



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-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
IEC max current $I_e$ in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series	330V	A 225
	$\leq 24\text{V}$	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	–
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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
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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
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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
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Short-time allowable current for 10s (IEC/EN60947-1)		A	1840
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Protection fuse	gG (IEC)	A	400
	aM (IEC)	A	250
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Making capacity (RMS value)		A	2300
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Breaking capacity at voltage	440V	A	1840
	500V	A	1472
	690V	A	1296
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Resistance per pole (average value)		mΩ	0.18
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Power dissipation per pole (average value)	Ith	W	21
	AC-3	W	9.3
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Tightening torque for terminals	min	Nm	18
	max	Nm	18
	min	Ibin	159
	max	Ibin	159
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Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
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Power terminal protection according to IEC/EN 60529			IP00
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<b>Mechanical features</b>			
Operating position		normal allowable	Vertical plan ±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	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	
<b>DC coil operating</b>				
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	
<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
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

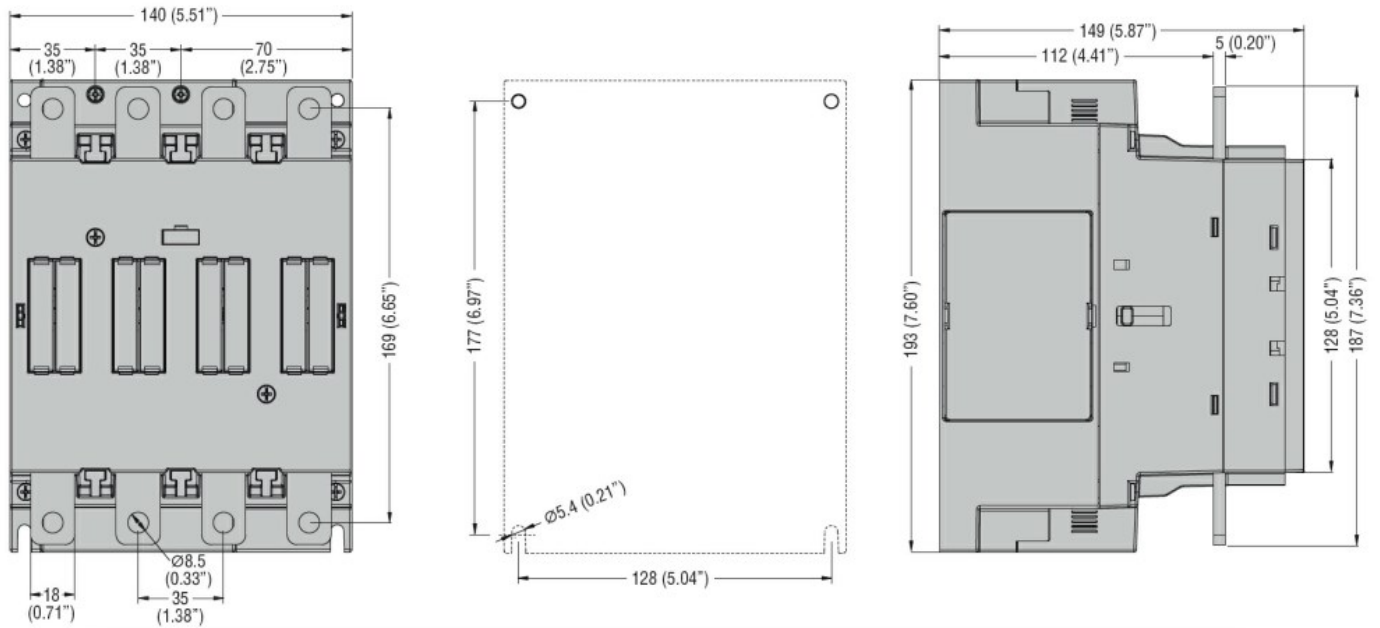
**Ambient conditions**

Temperature	Operating temperature	min	°C	-40
		max	°C	70
	Storage temperature	min	°C	-50
		max	°C	80
Max altitude			m	3000

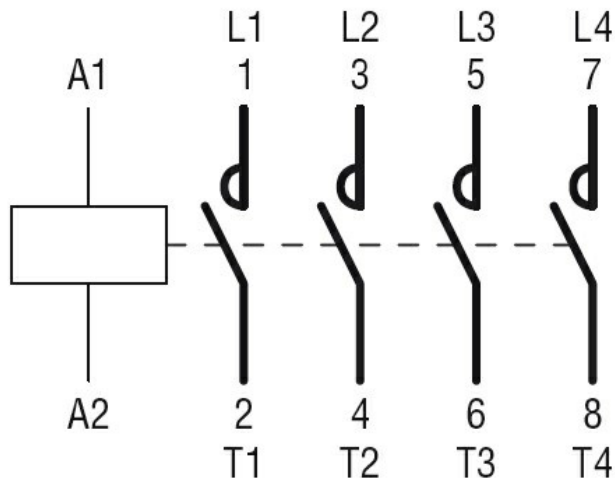
**Resistance & Protection**

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