



Product designation			Power contactor
Product type designation			BF50
Contact characteristics		N La	2
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			05
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		A	90
Operational current le		٨	00
	AC-1 (≤40°C)	A	90
	AC-1 (≤55°C)	A	75
	AC-1 (≤70°C) AC-3 (≤440V ≤55°C)	A	65 50
	AC-3 (S440V S55 C) AC-4 (400V)	A A	50 28
Rated operational power AC-3 (T≤55°C)	AC-4 (400V)	A	20
	230V	kW	11
	230V 400V	kW	22
	400V 415V	kW	22
	413V 440V	kW	22
	500V	kW	22
	690V	kW	30
	1000V	kW	22
Rated operational current AC-3 (T≤55°C)	10001		
	230V	А	50
	400V	A	50
	415V	A	50
	440V	А	50
	500V	А	44
	690V	А	39
	1000V	А	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 $L/R \le 1$ ms with 1 poles in series			
	≤24V	А	45
	48V	А	40
	75V	А	40
	110V	А	8
	220V	А	_
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series			
	≤24V	А	60

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	48V	Α	60
	75V	А	60
	110V	А	50
	220V	A	7
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series	2201	73	•
	≤24V	А	60
	48V	A	60
	75V	Α	60
	110V	А	55
	220V	A	75
IEC max current le in DC1 with $L/R \le 1$ ms with 4 poles in series			
	≤24V	Α	60
	48V	А	60
	75V	А	60
	110V	A	60
	220V	A	90
	2201	A	90
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 1 poles in series			00
	≤24V	A	30
	48V	А	25
	75V	Α	22
	110V	Α	3
	220V	А	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
•	≤24V	А	35
	48V	A	35
	46 V 75 V	A	
			30
	110V	Α	25
	220V	A	5
IEC max current le in DC3-DC5 with L/R $\leq$ 15ms with 3 poles in series			
	≤24V	Α	50
	48V	Α	50
	75V	А	45
	110V	А	30
	220V	A	40
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	2201		
IEC max current le in DCS-DCS with E/ICS 15ms with 4 poles in series	<241/	۸	5 <b>5</b> 5
	≤24V	A	55
	48V	A	55
	75V	A	55
	110V	А	45
	220V	Α	50
Short-time allowable current for 10s (IEC/EN60947-1)		А	400
Protection fuse			
	gG (IEC)	А	100
	aM (IEC)	А	50
Making capacity (RMS value)	( )	A	500
Breaking capacity at voltage		,,	
broaking depadity at voltage	440V	۸	400
		A	
	500V	A	352
	690V	A	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 a	coil terminal			
nghioning torquo for t		min	Nm	0.8
		max	Nm	1
		min	Ibin	0.8
		max	Ibin	0.74
Max number of wires	simultaneously connectable	Παλ	Nr.	2
Conductor section			INI.	۷
Conductor section	ANAC/Kamil			
	AWG/Kcmil			0
		max		2
	Flexible w/o lug conductor section		2	
		min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	35
	ction according to IEC/EN 60529			IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
				Screw / DIN rail
Fixing				35mm
Weight			g	1020
Conductor section			3	
	AWG/kcmil conductor section			
		max		2
Operations		THAX		2
Mechanical life			cycles	15000000
Electrical life			cycles	1400000
			Cycles	1400000
Safety related data	Od according to EN/ISO 12490 1			
Performance level bi	0d according to EN/ISO 13489-1	ار مرا ار منه م		4 400000
		rated load	cycles	1400000
		mechanical load	cycles	15000000
Mirror contats accordi	and to IEC/EN 6094/4-4-1			yes
EMC compatibility				yes
AC coil operating				
			V	yes 48
AC coil operating			V	
AC coil operating Rated AC voltage at 6	60Hz		V	
AC coil operating Rated AC voltage at 6	0Hz of 60Hz coil powered at 60Hz		V	
AC coil operating Rated AC voltage at 6	60Hz	min		48
AC coil operating Rated AC voltage at 6	0Hz of 60Hz coil powered at 60Hz	min max	%Us	<u>48</u> 80
AC coil operating Rated AC voltage at 6	0Hz of 60Hz coil powered at 60Hz pick-up	min max		48
AC coil operating Rated AC voltage at 6	0Hz of 60Hz coil powered at 60Hz	max	%Us %Us	48 80 110
AC coil operating Rated AC voltage at 6	0Hz of 60Hz coil powered at 60Hz pick-up	max	%Us %Us %Us	48 80 110 20
AC coil operating Rated AC voltage at 6 AC operating voltage	of 60Hz coil powered at 60Hz pick-up drop-out	max	%Us %Us	48 80 110
AC coil operating Rated AC voltage at 6	of 60Hz coil powered at 60Hz pick-up drop-out	max	%Us %Us %Us	48 80 110 20
AC coil operating Rated AC voltage at 6 AC operating voltage	of 60Hz coil powered at 60Hz pick-up drop-out	max min max	%Us %Us %Us %Us	48 80 110 20 55
AC coil operating Rated AC voltage at 6 AC operating voltage	of 60Hz coil powered at 60Hz pick-up drop-out	max min max in-rush	%Us %Us %Us %Us	48 80 110 20 55 210
AC coil operating Rated AC voltage at 6 AC operating voltage	of 60Hz coil powered at 60Hz pick-up drop-out	max min max	%Us %Us %Us %Us	48 80 110 20 55



