

Product designation				Power contactor
Product type designation				BF09
<b>Contact characteristics</b>				
Number of poles	Nr.			4
Rated insulation voltage U <sub>i</sub> IEC/EN	V			690
Rated impulse withstand voltage U <sub>imp</sub>	kV			6
Operational frequency	min	Hz	25	
	max	Hz	400	
IEC Conventional free air thermal current I <sub>th</sub>	A			25
Operational current I <sub>e</sub>	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)	I <sub>th</sub>	W	1.6	
	AC3	W	0.2	
Tightening torque for terminals	min	Nm	1.5	
	max	Nm	1.8	
	min	lbin	1.1	
	max	lbin	1.5	
Tightening torque for coil terminal	min	Nm	0.8	
	max	Nm	1	
	min	lbin	Prodotti finiti	
	max	lbin	Prodotti finiti	
Max number of wires simultaneously connectable	Nr.			2
Conductor section	Flexible w/o lug conductor section			
	min	mm <sup>2</sup>	1	
	max	mm <sup>2</sup>	6	
	Flexible c/w lug conductor section			
	min	mm <sup>2</sup>	1	
	max	mm <sup>2</sup>	4	
	Flexible with insulated spade lug conductor section			

	min	mm <sup>2</sup>	1
	max	mm <sup>2</sup>	4
Power terminal protection according to IEC/EN 60529			IP20 when wired
<b>Mechanical features</b>			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	352
<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 mechanical load	cycles	2000000
		cycles	20000000
Mirror contacts according to IEC/EN 60947-4-1			YES
EMC compatibility			Yes
Rated AC voltage at 60Hz		V	120
<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 50/60Hz coil powered at 50Hz	in-rush holding	VA VA 75 9
	of 50/60Hz coil powered at 60Hz	in-rush holding	VA VA 70 6.5
	of 60Hz coil powered at 60Hz	in-rush holding	VA VA 75 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

**UL technical data**

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
220/230V	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

**Dimensions**

**Wiring diagrams**

**Certifications and compliance**

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

EAC

**ETIM classification**

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching