



Power contactor  
BF230

Product designation

Product type designation

**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 ( $\leq 40^\circ\text{C}$ )	A 350
	AC-1 ( $\leq 55^\circ\text{C}$ )	A 290
	AC-1 ( $\leq 70^\circ\text{C}$ )	A 250
	AC-3 ( $\leq 440\text{V} \leq 55^\circ\text{C}$ )	A 230
	AC-4 (400V)	A 110
Rated operational power AC-1 ( $T \leq 40^\circ\text{C}$ )	230V	kW 132
	400V	kW 230
	500V	kW 253
	690V	kW 397
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A 350
	48V	A 350
	75V	A 350
	110V	A 145
	220V	A –
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	$\leq 24\text{V}$	A 350
	48V	A 350
	75V	A 350
	110V	A 270
	220V	A 225
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series	$\leq 24\text{V}$	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 $L/R \leq 1\text{ms}$ with 4 poles in series	$\leq 24\text{V}$	A 350
	48V	A 350
	75V	A 350
	110V	A 350

	220V	A	350
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series			
	$\leq 24\text{V}$	A	350
	48V	A	350
	75V	A	250
	110V	A	135
	220V	A	–
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series			
	$\leq 24\text{V}$	A	350
	48V	A	350
	75V	A	250
	110V	A	225
	220V	A	180
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series			
	$\leq 24\text{V}$	A	350
	48V	A	350
	75V	A	250
	110V	A	250
	220V	A	225
	330V	A	180
IEC max current $I_e$ in DC3-DC5 with $L/R \leq 15\text{ms}$ with 4 poles in series			
	$\leq 24\text{V}$	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)		m $\Omega$	0.18
Power dissipation per pole (average value)			
	I <sub>th</sub>	W	21
	AC3	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
<b>Mechanical features</b>			
Operating position			
	normal		Vertical plan

	allowable		±30°
Fixing			Screw
Weight		g	4000
<b>Operations</b>			
Mechanical life		cycles	10000000
Electrical life		cycles	1000000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	1000000
EMC compatibility			yes
<b>AC coil operating</b>			
Rated AC voltage at 50/60Hz, 60Hz			
	min	V	100
	max	V	250
<b>AC operating voltage</b>			
	of 50/60Hz coil powered at 50Hz		
	pick-up		
	min	%Us	80 Us min
	max	%Us	110 Us max
	drop-out		
	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		
	max	%Us	≤70 Us min
<b>AC average coil consumption at 20°C</b>			
	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
<b>DC coil operating</b>			
DC rated control voltage			
	min	V	100
	max	V	250
<b>DC operating voltage</b>			
	pick-up		
	min	%Us	85 Us min
	max	%Us	110 Us max
	drop-out		
	max	%Us	≤70 Us min
<b>Average coil consumption ≤20°C</b>			
	in-rush	W	160...230
	holding	W	1.5...3.0
<b>Max cycles frequency</b>			
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

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

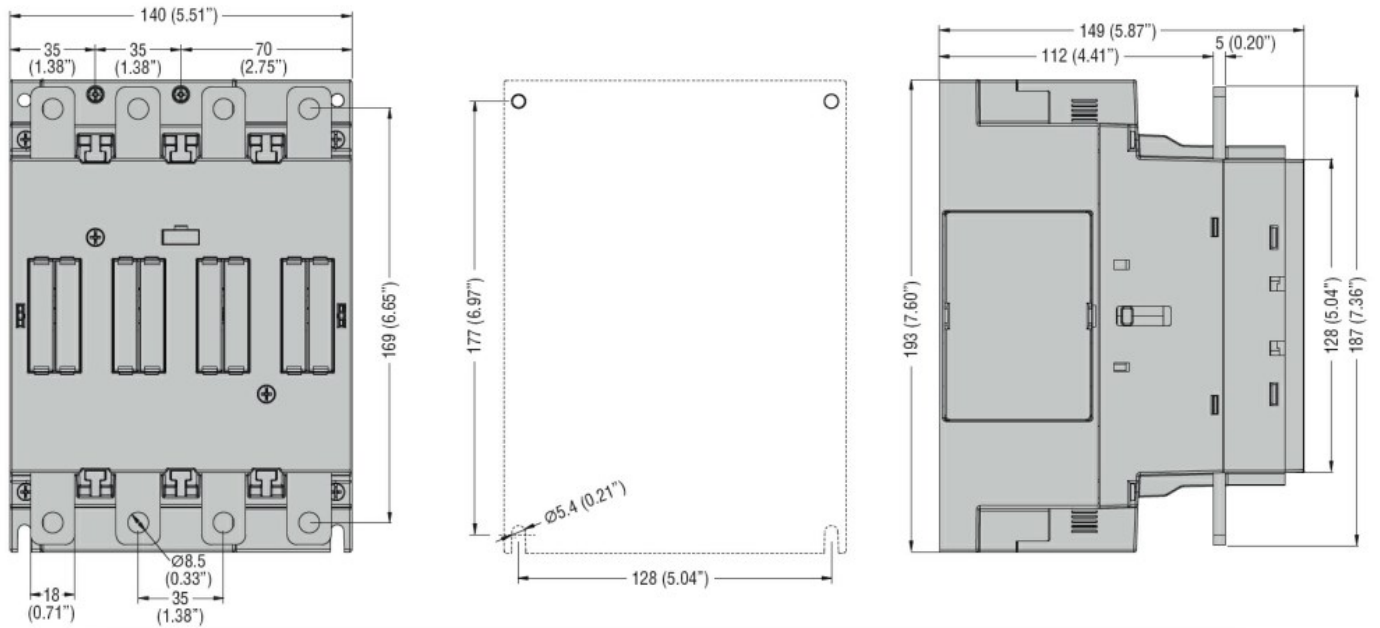
m	3000
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### Resistance & Protection

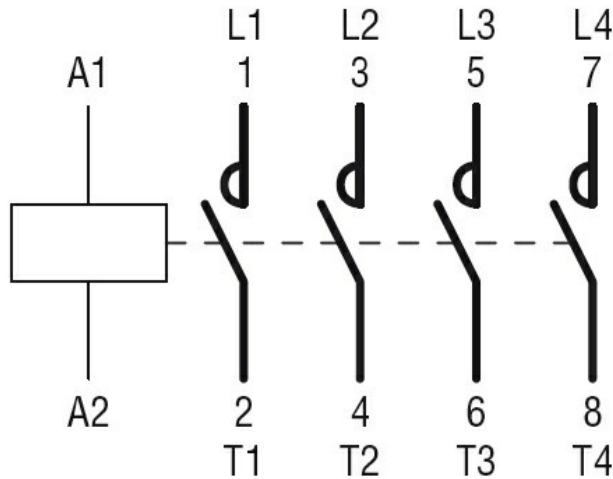
Pollution degree

3

### Dimensions [mm (in)]



### 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