



Product designation Product type designation			Power contactor BF94
Contact characteristics			Brot
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		А	115
Operational current le			
	AC-1 (≤40°C)	А	115
	AC-1 (≤55°C)	А	95
	AC-1 (≤70°C)	А	80
	AC-3 (≤440V ≤55°C)	А	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
Rated operational current AC-3 (T≤55°C)		_	
	230V	A	94
	400V	A	94
	415V	A	94
	440V	A	94
	500V	A	78
	690V	A	57
IFC may summer to in DC1 with L/D < 1 may with 1 malas in series	1000V	A	28
IEC max current le in DC1 with $L/R \le 1$ ms with 1 poles in series	~0 AV /	۸	77
	≤24V 48V	A	77
	48 V 75 V	A	66
	75V 110V	A	66 8
	220V	A	8
IEC max current le in DC1 with L/R \leq 1ms with 2 poles in series	2200	A	-
$1 \ge 0$ max current le in DCT with $L/R \ge 1005$ with 2 poles II selles	≤24V	۸	110
	≤24∨ 48V	A	110
	48 V 75 V	A A	110
	110V	A	90
	1100	A	30

IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series



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	≤24V	А	110
	48V	А	110
	75V	А	110
	110V	А	93
	220V	А	95
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	А	115
	48V	А	115
	75V	А	115
	110V	А	110
	220V	А	115
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	А	45
	48V	А	33
	75V	А	33
	110V	А	3
	220V	А	-
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
·	≤24V	А	65
	48V	A	55
	75V	А	55
	110V	А	43
	220V	А	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	А	86
	48V	A	75
	75V	А	75
	110V	А	64
	220V	А	64
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	А	96
	48V	А	95
	75V	А	95
	110V	А	80
	220V	А	80
Short-time allowable current for 10s (IEC/EN60947-1)		А	640
Protection fuse			
	gG (IEC)	А	125
	aM (IEC)	А	100
Making capacity (RMS value)		А	950
Breaking capacity at voltage			
	440V	А	640
	500V	А	625
	690V	А	456
Resistance per pole (average value)		mΩ	0.6
Power dissipation per pole (average value)			
	lth	W	7.9
	AC-3	W	5.4
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	Ibin	3
	max	Ibin	3.7

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Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.59
	max	Ibin	0.74
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
Flexible w/o lug conductor section			
	min	mm²	1.5
	max	mm²	35
Power terminal protection according to IEC/EN 60529			IP20
Mechanical features			
Operating position			
	normal		Vertical plan
	allowable		±30°
			Screw / DIN rail
Fixing			35mm
Weight		g	1
Operations			
Mechanical life		cycles	15000000
Electrical life		cycles	1100000
Safety related data			
Mirror contats according to IEC/EN 609474-4-1			YES
EMC compatibility			yes
AC coil operating			,
Rated AC voltage at 50/60Hz, 60Hz			
0	min	V	100
	max	V	250
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
, pick-up			
	min	%Us	80 Us min
	max	%Us	110 Us max
drop-out		%Us	
drop-out	max		110 Us max
drop-out		%Us	110 Us max 20
	max		110 Us max
of 50/60Hz coil powered at 60Hz	max	%Us	110 Us max 20
	max min max	%Us %Us	110 Us max 20 ≤70 Us min
of 50/60Hz coil powered at 60Hz	max min max min	%Us %Us %Us	110 Us max 20 ≤70 Us min 80 Us min
of 50/60Hz coil powered at 60Hz pick-up	max min max	%Us %Us	110 Us max 20 ≤70 Us min
of 50/60Hz coil powered at 60Hz	max min max min max	%Us %Us %Us %Us	110 Us max 20 ≤70 Us min 80 Us min 110 Us max
of 50/60Hz coil powered at 60Hz pick-up	max min max min max min	%Us %Us %Us %Us %Us	110 Us max 20 ≤70 Us min 80 Us min 110 Us max 40
of 50/60Hz coil powered at 60Hz pick-up drop-out	max min max min max	%Us %Us %Us %Us	110 Us max 20 ≤70 Us min 80 Us min 110 Us max
of 50/60Hz coil powered at 60Hz pick-up drop-out AC average coil consumption at 20°C	max min max min max min	%Us %Us %Us %Us %Us	110 Us max 20 ≤70 Us min 80 Us min 110 Us max 40
of 50/60Hz coil powered at 60Hz pick-up drop-out	max min max min max min max	%Us %Us %Us %Us %Us %Us	110 Us max 20 ≤70 Us min 10 Us max 40 ≤70 Us min
of 50/60Hz coil powered at 60Hz pick-up drop-out AC average coil consumption at 20°C	max min max min max min max	%Us %Us %Us %Us %Us %Us	110 Us max 20 ≤70 Us min 10 Us max 40 ≤70 Us min 35120
of 50/60Hz coil powered at 60Hz pick-up drop-out AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz	max min max min max min max	%Us %Us %Us %Us %Us %Us	110 Us max 20 ≤70 Us min 10 Us max 40 ≤70 Us min
of 50/60Hz coil powered at 60Hz pick-up drop-out AC average coil consumption at 20°C	max min max min max min max in-rush holding	%Us %Us %Us %Us %Us %Us VA VA	110 Us max 20 ≤70 Us min 10 Us max 40 ≤70 Us min 35120 1.53.7
of 50/60Hz coil powered at 60Hz pick-up drop-out AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz	max min max min max min max in-rush holding in-rush	%Us %Us %Us %Us %Us %Us %Us %Us %Us %Us	110 Us max 20 ≤70 Us min 10 Us max 40 ≤70 Us min 35120 1.53.7 35120
of 50/60Hz coil powered at 60Hz pick-up drop-out AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz	max min max min max min max in-rush holding	%Us %Us %Us %Us %Us %Us VA VA	110 Us max 20 ≤70 Us min 10 Us max 40 ≤70 Us min 35120 1.53.7

