**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, 0.6...1A



Product designation			11RFA9 Motor protection
Product type designation			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	3
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	0.6
	Operational current max	Α	1
Tripping class			10A
Test Button			yes
Trip indicator			yes
Terminals			
	type		screw and
	type		washer
	screw		M4
	width	mm	9.8
	tool		Phillips 2
Tightening torque for terminals			
	min	Nm	2.3
	max	Nm	2.3
	min	lbin	1.7
	max	Ibin	1.7
Conductor section			
	AWG/kcmil max		10
Auxiliary circuit characteristics			
Auxiliary contacts			
	NO	Nr.	1
	NC	Nr.	1



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, ,	V kV V A A A A	690 6 690 1.5 1.5 0.75
Auxiliary Rated impulse withstand voltage Uimp Auxiliary Rated operational voltage Operating current AC15  24V 120V 240V IEC Conventional free air thermal current Ith Terminals  Auxiliary circuit type Auxiliary circuit vipe Auxiliary circuit width Auxiliary circuit tool Conductor section  Auxiliary circuit Flexible w/o lug max Auxiliary circuit Flexible c/w lug max Tightening torque for terminals  Auxiliary circuit min Auxiliary circuit max	V A A A	1.5 1.5 0.75
Auxiliary Rated operational voltage Operating current AC15  24V 120V 240V  IEC Conventional free air thermal current Ith Terminals  Auxiliary circuit type Auxiliary circuit screw Auxiliary circuit width Auxiliary circuit tool  Conductor section  Auxiliary circuit Flexible w/o lug max Auxiliary circuit Flexible c/w lug max Tightening torque for terminals  Auxiliary circuit min Auxiliary circuit max	A A A	1.5 1.5 0.75
Departing current AC15  24V 120V 240V  EC Conventional free air thermal current Ith  Terminals  Auxiliary circuit type Auxiliary circuit screw Auxiliary circuit width Auxiliary circuit tool  Conductor section  Auxiliary circuit Flexible w/o lug max Auxiliary circut Flexible c/w lug max  Fightening torque for terminals  Auxiliary circuit min Auxiliary circuit max  Auxiliary circuit min Auxiliary circuit max	A A	1.5 0.75
24V 120V 240V  EC Conventional free air thermal current Ith Ferminals  Auxiliary circuit type Auxiliary circuit screw Auxiliary circuit width Auxiliary circuit tool  Conductor section  Auxiliary circuit Flexible w/o lug max Auxiliary circuit Flexible c/w lug max  Fightening torque for terminals  Auxiliary circuit min Auxiliary circuit max  Auxiliary circuit min Auxiliary circuit max  Auxiliary circuit min Auxiliary circuit max	A A	1.5 0.75
EC Conventional free air thermal current Ith  Ferminals  Auxiliary circuit type  Auxiliary circuit screw  Auxiliary circuit width  Auxiliary circuit tool  Conductor section  Auxiliary circuit Flexible w/o lug max  Auxiliary circuit Flexible c/w lug max  Auxiliary circuit min  Auxiliary circuit max	A A	1.5 0.75
EC Conventional free air thermal current Ith  Ferminals  Auxiliary circuit type  Auxiliary circuit screw  Auxiliary circuit width  Auxiliary circuit tool  Conductor section  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		0.75
EC Conventional free air thermal current Ith  Ferminals  Auxiliary circuit type  Auxiliary circuit screw  Auxiliary circuit width  Auxiliary circuit tool  Conductor section  Auxiliary circuit Flexible w/o lug max  Auxiliary circut Flexible c/w lug max  Auxiliary circuit Flexible c/w lug max  Auxiliary circuit min  Auxiliary circuit max	Α	
Auxiliary circuit type Auxiliary circuit screw Auxiliary circuit width Auxiliary circuit tool  Conductor section  Auxiliary circuit Flexible w/o lug max Auxiliary circut Flexible c/w lug max Auxiliary circuit Flexible c/w lug max Auxiliary circuit min Auxiliary circuit max		i U
Auxiliary circuit type  Auxiliary circuit screw Auxiliary circuit width Auxiliary circuit tool  Conductor section  Auxiliary circuit Flexible w/o lug max Auxiliary circut Flexible c/w lug max  Fightening torque for terminals  Auxiliary circuit min Auxiliary circuit max		
Auxiliary circuit width Auxiliary circuit tool  Conductor section  Auxiliary circuit Flexible w/o lug max Auxiliary circut Flexible c/w lug max  Fightening torque for terminals  Auxiliary circuit min Auxiliary circuit max  Auxiliary circuit min Auxiliary circuit min Auxiliary circuit min Auxiliary circuit max  Auxiliary circuit max  Auxiliary circuit max  Auxiliary circuit max		screw and washer
Auxiliary circuit width Auxiliary circuit tool  Conductor section  Auxiliary circuit Flexible w/o lug max Auxiliary circut Flexible c/w lug max  Fightening torque for terminals  Auxiliary circuit min Auxiliary circuit max  Auxiliary circuit min Auxiliary circuit min Auxiliary circuit min Auxiliary circuit max  Auxiliary circuit max  Auxiliary circuit max  Auxiliary circuit max		M3,5
Auxiliary circuit tool Conductor section  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 Auxiliary circuit min Auxiliary circuit min Auxiliary circuit min Auxiliary circuit max  Auxiliary circuit max  Auxiliary circuit max  Auxiliary circuit max	mm	8
Auxiliary circuit Flexible w/o lug max Auxiliary circuit Flexible c/w lug max Auxiliary circuit Flexible c/w lug max Fightening torque for terminals  Auxiliary circuit min Auxiliary circuit max Auxiliary circuit min Auxiliary circuit min Auxiliary circuit max Auxiliary circuit max Auxiliary circuit max Auxiliary circuit max		Phillips 1
Auxiliary circuit Flexible w/o lug max Auxiliary circut Flexible c/w lug max Fightening torque for terminals  Auxiliary circuit min Auxiliary circuit max Auxiliary circuit min Auxiliary circuit min Auxiliary circuit min Auxiliary circuit max Auxiliary circuit max  JL/CSA and IEC/EN 60947-5-1 designation Ambient conditions		
Auxiliary circut Flexible c/w lug max  Fightening torque for terminals  Auxiliary circuit min Auxiliary circuit max Auxiliary circuit min Auxiliary circuit min Auxiliary circuit max  Auxiliary circuit max  Auxiliary circuit max  JL/CSA and IEC/EN 60947-5-1 designation  Ambient conditions	mm²	2.5
Fightening torque for terminals  Auxiliary circuit min Auxiliary circuit max Auxiliary circuit min Auxiliary circuit min Auxiliary circuit min Auxiliary circuit max  JL/CSA and IEC/EN 60947-5-1 designation Ambient conditions	mm²	2.5
Auxiliary circuit min Auxiliary circuit max Auxiliary circuit max Auxiliary circuit min Auxiliary circuit max  JL/CSA and IEC/EN 60947-5-1 designation  Ambient conditions		2.0
Auxiliary circuit max Auxiliary circuit min Auxiliary circuit min Auxiliary circuit max  JL/CSA and IEC/EN 60947-5-1 designation  Ambient conditions	Nm	1
Auxiliary circuit min Auxiliary circuit max  JL/CSA and IEC/EN 60947-5-1 designation  Ambient conditions	Nm	1
Auxiliary circuit max  JL/CSA and IEC/EN 60947-5-1 designation  Ambient conditions	Ibin	0.74
JL/CSA and IEC/EN 60947-5-1 designation Ambient conditions	Ibin	0.74
Ambient conditions	10111	C300-R300
		0300 11300
operating temperature		
min	°C	-20
	°C	55
Max Storage temperature		33
Storage temperature	° <b>C</b>	
min	°C	-55 -70
max	°C	70
Compensation temperature .	^ •	
min	°C	-15
max	°C	55
Max altitude	m	3000
Mechanical features		
Operating position		
normal		Vertical plan
allowable		±30°
Fixing		Direct mounting on BG06
		BG09 BG12
Weight	g	116
JL technical data		

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

at 480V

at 600V

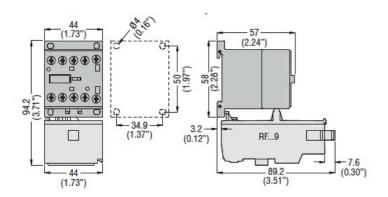
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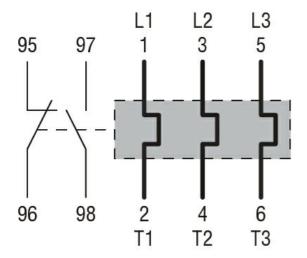
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**ENERGY AND AUTOMATION** 



## 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