

1.	
24	
0.0	
12	
1	

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		А	32
Operational current le			
	AC-1 (≤40°C)	А	32
	AC-1 (≤55°C)	А	26
	AC-1 (≤70°C)	А	23
	AC-3 (≤440V ≤55°C)	А	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 $L/R \le 1$ ms with 1 poles in series			
	≤24V	A	17
	48V	A	15
	75V	A	15
	110V	A	6
	220V	Α	-
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series			
	≤24V	A	20
	48V	A	20
	75V	A	20
	110V	A	13
	220V	A	1
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series			00
	≤24V	A	22
	48V	A	22
	75V	A	20
	110V	A	16



	220V	А	11	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
	≤24V	А	22	
	48V	A	22	
	75V	А	20	
	110V	А	18	
	220V	А	13	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 1 poles in series				
	≤24V	А	12	
	48V	А	11	
	75V	А	11	
	110V	А	2	
	220V	А	_	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 2 poles in series				
	≤24V	А	15	
	48V	А	13	
	75V	А	13	
	110V	А	8	
	220V	А	2	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 3 poles in series				
	≤24V	А	18	
	48V	А	18	
	75V	А	16	
	110V	А	12	
	220V	А	6	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 4 poles in series				
	≤24V	А	18	
	48V	А	18	
	75V	A	16	
	110V	А	13	
	220V	А	8	
Short-time allowable current for 10s (IEC/EN60947-1)		А	200	
Protection fuse				
	gG (IEC)	А	32	
	aM (IEC)	А	20	
Making capacity (RMS value)	. ,	Α	180	
Breaking capacity at voltage				
	440V	А	144	
	500V	A	120	
	690V	A	94	
Resistance per pole (average value)		mΩ	2.5	
Power dissipation per pole (average value)				
	Ith	W	2.6	
	AC-3	Ŵ	0.8	
Tightening torque for terminals	100		0.0	
	min	Nm	1.5	
	max	Nm	1.8	
	min	Ibin	1.1	
	max	Ibin	1.5	
Tightening torque for coil terminal	тал	10111	1.0	
	min	Nm	0.8	
	max	Nm	1	
	min	Ibin	0.8	
	111111		0.0	

BF1801A042



		max	lbin	0.74
Max number of wires	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil	may		10
	Flexible w/o lug conductor section	max		10
		min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	Пах		0
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	າ		
		min	mm²	1
		max	mm²	4
Power terminal prote	ction according to IEC/EN 60529			IP20 when
· · ·	clion according to IEC/EN 00529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
			-	35mm
Weight			g	360
Conductor section				
	AWG/kcmil conductor section	100.01/		10
Auxiliary contact char	actoristics	max		10
			•	4.0
Thermal current lth			Δ	1()
Thermal current Ith	esignation		A	10 A600 - P600
IEC/EN 60947-5-1 de			A	10 A600 - P600
		230V		A600 - P600
IEC/EN 60947-5-1 de		230V 400V	A	A600 - P600 3
IEC/EN 60947-5-1 de		230V 400V 500V		A600 - P600
IEC/EN 60947-5-1 de Operating current AC	15	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de	15	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de Operating current AC	15	400V 500V	A A A	A600 - P600 3 1.9 1.4
IEC/EN 60947-5-1 de Operating current AC	15	400V 500V	A A A	A600 - P600 3 1.9 1.4
IEC/EN 60947-5-1 de Operating current AC	15	400V 500V 110V	A A A A	A600 - P600 3 1.9 1.4 5.7
IEC/EN 60947-5-1 de Operating current AC	15	400V 500V 110V 24V 48V 60V	A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 5.7 2.9 2.3
IEC/EN 60947-5-1 de Operating current AC	15	400V 500V 110V 24V 48V 60V 110V	A A A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 5.7 2.9 2.3 1.25
IEC/EN 60947-5-1 de Operating current AC	15	400V 500V 110V 24V 48V 60V 110V 125V	A A A 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
IEC/EN 60947-5-1 de Operating current AC	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 5.7 2.9 2.3 1.25 1.1 0.55
IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V	A A A 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
IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A 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
IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A 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 20000000
IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A 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
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	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A 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 20000000
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	15	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A 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
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	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 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
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 Br	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 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
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 B	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 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
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 Br	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 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



BF1801A042

Rated AC voltage at 5	D/60Hz		V	42
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out		0/11	
		min	%Us	20
	of 50/001 = opil powered of 001 =	max	%Us	55
	of 50/60Hz coil powered at 60Hz			
	pick-up	min	%Us	85
		min	%Us %Us	85 110
	drop-out	max	/005	110
	diop-out	min	%Us	20
		max	%Us	55
AC average coil consu	mption at 20°C	max	/000	00
	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 :	≤20°C 50Hz		W	2.5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times			cycles/h	3600
			cycles/h	3600
Operating times	in AC		cycles/h	3600
Operating times				
Operating times	in AC	min	ms	8
Operating times	in AC Closing NO	max		
Operating times	in AC	max	ms ms	8 24
Operating times	in AC Closing NO	max min	ms ms ms	8 24 10
Operating times	in AC Closing NO Opening NC	max	ms ms	8 24
Operating times	in AC Closing NO	max min max	ms ms ms ms	8 24 10 20
Operating times	in AC Closing NO Opening NC	max min max min	ms ms ms ms ms	8 24 10 20 14
Operating times	in AC Closing NO Opening NC Closing NC	max min max min max	ms ms ms ms	8 24 10 20
Operating times	in AC Closing NO Opening NC	max min max min max	ms ms ms ms ms	8 24 10 20 14 28
Operating times	in AC Closing NO Opening NC Closing NC	max min max min max min	ms ms ms ms ms ms	8 24 10 20 14 28 7
Operating times Average time for Us co	in AC Closing NO Opening NC Closing NC	max min max min max	ms ms ms ms ms	8 24 10 20 14 28
Operating times Average time for Us co	in AC Closing NO Opening NC Closing NC Opening NC	max min max min max min	ms ms ms ms ms ms	8 24 10 20 14 28 7
Operating times Average time for Us co	in AC Closing NO Opening NC Closing NC	max min max min max min max	ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Operating times Average time for Us co	in AC Closing NO Opening NC Closing NC Opening NC	max min max min max min max at 480V	ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Operating times Average time for Us co UL technical data Full-load current (FLA)	in AC Closing NO Opening NC Closing NC Closing NC Opening NC Opening NC Opening NC	max min max min max min max	ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Operating times Average time for Us co	in AC Closing NO Opening NC Closing NC Closing NC Opening NC Opening NC Opening NC Closing NC Closing NC Closing NC Opening NC Closing NC Closi	max min max min max min max at 480V	ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Operating times Average time for Us co UL technical data Full-load current (FLA)	in AC Closing NO Opening NC Closing NC Closing NC Opening NC Opening NC Opening NC	max min max min max min max at 480V	ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Operating times Average time for Us co UL technical data Full-load current (FLA)	in AC Closing NO Opening NC Closing NC Closing NC Opening NC Opening NC Opening NC Closing NC Closing NC Closing NC Opening NC Closing NC Closi	max min max min max min max at 480V at 600V	ms ms ms ms ms ms ms	8 24 10 20 14 28 7 18 14 17
Operating times Average time for Us co UL technical data Full-load current (FLA)	in AC Closing NO Opening NC Closing NC Closing NC Opening NC Opening NC Opening NC Closing NC Closing NC Closing NC Opening NC Closing NC Closi	max min max min max min max at 480V at 600V	ms ms ms ms ms ms A A	8 24 10 20 14 28 7 18 14 17 1
Operating times Average time for Us co UL technical data Full-load current (FLA)	in AC Closing NO Opening NC Opening NC Closing NC Opening NC openi	max min max min max min max at 480V at 600V	ms ms ms ms ms ms A A	8 24 10 20 14 28 7 18 14 17 1

BF1801A042

The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding



		000/0001/		F
		220/230V	HP	5
		460/480V	HP	10
		575/600V	HP	15
General USE				
	Contactor			
		AC current	А	32
	Auxiliary contacts			
	, taxinary contacto	AC voltage	V	600
		AC current	Å	10
		DC voltage	V	250
		DC current	A	1
Short-circuit protect				
	High fault			
		Short circuit current	kA	100
		Fuse rating	А	60
		Fuse class		J
	Standard fault			-
		Short circuit current	kA	5
		Fuse rating	A	80
Or at a stration of sur	- ilian - and at a seconding to 111	Fuse failing	A	
	xiliary contacts according to UL			A600 - P600
Ambient conditions				
Ambient conditions Temperature				
	Operating temperature			
		min	°C	-50
		min max		
	Operating temperature		°C °C	-50 70
		max	°C	70
	Operating temperature	maxmin	°C °C	-60
Temperature	Operating temperature	max	2° 2° 2°	70 -60 80
Temperature Max altitude	Operating temperature Storage temperature	maxmin	°C °C	-60
Temperature Max altitude Resistance & Prote	Operating temperature Storage temperature	maxmin	2° 2° 2°	70 -60 80 3000
Temperature Max altitude Resistance & Prote Pollution degree	Operating temperature Storage temperature ction	maxmin	2° 2° 2°	70 -60 80
Temperature Max altitude Resistance & Prote	Operating temperature Storage temperature ction	maxmin	2° 2° 2°	70 -60 80 3000
Temperature Max altitude Resistance & Prote Pollution degree	Operating temperature Storage temperature ction	maxmin	2° 2° 2°	70 -60 80 3000
Temperature Max altitude Resistance & Prote Pollution degree Certifications and c	Operating temperature Storage temperature ction	maxmin	2° 2° 2°	70 -60 80 3000
Temperature Max altitude Resistance & Prote Pollution degree Certifications and c	Operating temperature Storage temperature ction ompliance CSA C22.2 n° 60947-1	maxmin	2° 2° 2°	70 -60 80 3000
Temperature Max altitude Resistance & Prote Pollution degree Certifications and c	Operating temperature Storage temperature ction ompliance CSA C22.2 n° 60947-1 CSA C22.2 n° 60947-4-1	maxmin	2° 2° 2°	70 -60 80 3000
Temperature Max altitude Resistance & Prote Pollution degree Certifications and c	Operating temperature Storage temperature ction ompliance CSA C22.2 n° 60947-1 CSA C22.2 n° 60947-4-1 IEC/EN/BS 60947-1	maxmin	2° 2° 2°	70 -60 80 3000
Temperature Max altitude Resistance & Prote Pollution degree Certifications and c	Operating temperature Storage temperature ction ompliance CSA C22.2 n° 60947-1 CSA C22.2 n° 60947-4-1 IEC/EN/BS 60947-4-1 IEC/EN/BS 60947-4-1	maxmin	2° 2° 2°	70 -60 80 3000
Temperature Max altitude Resistance & Prote Pollution degree Certifications and c	Operating temperature Storage temperature ction ompliance CSA C22.2 n° 60947-1 CSA C22.2 n° 60947-4-1 IEC/EN/BS 60947-1	maxmin	2° 2° 2°	70 -60 80 3000