





Product designation			Power contactor
Product type designation			BF18
Contact characteristics			20
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			-
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	32
Operational current le			-
	AC-1 (≤40°C)	Α	32
	AC-1 (≤55°C)	Α	26
	AC-1 (≤70°C)	Α	23
	AC-3 (≤440V ≤55°C)	Α	18
	AC-4 (400V)	Α	8.5
Rated operational power AC-3 (T≤55°C)			
	230V	kW	4
	400V	kW	7.5
	415V	kW	9
	440V	kW	9
	500V	kW	10
	690V	kW	10
Rated operational power AC-1 (T≤40°C)			
(1=10-0)	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
'	≤24V	Α	17
	48V	Α	15
	75V	Α	15
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
·	≤24V	Α	20
	48V	Α	20
	75V	Α	20
	110V	Α	13
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	<u> </u>		
•	≤24V	Α	22
	48V	Α	22
	75V	Α	20
	110V	Α	16
			• •





BF1810A400

	220V	Α	11
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	22
	48V	Α	22
	75V	Α	20
	110V	Α	18
	220V	Α	13
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	12
	48V	Α	11
	75V	Α	11
	110V	Α	2
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
·	≤24V	Α	15
	48V	Α	13
	75V	Α	13
	110V	Α	8
	220V	Α	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	18
	48V	Α	18
	75V	Α	16
	110V	A	12
	220V	A	6
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	220 V	/ \	<u> </u>
1.25 max sarront to in 2.55 2.50 with ETC = 10115 with 4 polos in series	≤24V	Α	18
	48V	A	18
	75V	A	16
	110V	A	13
	220V	A	8
Short-time allowable current for 10s (IEC/EN60947-1)	220 V	A	200
Protection fuse		П	200
	gG (IEC)	Α	32
	aM (IEC)	A	20
Making capacity (RMS value)	aivi (IEC)	A	180
Breaking capacity at voltage		А	100
breaking capacity at voltage	440\/	۸	144
	440V 500V	A A	144
	690V		120
Posistance per pole (average value)	0907	A mO	94
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)	حلدا	14/	2.6
	Ith	W	2.6
Tightoning torque for torminals	AC-3	W	0.8
Tightening torque for terminals	!	N I.a.	1 5
	min	Nm	1.5
	max	Nm	1.8
	min	Ibin	1.1
This control is the second of	max	Ibin	1.5
Tightening torque for coil terminal			0.0
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8



