



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
	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 ≤ 15ms with 1 poles in series			
≤24V	A	350	
48V	A	350	
75V	A	250	
110V	A	135	
220V	A	–	
IEC max current I _e 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 I _e 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 I _e 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)			
	I _{th}	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°	

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
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

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

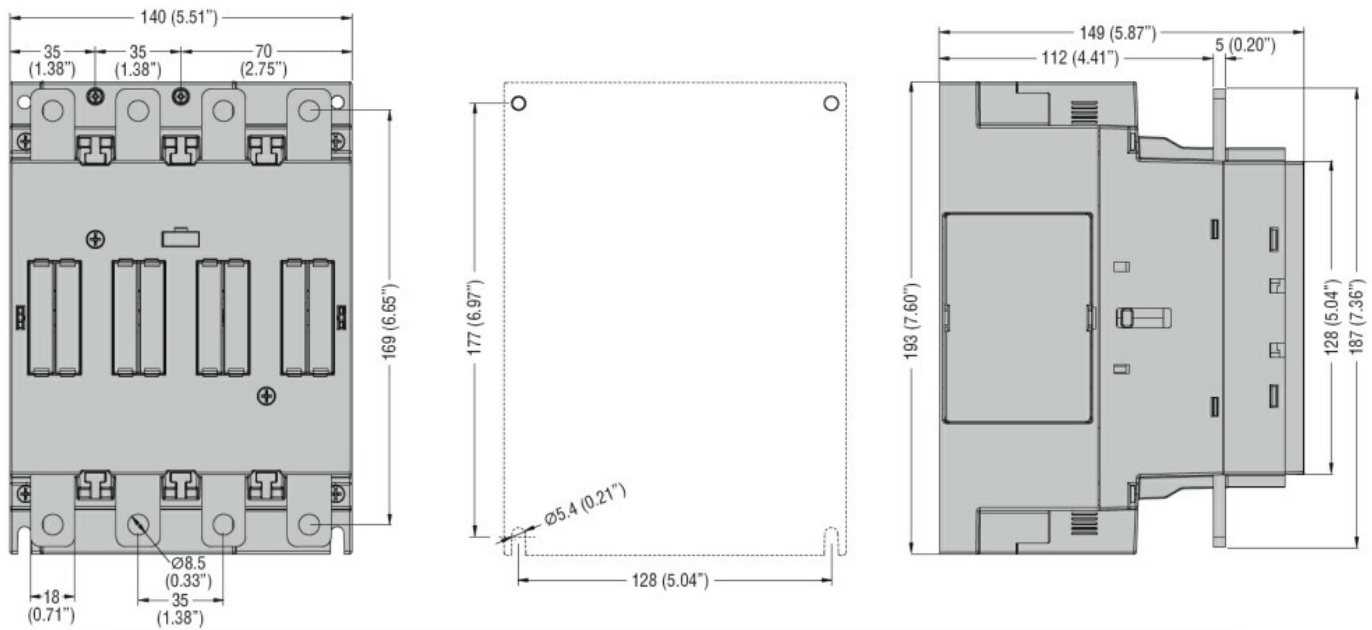
m	3000
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Resistance & Protection

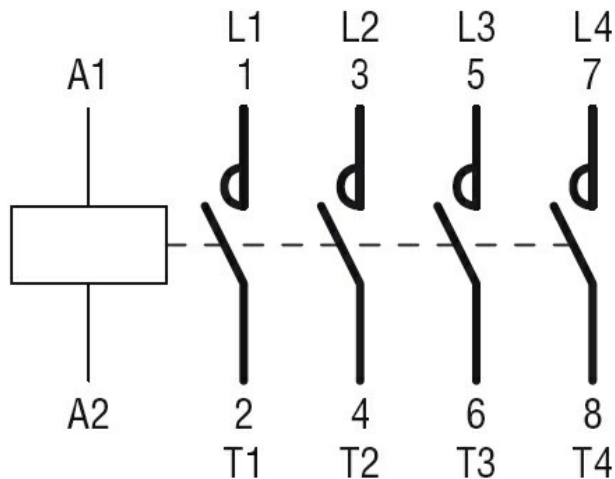
Pollution degree

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