

Product designation Power contactor Product type designation **BF94** Contact characteristics Nr. 3 Number of poles Rated insulation voltage Ui IEC/EN ٧ 1000 k۷ Rated impulse withstand voltage Uimp 8 Operational frequency Нъ 25 min Hz 400 max IEC Conventional free air thermal current Ith 115 Α Operational current le AC-1 (≤40°C) Α 115 AC-1 (≤55°C) Α 95 AC-1 (≤70°C) Α 80 AC-3 (≤440V ≤55°C) Α 95 AC-4 (400V) 45 Rated operational power AC-3 (T≤55°C) kW 30 230V 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 Α 94 400V Α 94 415V Α 94 440V Α 94 500V 78 690V 57 Α 1000V Α 28 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V Α 77 48V Α 66 75V Α 66 110V Α 8 220V IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V Α 110 48V 110

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

75V

110V

220V

Α

Α

110 90

9



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



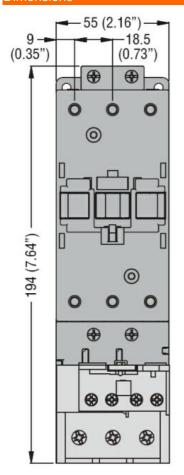
Tightening torque for	coil terminal			
rightorning torquo for t		min	Nm	0.8
		max	Nm	1
		min	Ibin	0.59
		max	Ibin	0.74
Max number of wires	simultaneously connectable		Nr.	2
Conductor section	,			
	Flexible w/o lug conductor sect	ion		
	ee, e .a.g eeaae.e. eee.	min	mm²	1.5
		max	mm²	35
	Flexible c/w lug conductor sect			
	r lexible 6/W lag contactor seet	min	mm²	1.5
		max	mm²	35
Power terminal protec	ction according to IEC/EN 60529	max		IP20
Mechanical features	Mon according to 120/214 00025			11 20
Operating position				
Sperating position		normal		Vertical plan
		allowable		Vertical plan ±30°
		allowable		Screw / DIN rail
Fixing				35mm
			~	1
Operations			g	ı
			ovoloo	1500000
Mechanical life			cycles	15000000
Electrical life			cycles	1100000
Safety related data	0.1			
Performance level B1	0d according to EN/ISO 13489-1			
			01/0100	1000000
		rated load	cycles	1000000
		rated load mechanical load	cycles	15000000
	ng to IEC/EN 609474-4-1		•	15000000 YES
EMC compatibility	ng to IEC/EN 609474-4-1		•	15000000
EMC compatibility AC coil operating			cycles	15000000 YES yes
EMC compatibility AC coil operating Rated AC voltage at 5			•	15000000 YES
EMC compatibility AC coil operating Rated AC voltage at 5	50/60Hz	mechanical load	cycles	15000000 YES yes
EMC compatibility AC coil operating Rated AC voltage at 5	60/60Hz of 50/60Hz coil powered at 50H	mechanical load	cycles	15000000 YES yes
EMC compatibility AC coil operating Rated AC voltage at 5	50/60Hz	mechanical load	v	15000000 YES yes 230
EMC compatibility AC coil operating Rated AC voltage at 5	60/60Hz of 50/60Hz coil powered at 50H	mechanical load	v V	15000000 YES yes 230
EMC compatibility AC coil operating Rated AC voltage at 5	i0/60Hz of 50/60Hz coil powered at 50H pick-up	mechanical load	v	15000000 YES yes 230
EMC compatibility AC coil operating Rated AC voltage at 5	60/60Hz of 50/60Hz coil powered at 50H	mechanical load Hz min max ut	v V %Us %Us	15000000 YES yes 230
EMC compatibility AC coil operating Rated AC voltage at 5	i0/60Hz of 50/60Hz coil powered at 50H pick-up	mechanical load	v V %Us %Us %Us	15000000 YES yes 230 80 110
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz of 50/60Hz coil powered at 50H pick-up	mechanical load	v V %Us %Us	15000000 YES yes 230
EMC compatibility AC coil operating Rated AC voltage at 5	i0/60Hz of 50/60Hz coil powered at 50H pick-up	mechanical load	v V %Us %Us %Us	15000000 YES yes 230 80 110 20
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz of 50/60Hz coil powered at 50H pick-up	mechanical load Hz min max ut min max	v V %Us %Us %Us	15000000 YES yes 230 80 110 20
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50H pick-up drop-or	mechanical load Hz min max ut min max	v V %Us %Us %Us	15000000 YES yes 230 80 110
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50H pick-up drop-or	mechanical load Hz min max ut min max	v %Us %Us %Us %Us	15000000 YES yes 230 80 110 20 55
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50H pick-up drop-or	mechanical load Hz min max ut min max Hz min max	v %Us %Us %Us %Us	15000000 YES yes 230 80 110 20 55
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50H pick-up drop-oil of 50/60Hz coil powered at 60H pick-up	mechanical load Hz min max ut min max Hz min max	v %Us %Us %Us %Us	15000000 YES yes 230 80 110 20 55
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50H pick-up drop-oil of 50/60Hz coil powered at 60H pick-up	mechanical load Hz min max ut min max Hz min max	v V %Us %Us %Us %Us %Us	15000000 YES yes 230 80 110 20 55 85 110
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50H pick-up drop-oil of 50/60Hz coil powered at 60H pick-up	mechanical load Hz min max tt min max tz min max tz min max tz min max tz min max	vV %Us %Us %Us %Us %Us %Us %Us	15000000 YES yes 230 80 110 20 55 85 110 20
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50H pick-up drop-or of 50/60Hz coil powered at 60H pick-up	mechanical load Hz min max ut min max Hz min max ut min max ut min max	vV %Us %Us %Us %Us %Us %Us %Us	15000000 YES yes 230 80 110 20 55 85 110 20
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50H pick-up drop-or of 50/60Hz coil powered at 60H pick-up drop-or of 60Hz coil powered at 60Hz	mechanical load Hz min max ut min max Hz min max ut min max ut min max	vV %Us %Us %Us %Us %Us %Us %Us	15000000 YES yes 230 80 110 20 55 85 110 20
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50H pick-up drop-or of 50/60Hz coil powered at 60H pick-up drop-or of 60Hz coil powered at 60Hz	mechanical load dz min max ut min max dz min max ut min max max ut min max ut min max	V %Us %Us %Us %Us %Us %Us %Us %Us %Us %U	15000000 YES yes 230 80 110 20 55 85 110 20 55
EMC compatibility AC coil operating Rated AC voltage at 5	of 50/60Hz coil powered at 50H pick-up drop-or of 50/60Hz coil powered at 60H pick-up drop-or of 60Hz coil powered at 60Hz pick-up	mechanical load dz min max ut min max dz min max dz min max ut min max	v V %Us %Us %Us %Us %Us %Us %Us	15000000 YES yes 230 80 110 20 55 85 110 20 55
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5 AC operating voltage	of 50/60Hz coil powered at 50H pick-up drop-or of 50/60Hz coil powered at 60H pick-up drop-or of 60Hz coil powered at 60Hz	mechanical load dz min max ut min max dz min max dz min max ut min max	V %Us %Us %Us %Us %Us %Us %Us %Us %Us %U	15000000 YES yes 230 80 110 20 55 85 110 20 55

