



\*\*\*phase-out type\*\*\* extended load monitoring current range 20 A / 40 °C 400 ... 600 V / 24 V AC/DC for semiconductor relay/contactors

|   |   |
|---|---|
| <b>product brand name</b>   | SIRIUS  |
| <b>product designation</b>  | extended load monitoring  |
| <b>product type designation</b>   | 3RF29   |
| <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>   | for 3RF21/23 solid-state relays/solid-state contactors  |
| <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   |
| surge voltage resistance of main circuit rated value  | 2.5 kV  |
| <b>protection class IP</b>  | IP20  |
| protection class IP on the front according to IEC 60529                                     | IP20  |
| <b>shock resistance according to IEC 60068-2-27</b>   | 15 g / 11 ms  |
| <b>vibration resistance according to IEC 60068-2-6</b>                                      | 2 g   |
| <b>reference code according to IEC 81346-2</b>  | B   |
| <b>Substance Prohibition (day/month/year)</b>   | 05/01/2012  |
| <b>SVHC substance name</b>  | Lead CAS-No. 7439-92-1<br>Lead monoxide (lead oxide) CAS-No. 1317-36-8<br>2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329) CAS-No. 3147-75-9<br>2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5<br>Melamine CAS-No. 108-78-1<br>6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1 |
| <b>Net Weight</b>   | 0.173 g   |
| <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   |
| operating voltage at AC   |   |
| <ul style="list-style-type: none"> <li>at 50 Hz rated value</li> </ul>                      | 400 ... 600 V   |
| <ul style="list-style-type: none"> <li>at 60 Hz rated value</li> </ul>                      | 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> </ul>                                  | 340 ... 660 V   |
| <ul style="list-style-type: none"> <li>at 60 Hz</li> </ul>                                  | 340 ... 660 V   |

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|---|--|
| <b>operational current</b>  |  |
| • at AC-51 rated value  | 20 A   |
| <b>derating temperature</b>   | 40 °C  |
| <b>teach range current initial value</b>  | 0.56 A   |
| <b>teach range current full-scale value</b>   | 20 A   |
| <b>partial load for load monitoring</b>   | 0.65 A   |
| <b>Control circuit/ Control</b>   |  |
| <b>type of voltage</b>  | AC/DC  |
| <b>control supply voltage at AC</b>   |  |
| • at 50 Hz rated value  | 20.5 ... 26.5 V  |
| • at 60 Hz rated value  | 20.5 ... 26.5 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 at DC rated value</b>   | 18 ... 30 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>           | 50 ... 60 Hz   |
| <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>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>   |  |
| fastening method side-by-side mounting  | Yes  |
| <b>fastening method</b>   | clip-on  |
| <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>  |  |
| • for auxiliary and control circuit   | screw-type terminals   |
| <b>type of connectable conductor cross-sections</b>                                     |  |
| • for auxiliary and control contacts  |  |
| — solid   | 1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1 mm <sup>2</sup> ) |
| — finely stranded with core end processing  | 1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1 mm <sup>2</sup> ) |
| — finely stranded without core end processing   | 1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1 mm <sup>2</sup> ) |
| • for AWG cables for auxiliary and control contacts                                     | 1x (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>Electrical Safety</b>  |  |
| <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>  |  |
| • during operation  | -25 ... +60 °C   |
| • during storage  | -55 ... +80 °C   |
| <b>Electromagnetic compatibility</b>  |  |
| <b>conducted interference</b>   |  |

- due to burst according to IEC 61000-4-4
- due to conductor-earth surge according to IEC 61000-4-5
- due to conductor-conductor surge according to IEC 61000-4-5
- due to high-frequency radiation according to IEC 61000-4-6

2 kV / 5 kHz, behavior criterion 2  
 2 kV, behavior criterion 2  
 1 kV, behavior criterion 2  
 140 dBuV in the frequency range 0.15 ... 80 MHz, behavior criterion 1

|  |   |
|--|---|
| <b>electrostatic discharge according to IEC 61000-4-2</b>        | 4 kV contact discharging / 8 kV air discharging, behavior criterion 2 |
| <b>conducted HF interference emissions according to CISPR11</b>  | Class A for industrial environment                                    |
| <b>field-bound HF interference emission according to CISPR11</b> | Class B for the domestic, business and commercial environments        |

#### Approvals Certificates

|                    |                                 |
|--------------------|---------------------------------|
| <b>Environment</b> | <b>General Product Approval</b> |
|--------------------|---------------------------------|

[Environmental Con-  
firmations](#)



|            |                          |              |
|------------|--------------------------|--------------|
| <b>EMV</b> | <b>Test Certificates</b> | <b>other</b> |
|------------|--------------------------|--------------|



[Type Test Certificates/Test Report](#)

[Confirmation](#)

[Confirmation](#)



#### Further information

##### Information on the packaging

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

##### Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

##### 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=3RF2920-0GA16>

##### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF2920-0GA16>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RF2920-0GA16>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RF2920-0GA16&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RF2920-0GA16&lang=en)



