



Product designation			Power contactor
Product type designation			BF50
Contact characteristics			
Number of poles		Nr.	4
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			0
	min	Hz	25
		Hz	400
IEC Conventional free air thermal current Ith	max	A	90
		A	90
Operational current le			
	AC-1 (≤40°C)	A	90
	AC-1 (≤55°C)	А	75
	AC-1 (≤70°C)	A	65
	AC-3 (≤440V ≤55°C)	А	50
	AC-4 (400V)	Α	28
Rated operational current AC-3 (T≤55°C)			
	230V	А	50
	400V	А	50
	415V	А	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 ≤ 1ms with 1 poles in series	0001		102
	≤24V	۸	15
	≤24∨ 48V	A	45 40
		A	
	75V	A	40
	110V	A	8
	220V	A	_
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series			
	≤24V	A	60
	48V	А	60
	75V	А	60
	110V	А	50
	220V	А	7
IEC max current le in DC1 with L/R \leq 1ms with 3 poles in series		A	7
IEC max current le in DC1 with L/R \leq 1ms with 3 poles in series		A A	7 60
IEC max current le in DC1 with L/R \leq 1ms with 3 poles in series	220V		



FOUR-POLE CONTACTOR, IEC OPERATING)HZ, 24VAC

	BF50	T4A024
G CURRENT ITH (AC1) = 90A, A	AC COIL	50/60HZ,

	110V	А	55	
	220V	А	75	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
	≤24V	А	60	
	48V	А	60	
	75V	А	60	
	110V	А	60	
	220V	Α	90	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 1 poles in series				
	≤24V	А	30	
	48V	А	25	
	75V	А	22	
	110V	А	3	
	220V	A	-	
IEC max current le in DC3-DC5 with L/R \leq 15ms with 2 poles in series				
	≤24V	А	35	
	48V	А	35	
	75V	А	30	
	110V	А	25	
	220V	А	5	
IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series				
	≤24V	A	50	
	48V	A	50	
	75V	A	45	
	110V	А	30	
	220V	A	40	
IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series				
	≤24V	A	55	
	48V	А	55	
	75V	А	55	
	110V	A	45	
	220V	<u>A</u>	50	
Short-time allowable current for 10s (IEC/EN60947-1)		А	400	
Protection fuse	- (-)			
	gG (IEC)	A	100	
	aM (IEC)	A	50	
Making capacity (RMS value)		А	500	
Breaking capacity at voltage			100	
	440V	A	400	
	500V	A	352	
	690V	A	312	
Resistance per pole (average value)		mΩ	0.8	
Power dissipation per pole (average value)	•		0.5	
	Ith	W	6.5	
Tieldenie stermen fan termeinele	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 coil terminal		N I .	0.0	
	min	Nm	0.8	
	max	Nm	1	

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		min	Ibin	0.8
		max	Ibin	0.74
Max number of wires	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			_
		max		2
	Flexible w/o lug conductor section		2	
		min	mm²	1.5 35
	Flexible c/w lug conductor section	max	mm²	35
	Flexible C/W ldg conductor section	min	mm²	1.5
		max	mm²	35
Power terminal protec	ction according to IEC/EN 60529	тах		IP20 front
Mechanical features				II 20 Holk
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	1240
Conductor section				
	AWG/kcmil conductor section			
0		max		2
Operations				4500000
Mechanical life			cycles	1500000
Electrical life			cycles	1400000
Safety related data	0d according to EN/ISO 13489-1			
renomiance level bi	ou according to EN/ISO 13489-1	rated load	cycles	1400000
		mechanical load	cycles	1500000
Mirror contats accord	ing to IEC/EN 609474-4-1	meenamearioarioaa	0y0l00	yes
EMC compatibility				yes
AC coil operating				<i>.</i>
Rated AC voltage at 5	50/60Hz		V	24
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out			
		min	%Us	20
	(= 0 / 0 0 1 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	max	%Us	55
	of 50/60Hz coil powered at 60Hz			
	pick-up		0/11-	05
		min	%Us	85
	drop-out	max	%Us	110
	diop-out	min	%Us	40
		max	%Us %Us	40 55
AC average coil cons	umption at 20°C	max	,	
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	210
		holding	VA	15
		9		

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	of 50/60Hz coil powered	d at 60Hz			
	•		in-rush	VA	195
			holding	VA	13
	of 60Hz coil powered at	60Hz			
		. 00112	in-rush	VA	210
			holding	VA VA	15
Dissinction at helding of	<00°C E0U-		noiding		
Dissipation at holding ≤	≤20°C 50HZ			W	5
Max cycles frequency					
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us co	ontrol				
	in AC				
		Closing NO			
		5 - 5	min	ms	12
			max	ms	28
			max	1115	20
		Opening NO		-	0
			min	ms	8
			max	ms	22
	in DC				
		Closing NO			
			min	ms	40
			max	ms	85
		Opening NO			
		oponing i to	min	ms	20
			max	ms	55
UL technical data			Παλ	1115	55
	for three where AC moto	. .			
Full-load current (FLA)	for three-phase AC moto)ľ	(100) (
			at 480V	A	52
			at 600V	A	41
Yielded mechanical per	rformance				
	for single-phase AC mo	otor			
			110/120V	HP	5
			230V	HP	10
	for three-phase AC mot	or			
			200/208V	HP	15
			200/208V 220/230V	HP	20
			460/480V	HP	40
			575/600V	HP	40
General USE					
	Contactor				
			AC current	А	90
Short-circuit protection	fuse, 600V				
	High fault				
	U		Short circuit current	kA	100
			Fuse rating	A	150
			Fuse class	Λ	J
			Fuse class		J
	Standard fault				F
			Short circuit current	kA	5
			Fuse rating	A	150
			Fuse class		RK5
Ambient conditions					
Temperature					
	Operating temperature				
			min	°C	-50
				<u> </u>	

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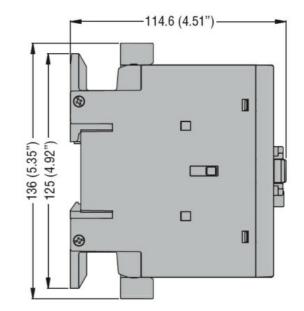


BF50T4A024 FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 90A, AC COIL 50/60HZ, 24VAC

	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
Dimensions			

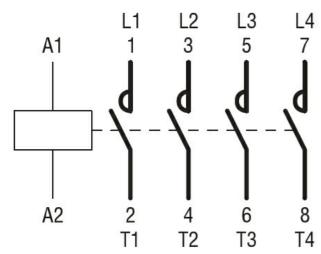
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730 (2.87") 18 .9 45 (1.77") (0.71" (0.35")• • 0 0 0 \cap 0 110 (4.33") \bigcirc 0 0 O \mathbf{c} •



BF80T2 82mm/3.23"

Wiring diagrams



Certifications and 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

Compliance

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The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding



ETIM 8.0

BF50T4A024 FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 90A, AC COIL 50/60HZ, 24VAC

	CCC	
	cULus	
ETIM classification		
		EC000066 -

EC000066 -Power contactor, AC switching