





Product designation Product type designation			Power contactor BF09
Contact characteristics			
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
150	220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	-0.43.4		4.0
	≤24V	A	18
	48V	A	18
	75V	A	17
	110V	A	12
IEC may current to in DC1 with L/D < 1 mg with 2 notes in coring	220V	A	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	-0A1	۸	20
	≤24V	A	20
	48V 75V	A	20
	75V 110V	A A	20 15
	1100	^	10





	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	22U V		
TEC max current le in DO3-DO3 with E/R > 13ms with 3 poles in series	~2A\/	۸	15
	≤24V 48V	A	15 15
		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 storpasson por polo (arolago raido)	lth	W	1.6
	AC-3	W	0.2
Tightening torque for terminals	7.0 0	V V	V. <u>~</u>
rightening torque for terminals	min	Nm	1.5
		Nm	1.8
	max		
	min	lbin Ibin	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	AMC/Komil			
	AWG/Kcmil	max		10
	Flexible w/o lug conductor section	IIIax		10
	Tiexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section			
	3 · · · · · · · · · · · · · · · · · · ·	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
		min	mm²	1
		max	mm²	4
Power terminal prote	ection according to IEC/EN 60529			IP20 when
-	otion aboutaing to 120/214 00020			properly wired
Mechanical features				
Operating position				\/autic=1:=1::
		normal		Vertical plan
		allowable		±30° Screw / DIN rail
Fixing				35mm
Weight			g	494
Conductor section			9	101
ochadolor dodlori	AWG/kcmil conductor section			
	/WS/Norm conductor cochon	max		10
Auxiliary contact chai	racteristics			
Thermal current Ith			Α	10
Thomas ourself fur				. •
	esignation			A600 - P600
IEC/EN 60947-5-1 de	· ·			
IEC/EN 60947-5-1 de	· ·	230V	A	
IEC/EN 60947-5-1 de	· ·	230V 400V		A600 - P600
IEC/EN 60947-5-1 de Operating current AC	215		A	A600 - P600 3
IEC/EN 60947-5-1 de Operating current AC	215	400V 500V	A A	3 1.9 1.4
IEC/EN 60947-5-1 do Operating current AC Operating current DC	C15	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 do Operating current AC Operating current DC	C15	400V 500V 110V	A A A	3 1.9 1.4 5.7
IEC/EN 60947-5-1 do Operating current AC Operating current DC	C15	400V 500V 110V 24V	A A A	A600 - P600 3 1.9 1.4 5.7
IEC/EN 60947-5-1 do Operating current AC Operating current DC	C15	400V 500V 110V 24V 48V	A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9
IEC/EN 60947-5-1 do Operating current AC Operating current DC	C15	400V 500V 110V 24V 48V 60V	A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3
IEC/EN 60947-5-1 do Operating current AC Operating current DC	C15	400V 500V 110V 24V 48V 60V 110V	A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25
IEC/EN 60947-5-1 do Operating current AC Operating current DC	C15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
IEC/EN 60947-5-1 do Operating current AC Operating current DC	C15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
IEC/EN 60947-5-1 do Operating current AC Operating current DC Operating current DC	C15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Department DC Operating current DC Operating current DC Operating current DC	C15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC	C15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operations Operations Mechanical life IEC/EN 60947-5-1 decorations current DC	C15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data	212	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data	C15	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	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
Operating current DC Operations Mechanical life Electrical life Safety related data	212 213 213 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	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
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	212 213 210 210 210 211 211 211 211 211 211 211	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	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
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	212 213 213 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	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





AC operating voltage

of 50/60Hz coil powered at 50Hz drop-out

		алор оал	max	%Us	55
DC coil operating					
DC rated control voltage	e			V	48
DC operating voltage					
	pick-up			0/11-	0.0
			min	%Us	80
	dram and		max	%Us	110
	drop-out		min	%Us	10
			max	%Us %Us	40
Average coil consumpt	ion <20°C		IIIdx	/003	40
Average con consumpt	1011 =20 0		in-rush	W	2.4
			holding	W	2.4
Max cycles frequency			Holding	VV	2.7
Mechanical operation				cycles/h	3600
Operating times				- , 5.55,11	
Average time for Us co	ntrol				
5	in AC				
		Closing NO			
		J	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
	in DC	01 1 110			
		Closing NO			75
			min	ms	75
		Opening NO	max	ms	91
		Opening NO	min	me	15
			max	ms ms	19
		Closing NC	max	1113	10
		Closing NO	min	ms	24
			max	ms	30
		Opening NC			
		1 5	min	ms	67
			max	ms	81
UL technical data					
OL technical data		motor			
Full-load current (FLA)	for three-phase AC		at 480V	Λ.	7.6
	for three-phase AC		ai 400 v	Α	7.0
	for three-phase AC		at 600V	A	0.375
	rformance				
Full-load current (FLA)		C motor	at 600V		
Full-load current (FLA)	rformance	C motor			

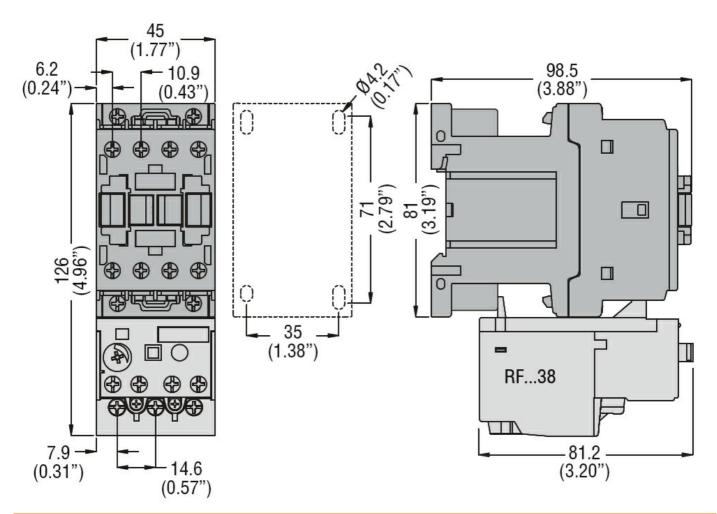




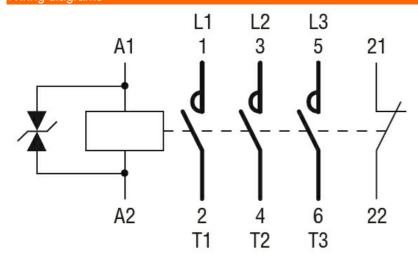
	for three-phase AC motor			
		200/208V	HP	3
		220/230V	HP	3
		460/480V	HP	5
		575/600V	HP	7.5
General USE				
	Contactor			
		AC current	Α	25
	Auxiliary contacts			
		AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protect	ion fuse, 600V			
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	30
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	60
Contact rating of aux	xiliary 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 & Protect	ction			
Pollution degree				3
Dimensions				

ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL LOW CONSUMPTION, 48VDC, 1NC AUXILIARY CONTACT



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



BF0901L048

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 9A, DC COIL LOW CONSUMPTION, 48VDC, 1NC AUXILIARY CONTACT

CCC	
cULus	
EAC	

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching