BF40000E110

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 400A, AC/DC COIL, 60… 130VAC/DC

Product designation			Power contactor
Product type designation			BF400
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	600
Operational current Ie			
	AC-1 (≤40°C)	A	600
	AC-1 (≤55°C)	A	500
	AC-1 (≤70°C)	A	435
	AC-3 (≤440V ≤55°C)	A	400
	AC-4 (400V)	A	190
Rated operational power AC-3 (T≤55°C)			
	230V	kW	110
	400V	kW	200
	415V	kW	200
	440V	kW	200
	500V	kW	250
	690V	kW	315
	1000V	kW	200
Rated operational current AC-3 (T≤55°C)			
	230V	A	400
	400V	A	400
	415V	A	400
	440V	A	400
	500V	A	350
	690V	A	350
	1000V	A	155
Rated operational power AC-1 (T≤40°C)			
	230V	kW	227
	400V	kW	395
	500V	kW	434
	690V	kW	681
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	75V	A	400
	110V	A	250
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	75V	A	400
	110V	A	400
	220V	A	350
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			

	75V	A	400
	110V	A	400
	220V	A	400
	330V	A	350
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	75V	A	400
	110V	A	400
	220V	A	400
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	A	350
	110V	A	200
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	75V	A	350
	110V	A	350
	220V	A	280
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	75V	A	350
	110V	A	350
	220V	A	350
	330V	A	280
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	75V	A	350
	110V	A	350
	220V	A	350
	330V	A	350
	460V	A	280
Short-time allowable current for 10s (IEC/EN60947-1)		A	3200
Protection fuse			
	gG (IEC)	A	800
	aM (IEC)	A	500
Making capacity (RMS value)		A	4000
Breaking capacity at voltage			
	440V	A	3200
	500V	A	2752
	690V	A	2504
Resistance per pole (average value)		mΩ	0.12
Power dissipation per pole (average value)			
	Ith	W	43.2
	AC-3	W	19
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	600000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
		rated load	cycles	600000
		mechanical load	cycles	5000000
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					
Rated operational voltage AC (UL)				V	600
Yielded mechanical performance					
	for three-phase AC motor				
			200/208V	HP	125
			220/230V	HP	150
			460/480V	HP	350
			575/600V	HP	400
General USE					
	Contactor				
			AC current	A	600
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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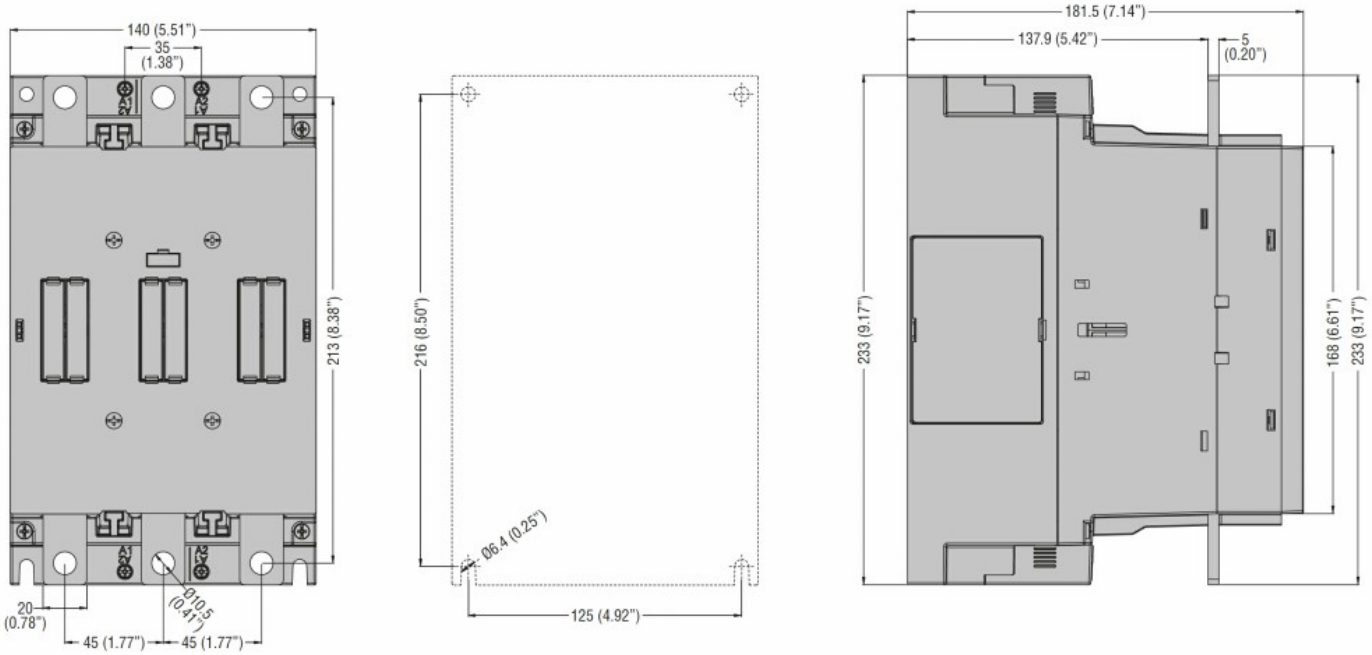
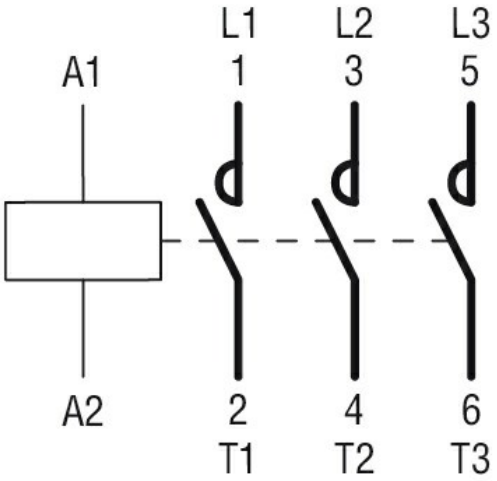


Wiring diagrams



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