



SOLID-STATE RELAY 3RF2, 1-PHASE WIDTH  
22.5MM, 50A 48-460V / 24V AC/DC SPRING-LOADED  
TERMINALS

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 _3 of the accessories that can be ordered		converter
Manufacturer article number _3 of the accessories that can be ordered		<a href="#">3RF2900-0EA18</a>
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		K
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

<b>Operating current</b>		
• Rated value maximum	A	50
• at AC-51 Rated value	A	20
• minimum	mA	500
<b>Operating voltage with AC</b>		
• at 50 Hz Rated value	V	48 ... 460
• at 60 Hz Rated value	V	48 ... 460
<b>Operating range relative to the operating voltage with AC</b>		
• at 50 Hz	V	40 ... 506
• at 60 Hz	V	40 ... 506
<b>Operating frequency Rated value</b>	Hz	50 ... 60
<b>Relative symmetrical tolerance of the operating frequency</b>	%	10
<b>Insulation voltage Rated value</b>	V	600
<b>Rate of voltage rise at the thyristor for main contacts maximum permissible</b>	V/ $\mu$ s	1 000
<b>Blocking voltage at the thyristor for main contacts maximum permissible</b>	V	1 200
<b>Reverse current of the thyristor</b>	mA	10
<b>Derating temperature</b>	$^{\circ}$ C	40
<b>Active power loss total typical</b>	W	66
<b>Apparent power loss maximum</b>	V·A	66
<b>Surge current resistance Rated value</b>	A	600
<b>I<sup>2</sup>t value maximum</b>	A <sup>2</sup> ·s	1 800
<b>Short-circuit protection, design of the fuse link</b>		

#### Control circuit/ Control:

<b>Control supply voltage frequency</b>		
• 1 Rated value	Hz	50
• 2 Rated value	Hz	60
<b>Type of voltage of the control supply voltage</b>		AC/DC
<b>Control supply voltage 1</b>		
• for DC		
— Initial rated value	V	15
— Final rated value	V	24
• with AC		
— at 50 Hz Initial rated value	V	14
— at 50 Hz Final rated value	V	26.5
— at 60 Hz Initial rated value	V	14
— at 60 Hz Final rated value	V	26.5
<b>Control supply voltage</b>		
• for DC Full-scale value for signal<0> recognition	V	5

<ul style="list-style-type: none"> <li>with AC <ul style="list-style-type: none"> <li>at 50 Hz Full-scale value for signal&lt;0&gt; recognition</li> <li>at 60 Hz Full-scale value for signal&lt;0&gt; recognition</li> </ul> </li> </ul>	V	5
<b>Symmetrical line frequency tolerance</b>	Hz	5
<b>Relative symmetrical tolerance of the supply voltage frequency</b>	%	10
<b>Control current</b>		
<ul style="list-style-type: none"> <li>at minimum control supply voltage <ul style="list-style-type: none"> <li>with AC</li> <li>for DC</li> </ul> </li> <li>with AC Rated value</li> <li>for DC Rated value</li> </ul>	mA	2
	mA	2
	mA	20
	mA	20

#### Installation/ mounting/ dimensions:






<b>Mounting type</b>		screw fixing
<b>Mounting type Side-by-side mounting</b>		Yes
<b>Design of the thread of the screw for securing the equipment</b>		M4
<b>Tightening torque of the screw for securing the equipment</b>	N·m	1.5
<b>Width</b>	mm	22.5
<b>Height</b>	mm	85
<b>Depth</b>	mm	48

#### Connections/ Terminals:

<b>Type of electrical connection for main current circuit</b>		spring-loaded terminals
Tightening torque for main contacts with screw-type terminals	N·m	2 ... 2.5
<b>Type of connectable conductor cross-section</b>		
<ul style="list-style-type: none"> <li>for main contacts <ul style="list-style-type: none"> <li>solid</li> <li>finely stranded <ul style="list-style-type: none"> <li>with core end processing</li> <li>without core end processing</li> </ul> </li> </ul> </li> <li>for AWG conductors <ul style="list-style-type: none"> <li>for main contacts</li> <li>for auxiliary and control contacts</li> </ul> </li> <li>for auxiliary and control contacts <ul style="list-style-type: none"> <li>solid</li> <li>finely stranded <ul style="list-style-type: none"> <li>with core end processing</li> <li>without core end processing</li> </ul> </li> </ul> </li> </ul>		2x (0.5 ... 2.5 mm <sup>2</sup> )  2x (0.5 ... 1.5 mm <sup>2</sup> ) 2x (0.5 ... 2.5 mm <sup>2</sup> )  2x (18 ... 14) 1x (AWG 20 ... 12)  0.5 ... 1.5 mm <sup>2</sup>  0.5 ... 2.5 mm <sup>2</sup> 0.5 ... 2.5 mm <sup>2</sup>

<b>Connectable conductor cross-section</b>		
<ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>— single or multi-stranded</li> <li>— finely stranded <ul style="list-style-type: none"> <li>— with core end processing</li> <li>— without core end processing</li> </ul> </li> </ul> </li> <li>• for auxiliary and control contacts <ul style="list-style-type: none"> <li>— solid</li> <li>— finely stranded <ul style="list-style-type: none"> <li>— with core end processing</li> <li>— without core end processing</li> </ul> </li> </ul> </li> </ul>	mm <sup>2</sup> mm <sup>2</sup> mm <sup>2</sup> mm <sup>2</sup> mm <sup>2</sup> mm <sup>2</sup>	0.5 ... 2.5 0.5 ... 1.5 0.5 ... 2.5 0.5 ... 1.5 0.5 ... 2.5 0.5 ... 2.5
<b>AWG number as coded connectable conductor cross section for main contacts</b>		18 ... 14
<b>Type of electrical connection for auxiliary and control current circuit</b>		spring-loaded terminals
<b>AWG number as coded connectable conductor cross section for auxiliary and control contacts</b>		20 ... 12
<b>Wire stripping length of the cable</b>		
<ul style="list-style-type: none"> <li>• for main contacts</li> <li>• for auxiliary and control contacts</li> </ul>	mm mm	10 10

Certificates/ approvals:

General Product Approval	EMC	Declaration of Conformity	Test Certificates
 CSA	 UR		 C-TICK
		 EG-Konf.	<a href="#">Special Test Certificate</a>

Test Certificates	other
<a href="#">Type Test Certificates/Test Report</a>	<a href="#">Environmental Confirmations</a>

Further information

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

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

**Industry Mall (Online ordering system)**

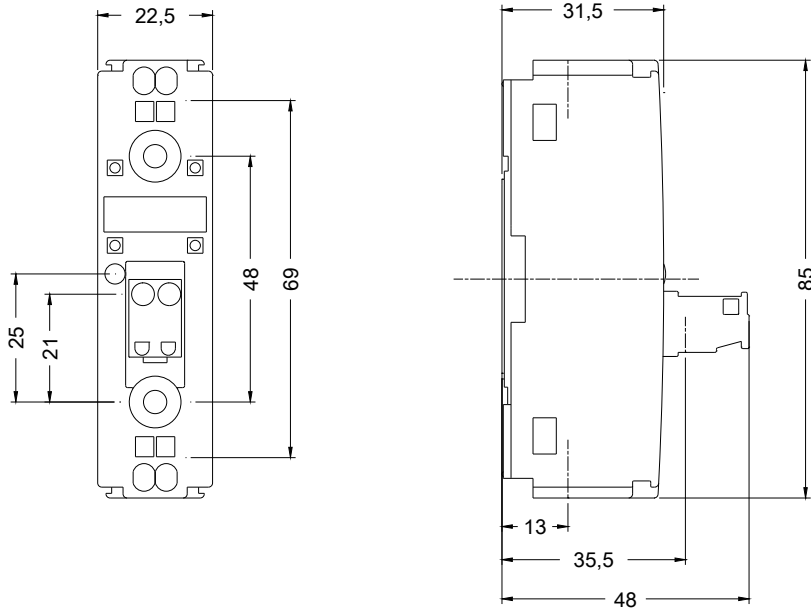
<http://www.siemens.com/industrymall>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF21502AA14>

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

<http://support.automation.siemens.com/WW/view/en/3RF21502AA14/all>



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