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		3RF2900-3PA88
Product designation _2 of the accessories that can be ordered		power regulator
Manufacturer article number _2 of the accessories that can be ordered		3RF2990-0HA33
Product designation _4 of the accessories that can be ordered		load monitoring
Manufacturer article number _4 of the accessories		3RF2990-0GA33
that can be ordered		
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

Number of NC contacts for auxiliary contacts Number of NO contacts for auxiliary contacts Number of CO contacts for auxiliary contacts Number of NO contacts for main contacts Operating current • Rated value maximum • Rated value maximum • at AC-51 Rated value • minimum Operating voltage with AC • at 50 Hz Rated value • at 60 Hz Rated value • at 60 Hz • at 60 H	Equipment marking acc. to DIN EN 61346-2		Q
Number of NO contacts for auxiliary contacts Number of CO contacts for main contacts Value of NO contacts for main contacts Number of NO contacts for main contacts Operating current Rated value maximum A 70 at AC-51 Rated value A 50 Operating range relative to the operating voltage with AC at 50 Hz Rated value At 60 Hz at 60 Hz at 60 Hz be at 60 Hz control supply voltage at the thyristor for main contacts maximum permissible Blocking voltage at the thyristor for main contacts maximum permissible Reverse current of the thyristor Derating temperature Active power loss total typical Active power loss total dyelage Active power loss total dyelage Active power loss total dyelage Busine maximum Active power loss total dyelage Active p			
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Short-circuit protection, design of the fuse link Control circuit/ Control: Control supply voltage frequency • 1 Rated value • 2 Rated value Hz 60 Type of voltage of the control supply voltage Control supply voltage 1 • with AC — at 50 Hz Initial rated value V 110	Surge current resistance Rated value	Α	1 200
Control circuit/ Control: Control supply voltage frequency • 1 Rated value • 2 Rated value Hz 60 Type of voltage of the control supply voltage Control supply voltage 1 • with AC — at 50 Hz Initial rated value V 110	I2t value maximum	A²·s	7 200
Control supply voltage frequency 1 Rated value 1 Rated value 1 Hz 50 1 Rated value 1 Hz 60 Type of voltage of the control supply voltage Control supply voltage 1 with AC — at 50 Hz Initial rated value V 110	Short-circuit protection, design of the fuse link		
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— at 50 Hz Final rated value V 230	— 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		
• 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		M4
contacts		
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 mm²), 2x (0.5 1.0 mm²)
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 		
— solid	mm²	0.5 2.5
— finely stranded		
 — 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		20 12
section for auxiliary and control contacts		
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:











Type Test
Certificates/Test
Report

other

Environmental Confirmations

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http://www.siemens.com/industrial-controls/catalogs

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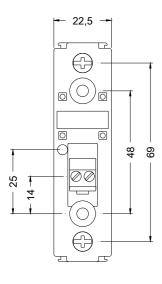
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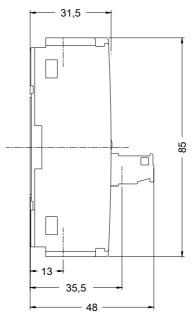
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