



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	$\leq 24\text{V}$	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	–
	<hr/>		
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
	<hr/>		
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
<hr/>			
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
<hr/>			
Short-time allowable current for 10s (IEC/EN60947-1)		A	1840
	<hr/>		
Protection fuse	gG (IEC)	A	400
	aM (IEC)	A	250
<hr/>			
Making capacity (RMS value)		A	2300
<hr/>			
Breaking capacity at voltage	440V	A	1840
	500V	A	1472
	690V	A	1296
<hr/>			
Resistance per pole (average value)		mΩ	0.18
<hr/>			
Power dissipation per pole (average value)	Ith	W	21
	AC-3	W	9.3
<hr/>			
Tightening torque for terminals	min	Nm	18
	max	Nm	18
	min	Ibin	159
	max	Ibin	159
<hr/>			
Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
<hr/>			
Power terminal protection according to IEC/EN 60529			IP00
<hr/>			
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
-----------	------------	---	-----

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

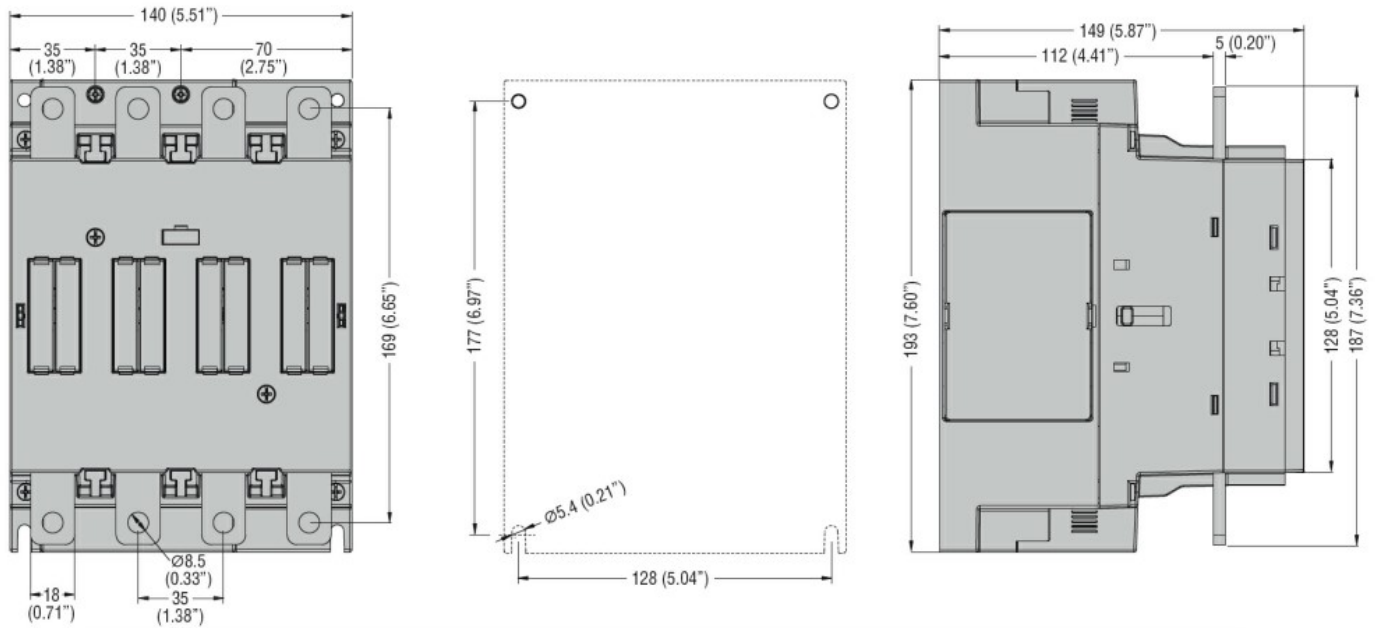
Ambient conditions

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

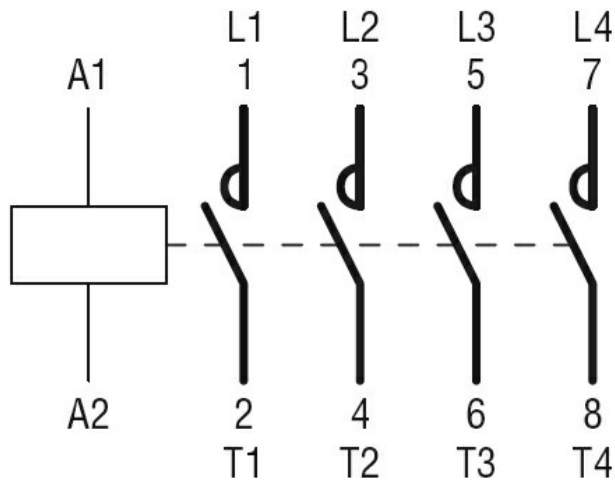
Resistance & Protection

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