



Power contactor  
BF09

Product designation

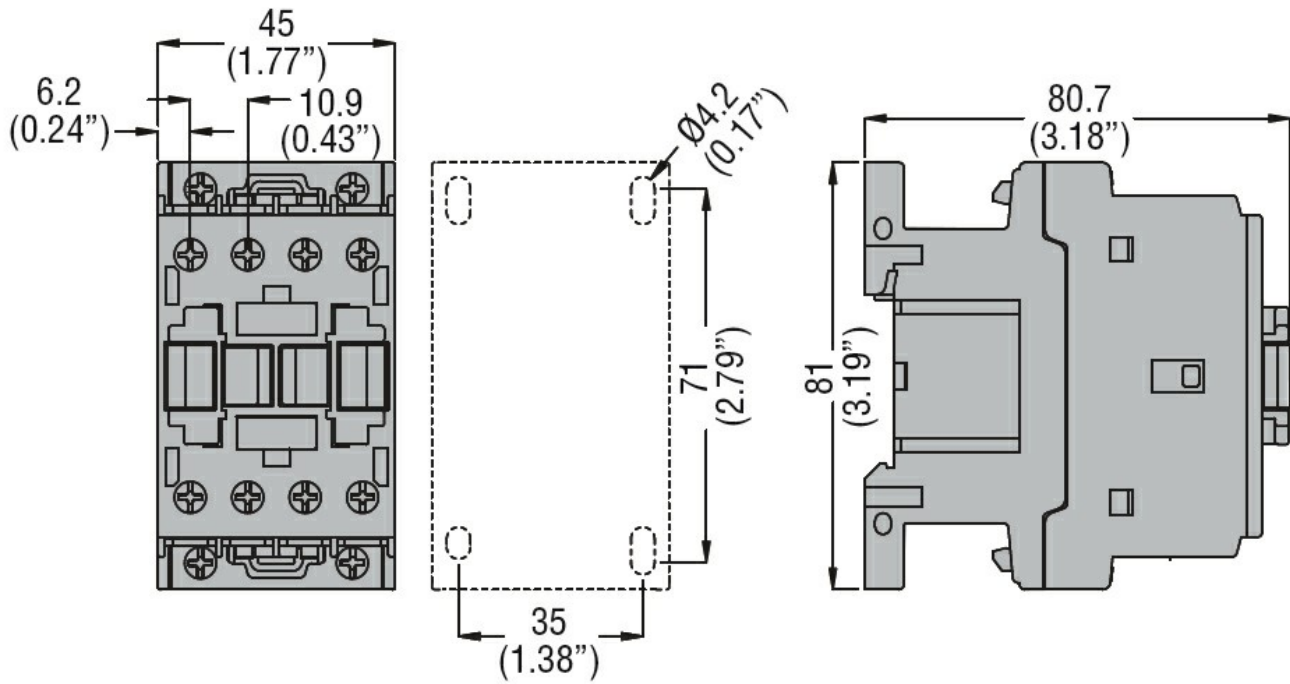
Product type designation

**Contact characteristics**

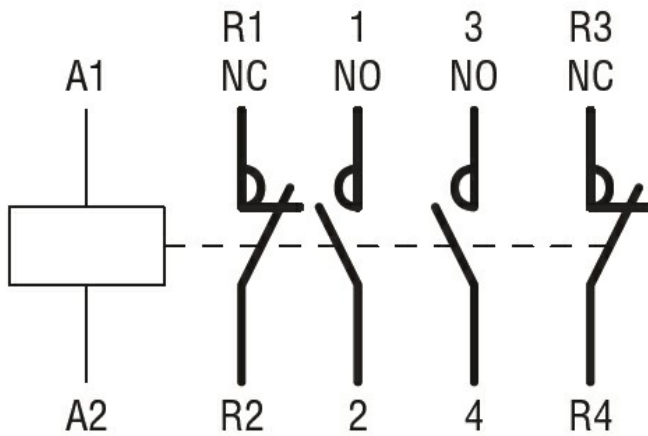
Number of poles	nr.	4
Rated insulation voltage U <sub>i</sub>	V	690
Rated impulse withstand voltage U <sub>imp</sub>	kV	6
Operating frequency	Operational frequency min	Hz 25
	Operational frequency max	Hz 400
Conventional free air thermal current I <sub>th</sub>	A	25
Operating current	Operational current AC1 (≤40°C)	A 25
	Operational current AC3 (≤440V ≤55°C)	A 9
	Operational current AC4 (400V)	A 4.9
Rated operational power AC1 (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	Breaking capacity 440V	A 72
	Breaking capacity 500V	A 72
	Breaking capacity 690V	A 71
Resistance per pole (average value)	mΩ	2.5
Power dissipation per pole (average value)	Power dissipation 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	lbft 1.1
	max	lbft 1.5
Tightening torque for coil terminal	min	Nm 0.8
	max	Nm 1
	min	lbft 0.8
	max	lbft 0.74
max number of wires simultaneously connectable	nr.	2
Conductor section	AWG	

	min		16
	max		10
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>Auxiliary contact characteristics</b>			
Operational current AC1 (≤40°C)		A	25
Operating current DC13	110V	A	Screw / DIN rail 35mm
<b>Ambient conditions</b>			
Temperature			
Operating temperature			
	min	°C	-50
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Operating position			
	normal allowable		Vertical plan ±30°
Mounting			Screw / DIN rail 35mm
Weight		g	0.358
<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	Cicli	2000000
	mechanical load	Cicli	20000000
EMC compatibility			
			yes
<b>AC coil operating</b>			
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
	pick-up		
	min	%Us	0.8
	max	%Us	1.1
	drop-out		
	min	%Us	0.2
	max	%Us	0.55
of 50/60Hz coil powered at 60Hz			
	pick-up		
	min	%Us	0.85
	max	%Us	1.1
	drop-out		

		min	%Us	0.2
		max	%Us	0.55
of 60Hz coil powered at 60Hz				
	pick-up			
		min	%Us	0.8
		max	%Us	1.1
	drop-out			
		min	%Us	0.2
		max	%Us	0.55
AC operating voltage				
of 50/60Hz coil powered at 50Hz				
		in-rush	VA	75
		holding	VA	9
of 50/60Hz coil powered at 60Hz				
		in-rush	VA	70
		holding	VA	6.5
of 60Hz coil powered at 60Hz				
		in-rush	VA	75
		holding	VA	9
Dissipation at holding ≤20°C 50Hz			W	2.5
DC coil operating				
DC rated control voltage				
		max	V	250
Max cycles frequency				
Mechanical operations			Cycles/h	3600
Operating times				
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
Contact rating of auxiliary contacts according to UL				A600 - P600
General USE				
	Contactor			
		AC current	A	25
Other features				
Pollution degree				3
Dimensions				



### Wiring diagrams



### Certifications and compliance

#### Certifications

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

#### Compliance

CCC  
cULus  
EAC

### ETIM 6 classification

EC000066 - Power contactor, AC switching