BF16000E400



THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 160A, AC/DC COIL, 250... 500VAC/DC



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 ≤ 1ms with 2 poles in series			
'	<2417	^	250

≤24V

250

А

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	48V	А	250
	75V	А	250
	110V	А	150
	220V	A	130
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	2201		100
	≤24V	۸	250
		A	250
	48V	А	250
	75V	А	250
	110V	А	160
	220V	А	150
	330V	Α	130
IEC max current le in DC1 with $L/R \le 1$ ms with 4 poles in series			
	≤24V	А	250
	48V	А	250
	75V	А	250
	110V	A	250
	220V	A	250
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 1 poles in series	2201		200
Le max canone le m Deo Deo with Ent = Tomb with T polos in solles	≤24V	А	250
	≤24V 48V		
		A	250
	75V	A	160
	110V	А	80
	220V	A	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 2 poles in series			
	≤24V	Α	250
	48V	Α	250
	75V	А	160
	110V	А	120
	220V	А	90
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 3 poles in series			
	≤24V	А	250
	48V	А	250
	75V	A	160
	110V	A	140
	220V		
		A	120
	330V	Α	90
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 4 poles in series		_	
	≤24V	Α	250
	48V	А	250
	75V	А	160
	110V	А	140
	220V	А	140
	330V	А	140
	460V	А	90
Short-time allowable current for 10s (IEC/EN60947-1)		А	1280
Protection fuse			
	gG (IEC)	А	315
	aM (IEC)	A	200
Making capacity (RMS value)	()	A	1360
Breaking capacity at voltage			
	440V	А	1360
	440V 500V	A	1326
	500V 690V		1326
Posistance per polo (averago valuo)	0907	A 	
Resistance per pole (average value)		mΩ	0.18
	time. The descriptions	technical	a m d

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Power dissipation per pole (average value)			
	Ith	W	11
	AC-3	W	4.5
Fightening torque for terminals			
	min	Nm	18
	max	Nm	18
	min	Ibin	159
	max	Ibin	159
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
Power terminal protection according to IEC/EN 60529			IP00
Mechanical features			
Dperating position			
	normal		Vertical plan
	allowable		±30°
Fixing			Screw
Weight		g	3000
Operations		3	
Mechanical life		cycles	10000000
Electrical life		cycles	1000000
Safety related data		0,0100	
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	1000000
-110		Cycle3	
-MC compatibility			VAS
EMC compatibility			yes
AC coil operating			yes
	min	V	
AC coil operating	min	V	250
AC coil operating Rated AC voltage at 50/60Hz, 60Hz	min max	V V	
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage			250
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz			250
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage	max	V	250 500
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz	max min	V %Us	250 500 80 Us min
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up	max	V	250 500
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz	max min max	V %Us %Us	250 500 80 Us min 110 Us max
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out	max min	V %Us	250 500 80 Us min
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	max min max	V %Us %Us	250 500 80 Us min 110 Us max
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out	max min max max	V %Us %Us %Us	250 500 80 Us min 110 Us max ≤70 Us min
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	max min max max min	V %Us %Us %Us	250 500 80 Us min 110 Us max ≤70 Us min 80 Us min
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up	max min max max	V %Us %Us %Us	250 500 80 Us min 110 Us max ≤70 Us min
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz	max min max max min max	V %Us %Us %Us %Us %Us	250 500 80 Us min 110 Us max ≤70 Us min 110 Us max
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out	max min max max min	V %Us %Us %Us	250 500 80 Us min 110 Us max ≤70 Us min 80 Us min
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out AC average coil consumption at 20°C	max min max max min max	V %Us %Us %Us %Us %Us	250 500 80 Us min 110 Us max ≤70 Us min 110 Us max
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out	max min max max max max	V %Us %Us %Us %Us %Us	250 500 80 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out AC average coil consumption at 20°C	max min max max min max max max	V %Us %Us %Us %Us %Us %Us	250 500 80 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min 110 Us max
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out 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 max max max	V %Us %Us %Us %Us %Us	250 500 80 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out of 50/60Hz coil powered at 60Hz pick-up drop-out AC average coil consumption at 20°C	max min max max max max max max	V %Us %Us %Us %Us %Us %Us VA VA	250 500 80 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out 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 max max max max max max	V %Us %Us %Us %Us %Us %Us %Us %Us %Us	250 500 80 Us min 110 Us max ≤70 Us min 110 Us max
AC coll operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out 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 of 50/60Hz coil powered at 50Hz	max min max max max max max max	V %Us %Us %Us %Us %Us %Us VA VA	250 500 80 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min
AC coil operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out 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 max max max max max max	V %Us %Us %Us %Us %Us %Us VA VA VA VA	250 500 80 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min 160230 1.53.0 160230 1.53.0
AC coll operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out 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 of 50/60Hz coil powered at 50Hz	max min max max max max max max max	V %Us %Us %Us %Us %Us %Us %Us %Us %Us	250 500 80 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min 110 Us max
AC coll operating Rated AC voltage at 50/60Hz, 60Hz AC operating voltage of 50/60Hz coil powered at 50Hz pick-up drop-out 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 of 50/60Hz 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	250 500 80 Us min 110 Us max ≤70 Us min 110 Us max ≤70 Us min 160230 1.53.0 160230 1.53.0



