150000000 yes yes 220
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 6	Od according to EN/ISO 13489-1 ing to IEC/EN 609474-4-1 60Hz 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 accordi EMC compatibility AC coil operating Rated AC voltage at 6	Od according to EN/ISO 13489-1 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 15000000 yes yes 220
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 6	Od according to EN/ISO 13489-1 ing to IEC/EN 609474-4-1 60Hz of 60Hz coil powered at 60Hz pick-up	rated load mechanical load min	cycles cycles cycles	15000000 1400000 1400000 150000000 yes yes 220
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 6 AC operating voltage	Od according to EN/ISO 13489-1 ing to IEC/EN 609474-4-1 60Hz of 60Hz coil powered at 60Hz pick-up drop-out	rated load mechanical load min max	cycles cycles cycles	15000000 1400000 1400000 15000000 yes yes 220
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 6	Od according to EN/ISO 13489-1 ing to IEC/EN 609474-4-1 60Hz 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 220
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 6 AC operating voltage	Od according to EN/ISO 13489-1 ing to IEC/EN 609474-4-1 60Hz 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 220
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 6 AC operating voltage	Od according to EN/ISO 13489-1 ing to IEC/EN 609474-4-1 60Hz 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 220 80 110 20 55
Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 6 AC operating voltage	Od according to EN/ISO 13489-1 ing to IEC/EN 609474-4-1 60Hz of 60Hz coil powered at 60Hz pick-up drop-out	rated load mechanical load min max min max	cycles cycles cycles V %Us %Us %Us %Us %Us	15000000 1400000 1400000 15000000 yes yes 220



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

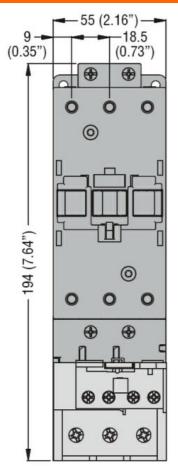
Dissipation at holding	<20°C 50Hz		W	5
Max cycles frequency	20 0 30112		VV	3
Mechanical operation			cycles/h	3600
Operating times			0,0100/11	0000
Average time for Us co	antrol			
Tiverage time for 05 of	in AC			
	Closing NO			
	Closhing 140	min	ms	12
		max	ms	28
	Opening NO	THO A	1110	
	openg	min	ms	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			
	 	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			

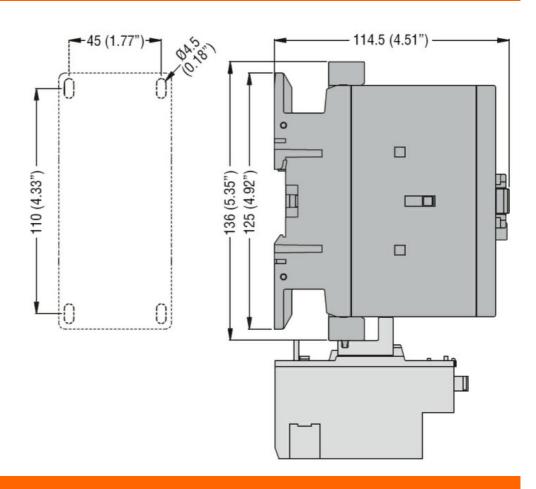
ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 50A, AC COIL 60HZ, 220VAC

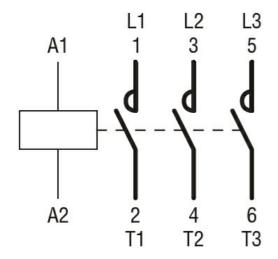
Pollution degree 3

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

BF5000A22060

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

Certificates				
	CCC			
	cULus			
ETIM alegaiticatio				

ETIM classification

EC000066 -ETIM 8.0 Power contactor, AC switching