11RFA91



MOTOR PROTECTION RELAY, PHASE FAILURE/SINGLE-PHASE SENSITIVE. THREE-POLE Electric (THREE-PHASE), AUTOMATIC RESETTING. DIRECT MOUNTING ON BG06, BG09, BG12 MINI-AND AUTOMATION CONTACTORS, 0.6...1A



Product type designation relay General characteristics Nr. Number of poles Nr. Overvoltage category III Pollution degree 3 Frontal IP degree IP20 Type of release Thermal Protection fuse gG (IEC) A 4 aM (IEC) A 2 Reset mode Automatic yes Reset mode Automatic Power circuit characteristics Rated insulation voltage UI IEC/EN V 690 Rated insulation voltage UI V 690 Operational voltage V 690 Operational voltage V 690 Operational current min A 0.6 Operational current max A 1 Tripping class 10A Yes Trip indicator yes screw M4 width mm 9.8 screw and washer Screw M4 vidth mm 9.8 Trip indicator yes yes screw and washer Tighte	Product designation			11RFA9
General characteristics Nr. 3 Number of poles Nr. 3 Overvottage category III Pollution degree 3 Frontal IP degree IP20 Type of release Thermal Protection fuse gG (IEC) A 4 aM (IEC) A 2 Phase failure detection yes ges Reset mode Automatic Power circuit characteristics	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 aM (IEC) A 2 RK5 (UL) A 3 Phase failure detection yes Reset mode Automatic Power ortrout characteristics Automatic Power ortrout characteristics V 690 Rated insulation voltage UI IEC/EN V 690 Rated insulation voltage UI IEC/EN V 690 Qperational ordinge UI IEC/EN V 690 Qperational current min A 0.6 Operational current time A 10A Test Button Yes Yes Tripping class 10A Yes Trip indicator Yes Screw and washer screw Mid mm 9.8 tool Phillips 2 min Tightening torque for terminals III </td <td>General characteristics</td> <td></td> <td></td> <td></td>	General characteristics			
Pollution degree 3 Frontal IP degree IP20 Type of release Thermal Protection fuse gG (IEC) A gR (IEC) A 2 RK5 (UL) A 3 Phase failure detection yes Reset mode Automatic Power origin characteristics yes Rated insulation voltage Uil EC/EN V 690 Rated insulation voltage Uil EC/EN V 690 Querational voltage Uil EC/EN V 690 Operational requency min Hz 0 max Hz 400 0 0 Operational requency min Hz 0 0 Operational current min A 0.6 0 Operational current max A 1 1 Tripping class 10A Yes 1 Test Button Yes Yes Yes 1 Tip indicator yes Yes 1 1 Tipinening torque for terminals min Nmax Nm 2.3 <td>Number of poles</td> <td></td> <td>Nr.</td> <td>3</td>	Number of poles		Nr.	3
Frontal IP degree IP20 Type of release Thermal Protection fuse gG (IEC) A 4 aM (IEC) A 2 RK5 (UL) A 3 Phase failure detection yes yes Reset mode Automatic Power circuit characteristics Automatic yes Reset mode Automatic Power circuit characteristics Rated insulation voltage UI IEC/EN V 690 Rated deperational voltage V 690 Querational frequency min Hz 0 0 0 0 Operational current le Operational current min A 0.6 0 0 Tripping class 10A Yes 10A 10A 10A Test Button Yes Yes 10A 10A 10A 10A Trip indicator yes yes 10A 10A 10A 10A Test Button Yes min Nm 9.8 10A 10A Tightening torque for terminals tool Phillips 2 10A 10A	Overvoltage category			
Type of release Thermal Protection fuse gG (IEC) A 4 aM (IEC) A 2 Rts (UL) A 3 Phase failure detection yes Reset mode Automatic Power circuit characteristics Yes Rated insulation voltage Uil IEC/EN V 690 Rated insulation voltage Uilpp KV 8 Rated operational voltage V 690 Operational frequency min Hz 0 max Hz 400 0 Operational current le Operational current min A 0.6 Operational current min A 0.6 0 Operational current min A 10 1 Trip indicator yes yes 10A Test Button Yes Yes 10A Trip indicator yes screw and washer screw M4 with mm 9.8 Tightening torque for terminals min Nmax Nmax Max Nmax 10 1 Auxiliary circuit characteristics Auxiliary circuit characteristics NO Nr.	Pollution degree			3
Protection fuse $ \begin{array}{ccccccccccccccccccccccccccccccccccc$	Frontal IP degree			IP20
gG (IEC) A 4 aM (IEC) A 3 Phase failure detection yes Reset mode Automatic Power circuit characteristics	Type of release			Thermal
aM (IEC) A 2 RK5 (UL) A 3 Phase failure detection yes Reset mode Automatic Power circuit characteristics V Rated insulation voltage Ui IEC/EN V Rated insulation voltage Uingp KV Rated insulation voltage Uingp KV Rated insulation voltage Uingp KV Rated operational voltage V Operational frequency min Hz 0 max Hz Operational current min A Operational current max A Operational current max A Operational current max A Tripping class 10A Test Button Yes Trip indicator yes Vers Screw and width mm 9.8 tool Tightening torque for terminals min Min 1.7 Conductor section max Max 10 Auxiliary circuit characteristics NO NN 1	Protection fuse			
aM (IEC) A 2 RK5 (UL) A 3 Phase failure detection yes Reset mode Automatic Power circuit characteristics V Rated insulation voltage Ui IEC/EN V Rated insulation voltage Uingp KV Rated insulation voltage Uingp KV Rated insulation voltage Uingp KV Rated operational voltage V Operational frequency min Hz 0 max Hz Operational current min A Operational current max A Operational current max A Operational current max A Tripping class 10A Test Button Yes Trip indicator yes Vers Screw and width mm 9.8 tool Tightening torque for terminals min Min 1.7 Conductor section max Max 10 Auxiliary circuit characteristics NO NN 1		gG (IEC)	А	4
RK5 (UL) A 3 Phase failure detection yes Reset mode Automatic Power circuit characteristics Automatic Rated insulation voltage Ui IEC/EN V 690 Rated inpulse withstand voltage Uimp KV 8 Rated operational voltage V 690 Operational requency min Hz 0 max Hz 400 0 Operational current le Operational current min A 0.6 Operational current le Operational current max A 1 Tripping class 10A 10A 1 Test Button Yes Yes Trip indicator yes Terminals type screw and washer screw and washer screw M4 M4 NM 13 Tightening torque for terminals min Nm 2.3 max Max Nm 2.3 max 10 Auxiliary circuit characteristics MWG/kcmil max 10 Auxiliary circuit characteristics Auxiliary contacts NO </td <td></td> <td></td> <td>А</td> <td>2</td>			А	2
Reset mode Automatic Power circuit characteristics V Rated insulation voltage Ui IEC/EN V 690 Rated inpulse withstand voltage V 690 Operational voltage V 690 Operational frequency min Hz 0 Operational current le Operational current min A 0.6 Tripping class 10A 10A Test Button Yes Yes Trip indicator yes yes Terminals type screw and washer screw M4 washer screw M4 washer screw M4 washer screw M4 Nm tool Phillips 2 Tightening torque for terminals min Ibin 1.7 max Ibin 1.7 Conductor section AWG/kcmil max 10 Auxiliary circuit characteristics AWG/kcmil max 10 Auxiliary contacts NO Nr. 1		. ,	А	3
Reset mode Automatic Power circuit characteristics v Rated insulation voltage Ui IEC/EN V Rated inpulse withstand voltage Uimp kV Rated operational voltage V Operational frequency min Max Hz Operational current le max Operational current min A 0.6 Operational current max A 1 Tripping class 10A Test Button Yes Trip indicator yes Terminals type screw M4 washer screw and washer screw screw M4 mm 9.8 tool Phillips 2 Tightening torque for terminals min max 10 Auxiliary circuit characteristics 10 Auxiliary contacts NO Nr.	Phase failure detection			yes
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 0 Operational current le Operational current min A 0.6 Operational current max A 1 1 Tripping class 10A 10A 10A Test Button Yes yes 10A Test Button Yes yes 10A Test Button Yes yes 10A Tig indicator yes yes 10A Test Button Yes 10A 10A Tightening torque for terminals type screw and washer Screw M4 2.3 10A Tightening torque for terminals min Nm 2.3 min Nm 2.3 1.7 Conductor section AWG/kcmil max 10 Auxiliary circuit characteristics AWG/kcmil max 10 <t< td=""><td>Reset mode</td><td></td><td></td><td></td></t<>	Reset mode			
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 0 Operational current le Operational current min A 0.6 Operational current max A 1 1 Tripping class 10A 10A 10A Test Button Yes yes 10A Test Button Yes yes 10A Test Button Yes yes 10A Tig indicator yes yes 10A Test Button Yes 10A 10A Tightening torque for terminals type screw and washer Screw M4 2.3 10A Tightening torque for terminals min Nm 2.3 min Nm 2.3 1.7 Conductor section AWG/kcmil max 10 Auxiliary circuit characteristics AWG/kcmil max 10 <t< td=""><td></td><td></td><td></td><td></td></t<>				
Rated impulse withstand voltage Uimp kV 8 Rated operational voltage V 690 Operational frequency min Hz 0 max Hz 400 0 Operational current le Operational current min A 0.6 Operational current max A 1 1 Tripping class 10A 10A Test Button Yes Yes Trip indicator yes yes Terminals type screw and washer screw M4 mm width mm 9.8 tool Phillips 2 10 Tightening torque for terminals min Nm 2.3 min Ibin 1.7 max Nm 2.3 min Ibin 1.7 max 10 Auxiliary circuit characteristics AWG/kcmil max 10 Auxiliary contacts NO Nr. 1	Rated insulation voltage Ui IEC/EN		V	690
Rated operational voltage V 690 Operational frequency min Hz 0 max Hz 400 Operational current le Operational current min A 1.6 Operational current max A 1 Tripping class 10A Yes Trip indicator yes yes Terminals type screw and washer screw M4 tool Phillips 2 Tightening torque for terminals min Nm 2.3 max Nm 2.3 min max Nm 1.7 max Conductor section AWG/kcmil max 10 Auxiliary circuit characteristics NO Nr. 1			kV	8
Operational frequency min Hz 0 max Hz 400 Operational current le Operational current min A 0.6 Operational current max A 1 Tripping class 10A 10A Test Button Yes Yes Trip indicator yes yes Terminals type screw and washer screw M4 washer screw M4 mm width mm 9.8 tool Phillips 2 Tightening torque for terminals min Min 1.7 max Nm 2.3 min min 10 Auxiliary circuit characteristics 10 Auxiliary contacts NO Nr.				690
