

Product designation			Power contactor
Product type designation			BF09
Contact characteristics			
Number of poles	Nr.	4	
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	A	25	
Operational current Ie	AC-1 (≤40°C)	A	25
	AC-1 (≤55°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-1 (T≤40°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)	Ith	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	mm²	1
	max	mm²	6
Flexible c/w lug conductor section	min		mm²
			1

Flexible with insulated spade lug conductor section	max	mm <sup>2</sup>	4
	min	mm <sup>2</sup>	1
	max	mm <sup>2</sup>	4
Power terminal protection according to IEC/EN 60529			IP20 when properly wired
<b>Mechanical features</b>			
Operating position			
	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	358
<b>Operations</b>			
Mechanical life		cycles	20000000
Electrical life		cycles	2000000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	2000000
	mechanical load	cycles	20000000
EMC compatibility			yes
<b>AC coil operating</b>			
AC operating voltage			
of 60Hz coil powered at 60Hz pick-up			
	min	%Us	80
	max	%Us	110
drop-out			
	min	%Us	20
	max	%Us	55
AC average coil consumption at 20°C			
of 60Hz coil powered at 60Hz			
	in-rush	VA	75
	holding	VA	9
Dissipation at holding ≤20°C 50Hz		W	2.5
<b>Max cycles frequency</b>			
Mechanical operation		cycles/h	3600
<b>Operating times</b>			
Average time for Us control in AC			
Closing NO			
	min	ms	8
	max	ms	24
Opening NO			
	min	ms	10
	max	ms	20
Closing NC			
	min	ms	14
	max	ms	28
Opening NC			
	min	ms	7
	max	ms	18
<b>UL technical data</b>			
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
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			
Pollution degree			3
ETIM classification			
ETIM 8.0		EC000066 - Power contactor, AC switching	