BF1810A400

Name and the state of the state	ultan a suelli sassa a stali la	max	Ibin	0.74
Max number of wires simu	ultaneously connectable		Nr.	2
Conductor section	MO///!!			
A	WG/Kcmil	may		10
	lovible w/e lug conductor coetion	max		10
Г	lexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	lexible c/w lug conductor section	max	111111	0
1	ickibic of windy contractor section	min	mm²	1
		max	mm²	4
F	lexible with insulated spade lug conductor section	max		•
•	ionialo iniin incaratoa opado rag contactor cociner.	min	mm²	1
		max	mm²	4
	II IEO/EN 00500			IP20 when
Power terminal protection	according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	367
Conductor section				
A	WG/kcmil conductor section			
		max		10
Auxiliary contact characte	ristics			
Thermal current Ith			A	10
Thermal current Ith EC/EN 60947-5-1 design			Α	10 A600 - P600
Thermal current Ith IEC/EN 60947-5-1 design				A600 - P600
Thermal current Ith IEC/EN 60947-5-1 design		230V	A	A600 - P600 3
Thermal current Ith EC/EN 60947-5-1 design		400V	A A	A600 - P600 3 1.9
Thermal current Ith IEC/EN 60947-5-1 design Operating current AC15			A	A600 - P600
Thermal current Ith IEC/EN 60947-5-1 design Operating current AC15		400V 500V	A A A	3 1.9 1.4
Thermal current Ith IEC/EN 60947-5-1 design Operating current AC15 Operating current DC12		400V	A A	A600 - P600 3 1.9
Thermal current Ith IEC/EN 60947-5-1 design Operating current AC15 Operating current DC12		400V 500V	A A A	3 1.9 1.4 5.7
Thermal current Ith IEC/EN 60947-5-1 design Operating current AC15 Operating current DC12		400V 500V 110V 24V	A A A	A600 - P600 3 1.9 1.4 5.7 5.7
Thermal current Ith EC/EN 60947-5-1 design Operating current AC15 Operating current DC12		400V 500V 110V 24V 48V	A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9
Thermal current Ith EC/EN 60947-5-1 design Operating current AC15 Operating current DC12		400V 500V 110V 24V 48V 60V	A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3
Thermal current Ith IEC/EN 60947-5-1 design Operating current AC15 Operating current DC12		400V 500V 110V 24V 48V 60V 110V	A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25
Thermal current Ith IEC/EN 60947-5-1 design Operating current AC15 Operating current DC12		400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Thermal current Ith EC/EN 60947-5-1 design Operating current AC15 Operating current DC12		400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Thermal current Ith IEC/EN 60947-5-1 design Operating current AC15 Operating current DC12 Operating current DC13		400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Thermal current Ith IEC/EN 60947-5-1 design Operating current AC15 Operating current DC12 Operating current DC13 Operating current DC13		400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 design Operating current AC15 Operating current DC12 Operating current DC13 Operating current DC13 Operations Mechanical life		400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 design Operating current AC15 Operating current DC12 Operating current DC13 Operating current DC13 Operations Mechanical life Electrical life		400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 design Operating current AC15 Operating current DC12 Operating current DC13 Operations Mechanical life Electrical life Safety related data	nation	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 design Operating current AC15 Operating current DC12 Operating current DC13 Operations Mechanical life Electrical life Safety related data		400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Thermal current Ith IEC/EN 60947-5-1 design Operating current AC15 Operating current DC12 Operating current DC13 Operations Mechanical life Electrical life Safety related data	according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Thermal current Ith EC/EN 60947-5-1 design Operating current AC15 Operating current DC12 Operating current DC13 Operating current DC13 Operations Mechanical life Electrical life Safety related data Performance level B10d a	according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000
Thermal current Ith IEC/EN 60947-5-1 design Operating current AC15 Operating current DC12 Operating current DC13 Operations Mechanical life Electrical life Safety related data Performance level B10d a	according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000 20000000 yes
Thermal current Ith IEC/EN 60947-5-1 design Operating current AC15 Operating current DC12 Operating current DC13 Operations Mechanical life Electrical life Safety related data Performance level B10d a	according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000



