



			and the
Product designation			Power contactor
Product type designation			BF160
Contact characteristics			
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	250
Operational current le			
	AC-1 (≤40°C)	А	250
	AC-1 (≤55°C)	А	210
	AC-1 (≤70°C)	А	180
	AC-3 (≤440V ≤55°C)	А	160
	AC-4 (400V)	А	75
Rated operational power AC-3 (T≤55°C)			
	230V	kW	45
	400V	kW	75
	415V	kW	90
	440V	kW	90
	500V	kW	110
	690V	kW	132
	1000V	kW	75
Rated operational current AC-3 (T≤55°C)			
	230V	А	160
	400V	А	160
	415V	А	160
	440V	А	160
	500V	А	150
	690V	А	135
	1000V	А	60
Rated operational power AC-1 (T≤40°C)			
	230V	kW	95
	400V	kW	165
	500V	kW	181
	690V	kW	284
IEC max current le in DC1 with $L/R \le 1$ ms with 1 poles in series			
	≤24V	А	250
	48V	А	250
	75V	А	250
	110V	А	110
	220V	А	_
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series			
	<0417	^	250

250

А

≤24V



BF16000E230 3-POLIGES SCHÜTZ, IEC BETRIEBSSTROM LE (AC3) = 160A, AC/DC-SPULE, 100... 250VAC/DC

	48V	А	250
	75V	А	250
	110V	А	150
	220V	А	130
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	А	250
	48V	А	250
	75V	А	250
	110V	А	160
	220V	А	150
	330V	А	130
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	А	250
	48V	А	250
	75V	А	250
	110V	А	250
	220V	А	250
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	А	250
	48V	A	250
	75V	A	160
	110V	A	80
	220V	A	_
IEC max current le in DC3-DC5 with L/R \leq 15ms with 2 poles in series	2201	7	
	≤24V	А	250
	48V	A	250
	48V 75V	A	160
	110V	A	120
	220V	A	90
IEC max current to in DC3 DC5 with $1/P < 15$ ms with 3 poles in series	220 V	A	90
IEC max current le in DC3-DC5 with L/R \leq 15ms with 3 poles in series	≤24V	^	250
	≤24V 48V	A	250
		A	250
	75V	A	160
	110V	A	140
	220V	A	120
	330V	A	90
IEC max current le in DC3-DC5 with L/R \leq 15ms with 4 poles in series	-0.0.4		050
	≤24V	A	250
	48V	A	250
	75V	A	160
	110V	A	140
	220V	A	140
	330V	A	140
	460V	A	90
Short-time allowable current for 10s (IEC/EN60947-1)		Α	1280
Protection fuse			
	gG (IEC)	A	315
	aM (IEC)	A	200
Making capacity (RMS value)		A	1360
Breaking capacity at voltage			
	440V	А	1360
	500V	А	1326
	690V	Α	1139
Resistance per pole (average value)		mΩ	0.18