electric THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 160A, AC/DC COIL, 250...

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500VAC/DC

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DC coil operating					
DC rated control volt	age				
			min	V	250
			max	V	500
DC operating voltage					
	pick-up				
			min	%Us	85 Us min
			max	%Us	110 Us max
	drop-out			o () . I	
A			max	%Us	≤70 Us min
Average coil consum	1 ption $\leq 20^{\circ}$ C		in mah	14/	460 000
			in-rush	W W	160230 1.53.0
Max cycles frequenc	M		holding	VV	1.55.0
Mechanical operation	-			cycles/h	1000
Operating times	• 			5y0165/11	
Average time for Us	control				
	in AC				
		Closing NO			
			min	ms	50
			max	ms	100
		Opening NO			
		-	min	ms	35
			max	ms	75
UL technical data					
Yielded mechanical					
	for three-phase AC me	otor			
			200/208V	HP	50
			220/230V	HP	60
			460/480V	HP	125
			575/600V	HP	150
General USE	Orantesta				
	Contactor		AC current	۸	250
Chart airquit protocti	an fuer 600 /		AC current	A	250
Short-circuit protection					
	High fault		Short circuit current	kA	100
			Fuse rating	кА А	400
			Fuse class	~	400 J
	Standard fault		1 400 01400		
			Short circuit current	kA	10
			Fuse rating	A	400
			Fuse class		RK5
Ambient conditions					
Temperature					
	Operating temperature	e			
			min	°C	-40
			max	°C	70
	Storage temperature				
			min	°C	-50
			max	°C	80
Max altitude				m	3000
Resistance & Protec	tion				
Pollution degree					3

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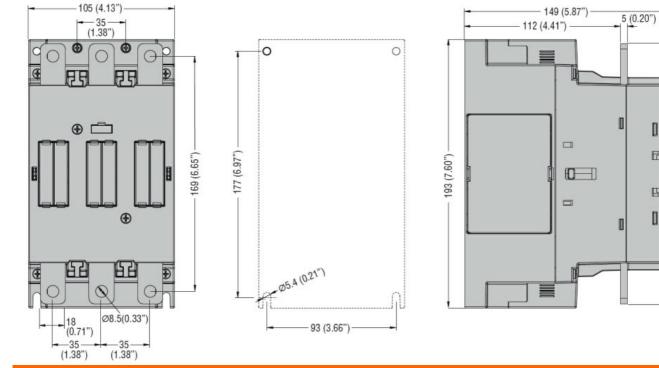
128 (5.04") 187 (7.36")

electric THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 160A, AC/DC COIL, 250... 500VAC/DC

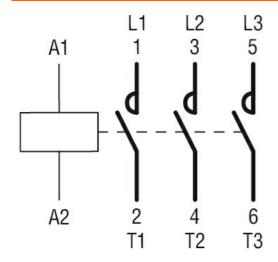
ENERGY AND AUTOMATION

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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		
	cULus	
ETIM classification		
ETIM 8.0		EC000066 - Power contactor, AC switching

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