



extended load monitoring current range 50 A / 40 °C 400 ... 600 V 24 V  
AC/DC for semiconductor relay / contactor

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| <b>product brand name</b>  | SIRIUS   |
| <b>product designation</b>   | extended load monitoring                       |
| <b>manufacturer's article number</b> <ul style="list-style-type: none"><li>• _1 of the accessories that can be ordered</li></ul>             | <a href="#">3RF2900-0RA88</a>                  |
| <b>product designation</b> <ul style="list-style-type: none"><li>• _1 of the accessories that can be ordered</li></ul>                       | sealable end cover                             |
| <b>General technical data</b>  |  |
| <b>product function</b>  | solid-state relay / solid-state contactor 3RF2 |
| <b>power loss [W] for rated value of the current</b> <ul style="list-style-type: none"><li>• without load current share typical</li></ul>    | 1 W  |
| <b>insulation voltage rated value</b>  | 600 V  |
| <b>degree of pollution</b>   | 3  |
| <b>surge voltage resistance of main circuit rated value</b>  | 2.5 kV   |
| <b>shock resistance according to IEC 60068-2-27</b>  | 15g / 11 ms                                    |
| <b>vibration resistance according to IEC 60068-2-6</b>   | 2g   |
| <b>design of the switching function</b>  | CO contact                                     |
| <b>reference code according to IEC 81346-2</b>   | B  |
| <b>Substance Prohibittance (Date)</b>  | 05/01/2012                                     |
| <b>Main circuit</b>  |  |
| <b>number of poles for main current circuit</b>  | 0  |
| <b>number of NO contacts for main contacts</b>   | 0  |
| <b>number of NC contacts for main contacts</b>   | 0  |
| <b>type of voltage</b>   | AC/DC  |
| <b>operating voltage at AC</b> <ul style="list-style-type: none"><li>• at 50 Hz rated value</li><li>• at 60 Hz rated value</li></ul>         | 400 ... 600 V<br>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> <ul style="list-style-type: none"><li>• at 50 Hz</li><li>• at 60 Hz</li></ul> | 340 ... 660 V<br>340 ... 660 V                 |
| <b>operational current</b> <ul style="list-style-type: none"><li>• at AC-51 rated value</li></ul>  | 50 A   |
| <b>derating temperature</b>  | 40 °C  |
| <b>Control circuit/ Control</b>  |  |
| <b>type of voltage</b>   | AC/DC  |
| <b>control supply voltage at AC</b> <ul style="list-style-type: none"><li>• at 50 Hz rated value</li><li>• at 60 Hz rated value</li></ul>    | 20.5 ... 26.5 V<br>20.5 ... 26.5 V             |
| <b>control supply voltage 1 at AC</b>  |  |

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul>   | 24 V   |
| control supply voltage at DC rated value   | 24 V   |
| <b>control supply voltage 1</b>  | 18 ... 30 V  |
| <ul style="list-style-type: none"> <li>• at DC rated value</li> <li>• at DC</li> </ul>   | 24 V   |
| <b>control supply voltage at AC</b>  | 24 V   |
| <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>   | 5 V  |
| control supply voltage at DC full-scale value for signal<0> recognition  | 5 V  |
| <b>supply voltage frequency for auxiliary and control circuit rated value</b>  | 5 V  |
| <b>symmetrical line frequency tolerance</b>  | 50 ... 60 Hz   |
| <b>control current at minimum control supply voltage</b>   | 5 Hz   |
| <ul style="list-style-type: none"> <li>• at AC</li> <li>• at DC</li> </ul>   | 2 mA   |
| control current at AC rated value  | 2 mA   |
| control current at DC rated value  | 40 mA  |
| <b>Auxiliary circuit</b>   |  |
| <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  |
| <b>Installation/ mounting/ dimensions</b>  |  |
| <b>fastening method</b>  | clip-on  |
| <ul style="list-style-type: none"> <li>• side-by-side mounting</li> </ul>  | Yes  |
| <b>height</b>  | 111.5 mm   |
| <b>width</b>   | 45 mm  |
| <b>depth</b>   | 69.5 mm  |
| <b>Connections/ Terminals</b>  |  |
| <b>type of electrical connection</b>   | screw-type terminals   |
| <ul style="list-style-type: none"> <li>• for auxiliary and control circuit</li> </ul>  |  |
| <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 cables for auxiliary and control contacts</li> </ul> | 1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.0 mm²)<br>1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.0 mm²)<br>1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.0 mm²)<br>1x (AWG 20 ... 12)         |
| tightening torque for auxiliary and control contacts with screw-type terminals   | 0.5 ... 0.6 N·m  |
| tightening torque [lbf·in] for auxiliary and control contacts with screw-type terminals  | 4.5 ... 5.3 lbf·in   |
| design of the thread of the connection screw of the auxiliary and control contacts   | M3   |
| stripped length of the cable for auxiliary and control contacts  | 7 mm   |
| <b>Safety related data</b>   |  |
| <b>protection class IP on the front according to IEC 60529</b>   | IP20   |
| <b>touch protection on the front according to IEC 60529</b>  | finger-safe, for vertical contact from the front   |
| <b>Ambient conditions</b>  |  |
| 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>   | -25 ... +60 °C<br>-55 ... +80 °C   |
| <b>Electromagnetic compatibility</b>   |  |
| <b>conducted interference</b>  |  |
| <ul style="list-style-type: none"> <li>• due to burst according to IEC 61000-4-4</li> <li>• due to conductor-earth surge according to IEC 61000-4-5</li> <li>• due to conductor-conductor surge according to IEC 61000-4-5</li> <li>• due to high-frequency radiation according to IEC 61000-4-6</li> </ul>              | 2 kV / 5 kHz behavior criterion 2<br>2 kV behavior criterion 2<br>1 kV behavior criterion 2<br>140 dBuV in the frequency range 0.15 ... 80 MHz, behavior criterion 1 |

electrostatic discharge according to IEC 61000-4-2  
 conducted HF interference emissions according to CISPR11  
 field-bound HF interference emission according to CISPR11

4 kV contact discharging / 8 kV air discharging, behavior criterion 2  
 Class A for industrial environment  
 Class B for the domestic, business and commercial environments

#### Certificates/ approvals

| General Product Approval | EMC | Declaration of Conformity |
|--------------------------|-----|---------------------------|
|--------------------------|-----|---------------------------|



[Confirmation](#)



| Declaration of Conformity | Test Certificates | other |
|---------------------------|-------------------|-------|
|---------------------------|-------------------|-------|



[Type Test Certificates/Test Report](#)

[Confirmation](#)

#### Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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)



