

MOTOR PROTECTION RELAY, PHASE FAILURE/SINGLE-PHASE SENSITIVE. THREE-POLE (THREE-PHASE), MANUAL RESETTING. DIRECT MOUNTING ON BG06, BG09, BG12 MINI-CONTACTORS, 6...10A



Product designation			11RF9
Product type designation			Motor protection relay
General characteristics			
Number of poles		Nr.	3
Overvoltage category			III
Pollution degree			3
Frontal IP degree			IP20
Type of release			Thermal
Protection fuse			
	gG (IEC)	Α	32
	aM (IEC)	Α	10
	RK5 (UL)	Α	30
Phase failure detection			yes
Reset mode			Manual
Power circuit characteristics			
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	8
Rated operational voltage		V	690
Operational frequency			
. ,	min	Hz	0
	max	Hz	400
Operational current le			
•		_	
	Operational current min	Α	6
	Operational current min Operational current max	A A	6 10
Tripping class	Operational current min Operational current max	A A	10
Tripping class Test Button	-		10 10A
Test Button	-		10 10A yes
Test Button Trip indicator	-		10 10A
Test Button	Operational current max		10 10A yes yes
Test Button Trip indicator	-		10 10A yes yes screw and
Test Button Trip indicator	Operational current max		10 10A yes yes screw and washer
Test Button Trip indicator	Operational current max type screw		10 10A yes yes screw and washer M4
Test Button Trip indicator	Operational current max type screw width	A	10 10A yes yes screw and washer M4 9.8
Test Button Trip indicator Terminals	Operational current max type screw	A	10 10A yes yes screw and washer M4
Test Button Trip indicator	Operational current max type screw width tool	mm	10 10A yes yes screw and washer M4 9.8 Phillips 2
Test Button Trip indicator Terminals	type screw width tool min	Mm Nm	10 10A yes yes screw and washer M4 9.8 Phillips 2
Test Button Trip indicator Terminals	type screw width tool min max	mm Nm Nm	10 10A yes yes screw and washer M4 9.8 Phillips 2 2.3 2.3
Test Button Trip indicator Terminals	type screw width tool min	mm Nm Nm Ibin	10 10A yes yes yes screw and washer M4 9.8 Phillips 2 2.3 2.3 1.7
Test Button Trip indicator Terminals	type screw width tool min max min	mm Nm Nm	10 10A yes yes screw and washer M4 9.8 Phillips 2 2.3 2.3
Trip indicator Terminals Tightening torque for terminals	type screw width tool min max min max min max	mm Nm Nm Ibin	10 10A yes yes yes screw and washer M4 9.8 Phillips 2 2.3 2.3 1.7 1.7
Test Button Trip indicator Terminals Tightening torque for terminals Conductor section	type screw width tool min max min	mm Nm Nm Ibin	10 10A yes yes yes screw and washer M4 9.8 Phillips 2 2.3 2.3 1.7
Test Button Trip indicator Terminals Tightening torque for terminals Conductor section Auxiliary circuit characteristics	type screw width tool min max min max min max	mm Nm Nm Ibin	10 10A yes yes yes screw and washer M4 9.8 Phillips 2 2.3 2.3 1.7 1.7
Test Button Trip indicator Terminals Tightening torque for terminals Conductor section	type screw width tool min max min max AWG/kcmil max	mm Nm Nm Ibin Ibin	10 10A yes yes yes screw and washer M4 9.8 Phillips 2 2.3 2.3 1.7 1.7
Test Button Trip indicator Terminals Tightening torque for terminals Conductor section Auxiliary circuit characteristics	type screw width tool min max min max min max	mm Nm Nm Ibin	10 10A yes yes yes screw and washer M4 9.8 Phillips 2 2.3 2.3 1.7 1.7



