



Product designation
Product type designation

Power contactor
BF230

Contact characteristics

Number of poles	Nr.	4
Rated insulation voltage U _i IEC/EN	V	1000
Rated impulse withstand voltage U _{imp}	kV	8
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I _{th}	A	350
Operational current I _e	AC-1 (≤40°C)	A 350
	AC-1 (≤55°C)	A 290
	AC-1 (≤70°C)	A 250
	AC-4 (400V)	A 110
Rated operational power AC-1 (T≤40°C)	230V	kW 132
	400V	kW 230
	500V	kW 253
	690V	kW 397
IEC max current I _e in DC1 with L/R ≤ 1ms with 1 poles in series	≤24V	A 350
	48V	A 350
	75V	A 350
	110V	A 145
	220V	A –
IEC max current I _e in DC1 with L/R ≤ 1ms with 2 poles in series	≤24V	A 350
	48V	A 350
	75V	A 350
	110V	A 270
	220V	A 225
IEC max current I _e in DC1 with L/R ≤ 1ms with 3 poles in series	≤24V	A 350
	48V	A 350
	75V	A 350
	110V	A 270
	220V	A 270
	330V	A 225
IEC max current I _e in DC1 with L/R ≤ 1ms with 4 poles in series	≤24V	A 350
	48V	A 350
	75V	A 350
	110V	A 350
	220V	A 350

IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series

≤24V	A	350
48V	A	350
75V	A	250
110V	A	135
220V	A	–

IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series

≤24V	A	350
48V	A	350
75V	A	250
110V	A	225
220V	A	180

IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series

≤24V	A	350
48V	A	350
75V	A	250
110V	A	250
220V	A	225
330V	A	180

IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series

≤24V	A	350
48V	A	350
75V	A	250
110V	A	250
220V	A	225
330V	A	210
460V	A	180

Short-time allowable current for 10s (IEC/EN60947-1)

A 1840

Protection fuse

gG (IEC)	A	400
aM (IEC)	A	250

Making capacity (RMS value)

A 2300

Breaking capacity at voltage

440V	A	1840
500V	A	1472
690V	A	1296

Resistance per pole (average value)

mΩ 0.18

Power dissipation per pole (average value)

Ith	W	21
AC-3	W	9.3

Tightening torque for terminals

min	Nm	18
max	Nm	18
min	lbin	159
max	lbin	159

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 allowable	Vertical plan ±30°
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Fixing	Screw		
Weight	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
	mechanical load	cycles	10000000
EMC compatibility			
yes			
AC coil operating			
Rated AC voltage at 50/60Hz, 60Hz			
	min	V	250
	max	V	500
AC operating voltage			
	of 50/60Hz coil powered at 50Hz		
	pick-up		
	min	%Us	80 Us min
	max	%Us	110 Us max
	drop-out		
	min	%Us	20
	max	%Us	≤70 Us min
	of 50/60Hz coil powered at 60Hz		
	pick-up		
	min	%Us	80 Us min
	max	%Us	110 Us max
	drop-out		
	min	%Us	20
	max	%Us	≤70 Us min
AC average coil consumption at 20°C			
	of 50/60Hz coil powered at 50Hz		
	in-rush	VA	160...230
	holding	VA	1.5...3.0
	of 50/60Hz coil powered at 60Hz		
	in-rush	VA	160...230
	holding	VA	1.5...3.0
	of 60Hz coil powered at 60Hz		
	in-rush	VA	160...230
	holding	VA	1.5...3.0
Dissipation at holding ≤20°C 50Hz		W	1.5...3.0
DC coil operating			
DC rated control voltage			
	min	V	250
	max	V	500
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 ≤20°C			
	in-rush	W	160...230
	holding	W	1.5...3.0

Max cycles frequency

Mechanical operation cycles/h 1000

Operating times

Average time for Us control

in AC

Closing NO

min	ms	50
max	ms	100

Opening NO

min	ms	30
max	ms	75

UL technical data

Rated operational voltage AC (UL) V 600

Yielded mechanical performance

for three-phase AC motor

200/208V	HP	75
220/230V	HP	75
460/480V	HP	150
575/600V	HP	200

General USE

Contactor

AC current	A	350
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Short-circuit protection fuse, 600V

