SIEMENS

Data sheet

3RF21 50-1AA24



SEMICONDUCTOR RELAY 3RF2, 1-PH. WIDTH 22.5MM, 50 A 48-460 V / 110-230 V AC SCREW TERMINAL

General technical data:		
product brand name		SIRIUS
Product designation		solid-state relay
Product function		zero-point switching
Number of poles for main current circuit		1
Protection class IP		IP20
Product designation _1 of the accessories that can be ordered		terminal cover
Manufacturer article number _1 of the accessories that can be ordered		<u>3RF2900-3PA88</u>
Product designation _2 of the accessories that can be ordered		power regulator
Manufacturer article number _2 of the accessories that can be ordered		<u>3RF2950-0HA36</u>
Product designation _4 of the accessories that can be ordered		load monitoring
Manufacturer article number _4 of the accessories that can be ordered		<u>3RF2950-0GA36</u>
Ambient temperature		
 during operation 	°C	-25 +60
 during storage 	°C	-55 +80
Installation altitude at height above sea level maximum	m	1 000
Vibration resistance acc. to IEC 60068-2-6		2g
Shock resistance acc. to IEC 60068-2-27		15g / 11 ms
Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750		К

Equipment marking acc. to DIN EN 61346-2	Q
Number of NC contacts for auxiliary contacts	0
Number of NO contacts for auxiliary contacts	0
Number of CO contacts for auxiliary contacts	0

Number of NC contacts for main contacts 1 Number of NC contacts for main contacts 0 Operating current 0 • Rated value maximum A 50 • at AC-51 Rated value A 50 • at AC-51 Rated value A 500 Operating voltage with AC • • • at 50 Hz Rated value V 48 460 • at 60 Hz Rated value V 48 460 Operating range relative to the operating voltage with AC • • at 50 Hz V 40 506 • at 60 Hz V 40 506 • at 60 Hz V 40 506 Operating frequency Rated value V 40 506 Relative symmetrical tolerance of the operating frequency % 10 Insulation voltage Rated value V 600 Rate of voltage rate at the thyristor for main contacts maximum permissible V 1 200 Blocking voltage at the thyristor for main contacts maximum permissible V 66 Apparent power loss total typical V 66 Apparent power loss total typical A* 600 Apparent power loss total typical A* 600 Control supply voltage of the control supply voltage AC Control supply voltage freq	Main circuit:		
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Control supply voltage frequencyHz50• 1 Rated valueHz60• 2 Rated valueHz60Type of voltage of the control supply voltageACControl supply voltage 1Image: Section 10 and 10 a	Short-circuit protection, design of the fuse link		
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Type of voltage of the control supply voltage AC Control supply voltage 1 AC	• 1 Rated value	Hz	50
Control supply voltage 1	• 2 Rated value	Hz	60
	Type of voltage of the control supply voltage		AC
• with AC	Control supply voltage 1		
	• with AC		

— at 60 Hz Initial rated value	V	110
— at 60 Hz Final rated value	V	230
Control supply voltage		
• with AC		
— at 50 Hz Full-scale value for signal<0> recognition	V	40
 — at 60 Hz Full-scale value for signal<0> recognition 	V	40
Symmetrical line frequency tolerance	Hz	5
Relative symmetrical tolerance of the supply voltage frequency	%	10
Control current		
 at minimum control supply voltage 		
— with AC	mA	2
• with AC Rated value	mA	15

Installation/ mounting/ dimensions:		
Mounting type		screw fixing
Mounting type Side-by-side mounting		Yes
Design of the thread of the screw for securing the equipment		M4
Tightening torque of the screw for securing the equipment	N∙m	1.5
Width	mm	22.5
Height	mm	85
Depth	mm	48

Connections/ Terminals:		
Type of electrical connection for main current circuit		screw-type terminals
Design of the thread of the connection screw for main contacts		M4
		0.05
Tightening torque for main contacts with screw-type terminals	N∙m	2 2.5
Tightening torque [lbf·in] for main contacts with screw-type terminals	lbf∙in	7 10.3
Type of connectable conductor cross-section		
 for main contacts 		
— solid		2x (1.5 2.5 mm²), 2x (2.5 6 mm²)
— finely stranded		
— with core end processing		2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²
 for AWG conductors 		
— for main contacts		2x (14 10)
— for auxiliary and control contacts		1x (AWG 20 12)
 for auxiliary and control contacts 		
— solid		1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²)

— finely stranded		
— with core end processing		1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²)
— without core end processing		1x (0.5 2.5 mm ²), 2x (0.5 1.0 mm ²)
Connectable conductor cross-section		
for main contacts		
— single or multi-stranded	mm²	1.5 6
— finely stranded		
— with core end processing	mm²	1 10
 for auxiliary and control contacts 		110
-	mm²	0.5 2.5
— solid	111111	0.5 2.5
— finely stranded		A.C. A.C.
— with core end processing	mm²	0.5 2.5
— without core end processing	mm²	0.5 2.5
AWG number as coded connectable conductor cross		14 10
section for main contacts	_	
Type of electrical connection for auxiliary and control current circuit		screw-type terminals
Design of the thread of the connection screw of the auxiliary and control contacts	-	M3
AWG number as coded connectable conductor cross section for auxiliary and control contacts		20 12
Wire stripping length of the cable		
 for main contacts 	mm	7
 for auxiliary and control contacts 	mm	7
Tightening torque for auxiliary and control contacts with screw-type terminals	N∙m	0.5 0.6
Tightening torque [lbf·in] for auxiliary and control contacts with screw-type terminals	lbf∙in	4.5 5.3

Certificates/ approvals:

General Proc	duct Approval		EMC	Declaration of Conformity	Test Certificates
(SA)	GAUS UR	EHC	С-тіск	EG-Konf.	Special Test Certificate

Test	other
Certificates	
Type Test	Environmental
Certificates/Test	Confirmations
Report	

Further information

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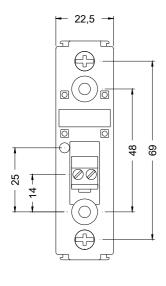
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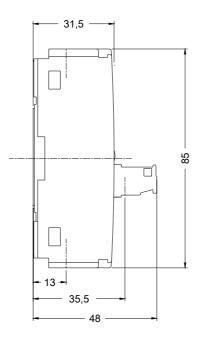
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