



Product designation			Power contactor
Product type designation			BF09
Contact characteristics			
Number of poles		Nr.	4
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-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	Α	6
	220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	18
	48V	Α	18
	75V	Α	17
	110V	Α	12
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	Α	20
	48V	Α	20
	75V	Α	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



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FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 25A, DC COIL, 125VDC

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		- , ,	
TEO MAX GATTORI TO IT DOO DOO WILL E/TC = TOMO	≤24V	Α	13
	48V	A	11
	75V	A	10
	110V	A	7
	220V	Α	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms			
	≤24V	Α	15
	48V	Α	15
	75V	Α	13
	110V	Α	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	A	12
	220V	A	7
Short time allowable current for 10s /IEC/EN600		A	150
Short-time allowable current for 10s (IEC/EN609	47-1)	A	130
Protection fuse	. 0 (150)		0.5
	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)			
, , , , , , , , , , , , , , , , , , , ,	Ith	W	1.6
	AC-3	W	0.2
Tightening torque for terminals	7.00	<u> </u>	<u>-</u>
	min	Nm	1.5
	max	Nm	1.8
	min	Ibin	1.1
		Ibin	
Tightonia a taunus fou poli taunain al	max	ווטו	1.5
Tightening torque for coil terminal	_		
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8
	max	Ibin	0.74
Max number of wires simultaneously connectable	9	Nr.	2
Conductor section			
AWG/Kcmil			
	max		10
Flexible w/o lug conducto			
	min	mm²	1





FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 25A, DC COIL, 125VDC

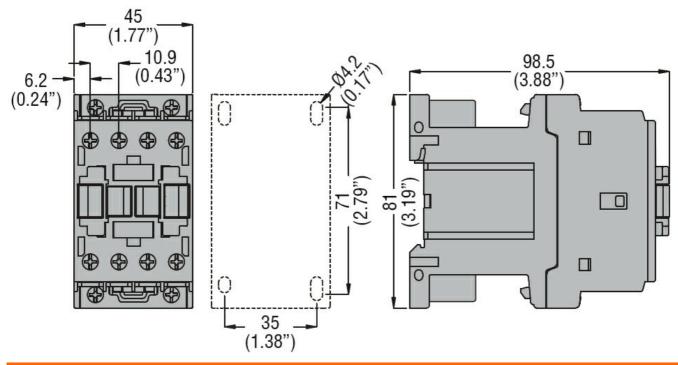
Flexible c/w lug conductor section				
Provide the content of the conten			mm²	6
Flexible with insulated spade lug conductor section			pa 2	4
Flexible with insulated spade lug conductor section min mm² 1 1 1 1 1 1 1 1 1				
Prover terminal protection according to IEC/EN 60529			111111	4
Power terminal protection according to IEC/EN 60529 IP20 when properly wired work and included in a control of the contro		•	mm²	1
Power terminal protection according to IEC/EN 60529 IP20 when properly wired properly properly wired properly wired properly wired properly pr				
Provide fremmal protection according to IEC/EN 60529 Properly wired Mechanical features Properly mine Properly mine			111111	
Machanical features Operating position normal allowable Vertical plan 230° Fixing g 494 Conductor section max g 494 Conductor section max 10 Operations max 10 Mechanical life cycles 20000000 Electrical life cycles 20000000 Safety related data rated load cycles 2000000 Selectrical life cycles 2000000 Safety related data cycles 2000000 Reformance level B10d according to EN/ISO 13489-1 yes EMC compatibility yes DC coli operating DC readed control voltage yes DC operating voltage min %Us 125 DC operating voltage min %Us 125 Average coil consumption ≤20°C in-rush holding W 5.4 Average time for Us control cycles fraguency min <	Power terminal protect	tion according to IEC/EN 60529		
Operating position Normal allowable Vertical plan allowable Vertical plan allowable Vertical plan allowable Screw / DIN rail 35mm Weight g 494 Conductor section max 10 Operations max 10 Mechanical life cycles 20000000 Electrical life cycles 2000000 Electrical life cycles	Mechanical features			, ., . ,
Fixing Screw / DIN rail 35mm 30mm	Operating position			
Fixing Screw / DIN rail 35mm 30mm		normal		Vertical plan
Meight		allowable		
Weight	Eiving			Screw / DIN rail
Conductor section max 10 Operations Mechanical life cycles 20000000 Safety related data rated load mechanical load orgonal possibility cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 yes 20000000 Mirror contating yes 20000000 DC coil operating yes 20000000 DC coll operating yes 20000000 DC coll operating yes 20000000 DC operating voltage yes 20000000 DC operating voltage yes 20000000 DC operating voltage yes 20000000 Average coil consumption ≤20°C min %Us 10 Max cycles frequency yes 20 Mechanical operation cycles/h 3600 Operating times yes 20 Average time for Us control in AC min ms 8 Opening NO min ms 24	rixing			35mm
AWG/kcmil conductor section max 10 Operations Mechanical life cycles 20000000 Electrical life cycles 20000000 Electrical life cycles 20000000 Safety related data Performance level B10d according to EN/ISO 13489-1 Prated load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 EMC compatibility yes DC coll operating DC rated control voltage vess 2000000 DC rated control voltage vess 2000000 Pick-up min %Us 70 max %Us 125 drop-out min %Us 10 max %Us 5.4 holding w 5.4 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 10 max ms 20 Closing NC min ms 14	Weight		g	494
Operations Mechanical life cycles 20000000 Electrical life cycles 20000000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles	Conductor section			
Operations Mechanical life cycles 20000000 Electrical life cycles 20000000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 20000000 cycles 200000000 cycles 20000000 cycles 200000000 cycles 20000000 cycles		AWG/kcmil conductor section		
Mechanical life		max		10
Electrical life	Operations			
Safety related data Performance level B10d according to EN/ISO 13489-1 rated load mechanical load vocles 20000000 Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes DC coll operating V 125 DC operating voltage V 125 DC operating voltage min %Us 70 max %Us 125 drop-out min max %Us 10 max %Us 40 Average coil consumption ≤20°C in-rush holding W 5.4 holding W 5.4 holding W 5.4 Max cycles frequency Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC min ms 8 max ms 24 Opening NO min ms 10 max ms 20 Closing NC min ms 10 max ms 20 Closing NC min ms 14	Mechanical life		-	
Performance level B10d according to EN/ISO 13489-1 rated load mechanical load of cycles 20000000 mechanical load cycles 20000000 mechanical load cycles 20000000 mechanical load cycles 20000000 mechanical load cycles EMC compatibility yes EMC compatibility 200 compatibility 200 compatibility PMC compatibility Mell of the property of the property Mell of the property<	Electrical life		cycles	2000000
rated load mechanical load vigcles 20000000	Safety related data			
Mirror contats according to IEC/EN 609474-4-1 mechanical load cycles 20000000 EMC compatibility yes DC coll operating V 125 DC coll operating voltage min %Us 70 DC operating voltage min %Us 70 drop-out min %Us 125 drop-out min %Us 10 Average coil consumption ≤20°C in-rush holding W 5.4 Max cycles frequency w 5.4 Mechanical operation cycles/h 3600 Operating times Average time for Us control min ms 8 Average time for Us control min ms 8 Closing NO min ms 24 Opening NO min ms 10 Closing NC min ms 10 max ms 20 Closing NC min ms 14	Performance level B10			
Mirror contats according to IEC/EN 609474-4-1 EMC compatibility Coil operating DC rated control voltage DC operating voltage pick-up min %Us 70 max %Us 125 drop-out min %Us 10 max %Us 10 max %Us 40 Average coil consumption ≤20°C in-rush w 5.4 holding w 5.4 Max cycles frequency Mechanical operation 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 10 max ms 20 Closing NC min ms 14		rated load	cycles	
EMC compatibility DC coil operating DC rated control voltage Pick-up min %Us 70 max %Us 125 drop-out min %Us 10 max %Us 40 Average coil consumption ≤20°C in-rush W 5.4 holding Holding W holding Holding Holding Holding Holding Holding			cycles	20000000
DC coil operating DC rated control voltage V 125 DC operating voltage pick-up min %Us 70 max %Us 125 drop-out min %Us 10 max %Us 40 Average coil consumption ≤20°C in-rush W 5.4 holding W 5.4 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		ng to IEC/EN 609474-4-1		yes
DC rated control voltage V 125 DC operating voltage pick-up min will will will will will will will wi				yes
DC operating voltage				
Pick-up		ge	V	125
min MUS 70 max MUS 125	DC operating voltage			
max %Us 125 drop-out		·		
drop-out min %Us 10 max %Us 40 40 40 40 40 40 40 4				
min %Us 10 max %Us 40 Average coil consumption ≤20°C in-rush W 5.4 holding W 5.4 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 Closing NC min ms 10 max ms 20 Closing NC			%Us	125
Average coil consumption ≤20°C in-rush W 5.4 holding W 5.4 holding W 5.4 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 10 max ms 20 Closing NC		•	0/!!	4.0
Average coil consumption ≤20°C in-rush W 5.4 holding W 5.4 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				
in-rush	A		%US	40
Max cycles frequency Mechanical operation cycles/h 3600 Operating times Average time for Us control in AC min ms 8 ms 8 max ms 24 Closing NO min ms 10 ms 10 max ms 20 Closing NC min ms 14	Average coil consump		147	F 4
Max cycles frequency Cycles/h 3600 Mechanical operation cycles/h 3600 Operating times Average time for Us control min ms 8 Closing NO min ms 8 Max ms 24 Opening NO min ms 10 Closing NC min ms 14				
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	May ayolog fraguency	noiding	VV	ე.4
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			ovoloo/k	3600
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 Closing NC min ms 14			cycles/n	3000
in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10 max ms 20 Closing NC min ms 14		ontrol		
Closing NO min ms 8 max ms 24 Opening NO min ms 10 max ms 20 Closing NC min ms 14	Average unie iui US CC			
min ms 8 max ms 24 Opening NO min ms 10 max ms 20 Closing NC min ms 14				
Opening NO min ms 10 max ms 24 Closing NC min ms 10 max ms 20 Closing NC min ms 14			me	8
Opening NO min ms 10 max ms 20 Closing NC min ms 14				
min ms 10 max ms 20 Closing NC min ms 14			1113	_ '
max ms 20 Closing NC min ms 14			ms	10
Closing NC min ms 14				
min ms 14			****	-
		-	ms	14



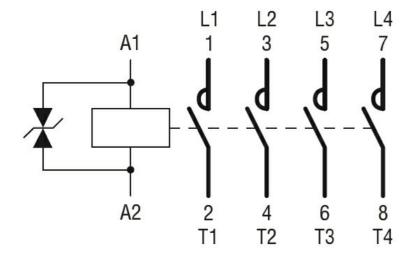
FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 25A, DC COIL, 125VDC

	Opening No	C		
	, ,	min	ms	7
		max	ms	18
	in DC			
	Closing NC)		
	3 3	min	ms	54
		max	ms	66
	Opening No			
	- Frg	min	ms	14
		max	ms	17
UL technical data		· · · · · · · · · · · · · · · · · · ·	1110	
) for three-phase AC motor			
	, i.e. a.i.ee piiaee i ie iiieiei	at 480V	Α	7.6
		at 600V	Α	0.375
Yielded mechanical pe	orformanco	at 000 v		0.010
nelucu medianidal pe				
	for single-phase AC motor	440/400\/	LID	0.75
		110/120V	HP	0.75
	(c. d	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
Short-circuit protection	n 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
Ambient conditions				
Temperature				
1	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature	max		. •
	Otorago temperature	min	°C	-60
		max	°C	80
Max altitude		IIIax		3000
	on		m	3000
Resistance & Protection	OH			2
Pollution degree				3
Dimensions				

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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