ENERGY AND AUTOMATION

BF4000A230 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 40A, AC COIL 50/60HZ, 230VAC



Product designation			Power contactor
Product type designation			BF40
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		А	70
Operational current le			
	AC-1 (≤40°C)	А	70
	AC-1 (≤55°C)	А	60
	AC-1 (≤70°C)	А	50
	AC-3 (≤440V ≤55°C)	А	40
	AC-4 (400V)	А	24
Rated operational power AC-3 (T≤55°C)			
	230V	kW	11
	400V	kW	18.5
	415V	kW	22
	440V	kW	22
	500V	kW	22
	690V	kW	30
	1000V	kW	18.5
Rated operational power AC-1 (T≤40°C)			
	230V	kW	26
	400V	kW	46
	500V	kW	58
	690V	kW	79
IEC max current le in DC1 with $L/R \le 1$ ms with 1 poles in series			
	≤24V	A	40
	48V	A	35
	75V	A	30
	110V	A	8
	220V	A	_
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series	-0 A) (10
	≤24V	A	48
	48V	A	48
	75V	A	45
	110V	A	42
IFO may aument to in DO4 with 1/D < 4max with 0 materia	220V	A	5
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series	-0.11	۸	40
	≤24V	A	48
	48V	A	48
	75V	А	48



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 40A, AC COIL 50/60HZ, 230VAC

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	110V	А	44
	220V	Α	56
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	А	_
	48V	А	_
	75V	А	_
	110V	А	_
	220V	А	70
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 1 poles in series			
	≤24V	А	27
	48V	A	23
	75V	A	19
	110V	A	3
	220V	A	-
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 2 poles in series	220 V	Λ	
TEC max current le in DC3-DC3 with L/R = 15ms with 2 poles in series	<2414	^	22
	≤24V	A	32
	48V	A	30
	75V	A	27
	110V	A	22
	220V	A	5
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 3 poles in series			
	≤24V	А	40
	48V	А	40
	75V	А	38
	110V	А	27
	220V	А	32
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 4 poles in series			
	≤24V	А	_
	48V	А	_
	75V	А	_
	110V	А	_
	220V	А	40
Short-time allowable current for 10s (IEC/EN60947-1)		Α	400
Protection fuse			
	gG (IEC)	А	100
	aM (IEC)	A	50
Making capacity (RMS value)		A	400
Breaking capacity at voltage		~	400
Disaning bapaolity at voltage	440V	۸	320
		A	
	500V	A	265
	690V	A	256
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)		/	
	Ith	W	3.9
	AC3	W	1.3
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	lbin	2.95
	max	lbin	3.69
Tightoning toyout for coll toyoingl	тал	-	
Tightening torque for coil terminal	mux	-	
rightening torque for coll terminal	min		0.8
rightening torque for conterminal		Nm Nm	0.8 1



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			min	lbin	0.8
			max	Ibin	0.74
	simultaneously connectable			Nr.	2
Conductor section					
	AWG/Kcmil				
			max		2
	Flexible w/o lug conductor s	ection		2	
			min	mm²	1.5
			max	mm²	35
	Flexible c/w lug conductor se	ection			4 5
			min	mm² mm²	1.5 35
Dower terminal protec	tion opporting to IEC/EN COE	0	max	11111-	
Power terminal protect Mechanical features	ction according to IEC/EN 6052	9			IP20 front
Operating position			normal		Vortical plan
			normal		Vertical plan ±30°
			allowable		±30 Screw / DIN rail
Fixing					35mm
Weight				g	1020
Conductor section				Э	1020
	AWG/kcmil conductor section	n			
			max		2
Operations					-
Mechanical life				cycles	15000000
					1500000
Electrical life				cycles	1500000
Electrical life Safety related data	0d according to EN/ISO 13489	9-1			1500000
Electrical life Safety related data	0d according to EN/ISO 1348	9-1	rated load	cycles	
Electrical life Safety related data	0d according to EN/ISO 1348) -1	rated load mechanical load		1500000 1500000 1500000
Electrical life Safety related data Performance level B1	0d according to EN/ISO 13489	9-1		cycles cycles	1500000
Electrical life Safety related data Performance level B1 Mirror contats accordi		9-1		cycles cycles	1500000 15000000 yes
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility		9-1		cycles cycles	1500000 15000000
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating	ing to IEC/EN 609474-4-1	9-1		cycles cycles	1500000 15000000 yes
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	ing to IEC/EN 609474-4-1) -1		cycles cycles cycles	1500000 15000000 yes yes
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	ing to IEC/EN 609474-4-1			cycles cycles cycles	1500000 15000000 yes yes
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	ing to IEC/EN 609474-4-1 50/60Hz	50Hz		cycles cycles cycles	1500000 15000000 yes yes
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	ing to IEC/EN 609474-4-1 50/60Hz of 50/60Hz coil powered at 5	50Hz		cycles cycles cycles	1500000 15000000 yes yes
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	ing to IEC/EN 609474-4-1 50/60Hz of 50/60Hz coil powered at 8 pick	50Hz -up	mechanical load	cycles cycles cycles V	1500000 15000000 yes yes 230
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	ing to IEC/EN 609474-4-1 50/60Hz of 50/60Hz coil powered at 8 pick	50Hz	mechanical load	cycles cycles cycles V V %Us %Us	1500000 15000000 yes yes 230 80 110
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	ing to IEC/EN 609474-4-1 50/60Hz of 50/60Hz coil powered at 8 pick	50Hz -up	mechanical load	cycles cycles cycles V V %Us %Us %Us	1500000 15000000 yes yes 230 80 110 20
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	ing to IEC/EN 609474-4-1 50/60Hz of 50/60Hz coil powered at 8 pick drop	50Hz -up >-out	mechanical load	cycles cycles cycles V V %Us %Us	1500000 15000000 yes yes 230 80 110
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at spick	50Hz -up 5-out	mechanical load	cycles cycles cycles V V %Us %Us %Us	1500000 15000000 yes yes 230 80 110 20
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	ing to IEC/EN 609474-4-1 50/60Hz of 50/60Hz coil powered at 8 pick drop	50Hz -up 5-out	mechanical load min max min max	cycles cycles cycles V V %Us %Us %Us %Us	1500000 15000000 yes yes 230 80 110 20 55
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at spick	50Hz -up 5-out	mechanical load	cycles cycles cycles V V %Us %Us %Us %Us	1500000 15000000 yes yes 230 80 110 20 55 85
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 6 pick	50Hz -up 50Hz 50Hz -up	mechanical load min max min max	cycles cycles cycles V V %Us %Us %Us %Us	1500000 15000000 yes yes 230 80 110 20 55
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 6 pick	50Hz -up 5-out	mechanical load	cycles cycles cycles V V %Us %Us %Us %Us %Us %Us	1500000 15000000 yes yes 230 80 110 20 55 85 110
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 6 pick	50Hz -up 50Hz 50Hz -up	mechanical load	cycles cycles cycles V V %Us %Us %Us %Us %Us %Us %Us	1500000 15000000 yes yes 230 230 80 110 20 55 85 110 40
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5 AC operating voltage	ing to IEC/EN 609474-4-1 50/60Hz of 50/60Hz coil powered at 8 pick drop of 50/60Hz coil powered at 6 pick drop	50Hz -up 50Hz 50Hz -up	mechanical load	cycles cycles cycles V V %Us %Us %Us %Us %Us %Us	1500000 15000000 yes yes 230 80 110 20 55 85 110
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5 AC operating voltage	ing to IEC/EN 609474-4-1 50/60Hz of 50/60Hz coil powered at 8 pick drop of 50/60Hz coil powered at 6 pick drop	50Hz -up 50Hz -out 50Hz -up	mechanical load	cycles cycles cycles V V %Us %Us %Us %Us %Us %Us %Us	1500000 15000000 yes yes 230 230 80 110 20 55 85 110 40
Electrical life Safety related data Performance level B1 Mirror contats accordi EMC compatibility AC coil operating Rated AC voltage at 5 AC operating voltage	ing to IEC/EN 609474-4-1 50/60Hz of 50/60Hz coil powered at 8 pick drop of 50/60Hz coil powered at 6 pick drop	50Hz -up 50Hz -out 50Hz -up	mechanical load	cycles cycles cycles V V %Us %Us %Us %Us %Us %Us %Us %Us %Us	1500000 15000000 yes yes 230 80 110 20 55 85 110 40 55
Electrical life Safety related data Performance level B1	ing to IEC/EN 609474-4-1 50/60Hz of 50/60Hz coil powered at 8 pick drop of 50/60Hz coil powered at 6 pick drop	50Hz -up 50Hz -out 50Hz -up	mechanical load	cycles cycles cycles V V %Us %Us %Us %Us %Us %Us %Us	1500000 15000000 yes yes 230 230 80 110 20 55 85 110 40



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 40A, AC COIL 50/60HZ,

230VAC

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	of 50/60Hz coil powered at 60Hz			
	-	in-rush	VA	195
		holding	VA	13
	of 60Hz coil powered at 60Hz	0		
		in-rush	VA	210
		holding	VA	15
Dissipation at holding	<20°C 50Hz	Tiolaing	W	5
Max cycles frequency			VV	5
			avela a /b	2000
Mechanical operation			cycles/h	3600
Operating times	· · ·			
Average time for Us c				
	in AC			
	Closing NO			
		min	ms	12
		max	ms	28
	Opening NO			
		min	ms	8
		max	ms	22
UL technical data				
) for three-phase AC motor			
	, p	at 480V	А	40
		at 600V	A	32
Yielded mechanical p	orformanco	at 000 v	Λ	52
neideu mechanicai p				
	for single-phase AC motor	440/400)/		0
		110/120V	HP	3
		230V	HP	7.5
	for three-phase AC motor			
		200/208V	HP	10
		220/230V	HP	15
		460/480V	HP	30
		575/600V	HP	30
General USE				
	Contactor			
		AC current	А	70
Short-circuit protection	n fuse. 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	A	150
		Fuse class	Л	J
	Standard fault	Fuse Class		5
	Statiuaru iauli	Chart size it sums it	1. A	E
		Short circuit current	kA	5
		Fuse rating	А	150
		Fuse class		RK5
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°Ċ	80
Max altitude		max	 	3000
Resistance & Protecti	on			
Pollution degree				3
				~
The character	ristics described in this document are subject to undates or mod	ifications at any time. The description	s technical a	nd

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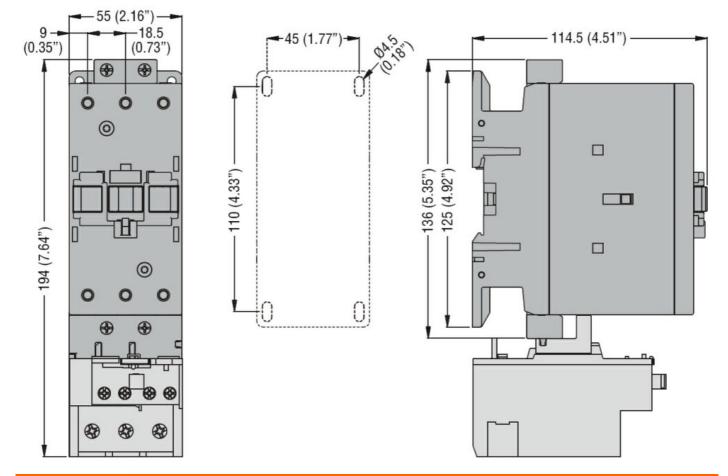
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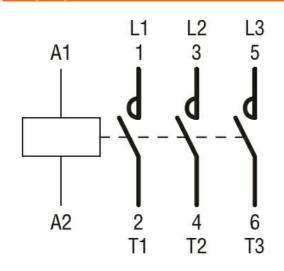


THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 40A, AC COIL 50/60HZ, 230VAC

Dimensions [mm (in)]



Wiring diagrams



Certifications and compliance

Compliance

UL 60947-4-1
UL 60947-1
IEC/EN/BS 60947-4-1
IEC/EN/BS 60947-1
CSA C22.2 n° 60947-4-1
CSA C22.2 n° 60947-1

Certificates



ETIM 8.0

BF4000A230 THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 40A, AC COIL 50/60HZ, 230VAC

	CCC	
	cULus	
ETIM classification		
		EC000066 -

EC000066 -Power contactor, AC switching