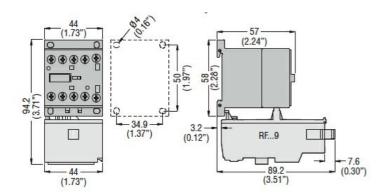
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Auxiliary Rated insulation voltage Uirip				, , ,
Auxiliary Rated operational voltage V 690	Auxiliary Rated insulation voltage Ui IEC/EN		V	690
Compensation current AC15	Auxiliary Rated impulse withstand voltage Uimp		kV	6
24V	Auxiliary Rated operational voltage		V	690
120V	Operating current AC15			
240V		24V	Α	3
Section Sect		120V	Α	3
A		240V	Α	1.5
S00V		380V	Α	0.95
Comparating current DC13		480V	Α	0.75
Conventional free air thermal current lith			Α	0.72
125V		600V	Α	0.6
EC Conventional free air thermal current lth	Operating current DC13			
EC Conventional free air thermal current lth			Α	
Auxiliary circuit type	9	600V		
Auxiliary circuit type Auxiliary circuit type Auxiliary circuit type Auxiliary circuit width Auxiliary circuit width Auxiliary circuit width Auxiliary circuit tool Phillips 1			Α	10
Auxiliary circuit type	Terminals			
Auxiliary circuit screw Auxiliary circuit tool Auxiliary circuit Elexible w/o lug max Auxiliary circuit min Auxiliary circuit		Auxiliary circuit type		
Auxiliary circuit twidth Auxiliary circuit Flexible w/o lug max Auxiliary circuit Flexible c/w lug max Auxiliary circuit min Auxiliary circuit min Auxiliary circuit max Auxiliary ci		•		
Auxiliary circuit tool Phillips 1				
Auxiliary circuit Flexible w/o lug max Auxiliary circuit Flexible c/w lug max Auxiliary circuit min Auxiliary circuit min Auxiliary circuit min Auxiliary circuit max Ibin 0.74 Ibin 0.75 I		•	mm	
Auxiliary circuit Flexible w/o lug max Auxiliary circuit Flexible c/w lug max Auxiliary circuit Flexible c/w lug max Auxiliary circuit min Auxiliary circuit max Ibin 0.74		Auxiliary circuit tool		Phillips 1
Auxiliary circuit Flexible c/w lug max	Conductor section			
Auxiliary circuit min				
Auxiliary circuit min Auxiliary circuit max Be600-P600		Auxiliary circut Flexible c/w lug max	mm²	2.5
Auxiliary circuit max Auxiliary circuit min Auxiliary circuit max Ibin 0.74	Tightening torque for terminals			
Auxiliary circuit min Auxiliary circuit min Auxiliary circuit max Be600-P600 Be600-P600 Be600-P600 Be600-P600 Be600-P600 Be600-P600 Be6000-P600 Be6000-P600 Be6000-P600 Be6000-P600 Be6000-P600 Be6000-P600 Be6000-P600 Be6000-P600 Be6000-P600 Be6000-P6000 Be6000-P6000 Be60000-P6000 Be60000-P6000 Be60000-P6000 Be60000-P6000 Be60000-P6000 Be60000-P6000 Be60000-P6000 Be60000-P6000 Be60000-P600000-P600000-P600000-P600000-P600000-P600000-P600000-P600000-P600000-P600000-P600000-P6000000-P600000-P600000-P600000-P600000-P600000-P600000-P600000-P6000000-P6000000-P6000000-P600000-P6000000-P6000000-P6000000-P6000000-P6000000-P6000000-P6000000-P6000000-P6000000-P6000000-P60000000-P6000000-P60000000-P60000000-P60000000-P60000000-P600000000				
Muxiliary circuit max				
UL/CSA and IEC/EN 60947-5-1 designation				
Ambient conditions Operating temperature min or contact of the state of t	HI (00A HEO/EN 000AZ 5 A 1'	Auxiliary circuit max	IDIN	
Operating temperature min or c max °C or 55 Storage temperature min or c or 70 -55 max Compensation temperature min or c or 70 Compensation temperature min or c or 70 Max altitude m or 3000 Mechanical features m ormal allowable Vertical plan ±30° Direct mounting on BG06 BG09 BG12 BG09 BG12 Weight g or 116 ULt technical data Tull-load current (FLA) for three-phase AC motor at 480V A 10 at 600V A 10				B600-P600
min max °C -20 max °C 55 Storage temperature min °C -55 max °C 70 Compensation temperature min °C -15 max °C 55 Max altitude m 3000 Mechanical features m 3000 Operating position normal allowable Vertical plan ±30° Fixing Direct mounting on BG06 BG09 BG12 Weight g 116 UL technical data Tull-load current (FLA) for three-phase AC motor at 480V A 10 at 600V A 10				
max °C 55 Storage temperature min °C -55 max °C 70 Compensation temperature min °C -15 Max °C 55 Max altitude m 3000 Mechanical features vertical plan Operating position normal allowable ±30° Fixing Direct mounting on BG06 BG06 BG06 BG09 BG12 Weight g 116 UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 10 at 600V A 10	Operating temperature	i	°C	20
Storage temperature				
min max °C -55 max Compensation temperature min °C -15 max min max °C 55 Max altitude m 3000 Mechanical features Operating position Inormal allowable Vertical plan allowable ±30° Fixing Direct mounting on BG06 BG09 BG12 Weight g 116 UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 10 at 600V A 10	Ctorogo tomporoturo	max	C	33
max °C 70 Compensation temperature min °C -15 max °C 55 Max altitude m 3000 Mechanical features Operating position normal allowable Vertical plan ±30° Fixing Direct mounting on BG06 BG09 BG12 Weight g 116 UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 10 at 600V A 10	Storage temperature	min	°C	EE
Compensation temperature min °C rank °C rank -15 rank Max altitude m 3000 3000 Mechanical features Operating position normal allowable ± 30° Fixing Direct mounting on BG06 BG09 BG12 Weight g 116 UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 10 at 600V A 10				
min max °C 55 Max altitude m 3000 Mechanical features Operating position normal allowable Vertical plan 230° Fixing Direct mounting on BG06 BG09 BG12 Weight g 116 UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 10 at 600V A 10	Componentian temporature	IIIdA		70
Max altitude m 3000 Mechanical features Operating position normal allowable Vertical plan ±30° Fixing Direct mounting on BG06 BG09 BG12 Weight g 116 UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 10 at 600V A 10	Compensation temperature	min	°C	-15
Max altitude m 3000 Mechanical features Operating position normal allowable Vertical plan ±30° Fixing Direct mounting on BG06 BG09 BG12 Weight g 116 UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 10 at 600V A 10				
Mechanical features Operating position normal Vertical plan allowable ±30° Direct mounting on BG06 BG09 BG12 Weight UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 10 at 600V A 10	Max altitude	IIIax		
Operating position normal Vertical plan allowable ±30° Direct mounting on BG06 BG09 BG12 Weight g 116 UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 10 at 600V A 10			111	
Normal allowable 130°				
Allowable	eps.samg position	normal		Vertical plan
Fixing Direct mounting on BG06 BG09 BG12 Weight UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 10 at 600V A 10				-
Fixing on BG06 Weight g 116 UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 10 at 600V A 10		allerrable		
BG09 BG12 Weight g 116	Fixing			
UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 10 at 600V A 10				
UL technical data Full-load current (FLA) for three-phase AC motor at 480V A 10 at 600V A 10	Weight		g	116
at 480V A 10 at 600V A 10				
at 480V A 10 at 600V A 10	Full-load current (FLA) for three-phase AC motor			
	•	at 480V	Α	10
Dimensions		at 600V	Α	10
	Dimensions			

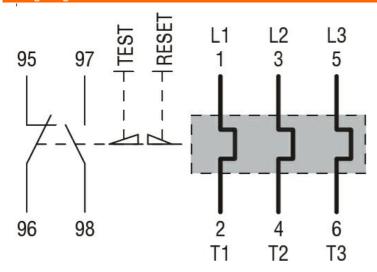


ENERGY AND AUTOMATION

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Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 14

IEC/EN 60947-1

IEC/EN 60947-4-1

UL508

Certifications

CCC

CSA

cULus

EAC

ETIM classification

ETIM 8.0

EC000106 -Thermal overload

relay