

Product designation	Power contactor		
Product type designation	BF09		
Contact characteristics			
Number of poles	Nr.	4	
Rated insulation voltage U_i IEC/EN	V	690	
Rated impulse withstand voltage U_{imp}	kV	6	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current I_{th}	A	25	
Operational current I_e			
AC-1 ($\leq 40^\circ C$)	A	25	
AC-1 ($\leq 55^\circ C$)	A	20	
AC-1 ($\leq 70^\circ C$)	A	18	
AC-3 ($\leq 440V \leq 55^\circ C$)	A	9	
AC-4 (400V)	A	4.9	
Rated operational power AC-1 ($T \leq 40^\circ C$)			
230V	kW	9.5	
400V	kW	16	
500V	kW	21	
690V	kW	27	
Short-time allowable current for 10s (IEC/EN60947-1)	A	150	
Protection fuse			
gG (IEC)	A	25	
aM (IEC)	A	10	
Making capacity (RMS value)	A	90	
Breaking capacity at voltage			
440V	A	72	
500V	A	72	
690V	A	71	
Resistance per pole (average value)	mΩ	2.5	
Power dissipation per pole (average value)			
I_{th}	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			
min	Nm	0.8	
max	Nm	1	
min	Ibin	0.8	
max	Ibin	0.74	
Max number of wires simultaneously connectable	Nr.	2	
Conductor section			
AWG/Kcmil	max	10	
Flexible w/o lug conductor section	min	mm ²	1
	max	mm ²	6
Flexible c/w lug conductor section	min	mm ²	1

	max	mm ²	4
Flexible with insulated spade lug conductor section	min	mm ²	1
	max	mm ²	4
Power terminal protection according to IEC/EN 60529			IP20 when properly wired
Mechanical features			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	358
Operations			
Mechanical life		cycles	20000000
Electrical life		cycles	2000000
Safety related data			
Performance level B10d according to EN/ISO 13489-1	rated load mechanical load	cycles cycles	2000000 20000000
EMC compatibility			yes
AC coil operating			
AC operating voltage	of 60Hz coil powered at 60Hz		
	pick-up	min max	%Us %Us 80 110
	drop-out	min max	%Us %Us 20 55
AC average coil consumption at 20°C			
of 60Hz coil powered at 60Hz	in-rush holding	VA VA	75 9
Dissipation at holding ≤20°C 50Hz		W	2.5
Max cycles frequency			
Mechanical operation		cycles/h	3600
Operating times			
Average time for Us control in AC	Closing NO	min max	ms ms 8 24
	Opening NO	min max	ms ms 10 20
	Closing NC	min max	ms ms 14 28
	Opening NC	min max	ms ms 7 18
UL technical data			
Rated operational voltage AC (UL)		V	600

Full-load current (FLA) for three-phase AC motor

at 480V	A	7.6
at 600V	A	9

Yielded mechanical performance

for single-phase AC motor

110/120V	HP	0.8
230V	HP	2

for three-phase AC motor

200/208V	HP	3
220/240V	HP	3
460/480V	HP	5
575/600V	HP	7.5

General USE

Contactor

AC current	A	25
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Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

m	3000
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Resistance & Protection

Pollution degree

3

ETIM classification

EC000066 - Power contactor, AC switching
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ETIM 8.0