





Product designation Product type designation			Power contactor BF18
Contact characteristics			
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)			
	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	A	6
150	220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	40 AV /	•	22
	≤24V	A	20
	48V	A	20
	75V	A	20
	110V	A	13
IEC may current to in DC1 with L/B < 1mg with 2 notes in series	220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	~2A\/	٨	22
	≤24V 48V	A ^	22
	48 V 75 V	A A	22 20
	110V	A	16
	1100	^	10





	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	A	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	220 V		
The max current to in 600-600 with E/N = 10m3 with 2 poics in 3cmc3	≤24V	Α	15
	48V	A	
	48 V 75 V		13
		A	13
	110V	A	8
150	220V	A	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	-0.01		4.0
	≤24V	A	18
	48V	Α	18
	75V	Α	16
	110V	Α	12
	220V	Α	6
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	18
	48V	Α	18
	75V	Α	16
	110V	Α	13
	220V	Α	8
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200
Protection fuse			
	gG (IEC)	Α	32
	aM (IEC)	Α	20
Making capacity (RMS value)	, ,	Α	180
Breaking capacity at voltage			
	440V	Α	144
	500V	A	120
	690V	A	94
Resistance per note (average value)	090 v	mΩ	2.5
Resistance per pole (average value)		11177	۷.ن
Power dissipation per pole (average value)	141	107	2.0
	Ith	W	2.6
Title de la constant	AC-3	W	0.8
Tightening torque for terminals			4.5
	min	Nm	1.5
	max	Nm	1.8
	min	Ibin	1.1
	max	Ibin	1.5
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8





NA	No. Record Control of the Control of	max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	A1A/O/I/ !!			
	AWG/Kcmil	may		10
	Elevible w/e lug conductor coetien	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	max	111111	0
	Trexible 6/W rag conductor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	max		•
	· ioniaio iniin incanatoa opaao nag conaccio.	min	mm²	1
		max	mm²	4
D (				IP20 when
Power terminal protec	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	359
Conductor section				
	AWG/kcmil conductor section			
		max		10
	acteristics		•	10
Thermal current Ith			Α	10
Thermal current Ith IEC/EN 60947-5-1 de	esignation		A	10 A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	esignation	2001		A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	esignation	230V	A	A600 - P600 3
Thermal current Ith IEC/EN 60947-5-1 de	esignation	400V	A A	A600 - P600 3 1.9
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	esignation 15		A	A600 - P600 3
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	esignation 15	400V 500V	A A A	3 1.9 1.4
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	400V	A A	A600 - P600 3 1.9
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	esignation 15	400V 500V	A A A	3 1.9 1.4 5.7
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	esignation 15	400V 500V 110V 24V	A A A	3 1.9 1.4 5.7
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	esignation 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 lth IEC/EN 60947-5-1 de Operating current AC	esignation 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 lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	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 lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 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 lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	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 lth IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC	esignation 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 lth IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC	esignation 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 lth IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC	esignation 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 lth IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC  Operating current DC  Operating current DC  Electrical life	esignation 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 lth IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Safety related data	esignation 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 lth IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Safety related data	esignation 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 lth IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Safety related data	esignation 15 12 13 10d 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 lth IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	esignation 15 12 13 10d 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
	esignation 15 12 13 10d 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





	50/60Hz		V	110
C operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	80
	duan aud	max	%Us	110
	drop-out	min	%Us	20
		min	%Us %Us	55
	of 50/60Hz coil powered at 60Hz	max	/005	33
	pick-up			
	ριοκ αρ	min	%Us	85
		max	%Us	110
	drop-out		,,,,,	
		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 holdinເ			W	2.5
Max cycles frequency			. ,	
Mechanical operation			cycles/h	3600
Operating times  Average time for Us				
	aantral			
werage time for Os				
werage time for OS	in AC			
werage unie ioi os		min	ms	8
werage unie ioi os	in AC	min max	ms ms	8
werage unie ioi os	in AC Closing NO	min max	ms ms	8 24
verage time for OS	in AC	max	ms	24
werage unie ioi os	in AC Closing NO			
werage unie ioi os	in AC Closing NO	max min	ms ms	10
verage unie ioi os	in AC Closing NO Opening NO	max min	ms ms	10
werage unie ioi os	in AC Closing NO Opening NO	max min max	ms ms ms	<ul><li>24</li><li>10</li><li>20</li></ul>
average unie ioi os	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>
average unie ioi os	in AC Closing NO Opening NO Closing NC	max min max min	ms ms ms	24 10 20 14 28 7
	in AC Closing NO Opening NO Closing NC	max min max min max	ms ms ms ms	<ul><li>24</li><li>10</li><li>20</li><li>14</li><li>28</li></ul>
JL technical data	in AC  Closing NO  Opening NO  Closing NC  Opening NC	max min max min max min max	ms ms ms ms	24 10 20 14 28 7
JL technical data	in AC Closing NO Opening NO Closing NC	max min max min max min max min max	ms ms ms ms ms	24 10 20 14 28 7 18
JL technical data	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
JL technical data Full-load current (FL/	in AC Closing NO Opening NO Closing NC Opening NC Opening NC	max min max min max min max min max	ms ms ms ms ms	24 10 20 14 28 7 18
JL technical data	in AC Closing NO Opening NO Closing NC Opening NC Opening NC Opening NC A) for three-phase AC motor	max min max min max min max at 480V	ms ms ms ms ms	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	min 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
JL technical data Full-load current (FL/	in AC Closing NO Opening NO Closing NC Opening NC Opening NC Opening NC A) for three-phase AC motor	min 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
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 for single-phase AC motor	min 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
JL technical data Full-load current (FL/	in AC Closing NO Opening NO Closing NC Opening NC Opening NC Opening NC A) for three-phase AC motor	min 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

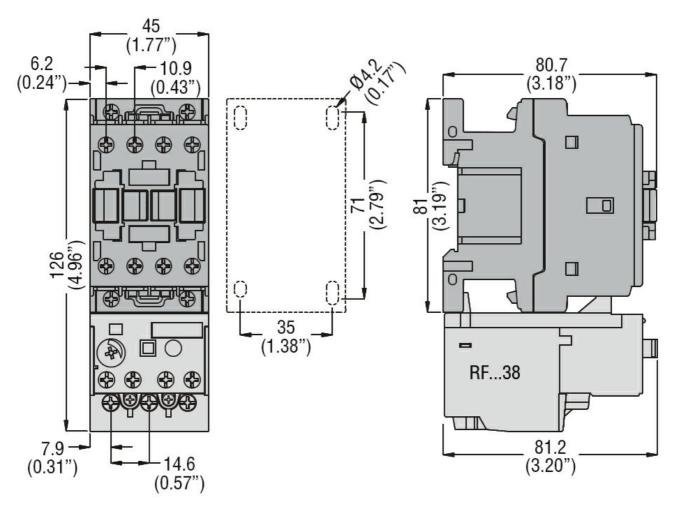




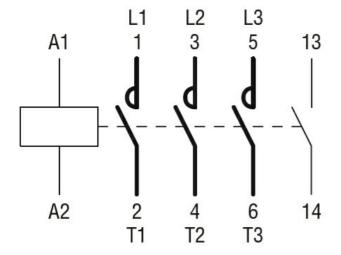
		220/230V	HP	5
		460/480V	HP	10
		575/600V	HP	15
General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
	·	AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protect	ion fuse, 600V			
	High fault			
	•	Short circuit current	kA	100
		Fuse rating	Α	60
		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, 110VAC, 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



#### BF1810A110

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 18A, AC COIL 50/60HZ, 110VAC, 1NO AUXILIARY CONTACT

cULus			
EAC			

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching