BF1810A230

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 230VAC, 1NO AUXILIARY CONTACT

Product designation			Power contactor
Product type designation			BF18
Contact characteristics			
Number of poles		nr.	3
Rated insulation voltage Ui		V	690
Rated impulse withstand voltage Uimp		kV	6
Operating frequency			
	Operational frequency min	Hz	25
	Operational frequency max	Hz	400
Conventional free air thermal current Ith		A	32
Operating current			
	Operational current AC1 (≤40°C)	A	32
	Operational current AC3 (≤440V ≤55°C)	A	18
	Operational current AC4 (400V)	A	8.5
Rated operational power AC1 (T≤40°C)			
	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
Rated operational power AC3A (T≤55°C)			
	Rated operational power AC3 (T≤55°C) 230V	kW	4
	Rated operational power AC3 (T≤55°C) 400V	kW	7.5
	Rated operational power AC3 (T≤55°C) 415V	kW	9
	Rated operational power AC3 (T≤55°C) 440V	kW	9
	Rated operational power AC3 (T≤55°C) 500V	kW	10
	Rated operational power AC3 (T≤55°C) 690V	kW	10
Short-time allowable current for 10s (IEC/EN60947-1)		A	200
Protection fuse			
	gG (IEC)	A	32
	aM (IEC)	A	20
Making capacity (RMS value)		A	180
Breaking capacity at voltage			
	Breaking capacity 440V	A	144
	Breaking capacity 500V	A	120
	Breaking capacity 690V	A	94
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
	Power dissipation pole (average value) Ith	W	2.6
	AC3	W	0.8
Tightening torque for terminals			
	min	Nm	1.5
	max	Nm	1.8
	min	lbft	1.1
	max	lbft	1.5
Tightening torque for coil terminal			

		min	Nm	0.8
		max	Nm	1
		min	lbft	0.8
		max	lbft	0.74
max number of wires simultaneously connectable			nr.	2
Conductor section				
	AWG			
		min		16
		max		10
	Flexible w/o lug conductor section			
		min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section			
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
		min	mm²	1
		max	mm²	4
Power terminal protection according to IEC/EN 60529				IP20 when wired
Auxiliary contact characteristics				
Type of contact				1 NO
Thermal current Ith			A	10
IEC/EN 60947-5-1 designation				A600 - P600
Operational current AC1 (≤40°C)			A	32
Operating current AC15				
		230V	A	3
		400V	A	1.9
		500V	A	1.4
Operating current DC12				
		110V	A	5.7
Operating current DC13				
		24V	A	5.7
		48V	A	2.9
		60V	A	2.3
		110V	A	Screw / DIN rail 35mm
		125V	A	0.6
		220V	A	0.2
		600V	A	1.2
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Operating position				
		normal		Vertical plan
		allowable		±30°
Mounting				Screw / DIN rail 35mm
Weight			g	0.358

Operations				
Mechanical life			Cycles	20000000
Electrical life			Cycles	1600000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
		rated load	Cicli	1600000
		mechanical load	Cicli	20000000
Mirror contats according to IEC/EN 609474-4-1				yes
EMC compatibility				yes
AC coil operating				
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
		pick-up		
			min	%Us 0.8
			max	%Us 1.1
		drop-out		
			min	%Us 0.2
			max	%Us 0.55
	of 50/60Hz coil powered at 60Hz			
		pick-up		
			min	%Us 0.85
			max	%Us 1.1
		drop-out		
			min	%Us 0.2
			max	%Us 0.55
	of 60Hz coil powered at 60Hz			
		pick-up		
			min	%Us 0.8
			max	%Us 1.1
		drop-out		
			min	%Us 0.2
			max	%Us 0.55
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
			in-rush	VA 75
			holding	VA 9
	of 50/60Hz coil powered at 60Hz			
			in-rush	VA 70
			holding	VA 6.5
	of 60Hz coil powered at 60Hz			
			in-rush	VA 75
			holding	VA 9
Dissipation at holding ≤20°C 50Hz				W 2.5
Max cycles frequency				
Mechanical operations				Cycles/h 3600
Operating times				
Average time for Us control				
	in AC			
		Closing NO		
			min	ms 8
			max	ms 24
		Opening NO		
			min	ms 10
			max	ms 20

Closing NC			
	min	ms	14
	max	ms	28
Opening NC			
	min	ms	7
	max	ms	18

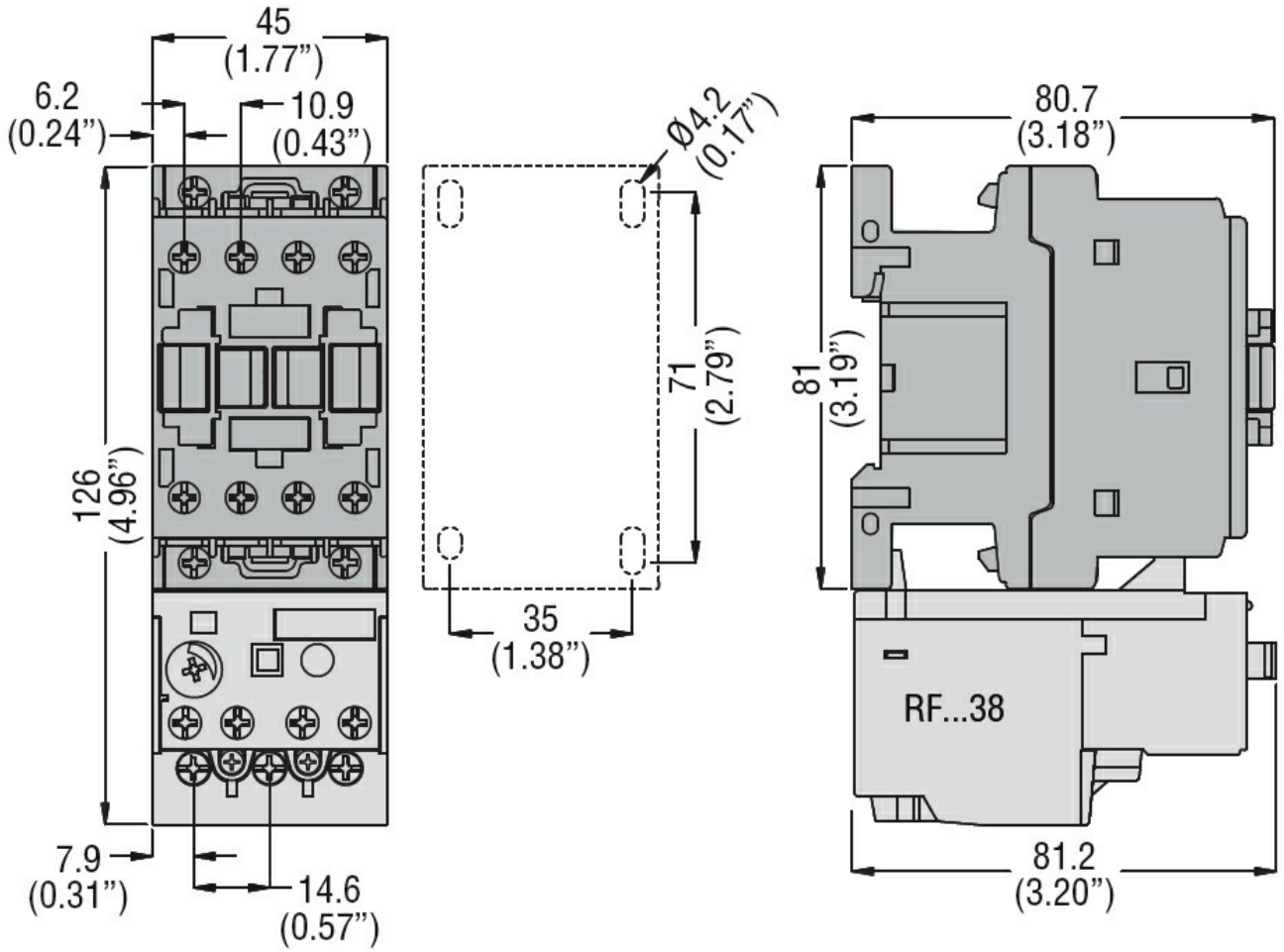
UL technical data

Full-load current (FLA) for three-phase AC motor			
	at 480V	A	14
	at 600V	A	17
Yielded mechanical performance			
for single-phase AC motor			
	at 110/120V	hp	1
	at 230V	hp	3
for three-phase AC motor			
	at 200/208V	hp	5
	at 220/230V	hp	5
	at 460/480V	hp	10
	at 575/600V	hp	15
Contact rating of auxiliary contacts according to UL			A600 - P600
General USE			
Contactor			
	AC current	A	32

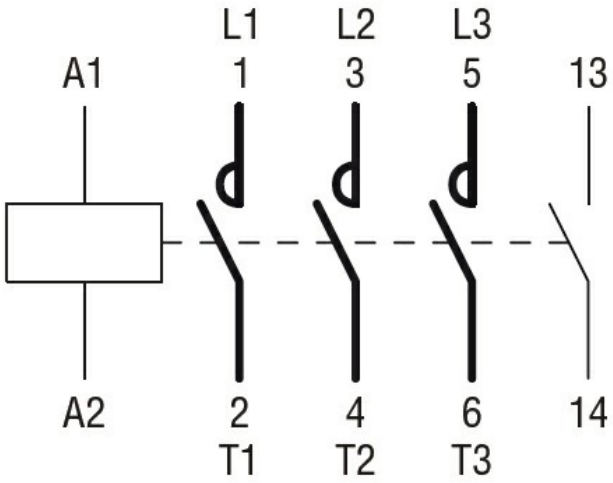
Other features

Pollution degree	3

Dimensions



Wiring diagrams



Certifications and compliance

Certifications

CSA C22.2 n° 60947-1
CSA C22.2 n° 60947-4-1
IEC/EN 60947-1
IEC/EN 60947-4-1
UL 60947-1
UL 60947-4-1

Compliance

CCC
cULus
EAC

ETIM 6 classification

EC000066 - Power contactor, AC switching