	50/60Hz		V	400
C operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up		0/11	0.0
		min	%Us	80
	drop out	max	%Us	110
	drop-out	min	%Us	20
		max	%Us	55
	of 50/60Hz coil powered at 60Hz	IIIax	/003	33
	pick-up			
	pion ap	min	%Us	85
		max	%Us	110
	drop-out		,,,,,	
	а. ор о а.	min	%Us	20
		max	%Us	55
C average coil cons	sumption at 20°C			
-	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			W	2.5
Max cycles frequency				
Mechanical operation Operating times			cycles/h	3600
Joerating times				
•	pontrol			
•				
•	in AC			
•		min	me	8
•	in AC	min max	ms ms	8 24
•	in AC Closing NO	min max	ms ms	8 24
•	in AC			24
•	in AC Closing NO	max	ms	
•	in AC Closing NO	max min	ms ms	10
•	in AC Closing NO Opening NO	max min	ms ms	10
•	in AC Closing NO Opening NO	max min max	ms ms ms	241020
•	in AC Closing NO Opening NO	max min max min	ms ms ms	24102014
•	in AC Closing NO Opening NO Closing NC	max min max min	ms ms ms	24 10 20 14 28 7
Average time for Us	in AC Closing NO Opening NO Closing NC	max min max min max	ms ms ms ms	24 10 20 14 28
Average time for Us	in AC Closing NO Opening NO Closing NC Opening NC	max min max min max min	ms ms ms ms	24 10 20 14 28 7
Average time for Us	in AC Closing NO Opening NO Closing NC	max min max min max min max	ms ms ms ms ms	24 10 20 14 28 7 18
Average time for Us of	in AC Closing NO Opening NO Closing NC Opening NC	max min max min max min max at 480V	ms ms ms ms ms	24 10 20 14 28 7 18
Average time for Us of	in AC Closing NO Opening NO Closing NC Opening NC Opening NC	max min max min max min max	ms ms ms ms ms	24 10 20 14 28 7 18
Average time for Us	in AC Closing NO Opening NO Closing NC Opening NC Opening NC A) for three-phase AC motor Derformance	max min max min max min max at 480V	ms ms ms ms ms	24 10 20 14 28 7 18
Average time for Us of	in AC Closing NO Opening NO Closing NC Opening NC Opening NC	min max min max min max at 480V at 600V	ms ms ms ms ms A	24 10 20 14 28 7 18
JL technical data Full-load current (FL/	in AC Closing NO Opening NO Closing NC Opening NC Opening NC A) for three-phase AC motor Derformance	max min max min max min max at 480V at 600V	ms ms ms ms ms A A	24 10 20 14 28 7 18 14 17
Average time for Us of	in AC Closing NO Opening NO Closing NC Opening NC Opening NC A) for three-phase AC motor Derformance for single-phase AC motor	min max min max min max at 480V at 600V	ms ms ms ms ms A	24 10 20 14 28 7 18
JL technical data Full-load current (FL/	in AC Closing NO Opening NO Closing NC Opening NC Opening NC A) for three-phase AC motor Derformance	max min max min max min max at 480V at 600V	ms ms ms ms ms A A	24 10 20 14 28 7 18 14 17

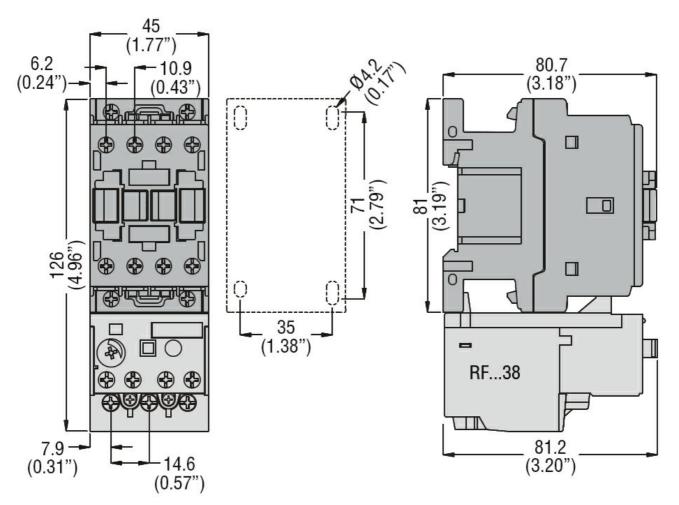




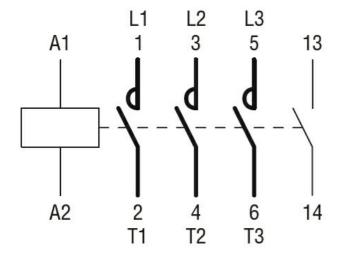
		220/230V	HP	5
		460/480V	HP	10
		575/600V	HP	15
General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
	·	AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protect	ion fuse, 600V			
	High fault			
	•	Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	80
Contact rating of auxiliary contacts according to UL				A600 - P600
Ambient conditions				
Temperature				
•	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Prote	ction			
Pollution degree				3
Dimensions				

ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 400VAC, 1NO AUXILIARY CONTACT



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

CCC



BF1810A400

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 400VAC, 1NO AUXILIARY CONTACT

cULus			
EAC			

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching