**ENERGY AND AUTOMATION** 

MOTOR PROTECTION RELAY, PHASE FAILURE/SINGLE-PHASE SENSITIVE. THREE-POLE **electric** (THREE-PHASE), AUTOMATIC RESETTING. DIRECT MOUNTING ON BG06, BG09, BG12 MINI-CONTACTORS, 0.9...1.5A



Product designation			11RFA9
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	4
	aM (IEC)	Α	2
	RK5 (UL)	Α	6
Phase failure detection			yes
Reset mode			Automatic
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	0.9
	Operational current min Operational current max	A A	0.9 1.5
Tripping class	Operational current min Operational current max		
Tripping class Test Button	-		1.5 10A
Test Button	-		1.5 10A yes
Test Button Trip indicator	-		1.5 10A
Test Button	Operational current max		1.5 10A yes yes
Test Button Trip indicator	-		1.5 10A yes
Test Button Trip indicator	Operational current max		1.5 10A yes yes screw and
Test Button Trip indicator	Operational current max		1.5 10A yes yes screw and washer
Test Button Trip indicator	Operational current max  type screw	A	1.5 10A yes yes screw and washer M4
Test Button Trip indicator	Operational current max  type screw width	A	1.5 10A yes yes screw and washer M4 9.8
Test Button Trip indicator Terminals	Operational current max  type screw width	A	1.5 10A yes yes screw and washer M4 9.8
Test Button Trip indicator Terminals	Operational current max  type screw width tool	mm	1.5 10A yes yes screw and washer M4 9.8 Phillips 2
Test Button Trip indicator Terminals	type screw width tool min	mm Nm	1.5 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	1.5 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 max min	mm Nm Nm Ibin	1.5 10A yes yes yes screw and washer M4 9.8 Phillips 2 2.3 2.3 1.7
Trip indicator Terminals  Tightening torque for terminals	type screw width tool min max min	mm Nm Nm Ibin	1.5 10A yes yes yes screw and washer M4 9.8 Phillips 2 2.3 2.3 1.7
Trip indicator Terminals  Tightening torque for terminals	type screw width tool min max min max min max	mm Nm Nm Ibin	1.5 10A 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 min max	mm Nm Nm Ibin	1.5 10A 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	1.5 10A 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 AWG/kcmil max	mm Nm Nm Ibin Ibin	1.5 10A yes yes screw and washer M4 9.8 Phillips 2 2.3 2.3 1.7 1.7





**ENERGY AND AUTOMATION** 

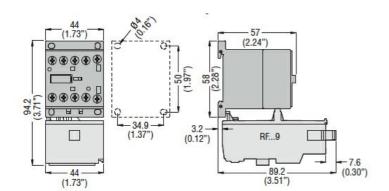
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Auxiliary Rated insulation voltage Ui IEC/EN		V	690
Auxiliary Rated impulse withstand voltage Uimp		kV	6
Auxiliary Rated operational voltage		V	690
Operating current AC15			
	24V	Α	1.5
	120V	Α	1.5
	240V	Α	0.75
IEC Conventional free air thermal current Ith		Α	10
Terminals			
	Auxiliary circuit type		screw and washer
	Auxiliary circuit screw		M3,5
	Auxiliary circuit width	mm	8
	Auxiliary circuit tool		Phillips 1
Conductor section			
	Auxiliary circuit Flexible w/o lug max	mm²	2.5
	Auxiliary circut Flexible c/w lug max	mm²	2.5
Tightening torque for terminals			
	Auxiliary circuit min	Nm	1
	Auxiliary circuit max	Nm	1
	Auxiliary circuit min	Ibin	0.74
	Auxiliary circuit max	Ibin	0.74
UL/CSA and IEC/EN 60947-5-1 designation			C300-R300
Ambient conditions			
Operating temperature			
	min	°C	-20
	max	°C	55
Storage temperature			
	min	°C	-55
-	max	°C	70
Compensation temperature			
, , , , , , , , , , , , , , , , , , ,	min	°C	-15 
· · · · · · · · · · · · · · · · · · ·	min max	°C	55
Max altitude			
Max altitude  Mechanical features		°C	55
Max altitude	max	°C	55 3000
Max altitude  Mechanical features	normal	°C	55 3000 Vertical plan
Max altitude  Mechanical features	max	°C	55 3000 Vertical plan ±30°
Max altitude  Mechanical features	normal	°C	55 3000  Vertical plan ±30°  Direct mounting on BG06
Max altitude  Mechanical features  Operating position  Fixing	normal	°C m	Vertical plan ±30° Direct mounting on BG06 BG09 BG12
Max altitude  Mechanical features Operating position  Fixing  Weight	normal	°C	55 3000  Vertical plan ±30°  Direct mounting on BG06
Max altitude  Mechanical features Operating position  Fixing  Weight UL technical data	normal	°C m	Vertical plan ±30° Direct mounting on BG06 BG09 BG12
Max altitude  Mechanical features Operating position  Fixing  Weight	normal allowable	°C m	Vertical plan ±30° Direct mounting on BG06 BG09 BG12
Max altitude  Mechanical features Operating position  Fixing  Weight UL technical data	normal	°C m	Vertical plan ±30° Direct mounting on BG06 BG09 BG12

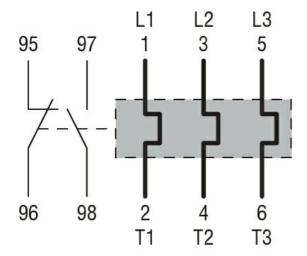


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## Wiring diagrams



## 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** 

11RFA91V5

EC000106 -

Thermal overload

3/3

relay