



SEMICOND. RELAY 3RF2,
1-PHASE WIDTH 22.5 MM,
20 A 24-230 V / 24 V DC RING 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 / _3 / of the accessories that can be ordered		converter
Manufacturer article number / _3 / of the accessories that can be ordered		3RF2900-0EA18
Product designation / _4 / of the accessories that can be ordered		load monitoring
Manufacturer article number / _4 / of the accessories that can be ordered		3RF2920-0GA13
Ambient temperature		
• during operating	°C	-25 ... +60
• during storage	°C	-55 ... +80
Installation altitude / at a height over sea level / maximum	m	1,000

Resistance against vibration / according to IEC 60068-2-6		2g
Resistance against shock / according to IEC 60068-2-27		15g / 11 ms
Item designation		
<ul style="list-style-type: none"> • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 		K
<ul style="list-style-type: none"> • according to DIN EN 61346-2 		Q
Number of NC contacts / for auxiliary contacts		0
Number of NO contacts / for auxiliary contacts		0
Number of change-over switches / for auxiliary contacts		0

Main circuit:

Number of NO contacts / for main contacts		1
Number of NC contacts / for main contacts		0
Operating current		
<ul style="list-style-type: none"> • at AC-1 / at 400 V / rated value 	A	20
<ul style="list-style-type: none"> • at AC-51 / rated value 	A	20
Operating current / minimum	mA	100
Operating voltage		
<ul style="list-style-type: none"> • at 50 Hz / at AC / rated value 	V	24 ... 230
<ul style="list-style-type: none"> • at 60 Hz / at AC / rated value 	V	24 ... 230
Working area related to the operating voltage		
<ul style="list-style-type: none"> • at 50 Hz / for AC 	V	20 ... 253
<ul style="list-style-type: none"> • at 60 Hz / for AC 	V	20 ... 253
Operating frequency		
<ul style="list-style-type: none"> • rated value 	Hz	50 ... 60
Relative symmetrical tolerance / of the operation frequency	%	10
Insulation voltage / rated value	V	600
Voltage slew rate / at the thyristor / for main contacts / maximum permissible	V/ μ s	500
Block voltage / at the thyristor / for main contacts / maximum permissible	V	800
Reverse current / of the thyristor	mA	10
Derating temperature	$^{\circ}$ C	40
Active power loss / total / typical	W	28.6
Apparent loss power / maximum	V·A	28.6
Resistance against the impulse current / rated value	A	200
I²t-level / maximum	A ² ·s	200

Control circuit:

Type of voltage / of the controlled supply voltage		DC
Control supply voltage / 1		

<ul style="list-style-type: none"> • for DC <ul style="list-style-type: none"> • initial rated value • final rated value 	V	15
	V	24
Control supply voltage		
<ul style="list-style-type: none"> • for DC / final value for signal<0>-recognition 	V	5
Control current		
<ul style="list-style-type: none"> • at minimum control supply voltage / for DC • for DC / rated value 	mA	2
	mA	15
Fuse assignments	https://www.automation.siemens.com/cd-static/material/info/3RF21_eng.pdf	

Installation/mounting/dimensions:






Type of mounting		screw fixing
Type of fixing/fixation / series installation		Yes
Design of the thread / of the screw for fastening of the operating resource		M4
Tightening torque / of the screw for fastening of the operating resource	N-m	1.5
Width	mm	22.5
Height	mm	85
Depth	mm	48

Connections:

Design of the electrical connection / for main current circuit		ring cable connection
Design of the thread / of the connection screw / for main contacts		M5
Tightening torque / for main contacts		
<ul style="list-style-type: none"> • with screw-type terminals 	N-m	2 ... 2.5
Tightening torque (lbf-in) / for main contacts		
<ul style="list-style-type: none"> • with screw-type terminals 	lbf-in	7 ... 10.3
Type of the connectable conductor cross-section		
<ul style="list-style-type: none"> • for main contacts / for JIS cable lug • for DIN cable lug / for main contacts • for AWG conductors <ul style="list-style-type: none"> • for auxiliary and control contacts • for auxiliary and control contacts <ul style="list-style-type: none"> • solid • finely stranded <ul style="list-style-type: none"> • with conductor end processing • without conductor final cutting 		JIS C 2805 R 2-5, 5,5-5, 8-5, 14-5 DIN 46234 -5-2,5, -5-6, -5-10, -5-16, -5-25 1x (AWG 20 ... 12) 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²) 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²) 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²)
Conductor cross section that can be connected		
<ul style="list-style-type: none"> • for auxiliary and control contacts 		

<ul style="list-style-type: none"> • solid 	mm ²	0.5 ... 2.5
<ul style="list-style-type: none"> • stranded wire <ul style="list-style-type: none"> • with conductor end processing / • without conductor final cutting 	mm ²	0.5 ... 2.5
Design of the electrical connection / for auxiliary and control current circuit		ring cable connection
Design of the thread / of the connection screw / of the auxiliary and control pins		M3
AWG number / as coded connectable conductor cross-section <ul style="list-style-type: none"> • for auxiliary and control contacts 		20 ... 12
Skinning length / of the cable / for main contacts	mm	7
Skinning length / of the cable / for auxiliary and control contacts	mm	7
Tightening torque / for auxiliary and control contacts <ul style="list-style-type: none"> • with screw-type terminals 	N·m	0.5 ... 0.6
Tightening torque (lbf-in) / for auxiliary and control contacts <ul style="list-style-type: none"> • with screw-type terminals 	lbf-in	4.5 ... 5.3

Certificates/approvals:

General Product Approval	EMC	Declaration of Conformity	Test Certificates
 CSA  GOST  UR	 C-TICK	 EG-Konf.	Type Test Certificates/Test Report
other			

[Environmental Confirmations](#)

Further information:

Information- and Downloadcenter (Catalogs, Brochures,...)

