



Product designation			Power contactor
Product type designation			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
D. I. J	690V	kW	10
Rated operational power AC-1 (T≤40°C)	0001/		4.0
	230V	kW	12
	400V	kW	21
	500V 690V	kW kW	26
IFC may augreent to in DC1 with L/D < 1 may with 1 nates in agrica	090 V	KVV	36
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series	≤24V	Α	17
	≤24V 48V	A	15
	75V	A	15
	110V	A	6
	220V	A	-
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	2201	- ' '	
120 max can on 10 m 20 m m 2/1 = mio mar 2 poise in conce	≤24V	Α	20
	48V	A	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

16



	220V	Α	11
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	220 V		
120 max outfort to in 201 with E/T = fillo with 4 poleo in ocheo	≤24V	Α	22
	48V	A	22
	75V	A	20
	110V	A	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	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	Α	120
	690V	Α	94
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
	Ith	W	2.6
	AC3	W	0.8
Tightening torque for terminals			
	min	Nm	1.5
	max	Nm	1.8
	min	lbin	13
	max	Ibin	16
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8



ENERGY AND AUTOMATION

		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	AWG/Kcmil			
	AWO/Normi	max		10
	Flexible w/o lug conductor section	max		
	. ioniaio in o lag contactor coolien	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	n		
		min	mm²	1
		max	mm²	4
Power terminal protect	ction according to IEC/EN 60529			IP20 when
	ction according to IEG/EN 00329			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	358
Conductor section	AMA (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
	AWG/kcmil conductor section			4.0
Auvilian, contact char	actoriation	max		10
Auxiliary contact chara Thermal current Ith	actensiics		Α	10
Thermal current iii			A	10
	eignation			
IEC/EN 60947-5-1 de				A600 - P600
		2301/		A600 - P600
IEC/EN 60947-5-1 de		230V 400V	A	A600 - P600 3
IEC/EN 60947-5-1 de		400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de Operating current AC	15		A	A600 - P600 3
IEC/EN 60947-5-1 de	15	400V 500V	A A A	3 1.9 1.4
Operating current AC Operating current DC	12	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de Operating current AC	12	400V 500V	A A A	3 1.9 1.4
Operating current AC Operating current DC	12	400V 500V 110V	A A A	A600 - P600 3 1.9 1.4 5.7
Operating current AC Operating current DC	12	400V 500V 110V 24V	A A A	A600 - P600 3 1.9 1.4 5.7 5.7
Operating current AC Operating current DC	12	400V 500V 110V 24V 48V	A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9
Operating current AC Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current AC Operating current DC	12	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 1.1 0.55
Operating current DC Operating current DC Operating current DC	12	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
Operating current DC	12	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
Operating current DC	12	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
Operating current DC Electrical life	12	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
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	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data	12	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
Operating current DC Operations Mechanical life Electrical life Safety related data	12 13 0d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A 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
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	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
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accord	12 13 0d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A 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 1600000 yes
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats according EMC compatibility	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 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
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accord	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 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 1600000 yes



ENERGY AND AUTOMATION

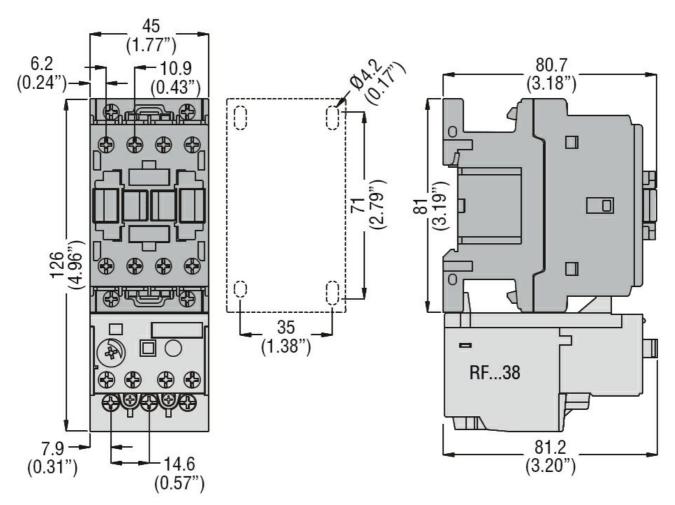
Rated AC voltage at 5	0/60Hz		V	230
AC operating voltage	(50/0011			
	of 50/60Hz coil powered at 50Hz			
	pick-up	min	%Us	80
		max	%Us	110
	drop-out			-
		min	%Us	20
		max	%Us	55
	of 50/60Hz coil powered at 60Hz			
	pick-up		0/11	
		min	%Us	85
	drop out	max	%Us	110
	drop-out	min	%Us	20
		max	%Us	55
AC average coil cons	umption at 20°C			
Č	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
	of 0011= asil assurant at 0011=	holding	VA	6.5
	of 60Hz coil powered at 60Hz	in-rush	VA	75
			VA	73
				a
Dissination at holding	<20°C 50Hz	holding	VA	9 2.5
Dissipation at holding Max cycles frequency	≤20°C 50Hz			9 2.5
Max cycles frequency	≤20°C 50Hz		VA	2.5
Max cycles frequency Mechanical operation	≤20°C 50Hz		VA W	2.5
Max cycles frequency Mechanical operation Operating times			VA W	2.5
Max cycles frequency Mechanical operation Operating times	ontrol in AC	holding	VA W	2.5
Max cycles frequency Mechanical operation Operating times	ontrol	holding	VA W cycles/h	2.5
Max cycles frequency Mechanical operation Operating times	ontrol in AC	holding	VA W cycles/h	2.5 3600
Max cycles frequency Mechanical operation Operating times	ontrol in AC Closing NO	holding min max	VA W cycles/h	2.5
Max cycles frequency Mechanical operation Operating times	ontrol in AC	min max	VA W cycles/h ms	2.5 3600 8 24
Max cycles frequency Mechanical operation Operating times	ontrol in AC Closing NO	min max) min	VA W cycles/h ms ms	2.5 3600 8 24 10
Max cycles frequency Mechanical operation Operating times	ontrol in AC Closing NO Opening NC	min max	VA W cycles/h ms	2.5 3600 8 24
Max cycles frequency Mechanical operation Operating times	ontrol in AC Closing NO	min max) min	VA W cycles/h ms ms	2.5 3600 8 24 10
Max cycles frequency Mechanical operation Operating times	ontrol in AC Closing NO Opening NC	min max min max	VA W cycles/r ms ms ms	2.5 3600 8 24 10 20
Max cycles frequency Mechanical operation Operating times	ontrol in AC Closing NO Opening NC	min max min max min max	VA W cycles/r ms ms ms ms	2.5 3600 8 24 10 20 14 28
Max cycles frequency Mechanical operation Operating times	ontrol in AC Closing NO Opening NC Closing NC	min max min max min max	W cycles/r ms ms ms ms ms ms	2.5 3600 8 24 10 20 14 28
Max cycles frequency Mechanical operation Operating times Average time for Us c	ontrol in AC Closing NO Opening NC Closing NC	min max min max min max	W cycles/h ms ms ms ms ms	2.5 3600 8 24 10 20 14 28
Max cycles frequency Mechanical operation Operating times Average time for Us c	ontrol in AC Closing NO Opening NC Closing NC Opening NC	min max min max min max min max min max min max	W cycles/r ms ms ms ms ms ms	2.5 3600 8 24 10 20 14 28
Max cycles frequency Mechanical operation Operating times Average time for Us c	ontrol in AC Closing NO Opening NC Closing NC	min max min max min max min max min max min max	W cycles/h ms ms ms ms ms ms ms	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us c	ontrol in AC Closing NO Opening NC Closing NC Opening NC	min max min max min max min max at 480V	VA W cycles/r ms ms ms ms ms ms A	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us c UL technical data Full-load current (FLA	ontrol in AC Closing NO Opening NC Closing NC Opening NC	min max min max min max min max min max min max	W cycles/h ms ms ms ms ms ms ms	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us c UL technical data Full-load current (FLA	ontrol in AC Closing NO Opening NC Closing NC Opening NC Opening NC	min max min max min max min max at 480V	VA W cycles/r ms ms ms ms ms ms A	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us c UL technical data Full-load current (FLA	ontrol in AC Closing NO Opening NC Closing NC Opening NC	min max min max min max min max at 480V at 600V	VA W cycles/h ms ms ms ms ms A A	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us c	ontrol in AC Closing NO Opening NC Closing NC Opening NC Opening NC	min max min max min max min max at 480V at 600V	VA W cycles/r ms ms ms ms ms ms A	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us c UL technical data Full-load current (FLA	ontrol in AC Closing NO Opening NC Closing NC Opening NC Opening NC	min max min max min max min max at 480V at 600V	W cycles/r ms ms ms ms ms A A HP	2.5 3600 8 24 10 20 14 28 7 18



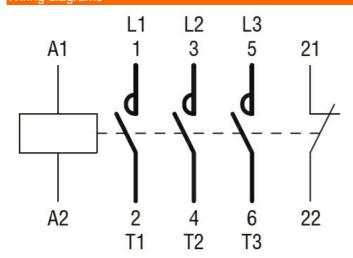
		220/230V	HP	5
		460/480V	HP	10
		575/600V	HP	15
General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
		AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protect	ction fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	60
		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	s			
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Prote	ection			
Pollution degree				3
Dimensions				



ENERGY AND AUTOMATION



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





SCHÜTZ BF1801A, 3P+1Ö, 18A AC3, 230V 50/60HZ

®	Lovato
	electric
ENER	GY AND AUTOMATION

CCC	
cULus	
EAC	

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching