

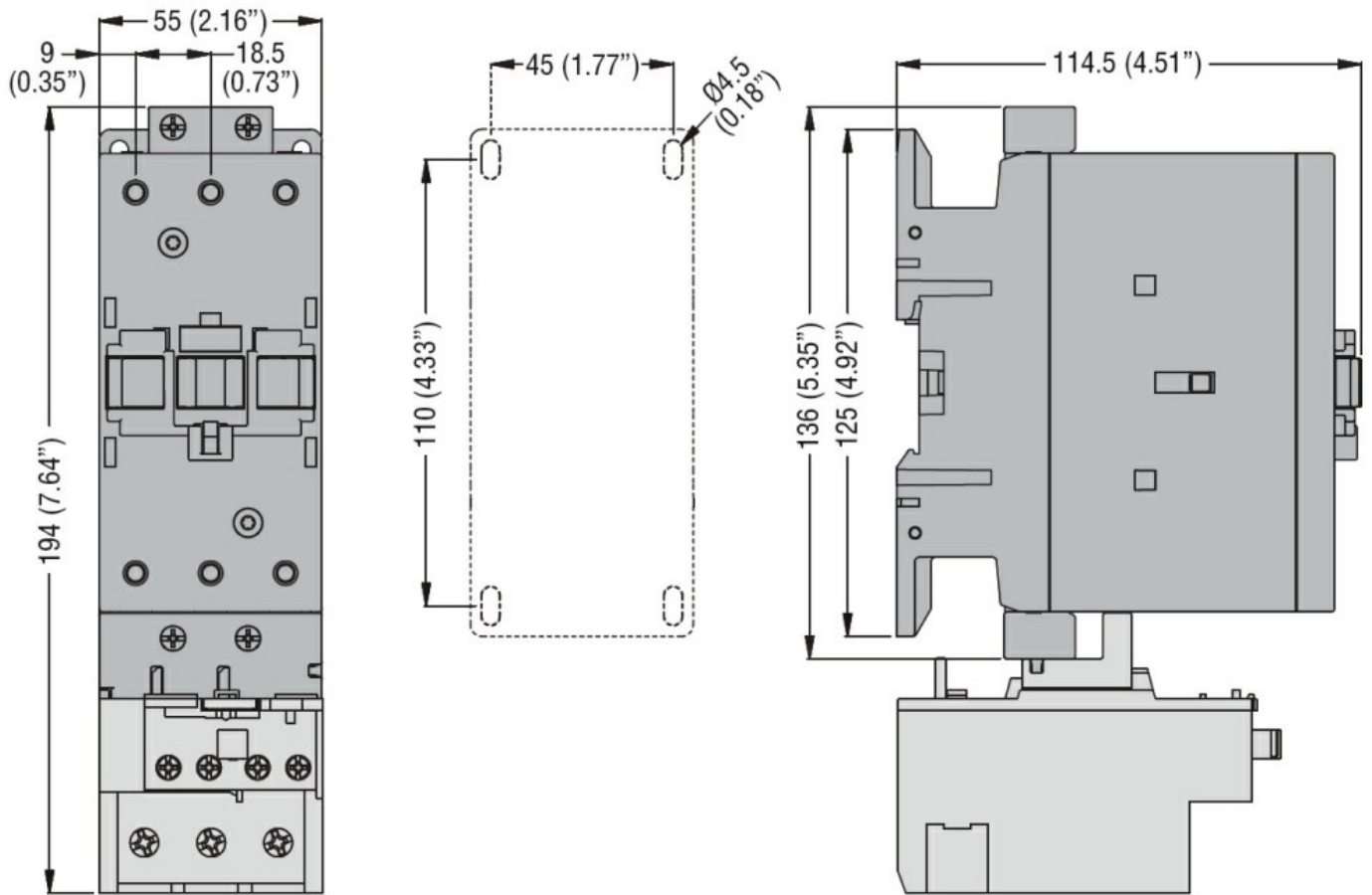


Product designation				Power contactor
Product type designation				BF94
Contact characteristics				
Number of poles	Nr.			3
Rated insulation voltage U _i IEC/EN	V			1000
Rated impulse withstand voltage U _{imp}	kV			8
Operational frequency	min	Hz	25	
	max	Hz	400	
IEC Conventional free air thermal current I _{th}	A			115
Operational current I _e	AC-1 (≤40°C)	A	115	
	AC-1 (≤55°C)	A	95	
	AC-1 (≤70°C)	A	80	
	AC-3 (≤440V ≤55°C)	A	95	
	AC-4 (400V)	A	45	
Rated operational power AC-3 (T≤55°C)	230V	kW	30	
	400V	kW	55	
	415V	kW	55	
	440V	kW	55	
	500V	kW	55	
	690V	kW	55	
	1000V	kW	37	
IEC max current I _e in DC1 with L/R ≤ 1ms with 1 poles in series	≤24V	A	77	
	48V	A	66	
	75V	A	66	
	110V	A	8	
	220V	A	–	
IEC max current I _e in DC1 with L/R ≤ 1ms with 2 poles in series	≤24V	A	110	
	48V	A	110	
	75V	A	110	
	110V	A	90	
	220V	A	9	
IEC max current I _e in DC1 with L/R ≤ 1ms with 3 poles in series	≤24V	A	110	
	48V	A	110	
	75V	A	110	
	110V	A	93	
	220V	A	95	
IEC max current I _e in DC1 with L/R ≤ 1ms with 4 poles in series	≤24V	A	115	
	48V	A	115	

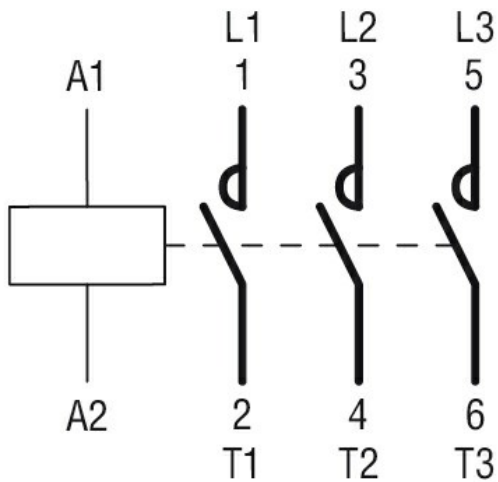
	75V	A	115
	110V	A	110
	220V	A	115
<hr/>			
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	≤24V	A	45
	48V	A	33
	75V	A	33
	110V	A	3
	220V	A	–
<hr/>			
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	≤24V	A	65
	48V	A	55
	75V	A	55
	110V	A	43
	220V	A	5
<hr/>			
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V	A	86
	48V	A	75
	75V	A	75
	110V	A	64
	220V	A	64
<hr/>			
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	A	96
	48V	A	95
	75V	A	95
	110V	A	80
	220V	A	80
<hr/>			
Short-time allowable current for 10s (IEC/EN60947-1)		A	640
<hr/>			
Protection fuse	gG (IEC)	A	125
	aM (IEC)	A	100
<hr/>			
Making capacity (RMS value)		A	950
<hr/>			
Breaking capacity at voltage	440V	A	640
	500V	A	625
	690V	A	456
<hr/>			
Resistance per pole (average value)		mΩ	0.6
<hr/>			
Power dissipation per pole (average value)	I _{th}	W	7.9
	AC3	W	5.4
<hr/>			
Tightening torque for terminals	min	Nm	4
	max	Nm	5
	min	I _{bin}	3
	max	I _{bin}	3.7
<hr/>			
Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	I _{bin}	0.59
	max	I _{bin}	0.74
<hr/>			
Max number of wires simultaneously connectable		Nr.	2
<hr/>			
Conductor section	Flexible w/o lug conductor section		

	min	mm ²	1.5
	max	mm ²	35
Power terminal protection according to IEC/EN 60529			IP20
Mechanical features			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	1
Operations			
Mechanical life		cycles	15000000
Electrical life		cycles	1100000
Safety related data			
Mirror contacts according to IEC/EN 60947-4-1			YES
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 50/60Hz, 60Hz	min	V	20
	max	V	48
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
pick-up	min	%Us	85 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	85 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	35...120
	holding	VA	1.5...3.7
of 50/60Hz coil powered at 60Hz	in-rush	VA	35...120
	holding	VA	1.5...3.7
Dissipation at holding ≤20°C 50Hz		W	1...2.5
DC coil operating			
DC rated control voltage	min	V	20
	max	V	48
DC operating voltage			
pick-up	min	%Us	80 Us min
	max	%Us	110 Us max
drop-out	max	%Us	≤70 Us min
Average coil consumption ≤20°C	in-rush	W	23...68

		holding	W	1.2...1,9
Max cycles frequency				
Mechanical operation			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
	in DC			
		Closing NO	min	ms 40
			max	ms 85
		Opening NO	min	ms 20
			max	ms 55
UL technical data				
Full-load current (FLA) for three-phase AC motor				
		at 480V	A	77
		at 600V	A	77
Yielded mechanical performance				
	for three-phase AC motor			
		200/208V	HP	25
		220/230V	HP	30
		460/480V	HP	60
		575/600V	HP	75
General USE				
	Contactor			
		AC current	A	115
Short-circuit protection fuse, 600V				
	High fault			
		Short circuit current	kA	100
		Fuse rating	A	200
		Fuse class		J
	Standard fault			
		Short circuit current	kA	10
		Fuse rating	A	200
		Fuse class		RK5
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Dimensions [mm (in)]				



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

CCC
 cULus

EAC

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching