



			30 10 11
Product designation			Power contactor
Product type designation			BF50
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	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)	710 1 (1001)		
(230V	kW	11
	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)	1000 V	1000	
Traited operational current, to a (1-00 c)	230V	Α	50
	400V	Α	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 (1=40 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	N V V	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	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	-21 1	۸	60
	≤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			·
120 max current to in 201 mar 2/1 = mio mar o poloc in conco	≤24V	Α	60
	48V	A	60
	75V	A	60
	110V		
		A	55 75
150 11 1 504 11 1 15 14	220V	Α	75
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	-0.43.4		
	≤24V	Α	60
	48V	Α	60
	75V	Α	60
	110V	Α	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	A	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	220 V		
ILO max current le in DO3-DO3 with L/N = 13ms with 2 poles in series	<24)/	۸	25
	≤24V	A	35
	48V	A	35
	75V	A	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	A	55
	110V	A	45
	220V	A	50
Short-time allowable current for 10s (IEC/EN60947-1)	ZZU V		400
Protection fuse		A	+00
Protection ruse	-0 ((50)	Δ.	400
	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	,,,,,	**	
Tigritoring torque for terminals			



		min	Nm	4
		max	Nm	5
		min	Ibin	2.95
		max	Ibin	3.69
Fightening torque for c	oil 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			
		min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section	тих		
	. Ionibio of thing defination decition	min	mm²	1.5
		max	mm²	35
Power terminal protect	tion according to IEC/EN 60529	IIIdA	111111	IP20 front
Mechanical features	non according to IEO/EN 00329			11 20 110111
Operating position				Martinal plan
		normal		Vertical plan
		allowable		±30°
ixing				Screw / DIN rai 35mm
Weight			α	1020
Operations			g	1020
Mechanical life			cycles	15000000
Electrical life			-	
			cycles	1400000
Safety related data	0d			
Performance level B10	0d according to EN/ISO 13489-1			4.400000
		rated load	cycles	1400000
		mechanical load	cycles	15000000
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 50	0/60Hz		V	400
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	niek un			
	pick-up			80
	ріск-ир	min	%Us	00
	ріск-ир	min max	%Us %Us	110
	drop-out			
		max	%Us	110
	drop-out	max min	%Us %Us	110 20
	drop-out of 50/60Hz coil powered at 60Hz	max min	%Us %Us	110 20
	drop-out	max min max	%Us %Us %Us	110 20 55
	drop-out of 50/60Hz coil powered at 60Hz	max min max min	%Us %Us %Us	110 20 55 85
	of 50/60Hz coil powered at 60Hz pick-up	max min max	%Us %Us %Us	110 20 55
	drop-out of 50/60Hz coil powered at 60Hz	max min max min max	%Us %Us %Us %Us %Us	110 20 55 85 110
	of 50/60Hz coil powered at 60Hz pick-up	max min max min	%Us %Us %Us	110 20 55 85





		in-rush	VA	210
		holding	VA	15
	of 50/60Hz coil powered at 60Hz			
	0. 00,00. i= 00 poo. ou at 00. i=	in-rush	VA	195
		holding	VA	13
	of 60Hz coil powered at 60Hz			
	•	in-rush	VA	210
		holding	VA	15
Dissipation at holding	յ ≤20°C 50Hz		W	5
Max cycles frequency	<i>,</i>			
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us	control			
	in AC			
	Closing NO			
		min	ms	12
		max	ms	28
	Opening NO			
		min	ms	8
		max	ms	22
	in DC			
	Closing NO			
		min	ms	40
		max	ms	85
	Opening NO			
		min	ms	20
III. ta abula al alata		max	ms	55
UL technical data	tage AC (III)		V	600
Rated operational vo	, ,		V	600
Rated operational vo	Itage AC (UL) A) for three-phase AC motor	at 480V		
Rated operational vo	, ,	at 480V at 600V	Α	52
Rated operational vo	A) for three-phase AC motor	at 480V at 600V		
Rated operational vo	A) for three-phase AC motor performance		Α	52
Rated operational vo	A) for three-phase AC motor	at 600V	A A	52 41
Rated operational vo	A) for three-phase AC motor performance		Α	52
Rated operational vo	A) for three-phase AC motor performance for single-phase AC motor	at 600V 110/120V	A A HP	52 41 5
Rated operational vo	A) for three-phase AC motor performance	at 600V 110/120V	A A HP	52 41 5
Rated operational vo	A) for three-phase AC motor performance for single-phase AC motor	at 600V 110/120V 230V	A A HP HP	52 41 5 10
Rated operational vo	A) for three-phase AC motor performance for single-phase AC motor	at 600V 110/120V 230V 200/208V	A A HP HP	52 41 5 10
Rated operational vo	A) for three-phase AC motor performance for single-phase AC motor	at 600V 110/120V 230V 200/208V 220/230V	A A HP HP	52 41 5 10 15 20
Rated operational vo	A) for three-phase AC motor performance for single-phase AC motor	at 600V 110/120V 230V 200/208V 220/230V 460/480V	A A HP HP HP	52 41 5 10 15 20 40
Rated operational vo Full-load current (FL/ Yielded mechanical p	A) for three-phase AC motor performance for single-phase AC motor	at 600V 110/120V 230V 200/208V 220/230V 460/480V	A A HP HP HP	52 41 5 10 15 20 40
Rated operational vo Full-load current (FL/ Yielded mechanical p	A) for three-phase AC motor performance for single-phase AC motor for three-phase AC motor	at 600V 110/120V 230V 200/208V 220/230V 460/480V	A A HP HP HP	52 41 5 10 15 20 40
Rated operational vo Full-load current (FL/ Yielded mechanical p	A) for three-phase AC motor Derformance for single-phase AC motor for three-phase AC motor Contactor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V	A A HP HP HP HP	52 41 5 10 15 20 40 40
Rated operational vo Full-load current (FL/ Yielded mechanical p	A) for three-phase AC motor Derformance for single-phase AC motor for three-phase AC motor Contactor	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V	A A HP HP HP HP	52 41 5 10 15 20 40 40
Rated operational vo Full-load current (FL/ Yielded mechanical p	A) for three-phase AC motor performance for single-phase AC motor for three-phase AC motor Contactor on fuse, 600V	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current	A A HP HP HP HP HP A	52 41 5 10 15 20 40 40 40
Rated operational vo Full-load current (FL/ Yielded mechanical p	A) for three-phase AC motor performance for single-phase AC motor for three-phase AC motor Contactor on fuse, 600V	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Fuse rating	A A HP HP HP HP HP A	52 41 5 10 15 20 40 40
Rated operational vo Full-load current (FL/ Yielded mechanical p	A) for three-phase AC motor Derformance for single-phase AC motor for three-phase AC motor Contactor On fuse, 600V High fault	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current	A A HP HP HP HP HP A	52 41 5 10 15 20 40 40 40
Rated operational vo Full-load current (FL/ Yielded mechanical p	A) for three-phase AC motor performance for single-phase AC motor for three-phase AC motor Contactor on fuse, 600V	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Fuse rating Fuse class	A A HP HP HP HP HP A	52 41 5 10 15 20 40 40 40 90
Rated operational vo Full-load current (FL/ Yielded mechanical p	A) for three-phase AC motor Derformance for single-phase AC motor for three-phase AC motor Contactor On fuse, 600V High fault	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Fuse rating Fuse class Short circuit current	A A HP HP HP HP HP KA A KA	52 41 5 10 15 20 40 40 40 90 100 150 J
Rated operational vo Full-load current (FL/ Yielded mechanical p	A) for three-phase AC motor Derformance for single-phase AC motor for three-phase AC motor Contactor On fuse, 600V High fault	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Fuse rating Fuse class Short circuit current Fuse rating Fuse rating	A A HP HP HP HP HP A	52 41 5 10 15 20 40 40 40 90 100 150 J
Rated operational vo Full-load current (FL/ Yielded mechanical p	A) for three-phase AC motor Derformance for single-phase AC motor for three-phase AC motor Contactor On fuse, 600V High fault	at 600V 110/120V 230V 200/208V 220/230V 460/480V 575/600V AC current Fuse rating Fuse class Short circuit current	A A HP HP HP HP HP KA A KA	52 41 5 10 15 20 40 40 40 90 100 150 J

BF5000A400



Temperature

Operating temper	era	ture
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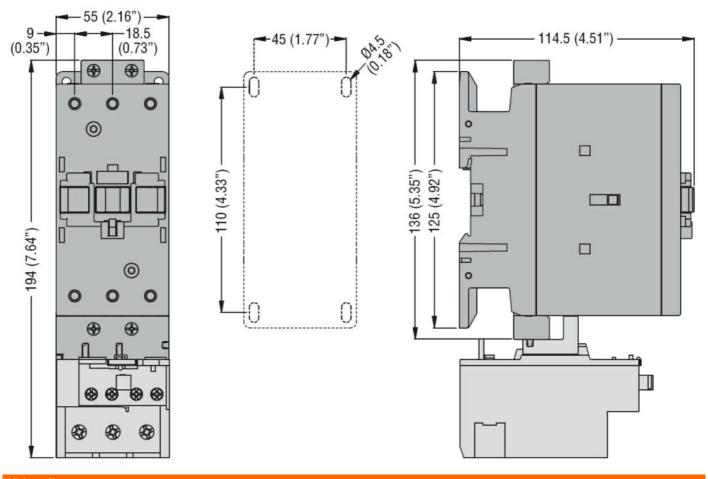
	min	°C	-50	
	max	°C	70	
Storage temperature				
	min	°C	-60	
	max	°C	80	
		m	3000	

Resistance & Protection

Pollution degree 3

Dimensions

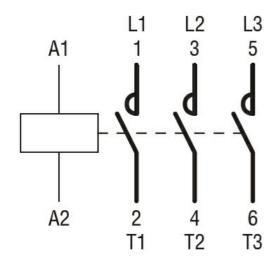
Max altitude



Wiring diagrams

ENERGY AND AUTOMATION

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



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