



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 ($\leq 40^\circ\text{C}$) AC-1 ($\leq 55^\circ\text{C}$) AC-1 ($\leq 70^\circ\text{C}$) AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$) AC-4 (400V)		
Rated operational power AC-1 ($T \leq 40^\circ\text{C}$)	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) aM (IEC)		
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°
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Fixing

Screw / DIN rail
35mm

Weight

g	366
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Operations

Mechanical life

cycles	20000000
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Electrical life

cycles	2000000
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Safety related data

Performance level B10d according to EN/ISO 13489-1

rated load	cycles	2000000
mechanical load	cycles	20000000

EMC compatibility

yes

AC coil operating

V	24
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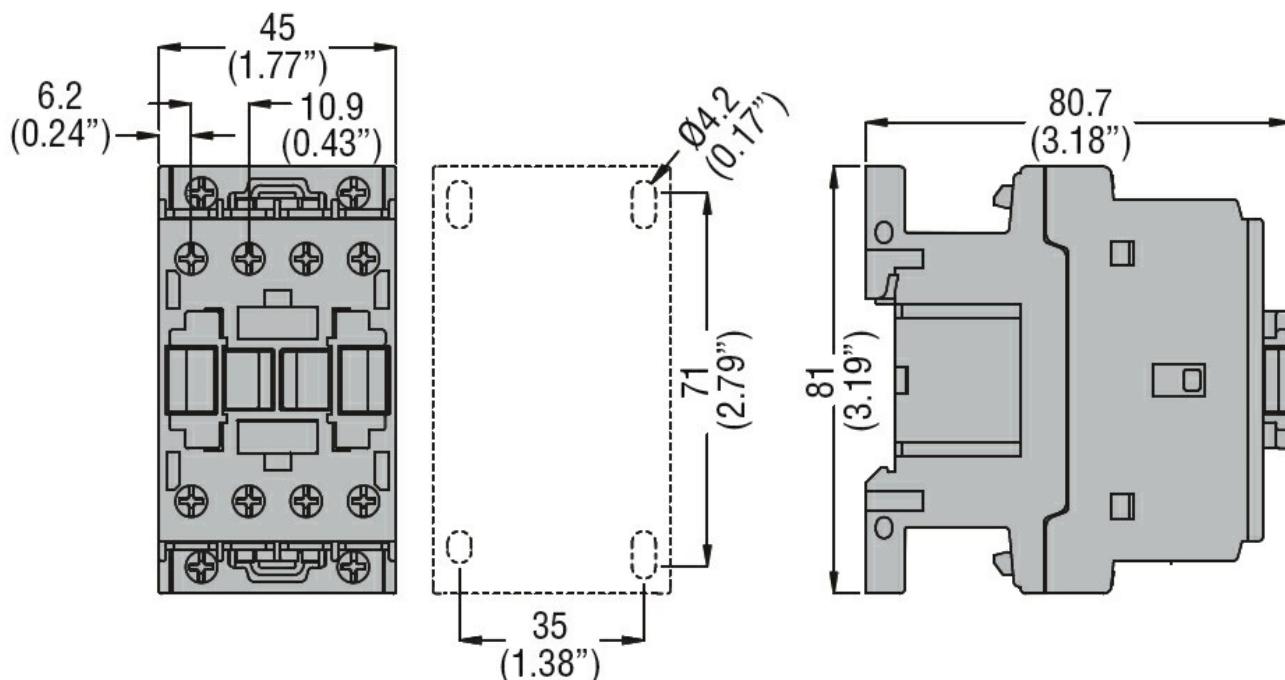
AC operating voltage

of 50/60Hz coil powered at 50Hz	pick-up	min	%Us	80
		max	%Us	110
drop-out		min	%Us	20
		max	%Us	55
of 50/60Hz coil powered at 60Hz	pick-up	min	%Us	85
		max	%Us	110
drop-out		min	%Us	20
		max	%Us	55

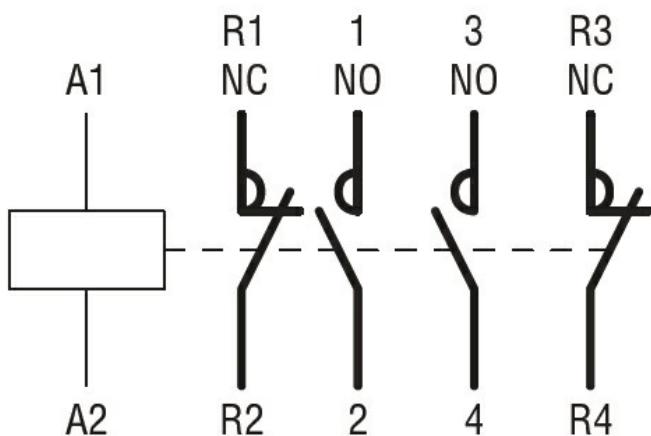
AC average coil consumption at 20°C

of 50/60Hz coil powered at 50Hz	in-rush	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 $\leq 20^{\circ}\text{C}$ 50Hz		W	2.5
Max cycles frequency			
Mechanical operation		cycles/h	3600
Operating times			
Average time for Us control in AC			
	Closing NO		
		min	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			
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
	220/230V	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
Dimensions			



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