



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
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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	–
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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
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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
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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
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Short-time allowable current for 10s (IEC/EN60947-1)		A	640
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Protection fuse			
	gG (IEC)	A	125
	aM (IEC)	A	100
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Making capacity (RMS value)		A	950
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Breaking capacity at voltage			
	440V	A	640
	500V	A	625
	690V	A	456
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Resistance per pole (average value)		m?	0.6
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Power dissipation per pole (average value)			
	I _{th}	W	7.9
	AC3	W	5.4
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Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	I _{bin}	3
	max	I _{bin}	3.7
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Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	I _{bin}	0.59
	max	I _{bin}	0.74
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Max number of wires simultaneously connectable		Nr.	2
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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 60Hz		V	230
AC operating voltage			
of 60Hz coil powered at 60Hz			
pick-up	min	%Us	80
	max	%Us	110
drop-out	min	%Us	20
	max	%Us	55
AC average coil consumption at 20°C			
of 60Hz coil powered at 60Hz			
	in-rush	VA	210
	holding	VA	15
Dissipation at holding =20°C 50Hz		W	5
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
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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

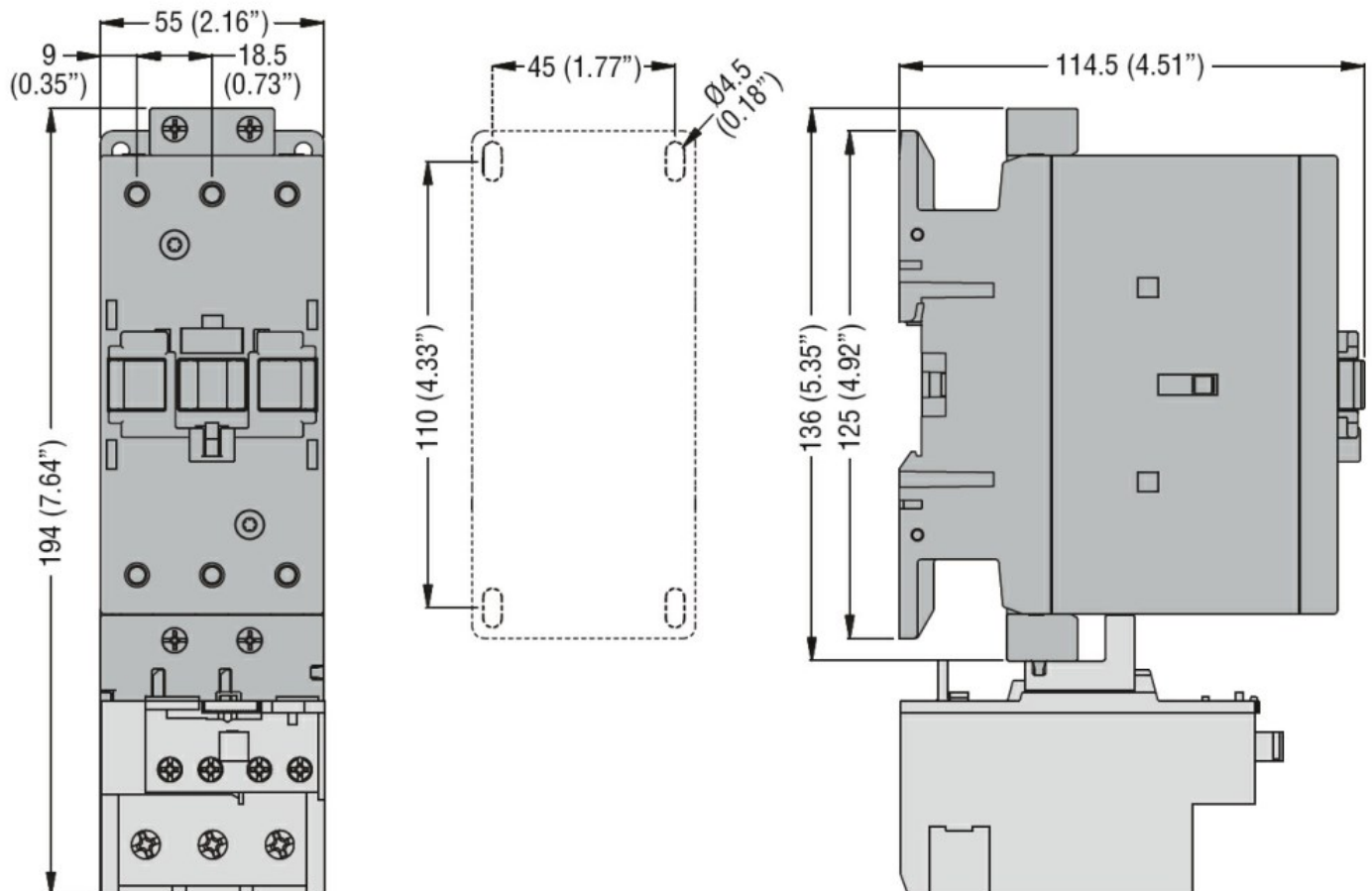
Storage temperature

min	°C	-60
max	°C	80

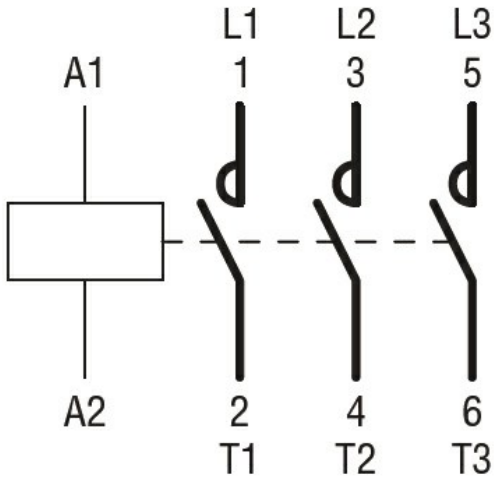
Max altitude

m	3000
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Dimensions



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