

## FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 25A, AC COIL 50/60HZ, 230VAC, 2NO AND 2NC



Product designation			Power contactor
Product type designation Contact characteristics			BF09
Number of poles		Nr.	4
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency		i v	
oporational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	25
Operational current le			
•	AC-1 (≤40°C)	Α	25
	AC-1 (≤55°C)	Α	20
	AC-1 (≤70°C)	Α	18
	AC-3 (≤440V ≤55°C)	Α	9
	AC-4 (400V)	Α	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)		Α	150
Protection fuse			
	gG (IEC)	Α	25
	aM (IEC)	Α	10
Making capacity (RMS value)		A	90
Breaking capacity at voltage			
	440V	Α	72
	500V	Α	72
	690V	A	71
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)	141	147	4.0
	Ith	W	1.6
Tightening torque for terminals	AC-3	W	0.2
rightening torque for terminals	min	Nimo	1 E
	min	Nm Nm	1.5 1.8
	max min	lbin	1.0
	max	lbin	1.5
Tightening torque for coil terminal	Παλ	10111	1.0
righterning torque for contentinual	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8
	max	lbin	0.74
Max number of wires simultaneously connectable	ax	Nr.	2



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Conductor section			
	AWG/Kcmil		
	max		10
	Flexible w/o lug conductor section		
	min	mm²	1
	max	mm²	6
	Flexible c/w lug conductor section	2	4
	min	mm² mm²	1
	Flexible with insulated spade lug conductor section	ШП	4
	min	mm²	1
	max	mm²	4
Power terminal protec	tion according to IEC/EN 60529		IP20 when
Mechanical features			properly wired
Operating position			
Sporading position	normal		Vertical plan
	allowable		±30°
Fixing			Screw / DIN rail 35mm
Weight		g	358
Conductor section			
	AWG/kcmil conductor section		
On and the sec	max		10
Operations  Mechanical life		cycles	20000000
Electrical life		cycles	2000000
Safety related data		0,0.00	2000000
,			
Performance level B1	0d according to EN/ISO 13489-1		
Performance level B1	0d according to EN/ISO 13489-1 rated load	cycles	2000000
	rated load mechanical load	cycles cycles	20000000
Mirror contats accordi	rated load	-	20000000 YES
Mirror contats accordi	rated load mechanical load	-	20000000
Mirror contats accordine EMC compatibility AC coil operating	rated load mechanical load ng to IEC/EN 609474-4-1	cycles	20000000 YES yes
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	rated load mechanical load ng to IEC/EN 609474-4-1	-	20000000 YES
Mirror contats according  EMC compatibility  AC coil operating  Rated AC voltage at 5	rated load mechanical load ng to IEC/EN 609474-4-1  0/60Hz  of 50/60Hz coil powered at 50Hz	cycles	20000000 YES yes
Mirror contats according  EMC compatibility  AC coil operating  Rated AC voltage at 5	rated load mechanical load ng to IEC/EN 609474-4-1  0/60Hz  of 50/60Hz coil powered at 50Hz pick-up	V	20000000 YES yes 230
Mirror contats according  EMC compatibility  AC coil operating  Rated AC voltage at 5	rated load mechanical load ng to IEC/EN 609474-4-1  0/60Hz  of 50/60Hz coil powered at 50Hz	cycles	20000000 YES yes
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	rated load mechanical load ng to IEC/EN 609474-4-1  0/60Hz  of 50/60Hz coil powered at 50Hz pick-up min	v V	20000000 YES yes 230
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	rated load mechanical load ng to IEC/EN 609474-4-1  0/60Hz  of 50/60Hz coil powered at 50Hz pick-up  min max	V  %Us %Us %Us	20000000 YES yes 230 80 110 20
Mirror contats accordine EMC compatibility AC coil operating	rated load mechanical load ng to IEC/EN 609474-4-1  0/60Hz  of 50/60Hz coil powered at 50Hz pick-up min max drop-out min max	V %Us %Us	20000000 YES yes 230 80 110
Mirror contats according  EMC compatibility  AC coil operating  Rated AC voltage at 5	rated load mechanical load ng to IEC/EN 609474-4-1  0/60Hz  of 50/60Hz coil powered at 50Hz pick-up min max drop-out min	V  %Us %Us %Us	20000000 YES yes 230 80 110 20
Mirror contats according  EMC compatibility  AC coil operating  Rated AC voltage at 5	rated load mechanical load ng to IEC/EN 609474-4-1  0/60Hz  of 50/60Hz coil powered at 50Hz pick-up min max drop-out min max of 50/60Hz coil powered at 60Hz	V  %Us %Us %Us %Us %Us	20000000 YES yes 230  80 110 20 55
Mirror contats according  EMC compatibility  AC coil operating  Rated AC voltage at 5	rated load mechanical load ng to IEC/EN 609474-4-1  0/60Hz  of 50/60Hz coil powered at 50Hz pick-up min max drop-out min max of 50/60Hz coil powered at 60Hz pick-up min max	V  %Us %Us %Us %Us %Us %Us	20000000 YES yes 230 80 110 20 55
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	rated load mechanical load ong to IEC/EN 609474-4-1  0/60Hz  of 50/60Hz coil powered at 50Hz pick-up min max drop-out min max of 50/60Hz coil powered at 60Hz pick-up min max drop-out min max	V  %Us %Us %Us %Us %Us %Us	20000000 YES yes 230  80 110 20 55
Mirror contats according  EMC compatibility  AC coil operating  Rated AC voltage at 5	rated load mechanical load ng to IEC/EN 609474-4-1  0/60Hz  of 50/60Hz coil powered at 50Hz pick-up min max drop-out min max  of 50/60Hz coil powered at 60Hz pick-up  min max  drop-out min max  of 50/60Hz coil powered at 60Hz pick-up  min max  drop-out min max	V  %Us %Us %Us %Us %Us %Us	20000000 YES yes 230  80 110 20 55  85 110 20
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5 AC operating voltage	rated load mechanical load ng to IEC/EN 609474-4-1  0/60Hz  of 50/60Hz coil powered at 50Hz pick-up min max drop-out min max of 50/60Hz coil powered at 60Hz pick-up min max drop-out min max	V  %Us %Us %Us %Us %Us %Us	20000000 YES yes 230  80 110 20 55
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5 AC operating voltage	rated load mechanical load ng to IEC/EN 609474-4-1  0/60Hz  of 50/60Hz coil powered at 50Hz pick-up min max drop-out min max of 50/60Hz coil powered at 60Hz pick-up min max ary of 50/60Hz coil powered at 60Hz pick-up min max drop-out min max drop-out min max	V  %Us %Us %Us %Us %Us %Us	20000000 YES yes 230  80 110 20 55  85 110 20
Mirror contats according EMC compatibility AC coil operating Rated AC voltage at 5	rated load mechanical load ng to IEC/EN 609474-4-1  0/60Hz  of 50/60Hz coil powered at 50Hz pick-up min max drop-out min max of 50/60Hz coil powered at 60Hz pick-up min max drop-out min max	V  %Us %Us %Us %Us %Us %Us	20000000 YES yes 230  80 110 20 55  85 110 20

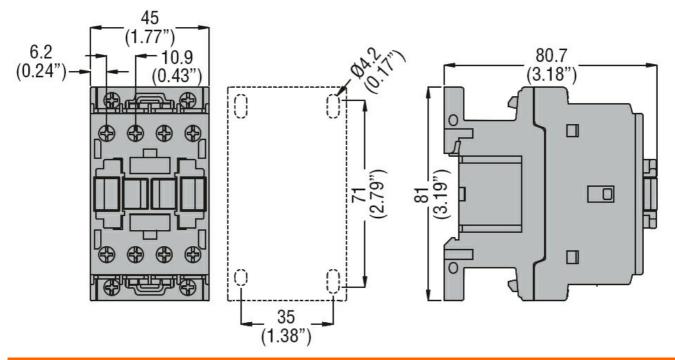


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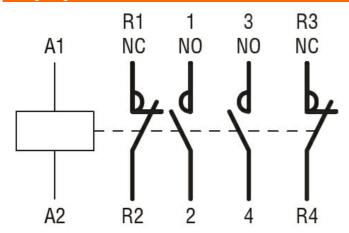
	of 50/60Hz coil powered at 60Hz			_
	,	in-rush	VA	70
		holding	VA	6.5
	of 60Hz coil powered at 60Hz	riolaling	• • • • • • • • • • • • • • • • • • • •	
	of our 12 con powered at our 12	in-rush	VA	75
D'	400°O FOLL-	holding	VA	9
Dissipation at holding	\$20°C 50HZ		W	2.5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co				
	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			
	Spanning	min	ms	7
		max	ms	18
UL technical data		тих	1110	10
	for three-phase AC motor			
r dir load odiront (r Ez t	nor times phase he motor	at 480V	Α	7.6
		at 600V	A	9
Yielded mechanical pe	arformana	at 000 v		9
rielueu mechanicai pe				
	for single-phase AC motor	440/400\/	LID	0.0
		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	Α	25
Ambient conditions				
Temperature				
- h	Operating temperature			
	epotating tomporators	min	°C	-50
		max	°C	70
	Storage temperature	IIIdX		10
	Storage temperature	ma:i.a	°C	60
		min	°C	-60
NA 10's - 1		max	°C	80
Max altitude			m	3000
Resistance & Protection	on			
Pollution degree				3
Dimensions				

**ENERGY AND AUTOMATION** 

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#### Wiring diagrams



#### Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

EAC

### ETIM classification

**ETIM 8.0** 

EC000066 -Power contactor, AC switching