



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 requestoy	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith	IIIdX	A	32
Operational current le			
Operational current le	AC-1 (≤40°C)	Α	32
			26
	AC-1 (≤55°C)	A	
	AC-1 (≤70°C)	A	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
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	220 V		
TEO MAX current le in DOT with E/N = This with 2 poles in series	<241/	۸	20
	≤24V 48V	A	20 20
		A	
	75V	A	20
	110V	A	13
IFO	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		_	
	≤24V	Α	22
	48V	Α	22
	75V	Α	20
	110V	Α	16



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	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
Till to die to en a forte estado	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



		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	A1110 # 11			
	AWG/Kcmil			4.0
	Florible/e long and doctor and the	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	1 6
	Flexible c/w lug conductor section	IIIax	111111	U
	Tickible 6/Wildg conductor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			<u> </u>
		min	mm²	1
		max	mm²	4
Dower terminal protec	otion according to IFC/FN 60520			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	358
Conductor section			9	000
Conductor Cochon	AWG/kcmil conductor section			
	, the Gridenia conductor cocaton	max		10
Auxiliary contact char	acteristics			
Thermal current Ith			Α	10
IEC/EN 60947-5-1 de	esignation			A600 - P600
Operating current AC	15			
operating carrent / to	.0			
operating carrent / to		230V	Α	3
operating carrons re		400V	A A	3 1.9
Operating current DC		400V 500V	Α	1.9 1.4
Operating current DC	12	400V	Α	1.9
	12	400V 500V 110V	A A	1.9 1.4 5.7
Operating current DC	12	400V 500V 110V 24V	A A A	1.9 1.4 5.7 5.7
Operating current DC	12	400V 500V 110V 24V 48V	A A A	1.9 1.4 5.7 5.7 2.9
Operating current DC	12	400V 500V 110V 24V 48V 60V	A A A A	1.9 1.4 5.7 5.7 2.9 2.3
Operating current DC	12	400V 500V 110V 24V 48V 60V 110V	A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25
Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Operating current DC Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current DC Operating current DC Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operating current DC Operations Mechanical life	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operating current DC Operations Mechanical life Electrical life	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	13	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	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	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	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 Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000 200000000
Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	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 Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000
Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	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 Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1600000 1600000 200000000 yes



Rated AC voltage at 5	50/60Hz		V	230
AC operating voltage				
	of 50/60Hz coil powered at 50H	lz		
	pick-up			
		min		80
	dram at	max	%Us	110
	drop-ou	лт min	%Us	20
		max	%Us	55
	of 50/60Hz coil powered at 60H		7003	
	pick-up			
	F. 15.1. S.F.	min	%Us	85
		max	%Us	110
	drop-ou	ut		
		min	%Us	20
		max	%Us	55
AC average coil consi	•			
	of 50/60Hz coil powered at 50H			
		in-rush	VA	75
	. (50/0011	holding	VA	9
	of 50/60Hz coil powered at 60H		١/٨	70
		in-rush holding	VA VA	70 6.5
	of 60Hz coil powered at 60Hz	Holding	VA	0.5
	or our iz con powered at our iz	in-rush	VA	75
		holding	VA	9
Dissipation at holding	≤20°C 50Hz		W	2.5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Mechanical operation Operating times			cycles/h	3600
Mechanical operation	ontrol		cycles/h	3600
Mechanical operation Operating times	ontrol in AC		cycles/h	3600
Mechanical operation Operating times	ontrol			
Mechanical operation Operating times	ontrol in AC	min	ms	8
Mechanical operation Operating times	ontrol in AC Closing	min max		
Mechanical operation Operating times	ontrol in AC	min max g NO	ms ms	8 24
Mechanical operation Operating times	ontrol in AC Closing	min max g NO min	ms ms	8 24 10
Mechanical operation Operating times	ontrol in AC Closing Openin	min max g NO min max	ms ms	8 24
Mechanical operation Operating times	ontrol in AC Closing	min max g NO min max	ms ms	8 24 10
Mechanical operation Operating times	ontrol in AC Closing Openin	min max g NO min max y NC	ms ms ms	8 24 10 20
Mechanical operation Operating times	ontrol in AC Closing Openin	min max g NO min max g NC min	ms ms ms ms	8 24 10 20
Mechanical operation Operating times	ontrol in AC Closing Openin Closing	min max g NO min max g NC min	ms ms ms ms	8 24 10 20 14 28
Mechanical operation Operating times Average time for Us c	ontrol in AC Closing Openin Closing	min max g NO min max g NC min max	ms ms ms ms	8 24 10 20 14 28
Mechanical operation Operating times Average time for Us c	ontrol in AC Closing Openin Closing	min max g NO min max g NC min max g NC	ms ms ms ms ms	8 24 10 20 14 28
Mechanical operation Operating times Average time for Us c	ontrol in AC Closing Openin Closing	min max g NO min max y NC min max g NC min max g NC min max g NC min max	ms ms ms ms ms	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us c	ontrol in AC Closing Openin Closing	min max g NO min max g NC min max g NC min max g NC min max at 480V	ms ms ms ms ms	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us c UL technical data Full-load current (FLA	ontrol in AC Closing Openin Closing Openin	min max g NO min max y NC min max g NC min max g NC min max g NC min max	ms ms ms ms ms	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us c	ontrol in AC Closing Openin Closing Openin Openin) for three-phase AC motor erformance	min max g NO min max g NC min max g NC min max g NC min max at 480V	ms ms ms ms ms	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us c UL technical data Full-load current (FLA	ontrol in AC Closing Openin Closing Openin	min max g NO min max y NC min max g NC min max ax g NC min max at 480V at 600V	ms ms ms ms ms A	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us c UL technical data Full-load current (FLA	ontrol in AC Closing Openin Closing Openin Openin) for three-phase AC motor erformance	min max g NO min max g NC min max g NC min max at 480V at 600V	ms ms ms ms ms A A	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us c UL technical data Full-load current (FLA	ontrol in AC Closing Openin Closing Openin Openin) for three-phase AC motor erformance for single-phase AC motor	min max g NO min max y NC min max g NC min max ax g NC min max at 480V at 600V	ms ms ms ms ms A	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us c UL technical data Full-load current (FLA	ontrol in AC Closing Openin Closing Openin Openin) for three-phase AC motor erformance	min max g NO min max g NC min max g NC min max at 480V at 600V	ms ms ms ms ms A A	8 24 10 20 14 28 7 18

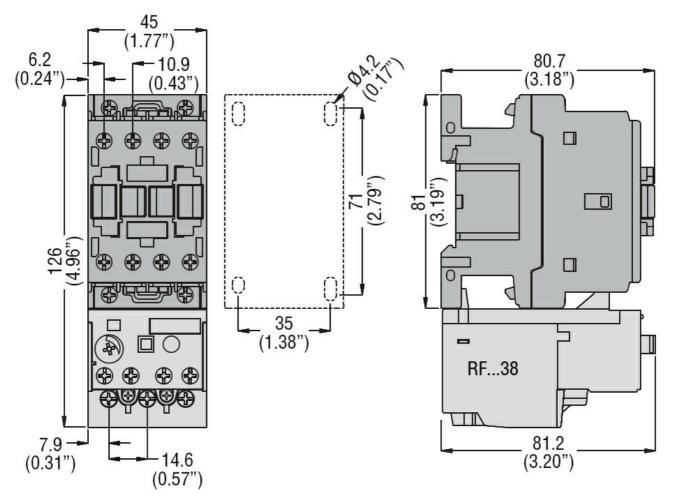




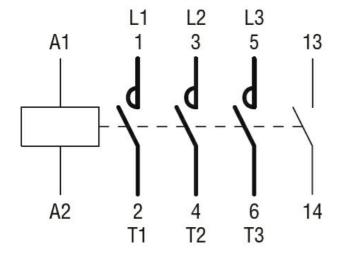
		220/230V	HP	5
		460/480V	HP	10
		575/600V	HP	15
General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
	·	AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protect	ion fuse, 600V			
	High fault			
	•	Short circuit current	kA	100
		Fuse rating	Α	60
	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



BF1810A230

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

cULus			
EAC			

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching