BF5000A024

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 50A, AC COIL 50/60HZ, 24VAC

Product designation			Power contactor
Product type designation			BF50
Contact characteristics			
Number of poles		nr.	3
Rated insulation voltage Ui		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operating frequency			
	Operational frequency min	Hz	25
	Operational frequency max	Hz	400
Conventional free air thermal current Ith		A	90
Operating current			
	Operational current AC1 (≤40°C)	A	90
	Operational current AC3 (≤440V ≤55°C)	A	50
	Operational current AC4 (400V)	A	28
Rated operational power AC1 (T≤40°C)			
	230V	kW	34
	400V	kW	59
	500V	kW	74
	690V	kW	102
Rated operational power AC3 (T≤55°C)			
	230V	kW	15
	400V	kW	22
	415V	kW	30
	440V	kW	30
	500V	kW	30
	690V	kW	37
	1000V	kW	22
Short-time allowable current for 10s (IEC/EN60947-1)		A	400
Protection fuse			
	gG (IEC)	A	100
	aM (IEC)	A	50
Making capacity (RMS value)		A	500
Breaking capacity at voltage			
	Breaking capacity 440V	A	400
	Breaking capacity 500V	A	352
	Breaking capacity 690V	A	312
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
	Power dissipation pole (average value) Ith	W	6.5
	AC3	W	2
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	lbft	2.95
	max	lbft	3.69

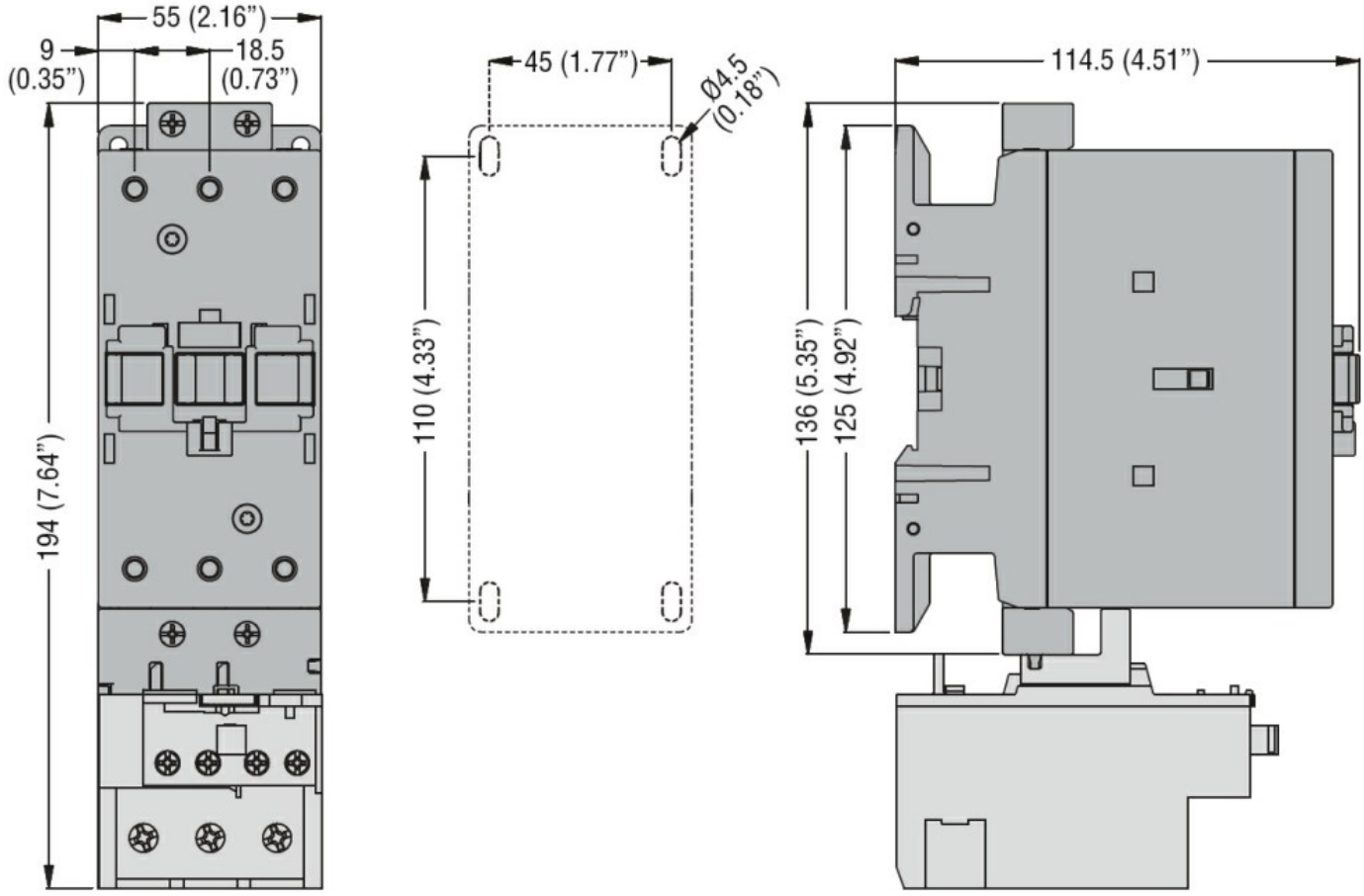
Tightening torque for coil terminal				
		min	Nm	0.8
		max	Nm	1
		min	lbft	0.8
		max	lbft	0.74
max number of wires simultaneously connectable			nr.	2
Conductor section				
	AWG			
		min		14
		max		2
	Flexible w/o lug conductor section			
		min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor section			
		min	mm²	1.5
		max	mm²	35
Power terminal protection according to IEC/EN 60529				IP20 front
Auxiliary contact characteristics				
Operational current AC1 (≤40°C)			A	90
Operating current DC13				
		110V	A	Screw / DIN rail 35mm
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Operating position				
		normal		Vertical plan
		allowable		±30°
Mounting				Screw / DIN rail 35mm
Weight			g	1.02
Operations				
Mechanical life			Cycles	15000000
Electrical life			Cycles	1400000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
		rated load	Cicli	1400000
		mechanical load	Cicli	15000000
Mirror contats according to IEC/EN 609474-4-1				yes
EMC compatibility				yes
AC coil operating				
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
		pick-up		
			min	%Us 0.8
			max	%Us 1.1
		drop-out		