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Power dissipation per pole (avera	age value)			
		lth	W	11
		AC-3	W	4.5
Tightening torque for terminals				
		min	Nm	18
		max	Nm	18
		min	Ibin	159
		max	Ibin	159
Tightening torque for coil termina	51	Шах		100
		min	Nm	0.8
		max	Nm	1 IP00
Power terminal protection accord	aing to IEC/EN 60529			IP00
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw
Weight			g	3000
Operations				
Nechanical life			cycles	10000000
Electrical life			cycles	1000000
Safety related data				
Performance level B10d accordi	ng to EN/ISO 13489-1			
		rated load	cycles	1000000
EMC compatibility				yes
				,
AC coll operating				
AC coil operating Rated AC voltage at 50/60Hz, 60)Hz			
AC coil operating Rated AC voltage at 50/60Hz, 60)Hz	min	V	100
i e e)Hz	min max	V V	100 250
Rated AC voltage at 50/60Hz, 60)Hz	min max	V V	100 250
Rated AC voltage at 50/60Hz, 60 AC operating voltage				
Rated AC voltage at 50/60Hz, 60 AC operating voltage	Hz coil powered at 50Hz			
Rated AC voltage at 50/60Hz, 60 AC operating voltage		max	V	250
Rated AC voltage at 50/60Hz, 60 AC operating voltage	Hz coil powered at 50Hz	max min	V %Us	250 80 Us min
Rated AC voltage at 50/60Hz, 60 AC operating voltage	Hz coil powered at 50Hz pick-up	max	V	250
Rated AC voltage at 50/60Hz, 60 AC operating voltage	Hz coil powered at 50Hz	max min max	V %Us %Us	250 80 Us min 110 Us max
Rated AC voltage at 50/60Hz, 60 AC operating voltage of 50/60	Hz coil powered at 50Hz pick-up drop-out	max min	V %Us	250 80 Us min
Rated AC voltage at 50/60Hz, 60 AC operating voltage of 50/60	Hz coil powered at 50Hz pick-up drop-out Hz coil powered at 60Hz	max min max	V %Us %Us	250 80 Us min 110 Us max
Rated AC voltage at 50/60Hz, 60 AC operating voltage of 50/60	Hz coil powered at 50Hz pick-up drop-out	max min max max	V %Us %Us %Us	250 80 Us min 110 Us max ≤70 Us min
Rated AC voltage at 50/60Hz, 60 AC operating voltage of 50/60	Hz coil powered at 50Hz pick-up drop-out Hz coil powered at 60Hz	max min max max min	V %Us %Us %Us	250 80 Us min 110 Us max ≤70 Us min 80 Us min
Rated AC voltage at 50/60Hz, 60 AC operating voltage of 50/60	Hz coil powered at 50Hz pick-up drop-out Hz coil powered at 60Hz pick-up	max min max max	V %Us %Us %Us	250 80 Us min 110 Us max ≤70 Us min
Rated AC voltage at 50/60Hz, 60 AC operating voltage of 50/60	Hz coil powered at 50Hz pick-up drop-out Hz coil powered at 60Hz	max min max max min max	V %Us %Us %Us %Us	250 80 Us min 110 Us max ≤70 Us min 110 Us max
Rated AC voltage at 50/60Hz, 60 AC operating voltage of 50/60	Hz coil powered at 50Hz pick-up drop-out Hz coil powered at 60Hz pick-up drop-out	max min max max min	V %Us %Us %Us	250 80 Us min 110 Us max ≤70 Us min 80 Us min
Rated AC voltage at 50/60Hz, 60 AC operating voltage of 50/60 of 50/60	Hz coil powered at 50Hz pick-up drop-out Hz coil powered at 60Hz pick-up drop-out 20°C	max min max max min max	V %Us %Us %Us %Us	250 80 Us min 110 Us max ≤70 Us min 110 Us max
Rated AC voltage at 50/60Hz, 60 AC operating voltage of 50/60 of 50/60	Hz coil powered at 50Hz pick-up drop-out Hz coil powered at 60Hz pick-up drop-out	max min max max max max	V %Us %Us %Us %Us %Us	250 80 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min
Rated AC voltage at 50/60Hz, 60 AC operating voltage of 50/60 of 50/60	Hz coil powered at 50Hz pick-up drop-out Hz coil powered at 60Hz pick-up drop-out 20°C	max min max max min max max max	V %Us %Us %Us %Us	250 80 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min 110 Us max
Rated AC voltage at 50/60Hz, 60 AC operating voltage of 50/60 of 50/60	Hz coil powered at 50Hz pick-up drop-out Hz coil powered at 60Hz pick-up drop-out 20°C	max min max max max max	V %Us %Us %Us %Us %Us	250 80 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min
Rated AC voltage at 50/60Hz, 60 AC operating voltage of 50/60 of 50/60	Hz coil powered at 50Hz pick-up drop-out Hz coil powered at 60Hz pick-up drop-out 20°C	max min max max min max max max	V %Us %Us %Us %Us %Us %Us	250 80 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min 110 Us max
Rated AC voltage at 50/60Hz, 60 AC operating voltage of 50/60 of 50/60	Hz coil powered at 50Hz pick-up drop-out Hz coil powered at 60Hz pick-up drop-out 20°C Hz coil powered at 50Hz	max min max max min max max max	V %Us %Us %Us %Us %Us %Us	250 80 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min 110 Us max
Rated AC voltage at 50/60Hz, 60 AC operating voltage of 50/60 of 50/60	Hz coil powered at 50Hz pick-up drop-out Hz coil powered at 60Hz pick-up drop-out 20°C Hz coil powered at 50Hz	max min max max min max max max	V %Us %Us %Us %Us %Us %Us VA VA	250 80 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min 160230 1.53.0
Rated AC voltage at 50/60Hz, 60 AC operating voltage of 50/60 of 50/60 AC average coil consumption at of 50/60	Hz coil powered at 50Hz pick-up drop-out Hz coil powered at 60Hz pick-up drop-out 20°C Hz coil powered at 50Hz Hz coil powered at 60Hz	max min max max max max max max max	V %Us %Us %Us %Us %Us %Us VA VA	250 80 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min 160230 1.53.0
Rated AC voltage at 50/60Hz, 60 AC operating voltage of 50/60 of 50/60 AC average coil consumption at of 50/60	Hz coil powered at 50Hz pick-up drop-out Hz coil powered at 60Hz pick-up drop-out 20°C Hz coil powered at 50Hz	max min max max max max max max in-rush holding	V %Us %Us %Us %Us %Us %Us VA VA VA VA	250 80 Us min 110 Us max ≤70 Us min 10 Us max ≤70 Us min 160230 1.53.0 160230 1.53.0
Rated AC voltage at 50/60Hz, 60 AC operating voltage of 50/60 of 50/60 AC average coil consumption at of 50/60	Hz coil powered at 50Hz pick-up drop-out Hz coil powered at 60Hz pick-up drop-out 20°C Hz coil powered at 50Hz Hz coil powered at 60Hz	max min max max max max max max max	V %Us %Us %Us %Us %Us %Us VA VA	250 80 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min 160230 1.53.0

