

11	
3	
	-
2	
"	

Product designation Product type designation			Power contactor BF09
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	25
Operational current le			
	AC-1 (≤40°C)	А	25
	AC-1 (≤55°C)	А	20
	AC-1 (≤70°C)	А	18
	AC-3 (≤440V ≤55°C)	А	9
	AC-4 (400V)	А	4.9
Rated operational power AC-3 (T≤55°C)			
	230V	kW	2.2
	400V	kW	4.2
	415V	kW	4.5
	440V	kW	4.8
	500V	kW	5.5
	690V	kW	7.5
Rated operational power AC-1 (T≤40°C)			
	230V	kW	9.5
	400V	kW	16
	500V	kW	21
	690V	kW	27
IEC max current le in DC1 with $L/R \le 1$ ms with 1 poles in series			
	≤24V	А	15
	48V	А	13
	75V	А	12
	110V	А	6
	220V	A	-
IEC max current le in DC1 with $L/R \le 1$ ms with 2 poles in series			
	≤24V	А	18
	48V	А	18
	75V	А	17
	110V	А	12
	220V	A	1
IEC max current le in DC1 with $L/R \le 1$ ms with 3 poles in series			
	≤24V	А	20
	48V	А	20
	75V	А	20
	110V	А	15

BF0901A042



	220V	А	10	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
	≤24V	А	20	
	48V	A	20	
	75V	А	20	
	110V	А	16	
	220V	А	12	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 1 poles in series				
	≤24V	А	10	
	48V	А	9	
	75V	А	8	
	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	13	
	48V	А	11	
	75V	А	10	
	110V	А	7	
	220V	А	2	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 3 poles in series				
	≤24V	А	15	
	48V	А	15	
	75V	A	13	
	110V	А	11	
	220V	А	6	
IEC max current le in DC3-DC5 with $L/R \le 15$ ms with 4 poles in series				
	≤24V	А	15	
	48V	А	15	
	75V	А	15	
	110V	А	12	
	220V	А	7	
Short-time allowable current for 10s (IEC/EN60947-1)		А	150	
Protection fuse				
	gG (IEC)	А	25	
	aM (IEC)	А	10	
Making capacity (RMS value)	. /	Α	90	
Breaking capacity at voltage				
	440V	А	72	
	500V	A	72	
	690V	А	71	
Resistance per pole (average value)		mΩ	2.5	
Power dissipation per pole (average value)			-	
	lth	W	1.6	
	AC-3	W	0.2	
Tightening torque for terminals				
	min	Nm	1.5	
	max	Nm	1.8	
	min	Ibin	1.1	
	max	Ibin	1.5	
Tightening torque for coil terminal			-	
5 5 - 1	min	Nm	0.8	
	max	Nm	1	
	min	Ibin	0.8	
			0.0	

BF0901A042



		max	Ibin	0.74
Max number of wires	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
		max		10
	Flexible w/o lug conductor section		2	
		min	mm²	1
	Flexible c/w lug conductor section	max	mm²	6
	Flexible C/w lug conductor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor sectio			<del></del>
	The share with insulated space by conductor section	min	mm²	1
		max	mm²	4
		max		IP20 when
Power terminal protect	ction according to IEC/EN 60529			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			
		max		10
Auxiliary contact chara	acteristics			
Thermal current Ith			А	10
mermai current itri			~	
IEC/EN 60947-5-1 de	-		7.	A600 - P600
	-			A600 - P600
IEC/EN 60947-5-1 de	-	230V	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	A600 - P600 3 1.9 1.4
IEC/EN 60947-5-1 de Operating current AC	15	400V	A A	A600 - P600 3 1.9
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	A A A A	A600 - P600 3 1.9 1.4 5.7 5.7
IEC/EN 60947-5-1 de Operating current AC	15	400V 500V 110V 24V 48V	A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9
IEC/EN 60947-5-1 de Operating current AC	15	400V 500V 110V 24V 48V 60V	A A A A A A A	A600 - P600 3 1.9 1.4 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 2.9 2.3 1.25
IEC/EN 60947-5-1 de Operating current AC	15	400V 500V 110V 24V 48V 60V	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	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
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 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 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 220V	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 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	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	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 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 2000000
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	15	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 2000000 2000000 2000000
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	15 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 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 2000000 2000000 2000000
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 Mirror contats accordi	15 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 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 2000000 2000000 2000000 2000000 2000000 yes



BF0901A042

Rated AC voltage at 5	0/60Hz			V	42
AC operating voltage					
	of 50/60Hz coil powered				
	p	bick-up		0/110	00
			min max	%Us %Us	80 110
	C	lrop-out	Παλ	/005	110
		nop out	min	%Us	20
			max	%Us	55
	of 50/60Hz coil powered	at 60Hz			
	p	vick-up			
			min	%Us	85
			max	%Us	110
	C	Irop-out			
			min	%Us	20
	motion at 20°C		max	%Us	55
AC average coil consu	of 50/60Hz coil powered	at 50Hz			
			in-rush	VA	75
			holding	VA VA	9
	of 50/60Hz coil powered	at 60Hz			-
	•		in-rush	VA	70
			holding	VA	6.5
	of 60Hz coil powered at 6	60Hz			
			in-rush	VA	75
			holding	VA	9
Dissipation at holding	≤20°C 50Hz			W	2.5
Max cycles frequency					
Machanical anaration				ovoloo/b	2600
Mechanical operation				cycles/h	3600
Operating times	ontrol			cycles/h	3600
				cycles/h	3600
Operating times	in AC	Closing NO		cycles/h	3600
Operating times	in AC	Closing NO	min	cycles/h ms	3600 8
Operating times	in AC	-	min max		
Operating times	in AC	Closing NO Opening NO	max	ms	8 24
Operating times	in AC	-	max	ms ms ms	8 24 10
Operating times	in AC C	Opening NO	max	ms ms	8 24
Operating times	in AC C	-	max min max	ms ms ms ms	8 24 10 20
Operating times	in AC C	Opening NO	max min max min	ms ms ms ms ms	8 24 10 20 14
Operating times	in AC C	Opening NO Closing NC	max min max	ms ms ms ms	8 24 10 20
Operating times	in AC C	Opening NO	max min max min max	ms ms ms ms ms	8 24 10 20 14 28
Operating times	in AC C	Opening NO Closing NC	max min max min	ms ms ms ms ms	8 24 10 20 14
Operating times	in AC C	Opening NO 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 C	Opening NO 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 C	Opening NO Closing 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 7.6
Operating times Average time for Us co UL technical data Full-load current (FLA)	in AC C	Opening NO 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 C C C o for three-phase AC motor	Dpening NO Closing NC Dpening 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 7.6
Operating times Average time for Us co UL technical data Full-load current (FLA)	in AC C	Dpening NO Closing NC Dpening NC	max min max min max min max at 480V at 600V	ms ms ms ms ms ms s	8 24 10 20 14 28 7 18 7.6 0.375
Operating times Average time for Us co UL technical data Full-load current (FLA)	in AC C C C o for three-phase AC motor	Dpening NO Closing NC Dpening NC	max min max min max min max at 480V at 600V	ms ms ms ms ms ms A A HP	8 24 10 20 14 28 7 18 7.6 0.375 0.75
Operating times Average time for Us co UL technical data Full-load current (FLA)	in AC C	Dpening NO Closing NC Dpening NC	max min max min max min max at 480V at 600V	ms ms ms ms ms ms s	8 24 10 20 14 28 7 18 7.6 0.375
Operating times Average time for Us co UL technical data Full-load current (FLA)	in AC C C C o for three-phase AC motor	Dpening NO Closing NC Dpening NC	max min max min max min max at 480V at 600V	ms ms ms ms ms ms A A HP	8 24 10 20 14 28 7 18 7.6 0.375 0.75

BF0901A042

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



		220/230V	HP	3
		460/480V	HP	5
		575/600V	HP	7.5
General USE				
	Contactor			
		AC current	А	25
	Auxiliary contacts			
		AC voltage	V	600
		AC current	А	10
		DC voltage	V	250
		DC current	А	1
Short-circuit protectior	n fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	А	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	А	60
Contact rating of auxili	ary 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 & Protection	on			
Pollution degree				3