		min	%Us	0.2
		max	%Us	0.55
	of 50/60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	0.85
		max	%Us	1.1
	drop-out			
		min	%Us	0.4
		max	%Us	0.55
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	0.8
		max	%Us	1.1
	drop-out			
		min	%Us	0.2
		max	%Us	0.55
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	210
		holding	VA	15
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	195
		holding	VA	13
	of 60Hz coil powered at 60Hz			
		in-rush	VA	210
		holding	VA	15
Dissipation at holding ≤20°C 50Hz			W	5.0
Max cycles frequency				
Mechanical operations			Cycles/h	3600
Operating times				
Average time for Us control				
	in AC			
	Closing NO			
		min	ms	12
		max	ms	28
	Opening NO			
		min	ms	8
		max	ms	22
UL technical data				
Full-load current (FLA) for three-phase AC motor				
		at 480V	A	52
		at 600V	A	41
Yielded mechanical performance				
	for single-phase AC motor			
		at 110/120V	hp	5
		at 230V	hp	10
	for three-phase AC motor			
		at 200/208V	hp	15
		at 220/230V	hp	20
		at 460/480V	hp	40
		at 575/600V	hp	40
General USE				
	Contactor			
		AC current	A	32

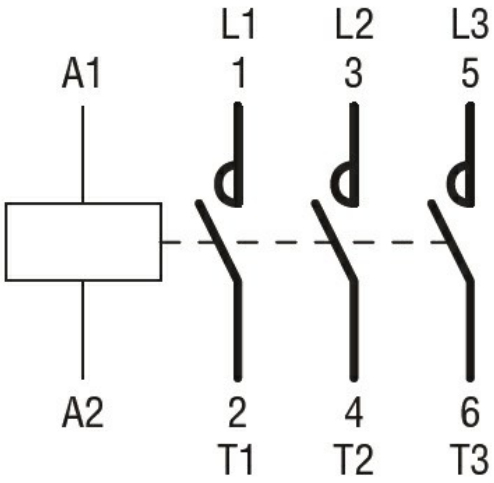
Other features

Pollution degree	3

Dimensions



Wiring diagrams



Certifications and compliance

Certifications

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

	UL 60947-4-1
Compliance	
	cULus

ETIM 6 classification

EC000066 - Power contactor, AC switching