

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 25A, AC COIL 60HZ, 48VAC



Product designation			Power contactor
Product type designation Contact characteristics			BF09
Number of poles		Nr.	4
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency		IX V	
Operational requestoy	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	A	12
150	220V	A	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	20.01	Δ.	20
	≤24V	A	20
	48V	A	20
	75V 110V	A	20
	220V	A A	15 10
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series	Z20 V	A	10
ILO MAX current le ili DOT with L/N > 11115 with 4 poles ill selles	≤24V	٨	20
	≤24V 48V	A A	20
	75V	A	20
	110V	A	16
	220V	A	12
	220 V	^	14





FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 25A, AC COIL 60HZ,

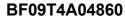
IEC max current le in l	DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
		≤24V	Α	10
		48V	Α	9
		75V	Α	8
		110V	Α	2
		220V	Α	_
IFC max current le in l	DC3-DC5 with L/R ≤ 15ms with 2 poles in series	2201	- ' '	
120 max carrent le im	DOO DOO WILL ETC = TOING WILL 2 POIGS IN SCHOO	≤24V	Α	13
		48V		
			A	11
		75V	A	10
		110V	Α	7
		220V	Α	2
IEC max current le in l	DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
		≤24V	Α	15
		48V	Α	15
		75V	Α	13
		110V	Α	11
		220V	Α	6
IFC max current le in l	DC3-DC5 with L/R ≤ 15ms with 4 poles in series			-
ILO MAX GUNERILIE III I	200 200 mai Litt = 10mb mai + poles in senes	≤24V	٨	15
			A	
		48V	A	15
		75V	Α	15
		110V	Α	12
=		220V	Α	7
Short-time allowable of	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 vo				
breaking capacity at vi	onage	440V	Α	72
		500V	A	72
D'. (690V	Α	71
Resistance per pole (a			mΩ	2.5
Power dissipation per	pole (average value)			
		Ith	W	1.6
		AC-3	W	0.2
Tightening torque for to	erminals			
- •		min	Nm	1.5
		max	Nm	1.8
		min	lbin	1.1
		max	lbin	1.5
Tightening torque for c	onil terminal	Παλ	10111	1.0
riginiening lorque for C	on Girinal		N.I	0.0
		min	Nm	0.8
		max	Nm	1
		min	lbin	0.8
		max	lbin	0.74
Max number of wires s	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
		max		10
	Flexible w/o lug conductor section	тих		. •
	1 loxible W/o lug conductor section	min	mm²	1
		111111	111111	1





FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 25A, AC COIL 60HZ,

Departing position				
Part		max	mm²	6
Rex		Flexible c/w lug conductor section		
Flexible with insulated spade lug conductor section		min		1
Max			mm²	4
Page				
P20 when properly wired P20 when properl		min		
Age		max	mm²	
Agriculture	Power terminal protect	tion according to IEC/EN 60529		
Departing position	Mechanical features			property whea
Allowable \$\frac{\tau}{\tau} \ \tau \\ \tau \ \tau \ \tau \ \tau \ \tau \ \tau \ \tau \\ \tau \ \tau \\ \tau \ \tau \ \tau \ \tau \\ \tau \ \tau \\ \tau \ \tau \\ \t	Operating position			
Allowable \$\frac{\tau}{\tau} \ \tau \\ \tau \ \tau \ \tau \ \tau \ \tau \ \tau \ \tau \\ \tau \ \tau \\ \tau \ \tau \ \tau \ \tau \\ \tau \ \tau \\ \tau \ \tau \\ \t		normal		Vertical plan
Meight		allowable		
Neight				Screw / DIN rail
AWG/kcmil conductor section max	Fixing			
AWG/kcmil conductor section max	Weight		g	368
AWG/kcmil conductor section max	Conductor section		<u>_</u>	
Operations Cycles 20000000 Electrical life cycles 20000000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 rated load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes VC coil operating Wasted AC voltage at 60Hz yes AC operating voltage of 60Hz coil powered at 60Hz min yes %Us 80 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz of 60Hz coil powered at 60Hz in-rush yes VA 75 holding <20°C 50Hz		AWG/kcmil conductor section		
Mechanical life		max		10
Mechanical life	Operations			
Performance level B10d according to EN/ISO 13489-1	Mechanical life		cycles	20000000
Performance level B10d according to EN/ISO 13489-1 rated load cycles 2000000 mechanical load cycles 20000000 mechanical load cycles c	Electrical life			
Performance level B10d according to EN/ISO 13489-1 rated load rodge (cycles) 20000000 mechanical load cycles) 200000000 mechanical load cycles) 200000000 mechanical load cycles) 200000000 mechanical load cycles) 200000000 Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes Coll operating Rated AC voltage at 60Hz Of 60Hz coil powered at 60Hz pick-up min will will will will will will will wi			,	
rated load mechanical load vigcles 20000000	•	Od according to EN/ISO 13489-1		
Mirror contats according to IEC/EN 609474-4-1 Mirror contation at 60Hz			cvcles	2000000
Mirror contats according to IEC/EN 609474-4-1 EMC compatibility Wes EMC compatibility Wes EMC compatibility Wes EMC coll operating Rated AC voltage at 60Hz 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 consumption at 20°C of 60Hz coil powered at 60Hz AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation Cycles/h 3600 Decrating times Average time for Us control in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10			-	
EMC compatibility Cool operating Rated AC voltage at 60Hz 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 consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency Mechanical operation Cycles/h AC Closing NO min ms 8 max ms 24 Opening NO min ms 10	Mirror contats according		.,	
AC coil operating Rated AC voltage at 60Hz 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 consumption at 20°C of 60Hz coil powered at 60Hz AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation Closing NO min ms 8 max ms 24 Opening NO min ms 10		•		
Rated AC voltage at 60Hz 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 consumption at 20°C of 60Hz coil powered at 60Hz of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz 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				
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 consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation Cycles/h 3600 Departing times Average time for Us control in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10)Hz	V	48
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 consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency Mechanical operation cycles/h 3600 Deperating times Average time for Us control in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10 min m				
pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation Cycles/h 3600 Derating times Average time for Us control in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10	, ,	of 60Hz coil powered at 60Hz		
min MUS 80 max MUS 110				
drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency Mechanical operation cycles/h 3600 Deparating times Average time for Us control in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10			%Us	80
min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency W 2.5 Max cycles frequency Wechanical operation cycles/h 3600 Departing times Cycles/h 3600 AC Closing NO min ms 8 max ms 24 Opening NO min ms 10		max	%Us	110
min %Us 20 max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency W 2.5 Max cycles frequency Wechanical operation cycles/h 3600 Departing times Cycles/h 3600 AC Closing NO min ms 8 max ms 24 Opening NO min ms 10				
AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush vA 75 holding vA 9 Dissipation at holding ≤20°C 50Hz Wax cycles frequency Mechanical operation Cycles/h 3600 Departing times Average time for Us control in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10		·	%Us	20
AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency Mechanical operation Cycles/h 3600 Deparating times Average time for Us control in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10		max	%Us	55
of 60Hz coil powered at 60Hz in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency Mechanical operation cycles/h 3600 Deparating times Average time for Us control in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10	AC average coil consu	mption at 20°C		
in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency Mechanical operation cycles/h 3600 Deparating times Average time for Us control in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10	-			
Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation Cycles/h 3600 Departing times Average time for Us control in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10			VA	75
Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation Cycles/h 3600 Deparating times Average time for Us control in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10		holding	VA	9
Max cycles frequency Mechanical operation cycles/h 3600 Deparating times Average time for Us control in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10	Dissipation at holding :		W	2.5
Operating times Average time for Us control in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10	Max cycles frequency			
Operating times Average time for Us control in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10	Mechanical operation		cycles/h	3600
in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10	Operating times			
in AC Closing NO min ms 8 max ms 24 Opening NO min ms 10	Average time for Us co	ontrol		
min ms 8 max ms 24 Opening NO min ms 10				
max ms 24 Opening NO min ms 10		Closing NO		
Opening NO min ms 10		min	ms	8
min ms 10		max	ms	24
		Opening NO		
max ms 20		min	ms	10
		max	ms	20



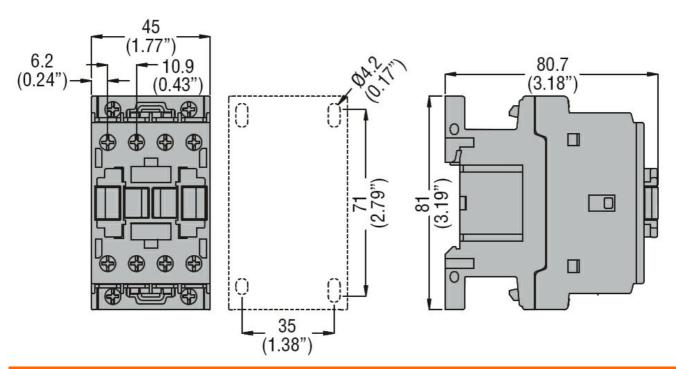


FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 25A, AC COIL 60HZ,

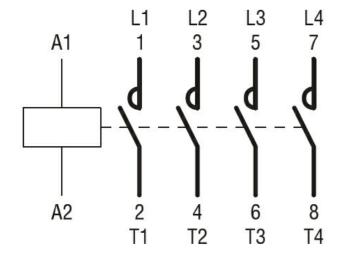
	Closing NC			
	-	min	ms	14
		max	ms	28
	Opening NC			
		min	ms	7
		max	ms	18
UL technical data				
Full-load current (FLA)	for three-phase AC motor			
		at 480V	Α	7.6
		at 600V	Α	0.375
Yielded mechanical pe				
	for single-phase AC motor			
		110/120V	HP	0.75
	·	230V	HP	2
	for three-phase AC motor			
		200/208V	HP	3
		220/230V	HP	3
		460/480V	HP	5
		575/600V	HP	7.5
General USE				
	Contactor			
		AC current	A	25
Short-circuit protection				
	High fault			
		Short circuit current	kA	100
		Fuse rating	Α	30
	-	Fuse class		J
	Standard fault			_
		Short circuit current	kA	5
A self-tendence Pro-		Fuse rating	Α	60
Ambient conditions				
Temperature				
	Operating temperature		0.0	
		min	°C	-50 50
	-	max	°C	70
	Storage temperature		0.0	22
		min	°C	-60
NA ICC I		max	°C	80
Max altitude			m	3000
Resistance & Protection	on			
Pollution degree				3
Dimensions				

ENERGY AND AUTOMATION

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 25A, AC COIL 60HZ,



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