



Product designation Product type designation			Power contactor BF160
Contact characteristics			
Number of poles		Nr.	4
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		Α	250
Operational current le			
	AC-1 (≤40°C)	Α	250
	AC-1 (≤55°C)	Α	210
	AC-1 (≤70°C)	Α	180
	AC-3 (≤440V ≤55°C)	Α	160
	AC-4 (400V)	A	75
Rated operational current AC-3 (T≤55°C)	2221		4.00
	230V	Α	160
	400V	Α	160
	415V	A	160
	440V	A	160
	500V	A	150
	690V	A	135
Rated operational power AC-1 (T≤40°C)	1000V	Α	60
Rated operational power AC-1 (1540 C)	230V	LAAA	0.E
	400V	kW kW	95 165
	500V	kW	181
	690V	kW	284
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series	090 V	KVV	204
120 max current le in 201 with 2/1 = 1ms with 1 poles in series	≤24V	Α	250
	48V	A	250
	75V	A	250
	110V	A	110
	220V	A	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	2201	- , ,	
sarronk to in 50 t mai 210 = 1110 mai 2 poloo iii oolloo	≤24V	Α	250
	48V	Α	250
	75V	A	250
	110V	Α	150
	220V	Α	130
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	<u> </u>		
·	≤24V	Α	250
	48V	Α	250
	75V	Α	250



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	110V	Α	160
	220V	Α	150
	330V	Α	130
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
·	≤24V	Α	250
	48V	Α	250
	75V	Α	250
	110V	Α	250
	220V	Α	250
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	250
	48V	Α	250
	75V	A	160
	110V	A	80
	220V	A	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	220 V		
ILO max current le in Dos-Dos with Lift = 15ms with 2 poles in series	≤24V	Α	250
	≤24 V 48 V	A	250
	48 V 75 V		250 160
		A	
	110V	A	120
150 H. I. BOO BOE 111 L/B 445 H. I. I.	220V	Α	90
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	-0.1V		0.50
	≤24V	Α	250
	48V	Α	250
	75V	Α	160
	110V	Α	140
	220V	Α	120
	330V	A	90
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	250
	48V	Α	250
	75V	Α	160
	110V	Α	140
	220V	Α	140
	330V	Α	140
	460V	Α	90
Short-time allowable current for 10s (IEC/EN60947-1)		Α	1280
Protection fuse			_
	gG (IEC)	Α	315
	aM (IEC)	Α	200
Making capacity (RMS value)		Α	1360
Breaking capacity at voltage			
	440V	Α	1360
	500V	Α	1326
	690V	Α	1139
Resistance per pole (average value)		mΩ	0.18
Power dissipation per pole (average value)			
, , , , , , , , , , , , , , , , , , , ,	Ith	W	11
	AC-3	W	4.5
Tightening torque for terminals			
5 · - · · · · · · · · · · · · · · · · ·	min	Nm	18
	max	Nm	18
	min	lbin	159
	max	Ibin	159
	IIIAA	10111	100



BF160T4E230

Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
Power terminal protection according to IEC/EN 60529			IP00
Mechanical features			
Operating position			
	normal		Vertical plan
	allowable		±30°
Fixing			Screw
Veight		g	4000
Operations			
Mechanical life		cycles	10000000
Electrical life		cycles	1000000
Safety related data			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	1000000
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 50/60Hz, 60Hz			
•	min	V	100
	max	V	250
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
pick-up			
p.o 4p	min	%Us	80 Us min
	max	%Us	110 Us max
drop-out	max	7000	110 00 max
Grop out	max	%Us	≤70 Us min
of 50/60Hz coil powered at 60Hz	тах	7000	=7 0 00 mm
pick-up			
ριοκ αρ	min	%Us	80 Us min
	max	%Us	110 Us max
drop-out	IIIdA	/003	110 03 max
diop-out	max	%Us	≤70 Us min
AC average coil consumption at 20°C	Παλ	/003	270 05 IIIII
· ·			
of 50/60Hz coil powered at 50Hz	مامين سيا	١/٨	160 000
	in-rush	VA	160230
of 50/001	holding	VA	1.53.0
of 50/60Hz coil powered at 60Hz	in much	١/٨	400 000
	in-rush	VA	160230
of coldens in a color of cold	holding	VA	1.53.0
of 60Hz coil powered at 60Hz		١/٨	100 000
	in-rush	VA	160230
D' ' ' ' ' ' '	holding	VA	1.53.0
Dissipation at holding ≤20°C 50Hz		W	1.53.0
OC coil operating			
DC rated control voltage			
	min	V	100
		\ /	250
	max	V	200
DC operating voltage	max	V	230
DC operating voltage pick-up	max		
	max min	V %Us	85 Us min

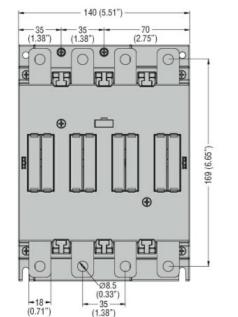


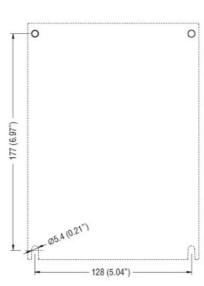


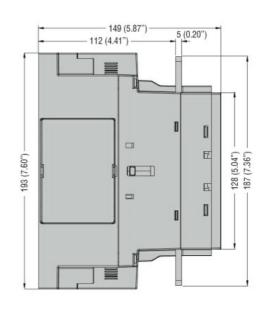
	drop-out			
	arop out	max	%Us	≤70 Us min
Average coil consump	tion ≤20°C			
		in-rush	W	160230
		holding	W	1.53.0
Max cycles frequency				
Mechanical operation			cycles/h	1000
Operating times				
Average time for Us co				
	in AC			
	Closing NO			
		min	ms	50
		max	ms	100
	Opening NO			0.5
		min	ms	35
III taabataa lalata		max	ms	75
UL technical data	a who were a co			
Yielded mechanical pe				
	for three-phase AC motor	200/208V	UD	E0
		200/208V 220/230V	HP	50
			HP	60
		460/480V 575/600V	HP HP	125 150
General USE		373/0007	ПР	150
General USE	Contactor			
	Contactor	AC current	Α	250
Short-circuit protection	n fuse 600V	AO current		200
Orion circuit protection	High fault			
	riigiriaait	Short circuit current	kA	100
		Fuse rating	A	400
		Fuse class	,,	J
	Standard fault	1 400 01400		
	Claridata radic	Short circuit current	kA	10
		Fuse rating	A	400
		Fuse class		RK5
Ambient conditions		. 333 3.400		
Temperature				
•	Operating temperature			
		min	°C	-40
		max	°C	70
	Storage temperature			
		min	°C	-50
		max	°C	80
Max altitude			m	3000
Resistance & Protection	on			
Pollution degree				3
Dimensions				

**ENERGY AND AUTOMATION** 

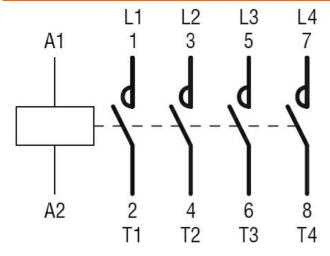
#### FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 250A, AC/DC COIL, 100...250VAC/DC







#### 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