





			44
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			
operational inequality	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)	710 1 (1001)		
	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)			
(	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
		- •	-





BF1801A400

	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



		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	A1440/44 11			
	AWG/Kcmil			40
	Clavible w/s has senductor costion	max		10
	Flexible w/o lug conductor section	min	mama <sup>2</sup>	4
		min	mm² mm²	1 6
	Flexible c/w lug conductor section	max	111111	0
	r lexible 6/w rug conductor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			•
	r ionacio mar modianos opado lug contactor cocion	min	mm²	1
		max	mm²	4
	(''			IP20 when
Power terminal protec	tion according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	368
Conductor section				
	AWG/kcmil conductor section			
A 10		max		10
IALIVIIIary contact chara	ACTEPISTICS			
Auxiliary contact chara	20101101100		۸	10
Thermal current Ith			Α	10 4600 B600
Thermal current Ith IEC/EN 60947-5-1 de	signation		Α	10 A600 - P600
	signation	2301/		A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	signation	230V 400V	A	A600 - P600 3
Thermal current Ith IEC/EN 60947-5-1 de	signation	400V	A A	A600 - P600 3 1.9
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC1	signation 15		A	A600 - P600 3
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC1	signation 15	400V 500V	A A A	3 1.9 1.4
Thermal current Ith IEC/EN 60947-5-1 de: Operating current AC1 Operating current DC2	signation 15	400V	A A	A600 - P600 3 1.9
Thermal current Ith IEC/EN 60947-5-1 de: Operating current AC1 Operating current DC2	signation 15	400V 500V 110V	A A A	3 1.9 1.4 5.7
Thermal current Ith IEC/EN 60947-5-1 de: Operating current AC1 Operating current DC2	signation 15	400V 500V	A A A	3 1.9 1.4
Thermal current lth IEC/EN 60947-5-1 de: Operating current AC1 Operating current DC2	signation 15	400V 500V 110V 24V	A A A	A600 - P600 3 1.9 1.4 5.7
Thermal current Ith IEC/EN 60947-5-1 de: Operating current AC1 Operating current DC2	signation 15	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 IEC/EN 60947-5-1 de: Operating current AC1 Operating current DC2	signation 15	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 de	signation 15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25
Thermal current Ith IEC/EN 60947-5-1 de: Operating current AC1 Operating current DC2 Operating current DC2	signation 15	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 de: Operating current AC1 Operating current DC2 Operating current DC2 Operating current DC2 Operations	signation 15	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 decorporating current AC1 Operating current DC2 Operating current DC2 Operating current DC3 Operations Mechanical life	signation 15	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 decorporating current AC1 Operating current DC1 Operating current DC1 Operating current DC1 Operations Mechanical life Electrical life	signation 15	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 de: Operating current AC1 Operating current DC2 Operating current DC3 Operations Mechanical life Electrical life Safety related data	signation 15 12 13	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 de: Operating current AC1 Operating current DC2 Operating current DC3 Operations Mechanical life Electrical life Safety related data	signation 15	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 16000000
Thermal current Ith IEC/EN 60947-5-1 de: Operating current AC1 Operating current DC2 Operating current DC3 Operations Mechanical life Electrical life Safety related data	signation 15 12 13 Od 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 IEC/EN 60947-5-1 det Operating current AC1 Operating current DC2 Operating current DC3 Operating current DC3 Operations Mechanical life Electrical life Safety related data Performance level B1	signation  12  13  Od 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 16000000
Thermal current Ith IEC/EN 60947-5-1 de: Operating current AC1 Operating current DC2 Operating current DC3 Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats according	signation 15 12 13 Od 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 det Operating current AC1 Operating current DC2 Operating current DC3 Operating current DC3 Operations Mechanical life Electrical life Safety related data Performance level B1	signation  12  13  Od 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 16000000



	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	<ul><li>24</li><li>10</li><li>20</li></ul>
•	in AC Closing NO Opening NO	max min max min	ms ms ms	<ul><li>24</li><li>10</li><li>20</li><li>14</li></ul>
•	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

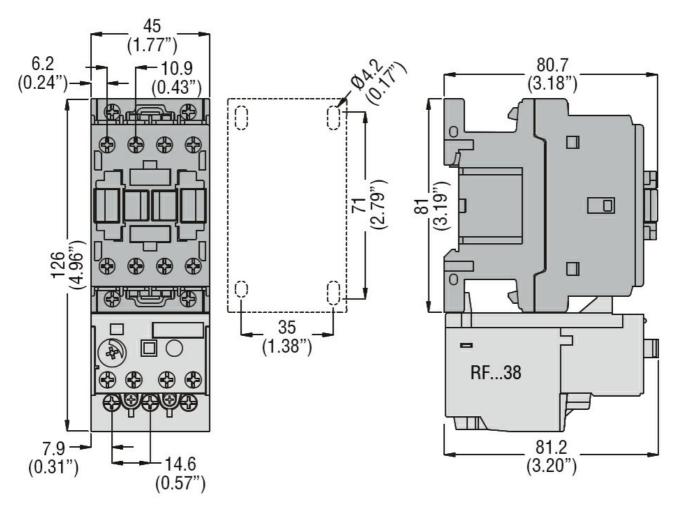




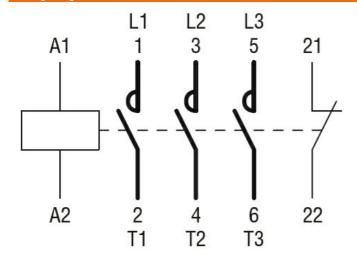
		220/230V	HP	5
		460/480V	HP	10
		575/600V	HP	15
General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
	•	AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protecti	on fuse, 600V			
·	High fault			
	3	Short circuit current	kA	100
		Fuse rating	Α	60
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

**ENERGY AND AUTOMATION** 

# THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 400VAC, 1NC 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



### BF1801A400

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 400VAC, 1NC AUXILIARY CONTACT

CCC		
cULus		
EAC		

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching