



Product designation Prower contactor BF09 Product type designation BF09 Contact characteristics Nr. 3 Rated insulation voltage Uil EC/EN V. 690 Rated insulation voltage Uimp kV. 6 Operational frequency min Hz 25 max Hz 400 4 IEC Conventional free air thermal current Ith A- 25 A- 25 Operational current Ie AC-1 (\$40°C) A 25 AC-1 (\$55°C) A 20 A- 26 AC-1 (\$55°C) A 20 A- 26 AC-1 (\$40°C) A 20 A- 26 AC-1 (\$40°C) A 20 A- 26 AC-2 (\$400V \$5°C) A 9 A- 26 AC-3 (\$40V \$5°C) A 9 A- 26 AC-3 (\$40V \$5°C) A 49 49 Rated operational power AC-3 (T≤55°C) A 400V kW 45 ALL (\$40°C) A 230V kW 9.5				
Product type designation	Product designation			Power contactor
Contact characteristics Nr. 3 Rated insulation voltage UI IEC/EN V 690 Rated insulation voltage Uimp kV 6 Operational frequency min Hz 25 IEC Conventional free air thermal current Ith A 25 Operational current Ie AC-1 (≤40°C) A 25 AC-1 (≤55°C) A 20 AC-1 (≤55°C) A 20 AC-1 (≤440V ≤55°C) A 9 AC-4 (400V) A 4.9 Rated operational power AC-3 (T≤5°C) 230V kW 2.2 400V kW 4.2 415V kW 4.2 415V kW 4.5 440V kW 4.5 440V kW 4.5 440V kW 4.5 440V kW 7.5 8 8 8 8 500V kW 7.5 8 20 4 20 4 20 4 4 8 8 500V kW 21 690V kW 2.2 <td></td> <td></td> <td></td> <td></td>				
Rated insulation voltage Ui IEC/EN V 690 Rated impulse withstand voltage Uimp kV 6 Operational frequency min Hz 25 IEC Conventional free air thermal current Ith A 25 Operational current Ie AC-1 (≤40°C) A 20 AC-1 (≤70°C) A 20 AC-1 (≤70°C) A 18 AC-3 (≤440V ≤55°C) A 9 AC-4 (400V) A 4.9 Rated operational power AC-3 (T≤55°C) 230V kW 4.9 Rated operational power AC-1 (T≤40°C) 230V kW 4.5 440V kW 4.5 440V kW 4.5 440V kW 4.5 440V kW 5.5 690V kW 7.5 Rated operational power AC-1 (T≤40°C) 230V kW 9.5 400V kW 5.5 690V kW 2.5 Rated operational power AC-1 (T≤40°C) 230V kW 9.5 400V kW 2.0 <				
Rated insulation voltage UirEC/EN V 690 Rated impulse withstand voltage Uimp kV 6 Operational frequency min Hz 25 imax Hz 400 Hz 400 IEC Conventional free air thermal current Ith A 25 25 Operational current le AC-1 (≤40°C) A 25 AC-1 (≤70°C) A 18 AC-1 (≤70°C) A 18 AC-3 (≤440V ≤55°C) A 9 AC-4 (400V) A 4.9 Rated operational power AC-3 (T≤55°C) 230V kW 2.2 400V kW 4.2 440V kW 4.2 415V kW 4.5 44V kW 4.8 500V kW 5.5 690V kW 7.5 8 80V kW 7.5 8 8 8 500V kW 9.5 40V kW 2.2 40V kW 4.8 500V kW 7.5 A 10 20V 20V	Number of poles		Nr.	3
Rated impulse withstand voltage Uimp			V	690
Provisional frequency Pro			kV	
Min				
EC Conventional free air thermal current lth	•	min	Hz	25
AC-1 (≤40°C)		max	Hz	
AC-1 (≤40°C)	IEC Conventional free air thermal current Ith		Α	25
AC-1 (≤40°C)	Operational current le			
AC-1 (S55°C)	•	AC-1 (≤40°C)	Α	25
AC-1 (≤70°C)		•		
AC-3 (≤440V ≤55°C) A 9 AC-4 (400V) A 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 690V kW 21 690V kW 27 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 15 48V A 13 75V A 12 110V A 6 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 18 48V A 18 48V A 18 48V A 18 75V A 17 1110V A 12 220V A 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		•		
Rated operational power AC-3 (T≤55°C) 230V kW 2.2 400V kW 4.2 415V kW 4.5 4415V kW 4.5 440V kW 5.5 690V kW 7.5 7.5				
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 16 500V kW 21 690V kW 27 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series \$\frac{224V A}{48V A} \frac{15}{48} \frac{15}{48V A} \frac{20}{48V A} \f				
230V kW 2.2 400V kW 4.2 415V kW 4.5 445V kW 4.5 446V kW 4.8 500V kW 5.5 690V kW 7.5 7.5 8 7.5 7.5 8 7.5 7.5 7.5 8 7.5	Rated operational power AC-3 (T≤55°C)	, ,		
A00V kW 4.2 415V kW 4.5 440V kW 4.8 500V kW 5.5 690V kW 7.5 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 ≤ 1ms with 1 poles in series 524V A 15 48V A 13 75V A 12 110V A 6 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series 524V A 18 48V A 18 75V A 17 110V A 18 75V A 17 110V A 12 220V A 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 18 75V A 17 110V A 12 220V A 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 20 48V A 20 48V A 20 75V A 20		230V	kW	2.2
A440V kW 4.8 500V kW 5.5 690V kW 7.5		400V		
A40V kW 4.8 500V kW 5.5 690V kW 7.5			kW	
Soov kW 5.5 690V kW 7.5		440V	kW	
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 ≤ 1ms with 1 poles in series ≤24V A 15 48V A 13 75V A 12 110V A 6 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 18 48V A 18 48V A 18 75V A 17 110V A 18 75V A 17 110V A 12 220V A 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 20 48V A 20 75V A 20		500V	kW	
		690V	kW	
	Rated operational power AC-1 (T≤40°C)			
SooV kW 21 690V kW 27		230V	kW	9.5
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V		400V	kW	16
SEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series S24V		500V	kW	21
		690V	kW	27
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
T5V A 12 110V A 6 220V A -		≤24V	Α	15
110V A 6 220V A -		48V	Α	13
EC max current le in DC1 with L/R \leq 1ms with 2 poles in series \leq 24V A 18 48V A 18 75V A 17 110V A 12 220V A 1		75V	Α	12
EC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V		110V	Α	6
		220V	Α	_
	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
		≤24V	Α	18
		48V	Α	18
		75V	Α	17
IEC max current le in DC1 with L/R \leq 1ms with 3 poles in series $ \leq 24V \qquad A \qquad 20 \\ 48V \qquad A \qquad 20 \\ 75V \qquad A \qquad 20 $		110V	Α	12
≤24V A 20 48V A 20 75V A 20		220V	Α	1
48V A 20 75V A 20	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
75V A 20		≤24V	Α	20
		48V	Α	20
110V A 15		75V	Α	20
		110V	Α	15



	220V	Α	10	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
	≤24V	Α	20	
	48V	Α	20	
	75V	Α	20	
	110V	Α	16	
	220V	Α	12	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series				
'	≤24V	Α	10	
	48V	Α	9	
	75V	Α	8	
	110V	Α	2	
	220V	A	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	220 V			
TEO Max current le in 200-200 with E/TC = 10/1/3 with 2 poles in series	≤24V	Α	13	
	48V			
	46 V 75 V	A	11 10	
		A	10	
	110V	A	7	
	220V	Α	2	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	- · ·	_		
	≤24V	Α	15	
	48V	Α	15	
	75V	Α	13	
	110V	Α	11	
	220V	Α	6	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series				
	≤24V	Α	15	
	48V	Α	15	
	75V	Α	15	
	110V	Α	12	
	220V	Α	7	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	150	
Protection fuse				
	gG (IEC)	Α	25	
	aM (IEC)	Α	10	
Making capacity (RMS value)	, ,	Α	90	
Breaking capacity at voltage				
3	440V	Α	72	
	500V	A	72	
	690V	A	71	
Resistance per pole (average value)	090 V	mΩ	2.5	
Power dissipation per pole (average value)		11122	۷.5	
rowei dissipation per pole (average value)	114	14/	1.6	
	Ith	W	1.6	
Tinhtonia a tauma fautamaia II	AC-3	W	0.2	
Tightening torque for terminals			4.5	
	min	Nm	1.5	
	max	Nm	1.8	
	min	lbin	1.1	
	max	Ibin	1.5	
Tightening torque for coil terminal				
	min	Nm	0.8	
	max	Nm	1	
	min	lbin	0.8	



May a make a of wines	simultan asuahu asua satah la	max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	AWG/Kcmil			
	AWG/RCIIII	max		10
	Flexible w/o lug conductor section	IIIax		10
	Ticklible w/o lag conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	max		
	. Ionale of a ray conductor cooler	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
	,	min	mm²	1
		max	mm²	4
Dower terminal prote	etion according to IEC/EN COECO			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	360
Conductor section			9	
oonaaotor oootion	AWG/kcmil conductor section			
	, tive en addition desirent	max		10
Auxiliary contact char	acteristics			
Thermal current Ith			А	10
IEC/EN 60947-5-1 de	esignation			A600 - P600
Operating current AC	~			
		230V	Α	3
		400V	Α	1.9
		500V	Α	1.4
Operating current DC	12			
		110V	Α	5.7
	13			
Operating current DC				
Operating current DC		24V	Α	5.7
Operating current DC		24V 48V	A A	5.7 2.9
Operating current DC				
Operating current DC		48V	Α	2.9
Operating current DC		48V 60V	A A	2.9 2.3
Operating current DC		48V 60V 110V	A A A	2.9 2.3 1.25
Operating current DC		48V 60V 110V 125V	A A A	2.9 2.3 1.25 1.1
		48V 60V 110V 125V 220V	A A A A	2.9 2.3 1.25 1.1 0.55
Operations		48V 60V 110V 125V 220V	A A A A	2.9 2.3 1.25 1.1 0.55
Operations Mechanical life		48V 60V 110V 125V 220V	A A A A	2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data		48V 60V 110V 125V 220V	A A A A A cycles	2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life Electrical life Safety related data	I0d according to EN/ISO 13489-1	48V 60V 110V 125V 220V	A A A A A cycles	2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life Electrical life Safety related data		48V 60V 110V 125V 220V	A A A A A cycles	2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000
Operations Mechanical life Electrical life Safety related data Performance level B1	10d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A Cycles cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000
Operations Mechanical life Electrical life Safety related data Performance level B1	10d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A Cycles cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000 20000000 200000000



Rated AC voltage at 5	0/60Hz		V	42
AC operating voltage	of 50/60Hz coil powered at 50Hz			
	pick-up			
	pion ap	min	%Us	80
		max	%Us	110
	drop-out			
		min	%Us	20
		max	%Us	55
	of 50/60Hz coil powered at 60Hz			
	pick-up	min	%Us	85
		min max	%Us	110
	drop-out	IIIax	/003	110
	arop out	min	%Us	20
		max	%Us	55
AC average coil cons	umption at 20°C			
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	75
	· ·	holding	VA	9
	of 50/60Hz coil powered at 60Hz			70
		in-rush	VA	70
	of 60Hz coil powered at 60Hz	holding	VA	6.5
	or bornz coir powered at bornz	in-rush	VA	75
		III IUSII		
		holding	VA	9
Dissipation at holding	≤20°C 50Hz	holding	VA W	9 2.5
		holding	VA W	2.5
Dissipation at holding Max cycles frequency Mechanical operation		holding		2.5
Max cycles frequency Mechanical operation Operating times		holding	W	2.5
Max cycles frequency Mechanical operation Operating times	ontrol	holding	W	2.5
Max cycles frequency Mechanical operation Operating times	ontrol in AC	holding	W	2.5
Max cycles frequency Mechanical operation Operating times	ontrol		W cycles/h	2.5 3600
Max cycles frequency Mechanical operation Operating times	ontrol in AC	min	W cycles/h	2.5 3600 8
Max cycles frequency Mechanical operation Operating times	ontrol in AC Closing NO	min max	W cycles/h	2.5 3600
Max cycles frequency Mechanical operation Operating times	ontrol in AC	min max	W cycles/h ms ms	2.5 3600 8 24
Max cycles frequency Mechanical operation Operating times	ontrol in AC Closing NO	min max	W cycles/h	2.5 3600 8
Max cycles frequency Mechanical operation Operating times	ontrol in AC Closing NO	min max) min	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	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 Closing NC	min max) min max min max	W cycles/h 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	w cycles/h	2.5 3600 8 24 10 20 14 28
Max cycles frequency	ontrol in AC Closing NO Opening NC Closing NC	min max) min max min max)	w cycles/h	2.5 3600 8 24 10 20 14 28
Max cycles frequency Mechanical operation Operating times Average time for Us o	ontrol in AC Closing NO Opening NC Closing NC	min max) min max min max	w cycles/h	2.5 3600 8 24 10 20 14 28
Max cycles frequency Mechanical operation Operating times Average time for Us o	ontrol in AC Closing NO Opening NC Closing NC Opening NC	min max) min max min max)	w cycles/h	2.5 3600 8 24 10 20 14 28
Max cycles frequency Mechanical operation Operating times Average time for Us o	ontrol in AC Closing NO Opening NC Closing NC	min max) min max min max) min max	w cycles/h	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us o	ontrol in AC Closing NO Opening NC Closing NC Opening NC	min max min max min max min max at 480V	w cycles/h	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us of	ontrol in AC Closing NO Opening NC Closing NC Opening NC Opening NC	min max) min max min max) min max	w cycles/h	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us o	ontrol in AC Closing NO Opening NC Closing NC Opening NC Opening NC	min max min max min max min max at 480V	w cycles/h	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us of	ontrol in AC Closing NO Opening NC Closing NC Opening NC Opening NC	min max min max min max min max at 480V	w cycles/h	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us of	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/h	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequency Mechanical operation Operating times Average time for Us of	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/h	2.5 3600 8 24 10 20 14 28 7 18 7.6 0.375





		000/000/		•
		220/230V	HP	3
		460/480V	HP	5
		575/600V	HP	7.5
General USE				
	Contactor			
		AC current	Α	25
	Auxiliary contacts			
	•	AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protection	n fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	60
Contact rating of auxili	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 & Protection	on			
Pollution degree				3