BF33000E110

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 330A, AC/DC COIL, 60… 130VAC/DC

Product designation			Power contactor
Product type designation			BF330
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		A	500
Operational current Ie			
	AC-1 (≤40°C)	A	500
	AC-1 (≤55°C)	A	415
	AC-1 (≤70°C)	A	360
	AC-3 (≤440V ≤55°C)	A	330
	AC-4 (400V)	A	160
Rated operational power AC-3 (T≤55°C)			
	230V	kW	90
	400V	kW	160
	415V	kW	160
	440V	kW	160
	500V	kW	200
	690V	kW	250
	1000V	kW	185
Rated operational current AC-3 (T≤55°C)			
	230V	A	330
	400V	A	330
	415V	A	330
	440V	A	330
	500V	A	300
	690V	A	300
	1000V	A	140
Rated operational power AC-1 (T≤40°C)			
	230V	kW	189
	400V	kW	329
	500V	kW	362
	690V	kW	568
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	75V	A	375
	110V	A	195
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	75V	A	375
	110V	A	350
	220V	A	300
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			

	75V	A	375
	110V	A	350
	220V	A	350
	330V	A	300
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	75V	A	375
	110V	A	350
	220V	A	350
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	A	310
	110V	A	170
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	75V	A	310
	110V	A	290
	220V	A	230
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	75V	A	310
	110V	A	310
	220V	A	290
	330V	A	230
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	75V	A	310
	110V	A	310
	220V	A	310
	330V	A	310
	460V	A	230
Short-time allowable current for 10s (IEC/EN60947-1)		A	2640
Protection fuse			
	gG (IEC)	A	630
	aM (IEC)	A	500
Making capacity (RMS value)		A	3300
Breaking capacity at voltage			
	440V	A	2640
	500V	A	2240
	690V	A	2000
Resistance per pole (average value)		mΩ	0.12
Power dissipation per pole (average value)			
	Ith	W	30
	AC-3	W	13
Tightening torque for terminals			
	min	Nm	35
	max	Nm	35
	min	lbin	310
	max	lbin	310
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
	allowable		±30°
Fixing			Screw

Operations				
Mechanical life			cycles	5000000
Electrical life			cycles	700000
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	60
		max	V	130
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…320
		holding	VA	3.5…8.0
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	160…320
		holding	VA	3.5…8.0
	of 60Hz coil powered at 60Hz			
		in-rush	VA	160…320
		holding	VA	3.5…8.0
Dissipation at holding ≤20°C 50Hz			W	3.5…8.0
DC coil operating				
DC rated control voltage				
		min	V	60
		max	V	130
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	3.5…8.0
Max cycles frequency				
Mechanical operation			cycles/h	1000
Operating times				
Average time for Us control				
	in AC			

		Closing NO			
			min	ms	80
			max	ms	120
		Opening NO			
			min	ms	30
			max	ms	75
UL technical data					
Yielded mechanical performance					
	for three-phase AC motor				
			200/208V	HP	100
			220/230V	HP	125
			460/480V	HP	250
			575/600V	HP	300
General USE					
	Contactor				
			AC current	A	500
Short-circuit protection fuse, 600V					
	High fault				
			Short circuit current	kA	100
			Fuse rating	A	600
			Fuse class		J
	Standard fault				
			Short circuit current	kA	18
			Fuse rating	A	600
			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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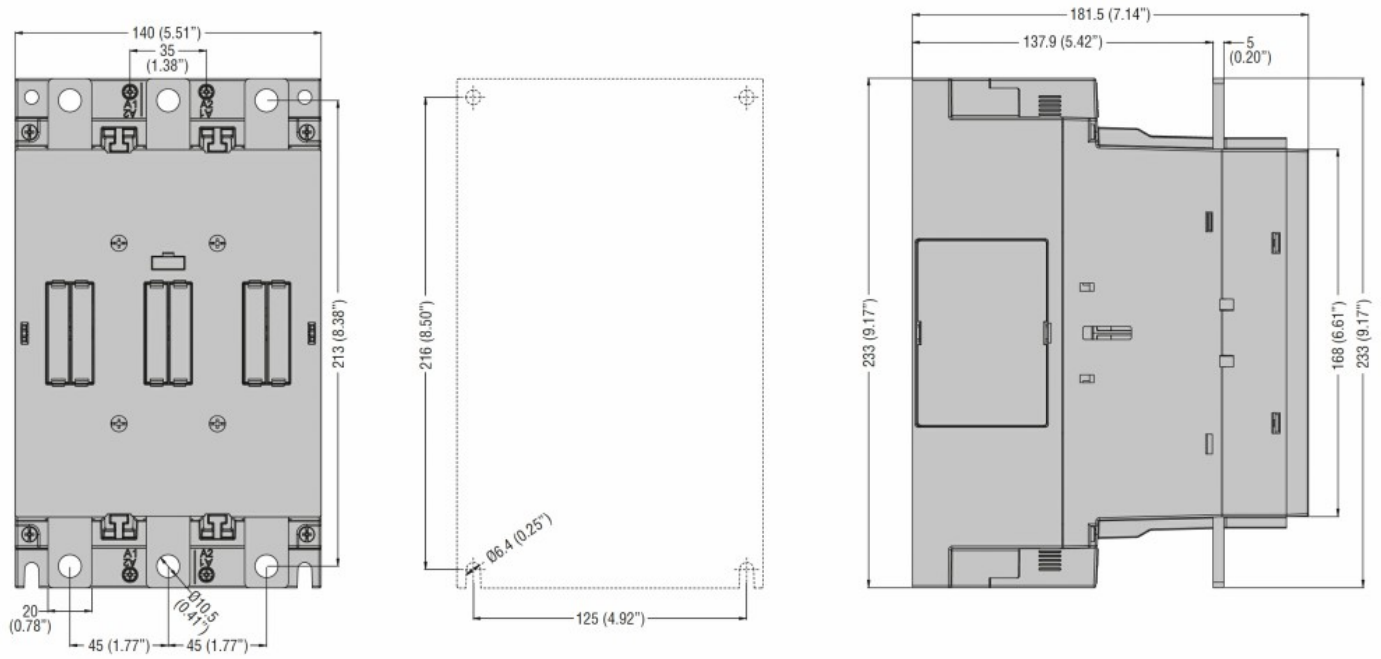
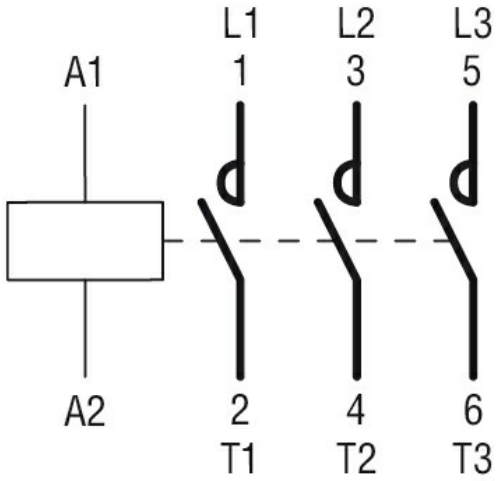


Wiring diagrams



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