





Product designation Product type designation			Power contactor BF09
Contact characteristics			DI 09
Number of poles		Nr.	3
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		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-3 (T≤55°C)			
	230V	kW	2.2
	400V	kW	4.2
	415V	kW	4.5
	440V	kW	4.8
	500V	kW	5.5
	690V	kW	7.5
Rated operational power AC-1 (T≤40°C)			
	230V	kW	9.5
	400V	kW	16
	500V	kW	21
	690V	kW	27
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	15
	48V	Α	13
	75V	Α	12
	110V	A	6
IFO	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	40 AV /		40
	≤24V	A	18
	48V	A	18
	75V	A	17
	110V	A	12
IFC may current to in DC4 with 1/D < 4 == with 2 == less in series	220V	A	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	2011	Λ	20
	≤24V	A	20
	48V	A	20
	75V	A	20
	110V	Α	15





	220V	Α	10
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	20
	48V	Α	20
	75V	Α	20
	110V	Α	16
	220V	Α	12
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	10
	48V	Α	9
	75V	Α	8
	110V	Α	2
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	13
	48V	Α	11
	75V	A	10
	110V	A	7
	220V	A	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	220 V		
TEC max current le in DO3-DO3 with E/R > 13ms with 3 poles in series	≤24V	۸	15
	≤24 V 48 V	A	
		A	15
	75V	A	13
	110V	A	11
	220V	Α	6
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series		_	
	≤24V	Α	15
	48V	Α	15
	75V	Α	15
	110V	Α	12
	220V	Α	7
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)		Α	90
Breaking capacity at voltage			
	440V	Α	72
	500V	Α	72
	690V	Α	71
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			- -
. The storpasion por polo (arolago raido)	Ith	W	1.6
	AC-3	W	0.2
Tightening torque for terminals	70 0	V V	V. <u>L</u>
rightening torque for terminals	min	Nm	1.5
		Nm	1.8
	max		
	min	lbin	1.1
Tightonian tourns for sail towning!	max	lbin	1.5
Tightening torque for coil terminal			0.0
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8





		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			4.0
	Florible w/o lug conductor coetion	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	IIIax	111111	0
	r lexible c/w lug conductor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	max		•
	r ionale mar mediated opade lag confederal coolien	min	mm²	1
		max	mm²	4
				IP20 when
Power terminal protect	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	350
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact char		max	·	
Auxiliary contact char Thermal current Ith	acteristics	max	A	10
Auxiliary contact chara Thermal current Ith IEC/EN 60947-5-1 de	acteristics esignation	max	А	
Auxiliary contact chara Thermal current Ith IEC/EN 60947-5-1 de	acteristics esignation			10 A600 - P600
Auxiliary contact chara Thermal current Ith IEC/EN 60947-5-1 de	acteristics esignation	230V	A	10 A600 - P600
Auxiliary contact chara Thermal current Ith IEC/EN 60947-5-1 de	acteristics esignation	230V 400V	A A	10 A600 - P600 3 1.9
Auxiliary contact charanteermal current Ith IEC/EN 60947-5-1 de Operating current AC	esignation 15	230V	A	10 A600 - P600
Auxiliary contact chara Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	esignation 15	230V 400V 500V	A A A	10 A600 - P600 3 1.9 1.4
Auxiliary contact chart Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	230V 400V	A A	10 A600 - P600 3 1.9
Auxiliary contact chart Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	230V 400V 500V	A A A	10 A600 - P600 3 1.9 1.4
Auxiliary contact chart Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	230V 400V 500V 110V	A A A	10 A600 - P600 3 1.9 1.4 5.7
Auxiliary contact chart Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	230V 400V 500V 110V 24V 48V	A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7
Auxiliary contact chart Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	230V 400V 500V 110V 24V 48V 60V	A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3
Auxiliary contact chart Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	230V 400V 500V 110V 24V 48V 60V 110V	A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25
Auxiliary contact chart Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	230V 400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Auxiliary contact chart Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Auxiliary contact charanteemal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC	esignation 15	230V 400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Auxiliary contact charantermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC	esignation 15	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Auxiliary contact charant Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC	esignation 15	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Auxiliary contact charanteemal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life	esignation 15	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Auxiliary contact charantermal current Ith IEC/EN 60947-5-1 de Operating current DC Operating current DC Operating current DC Operating current DC Operating current DC Second	esignation 15	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Auxiliary contact charantermal current Ith IEC/EN 60947-5-1 de Operating current DC Operating current DC Operating current DC Operating current DC Operating current DC Second	esignation 15 12 13	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Auxiliary contact charantermal current Ith IEC/EN 60947-5-1 de Operating current DC Operating current DC Operating current DC Operating current DC Operating current DC Second	esignation 15 12 13 10d according to EN/ISO 13489-1	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 2000000
Auxiliary contact charantermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data Performance level B1	esignation 15 12 13 10d according to EN/ISO 13489-1	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000
Auxiliary contact charantermal current Ith IEC/EN 60947-5-1 de Operating current DC Operating current DC Operating current DC Operating current DC Operating current DC Electrical life Electrical life Safety related data Performance level B1	esignation 15 12 13 Od according to EN/ISO 13489-1	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 20000000 20000000