DC rated control voltage

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V 100 min max V 250 DC operating voltage pick-up min %Us 80 Us min 110 Us max %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 3600 cycles/h Operating times Average time for Us control in AC **Closing NO** min ms 12 28 max ms **Opening NO** 8 min ms max ms 22 in DC **Closing NO** 40 min ms max ms 85 **Opening NO** min ms 20 55 max ms UL technical data Full-load current (FLA) for three-phase AC motor at 480V А 77 77 at 600V А 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 115 А Short-circuit protection fuse, 600V High fault Short circuit current kΑ 100 Fuse rating А 200 Fuse class J Standard fault Short circuit current kΑ 10 Fuse rating 200 А Fuse class RK5

Ambient conditions Temperature

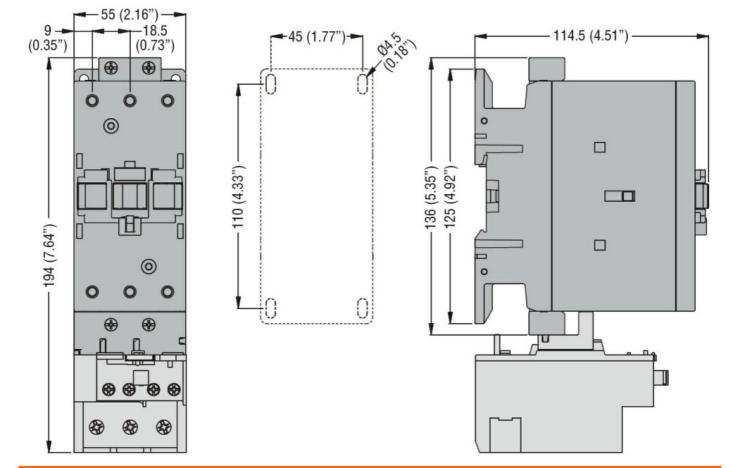
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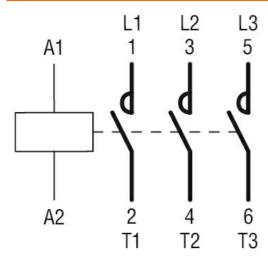
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	min max	°C °C	-50 70
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Dimensions			



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n	° 60947-1
CSA C22.2 n°	° 60947-4-1

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	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

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