BF230T4E230

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 350A, AC/DC COIL, 100...250VAC/DC



Product designation			Power contactor
Product type designation			BF230
Contact characteristics			
Number of poles		Nr.	4
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		A	350
Operational current Ie			
	AC-1 (≤40°C)	A	350
	AC-1 (≤55°C)	A	290
	AC-1 (≤70°C)	A	250
	AC-3 (≤440V ≤55°C)	A	230
	AC-4 (400V)	A	110
Rated operational power AC-1 (T≤40°C)			
	230V	kW	132
	400V	kW	230
	500V	kW	253
	690V	kW	397
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	A	350
	48V	A	350
	75V	A	350
	110V	A	145
	220V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	A	350
	48V	A	350
	75V	A	350
	110V	A	270
	220V	A	225
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	350
	48V	A	350
	75V	A	350
	110V	A	270
	220V	A	270
	330V	A	225
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	350
	48V	A	350
	75V	A	350
	110V	A	350

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	220V	A	350
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	350
	48V	A	350
	75V	A	250
	110V	A	135
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	350
	48V	A	350
	75V	A	250
	110V	A	225
	220V	A	180
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	350
	48V	A	350
	75V	A	250
	110V	A	250
	220V	A	225
	330V	A	180
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	350
	48V	A	350
	75V	A	250
	110V	A	250
	220V	A	225
	330V	A	210
	460V	A	180
Short-time allowable current for 10s (IEC/EN60947-1)		A	1840
Protection fuse			
	gG (IEC)	A	400
	aM (IEC)	A	250
Making capacity (RMS value)		A	2300
Breaking capacity at voltage			
	440V	A	1840
	500V	A	1472
	690V	A	1296
Resistance per pole (average value)		mΩ	0.18
Power dissipation per pole (average value)			
	Ith	W	21
	AC3	W	9.3
Tightening torque for terminals			
	min	Nm	18
	max	Nm	18
	min	lbin	159
	max	lbin	159
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
Power terminal protection according to IEC/EN 60529			IP00
Mechanical features			
Operating position			
	normal		Vertical plan

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		allowable		±30°
Fixing				Screw
Weight			g	4000
Operations				
Mechanical life			cycles	10000000
Electrical life			cycles	1000000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
		rated load	cycles	1000000
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 50/60Hz, 60Hz				
		min	V	100
		max	V	250
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	80 Us min
		max	%Us	110 Us max
	drop-out			
		max	%Us	≤70 Us min
	of 50/60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80 Us min
		max	%Us	110 Us max
	drop-out			
		max	%Us	≤70 Us min
AC average coil consumption at 20°C				
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	160…230
		holding	VA	1.5...3.0
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	160…230
		holding	VA	1.5...3.0
	of 60Hz coil powered at 60Hz			
		in-rush	VA	160…230
		holding	VA	1.5...3.0
Dissipation at holding ≤20°C 50Hz			W	1.5...3.0
DC coil operating				
DC rated control voltage				
		min	V	100
		max	V	250
DC operating voltage				
	pick-up			
		min	%Us	85 Us min
		max	%Us	110 Us max
	drop-out			
		max	%Us	≤70 Us min
Average coil consumption ≤20°C				
		in-rush	W	160…230
		holding	W	1.5...3.0
Max cycles frequency				
Mechanical operation			cycles/h	1000

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Operating times

Average time for Us control				
	in AC			
		Closing NO		
			min	ms 50
			max	ms 100
		Opening NO		
			min	ms 30
			max	ms 75

UL technical data

Yielded mechanical performance				
	for three-phase AC motor			
			200/208V	HP 75
			220/230V	HP 75
			460/480V	HP 150
			575/600V	HP 200
General USE				
	Contactor			
			AC current	A 350
Short-circuit protection fuse, 600V				
	High fault			
			Short circuit current	kA 100
			Fuse rating	A 400
			Fuse class	J
	Standard fault			
			Short circuit current	kA 10
			Fuse rating	A 400
			Fuse class	RK5

Ambient conditions

Temperature				
	Operating temperature			
			min	°C -40
			max	°C 70
	Storage temperature			
			min	°C -50
			max	°C 80
Max altitude				m 3000

Resistance & Protection

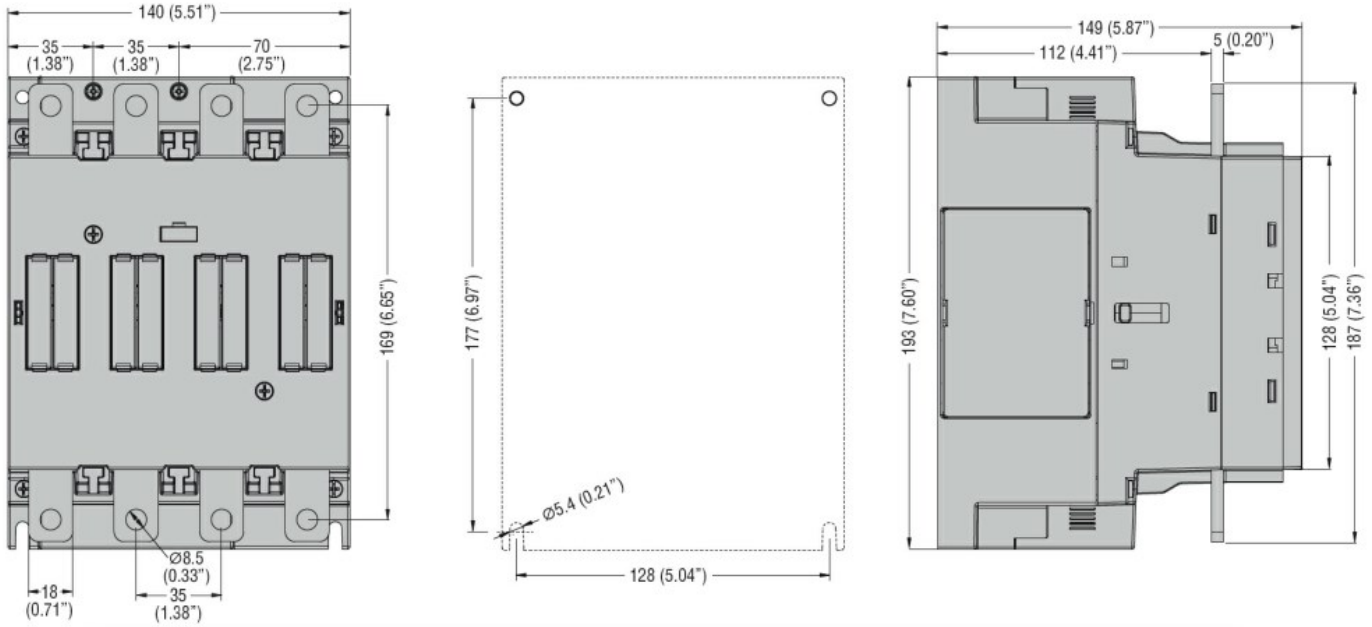
Pollution degree	3

Dimensions

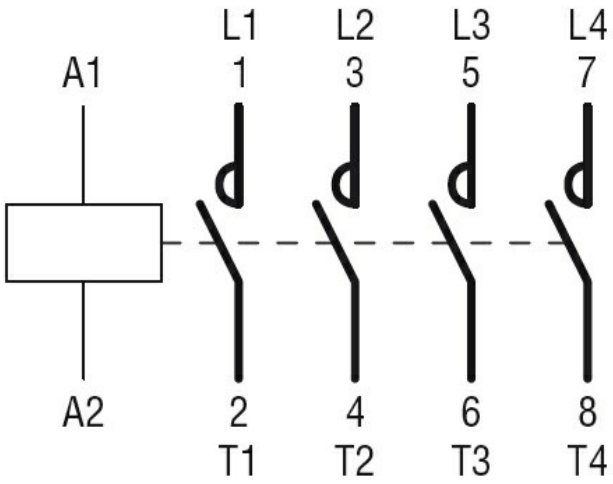
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Wiring diagrams



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

Certificates

cULus

ETIM classification

ETIM 8.0	EC000066 - Power contactor, AC switching

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