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

Industry Mall (Online ordering system)

<http://www.siemens.com/industrial-controls/mall>

CAX-Online-Generator

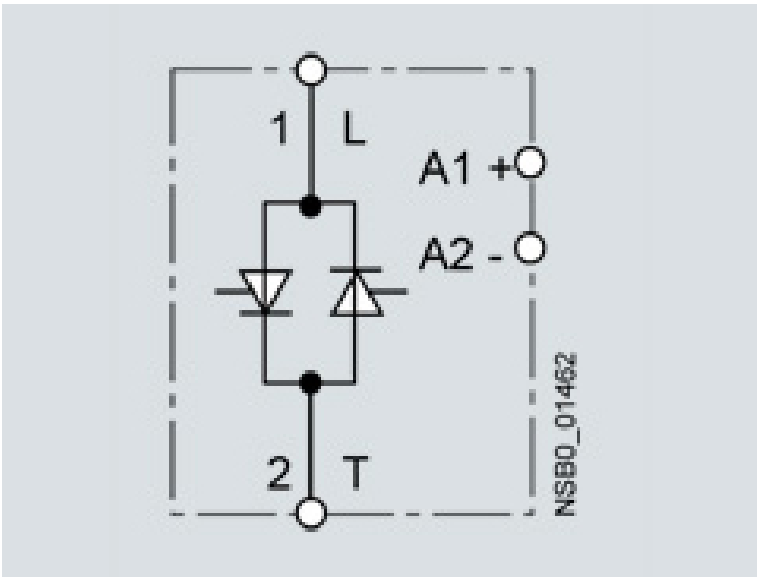
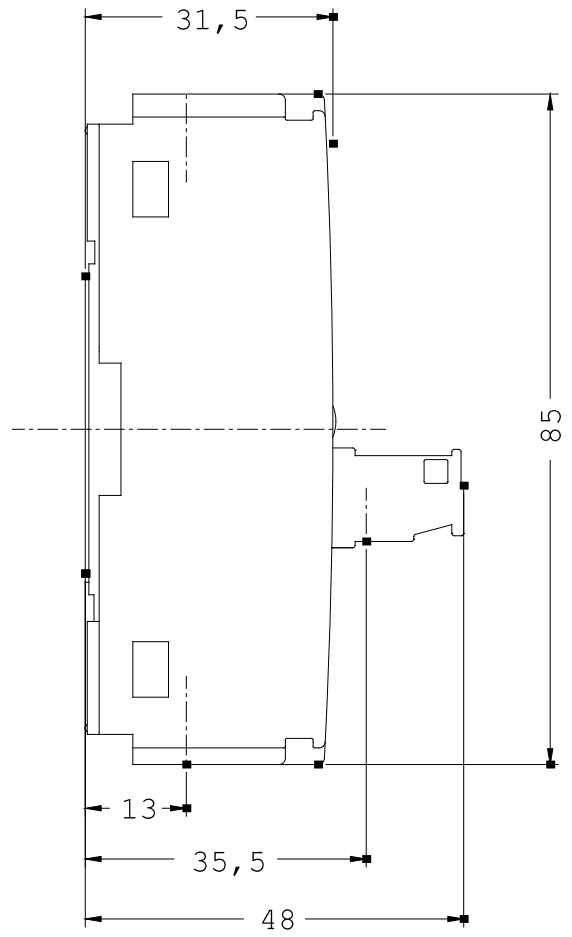
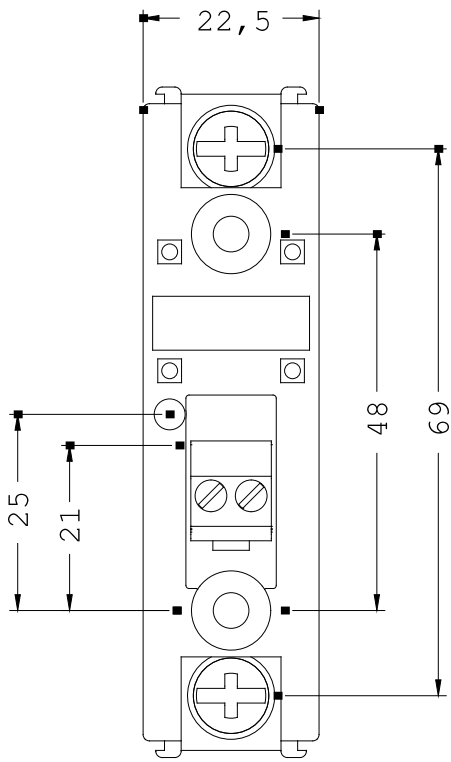
<http://www.siemens.com/cax>

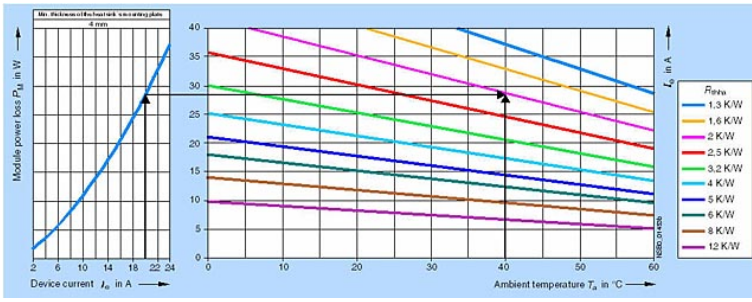
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RF2120-3AA02/all>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RF2120-3AA02





last change:

Feb 4, 2013