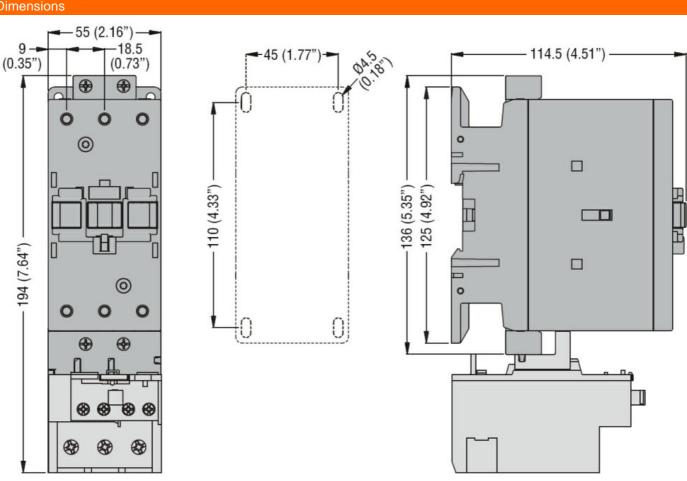
Dissipation at holding				W	5
Max cycles frequency				/I	0000
Mechanical operation Operating times				cycles/h	3600
Average time for Us of	control				
werage time for 05 t	in AC				
		Closing NO			
		5 - 5 - 5	min	ms	12
			max	ms	28
		Opening NO			
			min	ms	8
			max	ms	22
	in DC				
		Closing NO			
			min	ms	40
			max	ms	85
		Opening NO			
			min	ms	20
			max	ms	55
JL technical data					
Full-load current (FLA	<ul> <li>A) for three-phase AC</li> </ul>	, motor		Α.	50
			at 480V	A	52
			at 600V	A	41
Yielded mechanical p		C motor			
	for single-phase A	AC MOTOR	110/120V	ЦП	F
			230V	HP HP	5 10
	for three-phase A	C motor	2301	ΠF	10
	ior infee-phase A		200/208V	HP	15
			200/200V	HP	20
			460/480V	HP	40
			575/600V	HP	40
General USE					
	Contactor				
	•••••••		AC current	А	90
Short-circuit protectio	on fuse, 600V				
	High fault				
	<b>U</b>		Short circuit current	kA	100
			Fuse rating	А	150
			Fuse class		J
	Standard fault				
	Standard fault		Short circuit current	kA	5
	Standard fault		Short circuit current Fuse rating	kA A	5 150
	Standard fault				
Ambient conditions	Standard fault		Fuse rating		150
	Standard fault		Fuse rating		150
	Standard fault Operating temper	ature	Fuse rating	A	150 RK5
		ature	Fuse rating	A °C	150 RK5 -50
	Operating temper		Fuse rating Fuse class	A	150 RK5
			Fuse rating Fuse class min max	A °C °C	150 RK5 -50 70
	Operating temper		Fuse rating Fuse class min	A °C °C °C	150 RK5 -50 70 -60
Ambient conditions Temperature Max altitude	Operating temper		Fuse rating Fuse class min max	A °C °C	150 RK5 -50 70



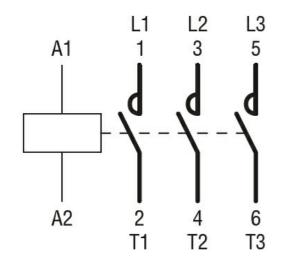
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## Pollution degree





## 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



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BF5000A04860 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 50A, AC COIL 60HZ, 48VAC

Certificates		
	CCC	
	cULus	
ETIM classificat	tion	
		EC000066 -
ETIM 8.0		Power contactor,

Power contactor, AC switching