BFL23000B230

THREE-POLE CONTACTOR, WITH MAGNETIC LATCHING, OPERATING CURRENT ITH (AC1) 350A, COIL 230VAC/DC

Product designation			Power contactor
Product type designation			BF230
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		A	350
Operational current Ie			
	AC-1 (≤40°C)	A	350
	AC-1 (≤55°C)	A	290
	AC-1 (≤70°C)	A	250
	AC-3 (≤440V ≤55°C)	A	230
	AC-4 (400V)	A	110
Rated operational power AC-3 (T≤55°C)			
	230V	kW	55
	400V	kW	110
	415V	kW	110
	440V	kW	132
	500V	kW	132
	690V	kW	160
	1000V	kW	132
Rated operational current AC-3 (T≤55°C)			
	230V	A	230
	400V	A	230
	415V	A	230
	440V	A	230
	500V	A	184
	690V	A	165
	1000V	A	100
Rated operational power AC-1 (T≤40°C)			
	230V	kW	132
	400V	kW	230
	500V	kW	253
	690V	kW	397
IEC max current Ie 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 Ie 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 Ie 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 Ie 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	315
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
		min	lbin	7,1
		max	lbin	8,8
Power terminal protection according to IEC/EN 60529				IP00
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw
Weight			g	3000
Operations				
Mechanical life			cycles	1000000
Electrical life			cycles	1000000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
		rated load	cycles	1000000
		mechanical load	cycles	1000000
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 50/60Hz, 60Hz				
		min	V	230
		max	V	230
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	80 Us
		max	%Us	110 Us
	drop-out			
		max	%Us	≤70 Us
	of 50/60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80 Us
		max	%Us	110 Us
	drop-out			
		max	%Us	≤70 Us
AC average coil consumption at 20°C				
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	240 close - 125 open
		holding	VA	-
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	240 close - 125 open
		holding	VA	-

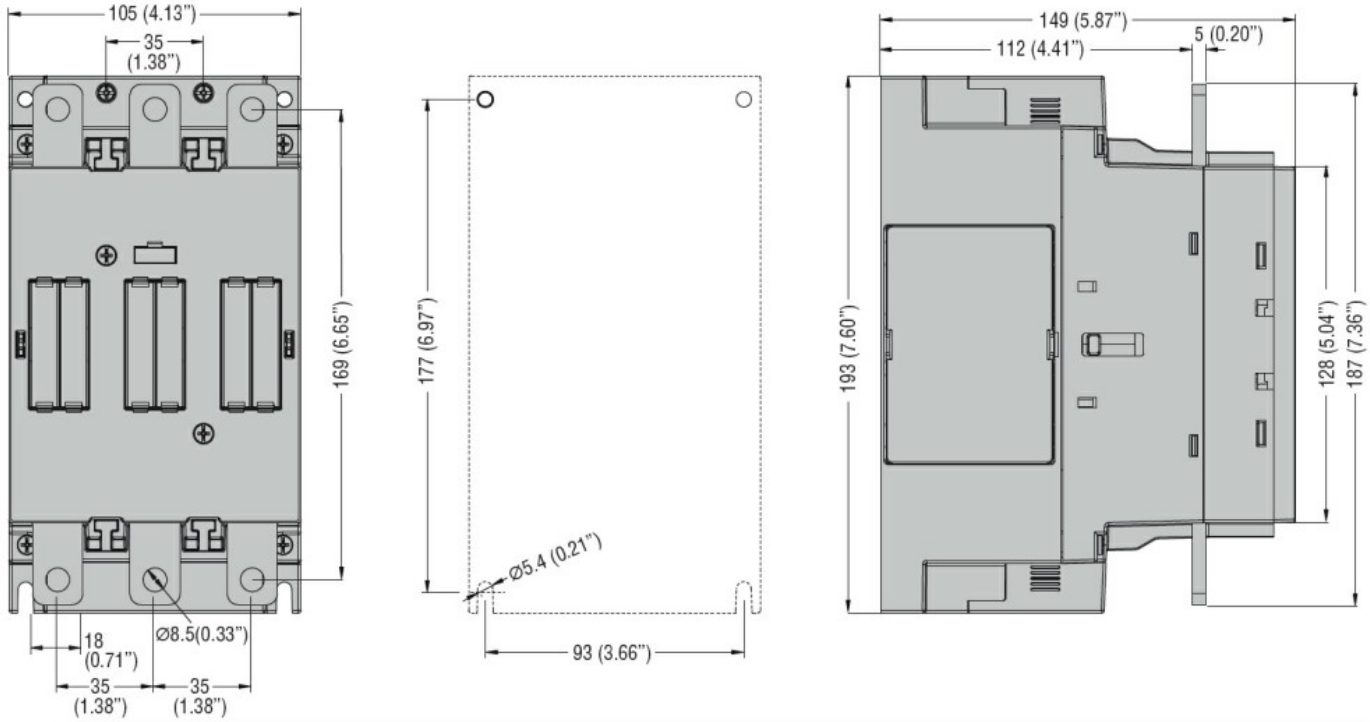
of 60Hz coil powered at 60Hz				
		in-rush	VA	240 close - 125 open
		holding	VA	-
Dissipation at holding ≤20°C 50Hz			W	-
DC coil operating				
DC rated control voltage				
		min	V	230
		max	V	230
DC operating voltage				
	pick-up			
		min	%Us	85 Us
		max	%Us	110 Us
	drop-out			
		max	%Us	≤70 Us
Average coil consumption ≤20°C				
		in-rush	W	240 close - 125 open
		holding	W	-
Max cycles frequency				
Mechanical operation			cycles/h	500
Operating times				
Average time for Us control				
	in AC			
	Closing NO			
		min	ms	37
		max	ms	47
	Opening NO			
		min	ms	41
		max	ms	51
UL technical data				
Rated operational voltage AC (UL)			V	600
Yielded mechanical performance				
	for three-phase AC motor			
		200/208V	HP	75
		220/240V	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

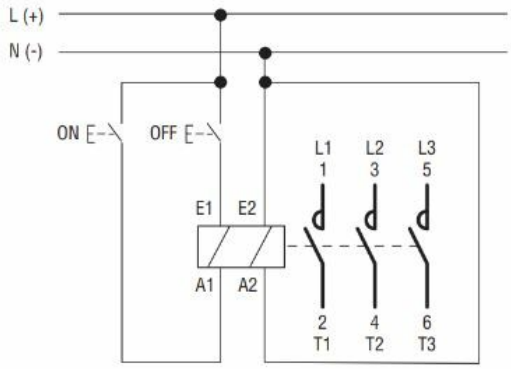
Resistance & Protection

Pollution degree				3

Dimensions



Wiring diagrams



Certifications and compliance

Compliance				
	IEC/EN/BS 60947-1			
	IEC/EN/BS 60947-4-1			

ETIM classification

ETIM 8.0				EC000066 - Power contactor, AC switching