

Load monitoring Current range 50 A / 40 °C 400-600 V / 24 V AC/DC for semiconductor relay / contactor



product brand name	SIRIUS
product designation	load monitoring
manufacturer's article number	
<ul style="list-style-type: none"> <li>• _1 / of the accessories that can be ordered</li> </ul>	<a href="#">3RF2900-0RA88</a>
product designation	
<ul style="list-style-type: none"> <li>• _1 / of the accessories that can be ordered</li> </ul>	sealable end cover

### General technical data

product function	solid-state relay / solid-state contactor 3RF2
insulation voltage	
<ul style="list-style-type: none"> <li>• rated value</li> </ul>	600 V
degree of pollution	3
protection class IP	IP20
shock resistance / acc. to IEC 60068-2-27	15g / 11 ms
vibration resistance / acc. to IEC 60068-2-6	2g
reference code / acc. to DIN EN 81346-2	B

### Main circuit

number of poles / for main current circuit	0
number of NO contacts / for main contacts	0
number of NC contacts / for main contacts	0

<b>operating voltage / at AC</b>	
• at 50 Hz / rated value	400 ... 600 V
• at 60 Hz / rated value	400 ... 600 V
<b>operating frequency / rated value</b>	50 ... 60 Hz
<b>relative symmetrical tolerance / of the operating frequency</b>	10 %
<b>operating range relative to the operating voltage / at AC</b>	
• at 50 Hz	340 ... 660 V
• at 60 Hz	340 ... 660 V
<b>operating current</b>	
• at AC-51 / rated value	50 A
<b>derating temperature</b>	40 °C

### Control circuit/ Control

<b>control supply voltage / 1</b>	
• at DC	24 V
<b>control supply voltage / at AC</b>	
• at 50 Hz / full-scale value for signal<0> recognition	5 V
• at 60 Hz / full-scale value for signal<0> recognition	5 V
<b>control supply voltage</b>	
• at DC / full-scale value for signal<0> recognition	5 V
<b>symmetrical line frequency tolerance</b>	5 Hz
<b>control current / at minimum control supply voltage</b>	
• at AC	2 mA
• at DC	2 mA
control current / at AC / rated value	40 mA
control current / at DC / rated value	40 mA
<b>number of NC contacts / for auxiliary contacts</b>	1
<b>number of NO contacts / for auxiliary contacts</b>	1
number of CO contacts / for auxiliary contacts	1

### Installation/ mounting/ dimensions

<b>mounting type</b>	clip-on
• side-by-side mounting	Yes
<b>height</b>	111.5 mm
<b>width</b>	45 mm
<b>depth</b>	69.5 mm

### Connections/ Terminals

<b>type of electrical connection</b>	
• for auxiliary and control current circuit	screw-type terminals

<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• for auxiliary and control contacts <ul style="list-style-type: none"> <li>— solid</li> <li>— finely stranded / with core end processing</li> <li>— finely stranded / without core end processing</li> </ul> </li> <li>• at AWG conductors / for auxiliary and control contacts</li> </ul>	<p>1x (0.5 ... 2.5 mm<sup>2</sup>), 2x (0.5 ... 1.0 mm<sup>2</sup>)</p> <p>1x (0.5 ... 2.5 mm<sup>2</sup>), 2x (0.5 ... 1.0 mm<sup>2</sup>)</p> <p>1x (0.5 ... 2.5 mm<sup>2</sup>), 2x (0.5 ... 1.0 mm<sup>2</sup>)</p> <p>1x (AWG 20 ... 12)</p>
<b>tightening torque</b>	
<ul style="list-style-type: none"> <li>• for auxiliary and control contacts / with screw-type terminals</li> </ul>	0.5 ... 0.6 N·m
<b>tightening torque [lbf-in]</b>	
<ul style="list-style-type: none"> <li>• for auxiliary and control contacts / with screw-type terminals</li> </ul>	4.5 ... 5.3 lbf-in
<b>design of the thread / of the connection screw</b>	
<ul style="list-style-type: none"> <li>• of the auxiliary and control contacts</li> </ul>	M3
<b>wire stripping length / of the cable</b>	
<ul style="list-style-type: none"> <li>• for auxiliary and control contacts</li> </ul>	7 mm

#### Ambient conditions

installation altitude / at height above sea level / maximum	1 000 m
<b>ambient temperature</b>	
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> </ul>	<p>-25 ... +60 °C</p> <p>-55 ... +80 °C</p>

#### Electromagnetic compatibility

<b>conducted interference</b>	
<ul style="list-style-type: none"> <li>• due to burst / acc. to IEC 61000-4-4</li> <li>• due to conductor-earth surge / acc. to IEC 61000-4-5</li> <li>• due to conductor-conductor surge / acc. to IEC 61000-4-5</li> <li>• due to high-frequency radiation / acc. to IEC 61000-4-6</li> </ul>	<p>2 kV / 5 kHz behavior criterion 2</p> <p>2 kV behavior criterion 2</p> <p>1 kV behavior criterion 2</p> <p>140 dBuV in the frequency range 0.15 ... 80 MHz, behavior criterion 1</p>
<b>electrostatic discharge / acc. to IEC 61000-4-2</b>	4 kV contact discharging / 8 kV air discharging, behavior criterion 2
<b>conducted HF-interference emissions / acc. to CISPR11</b>	Class A for industrial environment
<b>field-bound HF-interference emission / acc. to CISPR11</b>	Class B for the domestic, business and commercial environments

#### Certificates/ approvals

General Product Approval	EMC	Declaration of Conformity
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[Miscellaneous](#)

Test Certificates	other
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[Type Test Certificates/Test Report](#)

[Confirmation](#)

### Further information

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

<https://www.siemens.com/ic10>

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RF2950-0GA16>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF2950-0GA16>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RF2950-0GA16>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RF2950-0GA16&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RF2950-0GA16&lang=en)