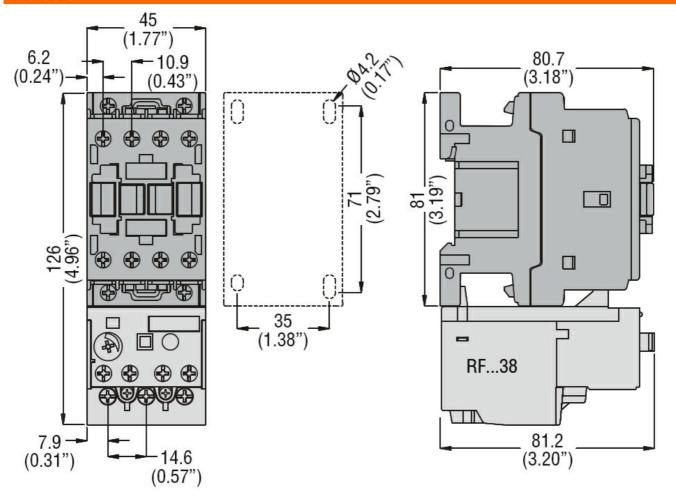


Rated AC voltage at 6	0Hz		V	220
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out	_		
		min	%Us	20
		max	%Us	55
AC average coil consu	•			
	of 60Hz coil powered at 60Hz			7.5
		in-rush	VA	75
5	.0000 5011	holding	VA	9
Dissipation at holding	≤20°C 50Hz		W	2.5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us of				
	in AC			
	Closing NO			_
		min	ms	8
		max	ms	24
	Opening NO			
		min	ms	10
	0	max	ms	20
	Closing NC			
		min	ms	14
	0 · NO	max	ms	28
	Opening NC			_
		min	ms	7
UL technical data		max	ms	18
	for three phase AC mater			
rull-load current (FLA)) for three-phase AC motor	ot 400\/	۸	7.6
		at 480V	A	7.6
Violded machanical na	orformana	at 600V	Α	0.375
Yielded mechanical pe				
	for single-phase AC motor	110/120\/	UD	0.75
		110/120V 230V	HP HP	0.75
	for these phase AC mater	230 V	ПР	2
	for three-phase AC motor	200/208V	ШD	3
		200/208V 220/230V	HP HP	3
		460/480V	пг HP	5
		575/600V	HP	7.5
General USE		373/0001	111	7.5
Gericiai USE	Contactor			
	Contactor	AC current	Α	25
	Auxilian/ contacts	AC Current	^	۷.
	Auxiliary contacts	AC valtaca	\/	600
		AC voltage AC current	V A	10
			V	
		DC voltage DC current		250
Short-circuit protection	a fusa 600V	DC current	Α	1
Short-circuit protection				
	High fault			



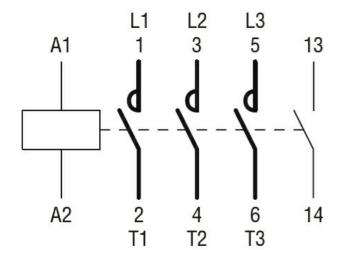


	Short circuit current	kA	100
	Fuse rating	A	30
	•	^	
	Fuse class		J
Standard fault			
	Short circuit current	kA	5
	Fuse rating	Α	60
Contact rating of auxiliary contacts according to UL			A600 - P600
Ambient conditions			
Temperature			
Operating temperature			
	min	°C	-50
	max	°C	70
Storage temperature			
	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