High fault

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

Temperature

Operating temperature

min	°C	-40
max	°C	70

Storage temperature

min	°C	-50
max	°C	80

Max altitude

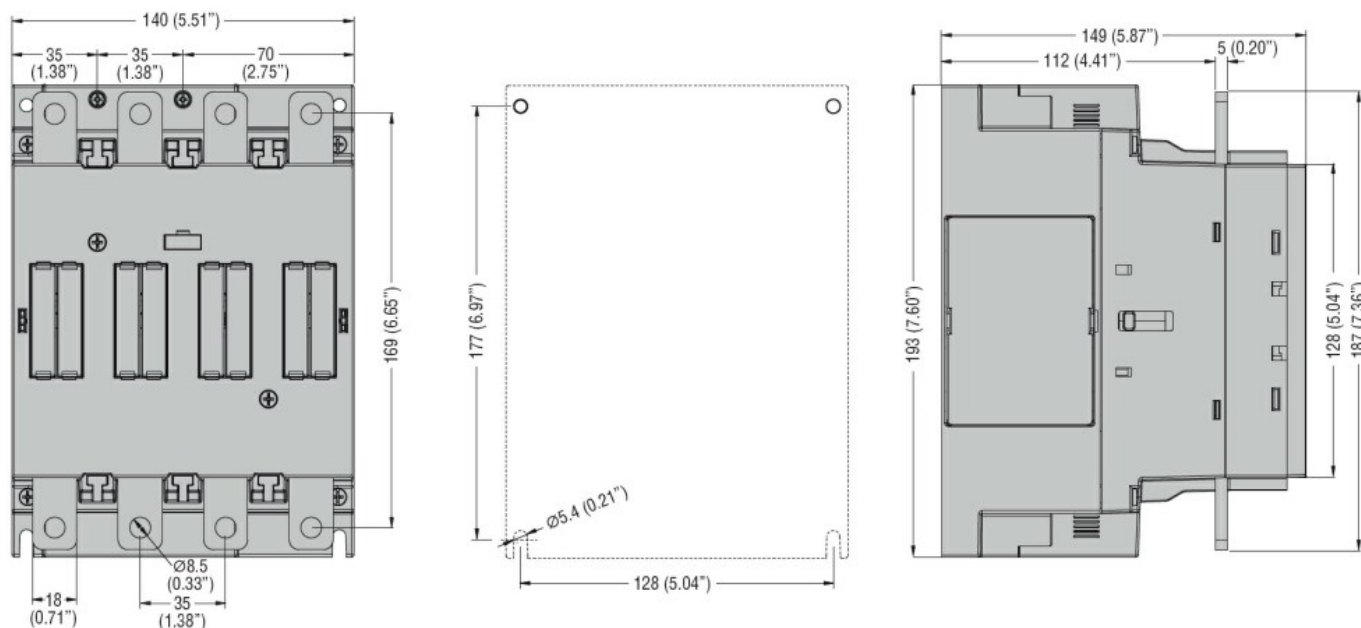
m	3000
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Resistance & Protection

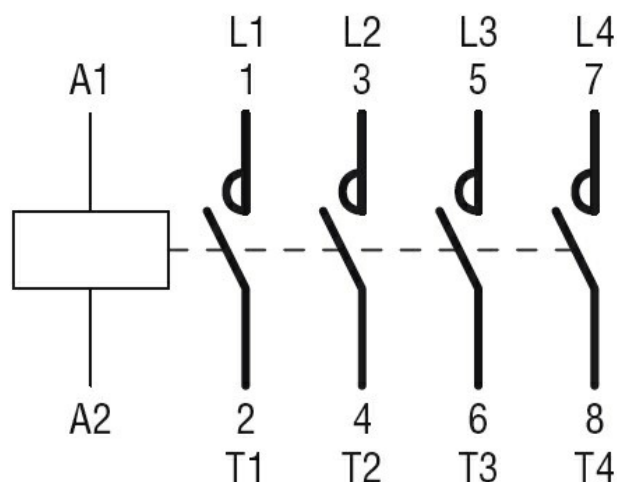
Pollution degree

3

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