min Hz 0 max Hz 400 Operational current le Operational current min A 0.6 Operational current max A 1 Tripping class 10A Test Button Yes Trip indicator yes Terminals type Screw and washer screw M4 width mm 9.8 tool Phillips 2 Tightening torque for terminals min Nm min Nm 2.3 max Nm 2.3 min Ibin 1.7 Conductor section AWG/kcmil max 10 Auxiliary contacts NN NN	· · · ·			
maxHz400Operational current leOperational current min Operational current maxA0.6 0.6 Operational current maxTripping class10ATest ButtonYesTrip indicatoryesTerminalstypescrew and 		min	Hz	0
Operational current le Operational current min A 0.6 Operational current max A 1 Tripping class 10A Test Button Yes Trip indicator yes Terminals type screw and width mm yidth mm yidth mm 10 Phillips 2 Tightening torque for terminals min Min 2.3 min Nm 2.3 min Ibin 1.7 Conductor section AWG/kcmil max Auxiliary contacts NO NO Nr.				
Operational current min Operational current max A 0.6 Tripping class 10A Test Button Yes Trip indicator yes Terminals type screw width tool M4 Tightening torque for terminals M4 min Nm Phillips 2 Tightening torque for terminals min Nm Max Nm Min Nm Max Nm Min 1.7 Conductor section AWG/kcmil max AWG/kcmil max 10 Auxiliary contacts NO	Operational current le			
Operational current max A 1 Tripping class 10A Test Button Yes Trip indicator yes Terminals screw and washer screw M4 width mm 9.8 phillips 2 Tightening torque for terminals min Nm 2.3 min Ibin 1.7 max Conductor section A AWG/kcmil max 10 Auxiliary circuit characteristics NO NO Nr. 1		Operational current min	Δ	0.6
Tripping class 10A Test Button Yes Trip indicator yes Terminals type screw M4 width mm yes tool Phillips 2 Tightening torque for terminals min Nm 2.3 max Nm 2.3 min Ibin 1.7 Conductor section Auxiliary circuit characteristics Auxiliary contacts		-		
Test Button Yes Trip indicator yes Terminals type screw and washer screw M4 width mm width mm tool Phillips 2 Tightening torque for terminals min min Nm 2.3 max min lbin 1.7 max Conductor section AWG/kcmil max Auxiliary circuit characteristics NO Auxiliary contacts NO			7.	
Trip indicator yes Terminals type screw and washer screw M4 width mm 9.8 tool Phillips 2 Tightening torque for terminals min Nm 2.3 max Nm 2.3 max Nm 2.3 min Ibin 1.7 max Ibin 1.7 Conductor section AWG/kcmil max 10 Auxiliary circuit characteristics Auxiliary contacts NO Nr. 1				
Terminals type screw and washer screw M4 width mm tool Phillips 2 Tightening torque for terminals min Min Nm 2.3 max min Ibin 1.7 max Conductor section AWG/kcmil max Auxiliary circuit characteristics 10 Auxiliary contacts NO				
type screw and 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 Conductor section awg/kcmil max 10 10 Auxiliary circuit characteristics NO Nr. 1				yco
type washer screw M4 width mm 9.8 tool Phillips 2 Tightening torque for terminals min Nm 2.3 max Nm 2.3 min Ibin 1.7 max Ibin 1.7 Conductor section AWG/kcmil max 10 Auxiliary circuit characteristics Auxiliary contacts NO Nr. 1	Terrinais			screw and
screw M4 width mm 9.8 tool Phillips 2 Tightening torque for terminals min Nm 2.3 max Nm 2.3 min Ibin 1.7 Conductor section awG/kcmil max 10 Auxiliary circuit characteristics NO Nr. 1		type		
width tool mm 9.8 Tightening torque for terminals min Nm 2.3 max Nm 2.3 min Ibin 1.7 Conductor section Ibin 1.7 Auxiliary circuit characteristics 10 Auxiliary contacts NO Nr.		screw		
tool Phillips 2 Tightening torque for terminals min Nm 2.3 max Nm 2.3 min Ibin 1.7 Conductor section aWG/kcmil max 10 Auxiliary circuit characteristics NO Nr. 1			mm	
Tightening torque for terminals min Nm 2.3 max Nm 2.3 min Ibin 1.7 Conductor section AWG/kcmil max 10 Auxiliary circuit characteristics NO Nr. 1				
min Nm 2.3 max Nm 2.3 min Ibin 1.7 max Ibin 1.7 Conductor section AWG/kcmil max 10 Auxiliary circuit characteristics Auxiliary contacts NO Nr. 1	Tightening torque for terminals			1 -
max Nm 2.3 min Ibin 1.7 max Ibin 1.7 Conductor section AWG/kcmil max 10 Auxiliary circuit characteristics 10 Auxiliary contacts NO Nr.		min	Nm	23
min Ibin 1.7 max Ibin 1.7 Conductor section AWG/kcmil max 10 Auxiliary circuit characteristics 10 Auxiliary contacts NO Nr.				
max Ibin 1.7 Conductor section AWG/kcmil max 10 Auxiliary circuit characteristics 10 Auxiliary contacts NO Nr.				
Conductor section AWG/kcmil max 10 Auxiliary circuit characteristics Auxiliary contacts NO Nr. 1				
AWG/kcmil max 10 Auxiliary circuit characteristics Auxiliary contacts NO Nr. 1	Conductor section			
Auxiliary circuit characteristics Auxiliary contacts NO Nr. 1		AWG/kcmil max		10
Auxiliary contacts NO Nr. 1	Auxiliary circuit characteristics			10
NO Nr. 1				
		NO	Nr	1
		NC	Nr.	1



ENERGY AND AUTOMATION

11RFA91 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

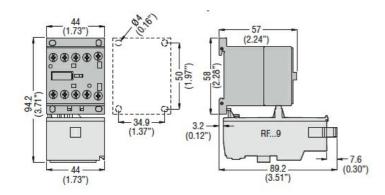
Auxiliary Rated insulation voltage Ui IEC/EN		V	690
Auxiliary Rated impulse withstand voltage Uimp		kV	6
Auxiliary Rated operational voltage		V	690
Operating current AC15			
	24V	А	1.5
	120V	А	1.5
	240V	А	0.75
IEC Conventional free air thermal current Ith		А	10
Terminals			
	Auxiliary circuit type		screw and washer
	Auxiliary circuit screw		M3,5
	Auxiliary circuit width	mm	8

	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	lbin	0.74
	Auxiliary circuit max	Ibin	0.74
UL/CSA and IEC/EN 60947-5-1 designation	5		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
	max	°C	55
Max altitude		m	3000
Mechanical features			
Operating position			
	normal		Vertical plan
	allowable		±30°
			Direct mounting
Fixing			on BG06
			BG09 BG12
Weight		g	116
UL technical data			
Full-load current (FLA) for three-phase AC motor			
	at 480V	А	1
	at 600V	А	1
Dimensions			

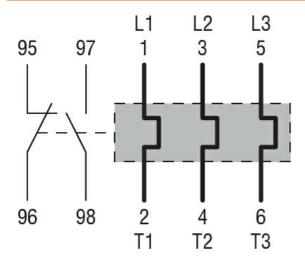


11RFA91 MOTOR PROTECTION RELAY, PHASE FAILURE/SINGLE-PHASE SENSITIVE. THREE-POLE electric (THREE-PHASE), AUTOMATIC RESETTING. DIRECT MOUNTING ON BG06, BG09, BG12 MINI-CONTACTORS, 0.6...1A





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