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DC coil operating					
DC rated control voltag	16				
	<u>_</u>		min	V	100
				V	
			max	V	250
DC operating voltage					
	pick-up		_		
			min	%Us	85 Us min
			max	%Us	110 Us max
	drop-out				
			max	%Us	≤70 Us min
Average coil consumption	tion ≤20°C				
			in-rush	W	160230
			holding	W	1.53.0
Max cycles frequency					
Mechanical operation				cycles/h	1000
Operating times				,	
Average time for Us co	ontrol				
	in AC				
	III AO	Closing NO			
			min	ms	50
					100
			max	ms	100
		Opening NO			05
			min	ms	35
			max	ms	75
UL technical data	<i>.</i>				
Yielded mechanical pe					
	for three-phase AC mo	otor			
			200/208V	HP	50
			220/230V	HP	60
			460/480V	HP	125
			575/600V	HP	150
General USE					
	Contactor				
			AC current	А	250
Short-circuit protection	fuse, 600V				
,	High fault				
	5		Short circuit current	kA	100
			Fuse rating	A	400
			Fuse class		J
	Standard fault				-
			Short circuit current	kA	10
			Fuse rating	A	400
			Fuse class	~	RK5
Ambient conditions					
Ambient conditions					
Temperature					
	Operating temperature	9			10
			min	°C	-40

	min	°C	-40	
	max	°C	70	
Storage temperature				
	min	°C	-50	
	max	°C	80	
Max altitude		m	3000	
Resistance & Protection				
Pollution degree			3	

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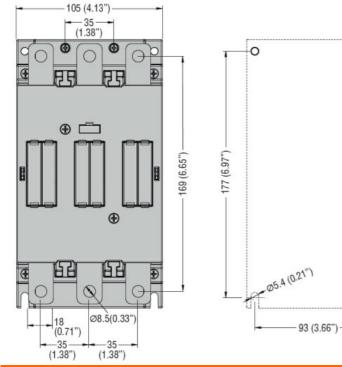
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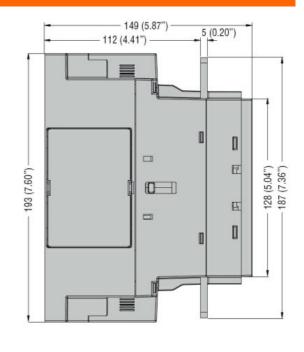


3-POLIGES SCHÜTZ, IEC BETRIEBSSTROM LE (AC3) = 160A, AC/DC-SPULE, 100... 250VAC/DC

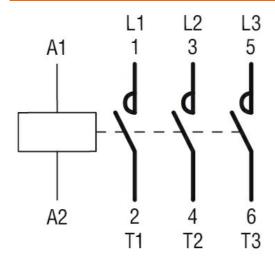
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Dimensions





Wiring diagrams



Certifications and 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	
cULus	
1	
	EC000066 - Power contactor, AC switching
	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

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