



FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 25A, AC COIL 60HZ, 24VAC, 2NO AND 2NC



Product designation Product type designation			Power contactor BF09
Contact characteristics			D. 00
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
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	A	71
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
	lth	W	1.6
	AC-3	W	0.2
Tightening torque for terminals			
	min	Nm	1.5
	max	Nm	1.8
	min	lbin	1.1
This control of the state of th	max	lbin	1.5
Tightening torque for coil terminal	_		
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8
Managed and the first first to the second	max	Ibin	0.74
Max number of wires simultaneously connectable		Nr.	2



FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 25A, AC COIL 60HZ, 24VAC, 2NO AND 2NC

AWG/Kcmil Flexible w/o lug conductor section Flexible w/o lug conductor section Flexible w/o lug conductor section min	Conductor costion			
Flexible w/o lug conductor section	Conductor section	AWG/Kemil		
Flexible w/o lug conductor section				10
Flexible c/w lug conductor section				
Flexible c/w lug conductor section min mm² 1 1 1 1 1 1 1 1 1		•	mm²	1
Pictible with insulated spade lug conductor section		max	mm²	6
Flexible with insulated spade lug conductor section		Flexible c/w lug conductor section		
Flexible with insulated spade lug conductor section min mm² 1 max mm² 4 1 1 1 1 1 1 1 1		min	mm²	1
Prower terminal protection according to IEC/EN 60529			mm²	4
Power terminal protection according to IEC/EN 60529 Power terminal protection allowable Power terminal protection Power terminal protection				
Power terminal protection according to IEC/EN 60529 Mechanical features				
Property wired property wired Mechanical features Operating position normal allowable a		max	mm²	
Mechanical features Operating position normal allowable Vertical plan ±30° Fixing Screw / DIN rail 35mm Weight g 358 Conductor section max 10 Operations Mechanical life cycles 20000000 Electrical life cycles 20000000 Safety related data rated load cycles 20000000 Mirror contats according to EC/EN 609474-4-1 rated load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 yes 20000000 Mirror contats according to IEC/EN 609474-4-1 yes 20000000 Mirror contats according to IEC/EN 609474-4-1 yes 20000000 AC coil operating yes 2 AC coil poperating yes 2 AC coll poperating voltage min %Us 80 Max operating voltage min %Us 80 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush VA 75 AC average coil consumptio	Power terminal protect	tion according to IEC/EN 60529		
Operating position normal allowable Vertical plan allowable ±30° solitors Fixing g 358 Screw / DIN rail 35mm	Mechanical features			property wired
Normal allowable Normal allowable Screw Din rail allowable Screw Din rail allowable Screw Din rail 35mm	Operating position			
Fixing Screw / DIN rail DIN rail DIN rail DIN rail DIN rail DIN rail DIN		normal		Vertical plan
FixIng Weight g 358 Conductor section AWG/kcmil conductor section Mechanical life Cycles 20000000 Electrical life 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 FixIng according to IEC/EN 609474-4-1 EMC coil operating Rated AC voltage at 60Hz v 24 AC operating voltage for 60Hz coil powered at 60Hz pick-up min wus 80 max wus 110 drop-out min wus 80 max wus 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/b 3600 Operating times		allowable		
AWG/kcmil conductor section AWG/kcmil conductor section	Fixing			
AWG/kcmil conductor section max	Weight		g	358
Mach anical life cycles 20000000 Electrical life cycles 2000000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 20000000 cycles 2000000 c	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 mechanical load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes AC coil operating Rated AC voltage at 60Hz V 24 AC operating voltage of 60Hz coil powered at 60Hz min %Us 80 max %Us 110 drop-out min %Us 20 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush holding VA 75 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush holding VA 75 Dissipation at holding <20°C 50Hz		AWG/kcmil conductor section		
Mechanical life cycles 20000000 Electrical life cycles 2000000 Safety related data rated load cycles 2000000 Performance level B10d according to EN/ISO 13489-1 rated load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 YES EMC compatibility yes AC accil operating Rated AC voltage at 60Hz V 24 AC operating voltage In according to IEC/EN 609474-4-1 T V 24 AC operating voltage In according to IEC/EN 609474-4-1 T V 24 AC operating voltage min was will will will will will be according to IEC/EN 60Hz W 80 T AC operating voltage min was will will will will be according to IEC/EN 60Hz W 20 T AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush will will will be according to IEC/EN 60Hz W 75 AC average coil consumption at 20°C of 60Hz W 75		max		10
Electrical life cycles 2000000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 20000000 mechanical load cycles 200000000 Mirror contats according to IEC/EN 609474-4-1 EMC compatibility yes AC coil 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 in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation cycles/h 3600 Operating times	•			
Safety related data Performance level B10d according to EN/ISO 13489-1 rated load mechanical load cycles 20000000 20000000 Mirror contats according to IEC/EN 609474-4-1 YES 20000000 EMC compatibility yes AC coil operating V 24 AC operating voltage 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 in-rush holding VA 9 Dissipation at holding ≤20°C 50Hz yes Mechanical operation cycles/h 3600 Operating times				
Performance level B10d according to EN/ISO 13489-1 rated load cycles 2000000 mechanical load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 EMC compatibility yes AC coil 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 of 60Hz coil powered at 60Hz in-rush holding VA 9 Dissipation at holding ≤20°C 50Hz Mechanical operation Cycles/h 3600 Operating times			cycles	2000000
rated load mechanical load cycles cycles 2000000 cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 YES EMC compatibility yes AC coil operating V 24 Rated AC voltage at 60Hz V 24 AC operating voltage min %Us 80 pick-up min %Us 80 drop-out min %Us 20 Max %Us 55 AC average coil consumption at 20°C of 60Hz coil powered at 60Hz in-rush holding VA 75 holding Max cycles frequency W 2.5 Mechanical operation cycles/h 3600	•	0d according to EN/ISO 13480-1		
Mirror contats according to IEC/EN 609474-4-1 mechanical load cycles 20000000 Mirror contats according to IEC/EN 609474-4-1 yes EMC coil operating yes Rated AC voltage at 60Hz V 24 AC operating voltage min %Us 80 pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 55 AC average coil consumption at 20°C in-rush %U 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency wechanical operation cycles/h 3600	renomiance level bi		cycles	2000000
Mirror contats according to IEC/EN 609474-4-1 EMC compatibility 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 in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz Mechanical operation Operating times			•	
EMC compatibility 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 in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation Cycles/h 3600 Operating times	Mirror contats accordi		0,0.00	
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 in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation Cycles/h 3600 Operating times		<u> </u>		
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 Operating times	AC coil operating			,
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 Operating times	Rated AC voltage at 6	0Hz	V	24
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 Operating times	AC operating voltage			
min wus 80 max wus 110 drop-out min wus 20 max wus 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 Mechanical operation cycles/h 3600 Operating times		of 60Hz coil powered at 60Hz		
drop-out 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 Mechanical operation cycles/h 3600 Operating times		pick-up		
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 Operating times		min		
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 Operating times			%Us	110
max %Us 55 AC average coil consumption at 20°C			0/11-	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 Max cycles frequency Mechanical operation cycles/h 3600 Operating times				
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 Operating times	AC average coil const		70US	JU
in-rush VA 75 holding VA 9 Dissipation at holding ≤20°C 50Hz W 2.5 Max cycles frequency Mechanical operation cycles/h 3600 Operating times	AO average con const	·		
holdingVA9Dissipation at holding ≤20°C 50HzW2.5Max cycles frequencyCycles/h3600Mechanical operationCycles/h3600Operating times		•	\/Δ	75
Dissipation at holding ≤20°C 50Hz Max cycles frequency Mechanical operation Cycles/h 3600 Operating times				
Max cycles frequency Mechanical operation cycles/h 3600 Operating times	Dissipation at holding			
Mechanical operation cycles/h 3600 Operating times	Max cycles frequency			
Operating times	Mechanical operation		cycles/h	3600
	Operating times			
	Average time for Us o	ontrol		

in AC



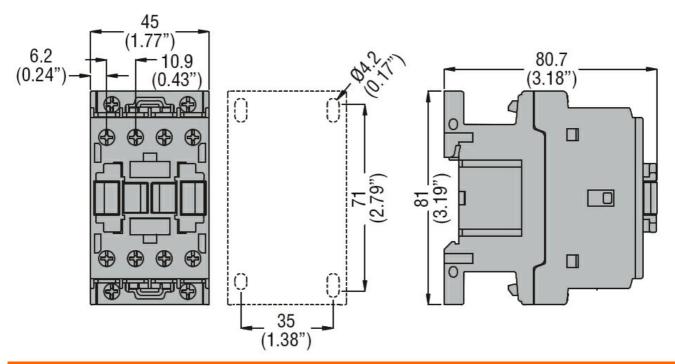


FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 25A, AC COIL 60HZ, 24VAC, 2NO AND 2NC

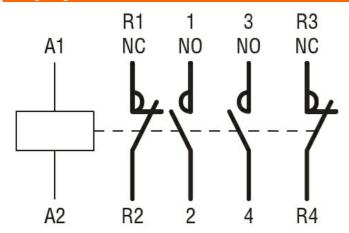
Closing NO min ms 8 max ms 24
Opening NO min ms 10 max ms 24 ms 20
Opening NO min ms 10 max ms 20
Min max ms 10 max ms 20 Closing NC Min ms 14 max ms 28 Copening NC Min ms 14 max ms 28 Copening NC Min ms 18 M
Closing NC
Closing NC
Min max ms
Opening NC min ms 7 max ms 18
Opening NC min ms 7 max ms 18 UL technical data 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 3 460/480V HP 5 575/600V HP 7.5 General USE Contactor
Min ms 7 max ms 18
Max
Substitute
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
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
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
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
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
110/120V
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
200/208V
220/230V
460/480V HP 5 575/600V HP 7.5 General USE Contactor
General USE Contactor
General USE Contactor
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

ENERGY AND AUTOMATION

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 25A, AC COIL 60HZ, 24VAC, 2NO AND 2NC



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