



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 ($\leq 40^\circ C$)	A	115
	AC-1 ($\leq 55^\circ C$)	A	95
	AC-1 ($\leq 70^\circ C$)	A	80
	AC-3 ($\leq 440V \leq 55^\circ C$)	A	95
	AC-4 (400V)	A	45
Rated operational power AC-3 ($T \leq 55^\circ C$)			
	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 $L/R \leq 1ms$ with 1 poles in series			
	$\leq 24V$	A	77
	48V	A	66
	75V	A	66
	110V	A	8
	220V	A	—
IEC max current I_e in DC1 with $L/R \leq 1ms$ with 2 poles in series			
	$\leq 24V$	A	110
	48V	A	110
	75V	A	110
	110V	A	90
	220V	A	9
IEC max current I_e in DC1 with $L/R \leq 1ms$ with 3 poles in series			
	$\leq 24V$	A	110
	48V	A	110
	75V	A	110
	110V	A	93
	220V	A	95
IEC max current I_e in DC1 with $L/R \leq 1ms$ with 4 poles in series			
	$\leq 24V$	A	115
	48V	A	115

	75V	A	115
	110V	A	110
	220V	A	115
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series			
	$\leq 24\text{V}$	A	45
	48V	A	33
	75V	A	33
	110V	A	3
	220V	A	—
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series			
	$\leq 24\text{V}$	A	65
	48V	A	55
	75V	A	55
	110V	A	43
	220V	A	5
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series			
	$\leq 24\text{V}$	A	86
	48V	A	75
	75V	A	75
	110V	A	64
	220V	A	64
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 4 poles in series			
	$\leq 24\text{V}$	A	96
	48V	A	95
	75V	A	95
	110V	A	80
	220V	A	80
Short-time allowable current for 10s (IEC/EN60947-1)			A 640
Protection fuse			
	gG (IEC)	A	125
	aM (IEC)	A	100
Making capacity (RMS value)			A 950
Breaking capacity at voltage			
	440V	A	640
	500V	A	625
	690V	A	456
Resistance per pole (average value)			m? 0.6
Power dissipation per pole (average value)			
	I _{th}	W	7.9
	AC3	W	5.4
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	lbin	3
	max	lbin	3.7
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
Max number of wires simultaneously connectable			Nr. 2
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 609474-4-1	YES		
EMC compatibility	yes		
AC coil operating			
Rated AC voltage at 60Hz	V 120		
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
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

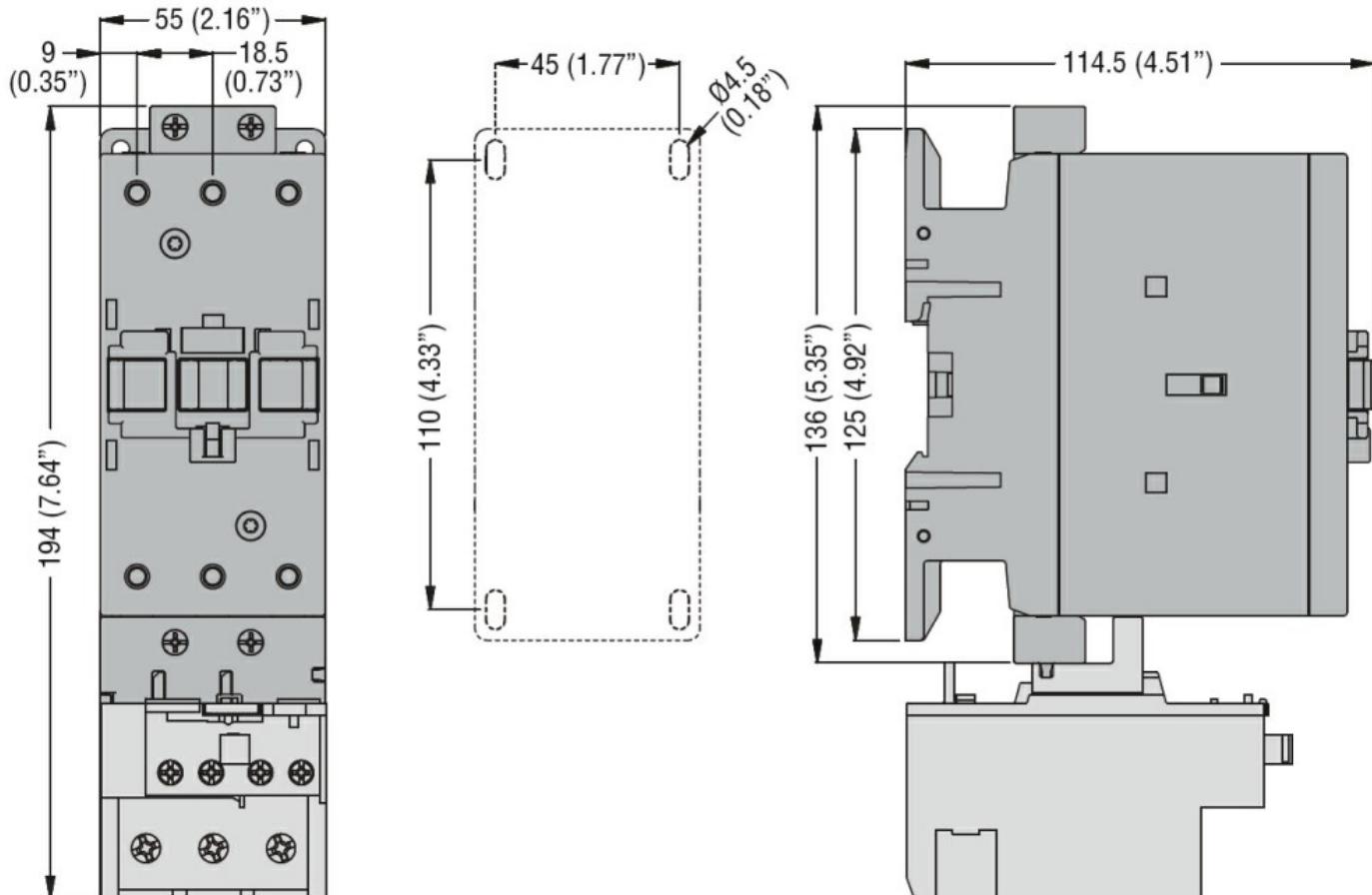
Ambient conditions

Temperature	Operating temperature	min	°C	-50
		max	°C	70
Storage temperature		min	°C	-60
		max	°C	80

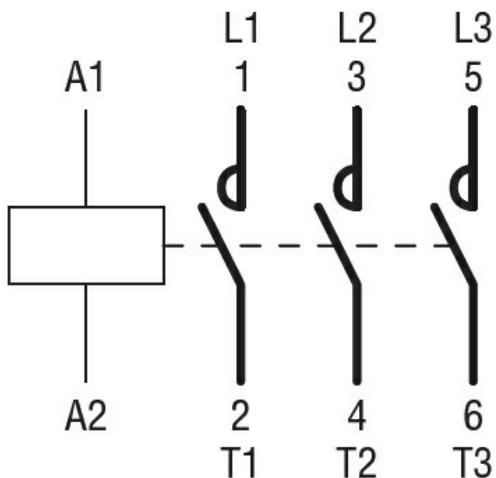
Max altitude

m 3000

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

[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](#)

Certificates

[CCC](#)
[cULus](#)
[EAC](#)

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching