RF382500



MOTOR PROTECTION RELAY, PHASE FAILURE/SINGLE-PHASE SENSITIVE. THREE-POLE **Electric** (THREE-PHASE), MANUAL OR AUTOMATIC RESETTING. DIRECT MOUNTING ON BF09 - BF38 AND AUTOMATION CONTACTORS, 20...25A



Product type designation relay General characteristics III Number of poles Nr. 3 Overvoltage category III Pollution degree 3 Frontal IP degree IP20 Type of release Thermal Protection fuse gG (IEC) A 50 aft (IEC) A 32 RKS (UL) A 100 Phase failure detection yes Reset mode Manual or automatic Power circuit characteristics Wanual or automatic Power circuit characteristics Waster of each or each	Product designation			RF38
General characteristics Nr. 3 Number of poles Nr. 3 Overvoltage category III Pollution degree 3 Frontal IP degree IP20 Type of release Thermal Protection fuse gG (IEC) A State S0 adm (IEC) A 32 Reset mode Manual or automatic Power circuit characteristics Wanual or automatic Power circuit characteristics Wanual or automatic Power circuit characteristics Wanual or automatic Power circuit characteristics W 690 Rated insplate withstand voltage Uinp KV 6 Rated operational voltage V 690 Operational frequency min Hz 0 minax Hz 400 0 Operational current le Operational current min A 25 Tripping class 10A yes 10A Test Button yes yes 10A Test Button yes yes 1	Product type designation			Motor protection relay
Overvoltage category III Pollution degree 3 Frontal IP degree IP20 Type of release Thermal Protection fuse gG (IEC) A 50 aM (IEC) A 32 RK5 (UL) A 100 Phase failure detection yes yes maxula or automatic Power oricuit characteristics Manual or automatic automatic Power oricuit characteristics Manual or automatic automatic Power oricuit characteristics KV 6 6 Rated insulation voltage UI IEC/EN V 690 6 6 Querational voltage UI IEC/EN V 690 6 6 Querational requency min Hz 0 6 Operational voltage V 690 6 6 Operational current le Operational current max A 25 10A Test Button yes 10A 12.6 10A Tightening torque for terminals min 12.6	General characteristics			
Pollution degree 3 Frontal IP degree IP20 Type of release Thermal Protection fuse gG (IEC) A 50 aM (IEC) A 32 Reset mode Manual or automatic yes Reset mode Manual or automatic automatic Power circuit characteristics W 690 Rated insulation voltage Uinp KV 6 Operational requency min Hz 0 max Hz 400 0 Operational current max A 25 10A Tripping class 10A yes 10A Test Button yes yes yes 10A Trip indicator yes yes 10A Trip indicator yes 10A Phillips 2 Tightening torque for terminals min Nm 2.5 min< lbin	Number of poles		Nr.	3
Frontal IP degree IP20 Type of release Thermal Protection fuse gG (IEC) A 50 aM (IEC) A 32 RK5 (UL) A 100 Phase failure detection yes Manual or automatic yes Reset mode Manual or automatic Manual or automatic Power circuit characteristics W 690 Rated insulation voltage Ui IEC/EN V 690 Rated operational voltage V 690 Operational requency min Hz 0 max Hz 0 0 0 Operational current min A 20 0 0 Operational current min A 20 0 0 0 Tripping class 10A Test Button yes 10A Test Button yes yes 10A 12.6 0 Trip indicator yes screw and washer screw and washer 32.5 10 Tightening torque for terminals min Nm 2.5 1.8 1.8 1.0 </td <td>Overvoltage category</td> <td></td> <td></td> <td>III</td>	Overvoltage category			III
Type of release Thermal Protection fuse gG (IEC) A 50 alM (IEC) A 32 Rks (UL) A 100 Phase failure detection yes Reset mode Manual or automatic Power circuit characteristics Manual or automatic Rated insulation voltage Ui IEC/EN V 690 Rated insulation voltage Ui IEC/EN V 690 Operational voltage V 690 Operational requency min Hz 0 max Hz 400 Operational current min A 20 Operational current max A 25 Triping class 10A yes Trip indicator yes yes Trip indicator yes yes Trip indicator yes screw and washer screw M4 Width mm 12.6 tool Phillips 2 min Nm Tightening torque for terminals min Nm 2.5 min Ibin 1.5 max Ibin 1.8 Conductor section Flexible w/o lug max mm² 10	Pollution degree			3
Protection fuse gG (IEC) A 50 aM (IEC) A 32 RK5 (LL) A 100 Phase failure detection yes Reset mode Manual or automatic Power circuit characteristics W Rated insulation voltage UI IEC/EN V 690 Rated insulation voltage UI UID KV 6 Rated operational voltage V 690 Operational frequency min Hz 0 max Hz 400 0 Operational current min A 20 0 Operational current min A 25 10A Test Button yes yes 10A Test Button yes yes yes Trip indicator yes 10A 26 Tightening torque for terminals min M4 washer Mick tool Phillips 2 min 1.8 Conductor section Tightening torque for terminals min 1.8 </td <td>Frontal IP degree</td> <td></td> <td></td> <td>IP20</td>	Frontal IP degree			IP20
gG (IEC) aM (IEC) (R) (R5 (UL) A 50 all (IEC) (R) (R5 (UL) A 32 all (IEC) (R) (R) (R) (R) (R) (R) (R) (R) (R) (R	Type of release			Thermal
aM (IEC) A 32 RK5 (UL) A 100 Phase failure detection yes Reset mode Manual or automatic Power circuit characteristics Hanual or automatic Rated insulation voltage Ui IEC/EN V 690 Rated insulation voltage Uinp kV 6 Rated operational voltage V 690 Operational frequency min Hz 0 Operational current min A 20 0 Operational current min A 20 20 Operational current min A 20 25 Tripping class 10A yes 10A Test Button yes yes yes Trip indicator yes yes 10A Test Button yes yes yes Trip indicator yes yes 10A Test Button yes yes 10A Test Button yes yes 10A Tightening torque for terminals min Nm 2.5 min< Nm<	Protection fuse			
RK5 (UL) A 100 Phase failure detection yes Reset mode Manual or automatic Power circuit characteristics v Rated insulation voltage Ui IEC/EN V 690 Rated operational voltage V 690 Operational requency min Hz 0 Operational current le min Hz 0 Operational current min A 20 20 Operational current min A 25 25 Tripping class 10A yes 10A Test Button yes yes yes Trip indicator yes yes 10A Terminals type screw and washer washer width mm 12.6 Phillips 2 Tightening torque for terminals min Nm 2.5 min Ibin 1.5 max Nm 2.5 min Ibin 1.8 Conductor section 10		gG (IEC)	А	50
Phase failure detection yes Reset mode Manual or automatic Power circuit characteristics automatic Rated insulation voltage Ui IEC/EN V 690 Rated impulse withstand voltage Uimp kV 6 Rated operational voltage V 690 Operational frequency min Hz 0 Operational current le min Hz 0 Operational current min A 25 Tripping class 10A 10A Test Button yes yes Trip indicator yes screw width mm 12.6 type screw width mm Tightening torque for terminals min Nm Zightening torque for terminals min 1.5 Max Nm 2.5 Tightening torque for terminals min Nm Reset mode min Nm 2.5 Tightening torque for terminals min Nm 2.5 Max Nm 2.5 min 1.6 Conductor section Flexible w/o lug max mm² 10		aM (IEC)	А	32
Reset mode Manual or automatic Power circuit characteristics 900 Rated insulation voltage Ui IEC/EN V 690 Rated insulation voltage Uimp kV 6 Rated operational voltage V 690 Operational frequency min Hz 0 Max Hz 400 0 Operational current le Operational current min A 20 Operational current max A 25 10A Test Button yes 10A 10A Test Button yes 10 1.5 Tightening torque for terminals min Nm 2.6 Min Nm 2.5 1.5		RK5 (UL)	А	100
Reset mode automatic Power circuit characteristics V 690 Rated insulation voltage Ui IEC/EN V 690 Rated impulse withstand voltage Uimp KV 6 Rated operational voltage V 690 Operational requency min Hz 0 Max HZ 400 0 Operational current le Operational current min A 20 Operational current max A 25 10A Tripping class 10A 10A 10A Test Button yes yes 10A Test Button yes 10A 10A Tightening torque for terminals mm 12.6 Tightening torque for terminals min Nm 2 Tightening torque for terminals min 1.8 1.8 Conductor section Flexible w/o lug max mm² 10	Phase failure detection			yes
automatic automatic Power circuit characteristics Rated insulation voltage Ui IEC/EN V 690 Rated impulse withstand voltage Uimp KV 6 Rated operational voltage V 690 Operational frequency min Hz 0 min Hz 0 mmx Hz 400 Operational current le Operational current min A 20 Operational current max A 25 Tripping class 10A Test Button yes Trip indicator yes Trip indicator yes Screw and washer M4 Width mm 12.6 type screw and washer Max 2.5 Millips 2 Tightening torque for terminals min Nm 2 max Nm 2.5 min Ibin 1.8 Conductor section	Poset mode			Manual or
Rated insulation voltage Ui IEC/EN V 690 Rated impulse withstand voltage Uimp kV 6 Rated operational voltage V 690 Operational frequency min Hz 0 Max Hz 400 0 Operational current le Operational current min A 20 Operational current max A 25 10A Test Button yes yes 10A Trip indicator yes yes 10A Terminals type screw and washer washer Screw M4 washer 20 Tightening torque for terminals min Nm 2 Tightening torque for terminals min Nm 2 Tightening torque for terminals min Nm 2 Tightening torque for terminals min 1.8 Conductor section Flexible w/o lug max mm² 10 10				automatic
Rated impulse withstand voltage Uimp kV 6 Rated operational voltage V 690 Operational frequency min Hz 0 Max Hz 0 0 Operational current le Operational current min A 20 Operational current max A 25 10A Test Button yes 10A Test Button yes yes Trip indicator yes yes Terminals type screw and washer screw M4 min 12.6 Tightening torque for terminals min Nm 2.5 Tightening torque for terminals min Nm 2.5 Min Nm 2.5 min 10.15 Tightening torque for terminals min Nm 2.5 min Min 1.5 max Nm 2.5 10 Conductor section Flexible w/o lug max mm² 10				
Rated operational voltage V 690 Operational frequency min Hz 0 max Hz 400 Operational current le Operational current min A 20 Operational current max A 25 Tripping class 10A 10A Test Button yes yes Trip indicator yes yes Terminals type screw and washer screw M4 width width mm 12.6 Phillips 2 Tightening torque for terminals min Min 2.5 min Min 1.5 max Ibin 1.5 max Ibin 1.8 Conductor section Flexible w/o lug max mm² Flexible w/o lug max mm²	Rated insulation voltage Ui IEC/EN		V	690
Operational frequency min max Hz 0 max Operational current le Operational current min Operational current max A 20 25 Tripping class 10A Test Button yes Trip indicator yes Terminals type screw M4 width mm type screw and washer screw M4 width mm 12.6 tool Tightening torque for terminals min Min Nm Min 1.5 max lbin 1.8 Conductor section	Rated impulse withstand voltage Uimp		kV	6
min max Hz Hz 0 Hz Operational current le Operational current min Operational current max A 20 Tripping class 10A 25 Trip indicator yes 10A Terminals yes 10A type screw and washer screw M4 width tool mm 12.6 Tightening torque for terminals min Nm 2 Tightening torque for terminals min Nm 2.5 Tightening torque for terminals min 1.5 Min 1.5 max 1.8 Conductor section Flexible w/o lug max mm² 10	Rated operational voltage		V	690
maxHz400Operational current leOperational current min Operational current maxA20Tripping class10ATest ButtonyesTrip indicatoryesTerminalstypescrew and washerscrewM4widthmm12.6Tightening torque for terminalsminNmZightening torque for terminalsminNm2Tightening torque for terminalsminNm2.5Conductor sectionFlexible w/o lug maxnm²10	Operational frequency			
Operational current le Operational current min A 20 Tripping class 10A Test Button yes Trip indicator yes Terminals type screw and washer screw M4 width mm 12.6 tool Phillips 2 Tightening torque for terminals min Min Nm 2 max Min 1.5 max Ibin Ibin 1.8		min	Hz	0
Operational current min Operational current maxA20Tripping class10ATest ButtonyesTrip indicatoryesTerminalstypescrew and washerscrewM4widthmm12.6Tightening torque for terminalsminNm2maxNm2.5minIbin1.5maxIbin1.8Conductor sectionFlexible w/o lug maxmm²10		max	Hz	400
Operational current max A 25 Tripping class 10A Test Button yes Trip indicator yes Terminals type screw and washer screw M4 width mm tool Phillips 2 Tightening torque for terminals min Min Nm 2 max Nm 2.5 min Ibin 1.5 max Ibin 1.8 Conductor section Flexible w/o lug max mm² 10	Operational current le			
Tripping class 10A Test Button yes Trip indicator yes Terminals type screw and washer screw M4 width mm tool Phillips 2 Tightening torque for terminals min Min 2.5 min Ibin Max Ibin Max Ibin Ibin 1.8 Conductor section Flexible w/o lug max mm²		Operational current min	А	20
Test Button yes Trip indicator yes Terminals type screw and washer screw M4 width mm tool Phillips 2 Tightening torque for terminals min Min 2.6 min Nm 2 max Max Nm 2.5 min min 1.5 max Ibin 1.8 Conductor section Flexible w/o lug max Mm² Tightening torque for terminals		Operational current max	Α	25
Trip indicator yes Terminals type screw and washer screw M4 width mm 12.6 tool Phillips 2 Tightening torque for terminals min Nm max Nm 2.5 min Ibin 1.5 max Ibin 1.8 Conductor section Flexible w/o lug max mm² 10	Tripping class			10A
Terminals type screw and washer screw M4 width mm 12.6 tool Phillips 2 Tightening torque for terminals min Nm 2 max Nm 2.5 min Ibin 1.5 max Ibin 1.8 1.8 Conductor section Flexible w/o lug max mm² 10				yes
type screw and washer screw M4 width mm 12.6 tool Phillips 2 Tightening torque for terminals min Nm 2 max Nm 2.5 min Ibin 1.5 max Ibin 1.5 max Ibin 1.8 Conductor section	Trip indicator			yes
type washer screw M4 width mm 12.6 tool Phillips 2 Tightening torque for terminals min Nm 2 max Nm 2.5 min Ibin 1.5 max Ibin 1.8 Conductor section Flexible w/o lug max mm² 10	Terminals			
screw M4 width mm 12.6 tool Phillips 2 Tightening torque for terminals min Nm 2 max Nm 2.5 min Ibin 1.5 max Ibin 1.5 max Ibin 1.8 Conductor section		type		
width tool mm 12.6 Phillips 2 Tightening torque for terminals min Nm 2 max Nm 2.5 min Ibin 1.5 max Ibin 1.8		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
tool Phillips 2 Tightening torque for terminals min Nm 2 max Nm 2.5 min Ibin 1.5 module Ibin 1.8 1.8 Flexible w/o lug max mm² 10				
Tightening torque for terminals min Nm 2 max Nm 2.5 min Ibin 1.5 max Ibin 1.8 Conductor section			mm	
min Nm 2 max Nm 2.5 min Ibin 1.5 max Ibin 1.8 Conductor section		tool		Phillips 2
max Nm 2.5 min Ibin 1.5 max Ibin 1.8 Conductor section Flexible w/o lug max mm ² 10	Tightening torque for terminals			
min Ibin 1.5 max Ibin 1.8 Conductor section Flexible w/o lug max mm² 10		min		
max Ibin 1.8 Conductor section Flexible w/o lug max mm² 10				
Conductor section Flexible w/o lug max mm ² 10				
Flexible w/o lug max mm ² 10		max	lbin	1.8
	Conductor section			
Elexible c/w lug max mm ² 6				
-		Flexible c/w lug max	mm²	6
AWG/kcmil max 8 Auxiliary circuit characteristics		AWG/kcmil max		8

Auxiliary circuit characteristics

The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding



ENERGY AND AUTOMATION

RF382500 MOTOR PROTECTION RELAY, PHASE FAILURE/SINGLE-PHASE SENSITIVE. THREE-POLE electric (THREE-PHASE), MANUAL OR AUTOMATIC RESETTING. DIRECT MOUNTING ON BF09 - BF38 CONTACTORS, 20...25A

Auxiliary contacts

NO NCNr.1Auxiliary Rated insulation voltage Ui IEC/ENV690Auxiliary Rated impulse withstand voltage UimpkV6Auxiliary Rated operational voltageV690Operating current AC1524VA3120VA3120VA3240VA1.5380VA0.95	
Auxiliary Rated insulation voltage Ui IEC/ENV690Auxiliary Rated impulse withstand voltage UimpkV6Auxiliary Rated operational voltageV690Operating current AC1524VA3120VA3240VA1.5	
Auxiliary Rated impulse withstand voltage UimpkV6Auxiliary Rated operational voltageV690Operating current AC1524VA3120VA3240VA1.5	
Auxiliary Rated operational voltageV690Operating current AC1524VA3120VA33240VA1.5	
Operating current AC15 24V A 3 120V A 3 240V A 1.5	
24V A 3 120V A 3 240V A 1.5	
120V A 3 240V A 1.5	
240V A 1.5	
480V A 0.75	
500V A 0.72	
600V A 0.6	
Operating current DC13	
125V A 0.11	
600V A 0.22	
IEC Conventional free air thermal current Ith A 10	
Terminals	
Auxiliary circuit type screw an washer	b
Auxiliary circuit screw M3.5	
Auxiliary circuit width mm 8	
Auxiliary circuit tool Phillips 2	
Conductor section	
Auxiliary circuit Flexible w/o lug max mm ² 2.5	
Auxiliary circut Flexible c/w lug max mm ² 2.5	
Tightening torque for terminals	
Auxiliary circuit min Nm 0.8	
Auxiliary circuit max Nm 1	
Auxiliary circuit min Ibin 0.59	
Auxiliary circuit max Ibin 0.74	
UL/CSA and IEC/EN 60947-5-1 designation B600-R3	00
Ambient conditions	
Operating temperature min °C -25	
max °C 60	
Storage temperature	
min °C -50	
max °C 70	
max °C 70	
Compensation temperature	
Compensation temperature min °C -20	
Compensation temperature min °C -20	
Compensation temperature min °C -20 max °C 60	
Compensation temperature min °C -20 max °C 60 Max altitude m 3000	
Compensation temperature min °C -20 max °C 60 Max altitude m 3000 Mechanical features M 3000	lan
Compensation temperature min °C -20 max °C 60 Max altitude m 3000 Mechanical features Operating position	lan
Compensation temperature min °C -20 max °C 60 Max altitude m 3000 Mechanical features m 3000 Operating position normal Vertical p allowable ±30° Direct mode	ounting
Compensation temperature min °C -20 max °C 60 Max altitude m 3000 Mechanical features m 3000 Operating position normal Vertical p allowable ±30° Direct mo Fixing on BF09 0	ounting
Compensation temperature min °C -20 max °C 60 Max altitude m 3000 Mechanical features m 3000 Operating position normal Vertical p allowable ±30° Direct model Fixing on BF09 BF38	ounting
Compensation temperature min °C -20 max °C 60 Max altitude m 3000 Mechanical features m 3000 Operating position normal Vertical p allowable ±30° Direct mo Fixing on BF09 0	ounting

RF382500

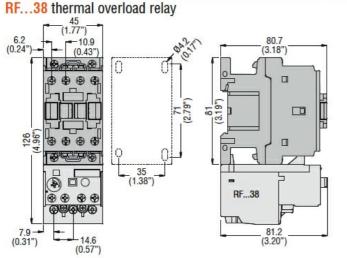




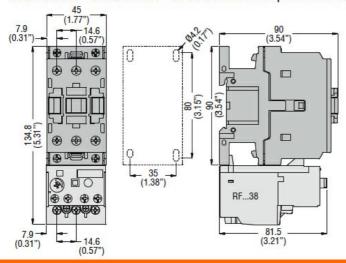
MOTOR PROTECTION RELAY, PHASE FAILURE/SINGLE-PHASE SENSITIVE. THREE-POLE electric (THREE-PHASE), MANUAL OR AUTOMATIC RESETTING. DIRECT MOUNTING ON BF09 - BF38 CONTACTORS, 20...25A

Full-load current (FLA) for three-phase AC motor

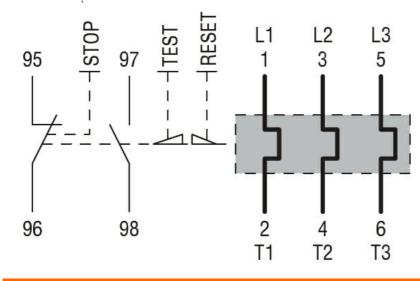
	at 480V	А	25	
	at 600V	Α	25	
Dimensions [mm (in)]				
BF00 A BF09 A BF12 A BF18 A BF25 A three poles with				



BF26 00A... - BF32 00A... - BF38 00A... three poles with RF...38 thermal overload relay



Wiring diagrams



Certifications and compliance

RF382500



ENERGY AND AUTOMATION

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Compliance

•		
	CSA C22.2 n° 14	
	IEC/EN 60947-1	
	IEC/EN 60947-4-1	
	UL508	
Certifications		
	CCC	
	cULus	
	EAC	
ETIM classification		
		EC000106 -

ETIM 8.0

EC000106 -Thermal overload relay