SIEMENS

Data sheet

3RF21 70-1AA22



SEMICOND. RELAY 3RF2, 1-PHASE WIDTH 22.5 MM, 70 A 24-230 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>3RF2990-0HA33</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>3RF2990-0GA33</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
Main circuit:		
Number of NO contacts for main contacts		1
Number of NC contacts for main contacts		0
Operating current	_	
Rated value maximum	А	70
 at AC-51 Rated value 	А	50
• minimum	mA	500
Operating voltage at AC		
● at 50 Hz Rated value	V	24 230
• at 60 Hz Rated value	V	24 230
Operating range relative to the operating voltage at	-	
AC		
• at 50 Hz	V	20 253
• at 60 Hz	V	20 253
Operating frequency Rated value	Hz	50 60
Relative symmetrical tolerance of the operating	%	10
frequency		
Insulation voltage Rated value	V	600
Rate of voltage rise at the thyristor for main contacts maximum permissible	V/µs	1 000
Blocking voltage at the thyristor for main contacts maximum permissible	V	800
Reverse current of the thyristor	mA	10
Derating temperature	°C	40
Active power loss total typical	W	94
Apparent power loss maximum	V·A	94
Surge current resistance Rated value	А	1 200
I2t value maximum	A²∙s	7 200
Short-circuit protection, design of the fuse link		
Control circuit/ Control:		
Control supply voltage frequency		
• 1 Rated value	Hz	50

• 2 Rated value	Hz	60
Type of voltage of the control supply voltage		AC
Control supply voltage 1		
• at AC		
— at 50 Hz Initial rated value	V	110
— at 50 Hz Final rated value	V	230
— at 60 Hz Initial rated value	V	110
— at 60 Hz Final rated value	V	230
Control supply voltage		
• at 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		
— at AC	mA	2
• at 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
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 processing2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm²• for AWG conductors2x (1 2.5 mm²), 2x (2.5 6 mm²), 1x 10 mm² for main contacts2x (1 10) for auxiliary and control contacts1x (AWG 20 12)• for auxiliary and control contacts1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²) finely stranded with core end processing with core end processing1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²) with core end processing1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²) with core end processing1x (0.5 2.5 mm²), 2x (0.5 1.0 mm²) with core end processingmm² with core end processing1 10• for auxiliary and control contacts			
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without core end processingmm²0.5 2.5AWG number as coded connectable conductor cross section• for main contacts14 10• for auxiliary and control contacts20 12Type of electrical connection for auxiliary and control current circuitscrew-type terminalsDesign of the thread of the connection screw of the auxiliary and control contactsM3Wire stripping length of the cable • for main contactsmm• for main contactsmm	— finely stranded		
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Type of electrical connection for auxiliary and control current circuitscrew-type terminalsDesign of the thread of the connection screw of the auxiliary and control contactsM3Wire stripping length of the cable • for main contactsmm7	 for main contacts 		
current circuitM3Design of the thread of the connection screw of the auxiliary and control contactsM3Wire stripping length of the cable • for main contactsmm7	 for auxiliary and control contacts 		20 12
auxiliary and control contacts Image: Stripping length of the cable • for main contacts mm 7			screw-type terminals
• for main contacts mm 7	-	_	M3
	Wire stripping length of the cable	-	
	 for main contacts 	mm	7
• for auxiliary and control contacts mm /	 for auxiliary and control contacts 	mm	7
Tightening torque for auxiliary and control contactsN·m0.5 0.6with screw-type terminals		N∙m	0.5 0.6
Tightening torque [lbf·in] for auxiliary and control Ibf·in 4.5 5.3		lbf∙in	4.5 5.3
contacts with screw-type terminals	contacts with screw-type terminals		
Certificates/ approvals:	Certificates/ approvals:		

General Proc	duct Approval		EMC	Declaration of Conformity	Test Certificates
(SA)	GAUS UR	EHE	С-тіск	EG-Konf.	Typprüfbescheinigu ng/Werkszeugnis

other

Umweltbestätigung

urther information

Short-circuit protection, design of the fuse link https://www.automation.siemens.com/cd-static/material/info/3RF21_eng.pdf

Information- and Downloadcenter (Catalogs, Brochures,...) http://www.siemens.com/industrial-controls/catalogs

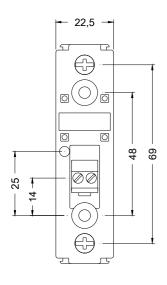
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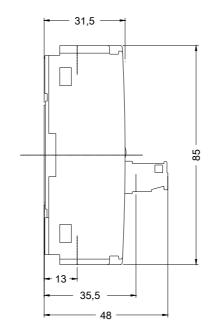
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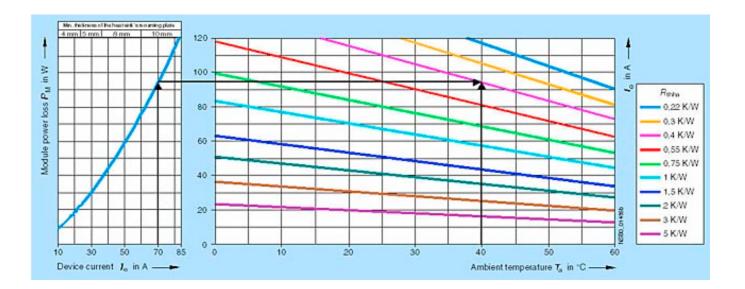
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