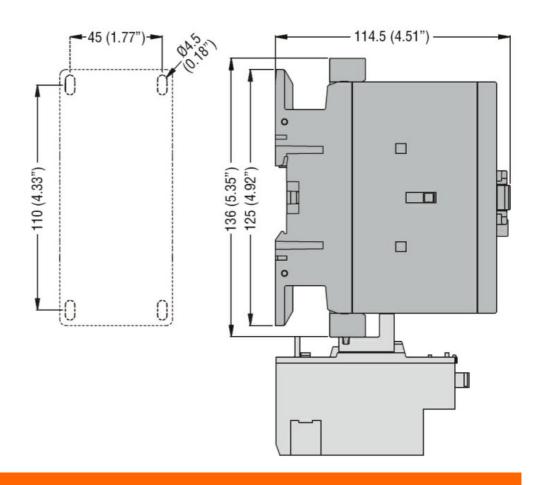
A C avaraga asil asa	tian at 20°C				
AC average coil con		owered at EOUz			
	of 50/60Hz coil p	owered at 50HZ	in-rush	VA	210
			holding	VA VA	15
	of 50/60Hz coil p	nowared at 60Hz	noluling	VA	10
	01 50/60112 COII p	oowered at ooriz	in-rush	VA	195
			holding	VA VA	13
	of 60Hz coil pow	vared at 60Hz	Holding	٧٨	10
	or our iz con pow	ered at our iz	in-rush	VA	210
			holding	VA	15
Dissipation at holding	n <20°C 50Hz		noiding	W	5
Max cycles frequenc				• • • • • • • • • • • • • • • • • • • •	Ü
lechanical operation				cycles/h	3600
Operating times	•			0 9 0100/1	
verage time for Us	control				
	in AC				
		Closing NO			
		3	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
JL technical data					
full-load current (FL	A) for three-phase A	.C motor			
			at 480V	Α	77
			at 600V	A	77
ielded mechanical					
	for three-phase	AC motor			
			200/208V	HP	25
			220/230V	HP	30
			460/480V	HP	60
			575/600V	HP	75
General USE					
	Contactor			_	445
N			AC current	Α	115
Short-circuit protecti					
	High fault				400
			Short circuit current	kA	100
			Fuse rating	Α	200
	00-1-11		Fuse class		J
	Standard fault				4.0
			Short circuit current	kA	10
			–	Λ.	000
			Fuse rating Fuse class	Α	200 RK5

Temperature

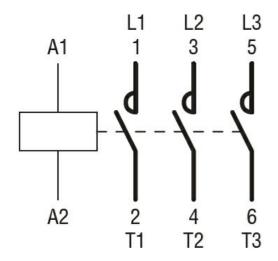
	min	°C	-50
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
Disconsissor			

Dimensions





Wiring diagrams



Certifications and compliance



ENERGY AND AUTOMATION

BF9400A230

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 94A, AC COIL 50/60HZ, 230VAC

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