



\*\*\*phase-out type\*\*\* extended load monitoring current range 20 A / 40 °C 110 ... 230 V / 110 V AC for semiconductor relay/contactors

|                                                                                                      |                                                                                                               |
|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| product brand name                                                                                   | SIRIUS                                                                                                        |
| product designation                                                                                  | extended 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                                                                                            |
| <b>General technical data</b>                                                                        |                                                                                                               |
| product function                                                                                     | solid-state relay / solid-state contactor 3RF2                                                                |
| power loss [W] for rated value of the current                                                        |                                                                                                               |
| <ul style="list-style-type: none"> <li>without load current share typical</li> </ul>                 | 2.2 W                                                                                                         |
| insulation voltage rated value                                                                       | 600 V                                                                                                         |
| degree of pollution                                                                                  | 3                                                                                                             |
| surge voltage resistance of main circuit rated value                                                 | 2.5 kV                                                                                                        |
| protection class IP                                                                                  | IP20                                                                                                          |
| protection class IP on the front according to IEC 60529                                              | IP20                                                                                                          |
| shock resistance according to IEC 60068-2-27                                                         | 15 g / 11 ms                                                                                                  |
| vibration resistance according to IEC 60068-2-6                                                      | 2 g                                                                                                           |
| reference code according to IEC 81346-2                                                              | B                                                                                                             |
| Substance Prohibitance (day/month/year)                                                              | 05/01/2012                                                                                                    |
| SVHC substance name                                                                                  | Lead monoxide (lead oxide) CAS-No. 1317-36-8<br>6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1 |
| Net Weight                                                                                           | 0.13 kg                                                                                                       |
| <b>Main circuit</b>                                                                                  |                                                                                                               |
| number of poles for main current circuit                                                             | 0                                                                                                             |
| number of NO contacts for main contacts                                                              | 0                                                                                                             |
| number of NC contacts for main contacts                                                              | 0                                                                                                             |
| operating voltage at AC                                                                              |                                                                                                               |
| <ul style="list-style-type: none"> <li>at 50 Hz rated value</li> <li>at 60 Hz rated value</li> </ul> | 110 ... 230 V<br>110 ... 230 V                                                                                |
| operating frequency rated value                                                                      | 50 ... 60 Hz                                                                                                  |
| relative symmetrical tolerance of the operating frequency                                            | 10 %                                                                                                          |
| operating range relative to the operating voltage at AC                                              |                                                                                                               |
| <ul style="list-style-type: none"> <li>at 50 Hz</li> <li>at 60 Hz</li> </ul>                         | 93.5 ... 253 V<br>93.5 ... 253 V                                                                              |
| operational current                                                                                  |                                                                                                               |
| <ul style="list-style-type: none"> <li>at AC-51 rated value</li> </ul>                               | 20 A                                                                                                          |
| derating temperature                                                                                 | 40 °C                                                                                                         |
| teach range current initial value                                                                    | 0.56 A                                                                                                        |
| teach range current full-scale value                                                                 | 20 A                                                                                                          |

|                                                                                         |                                                                       |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| partial load for load monitoring                                                        | 0.65 A                                                                |
| <b>Control circuit/ Control</b>                                                         |                                                                       |
| type of voltage                                                                         | AC                                                                    |
| control supply voltage at AC                                                            |                                                                       |
| • at 50 Hz rated value                                                                  | 90 ... 121 V                                                          |
| • at 60 Hz rated value                                                                  | 90 ... 121 V                                                          |
| control supply voltage at AC                                                            |                                                                       |
| • at 50 Hz full-scale value for signal<0> recognition                                   | 15 V                                                                  |
| • at 60 Hz full-scale value for signal<0> recognition                                   | 15 V                                                                  |
| supply voltage frequency for auxiliary and control circuit rated value                  | 50 ... 60 Hz                                                          |
| symmetrical line frequency tolerance                                                    | 5 Hz                                                                  |
| control current at minimum control supply voltage                                       |                                                                       |
| • at AC                                                                                 | 2 mA                                                                  |
| control current at AC rated value                                                       | 20 mA                                                                 |
| <b>Auxiliary circuit</b>                                                                |                                                                       |
| number of NC contacts for auxiliary contacts                                            | 1                                                                     |
| number of NO contacts for auxiliary contacts                                            | 1                                                                     |
| number of CO contacts for auxiliary contacts                                            | 1                                                                     |
| <b>Installation/ mounting/ dimensions</b>                                               |                                                                       |
| fastening method side-by-side mounting                                                  | Yes                                                                   |
| fastening method                                                                        | clip-on                                                               |
| height                                                                                  | 111.5 mm                                                              |
| width                                                                                   | 45 mm                                                                 |
| depth                                                                                   | 69.5 mm                                                               |
| <b>Connections/ Terminals</b>                                                           |                                                                       |
| type of electrical connection                                                           |                                                                       |
| • for auxiliary and control circuit                                                     | screw-type terminals                                                  |
| type of connectable conductor cross-sections                                            |                                                                       |
| • 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>                                                                |                                                                       |
| touch protection on the front according to IEC 60529                                    | finger-safe, for vertical contact from the front                      |
| <b>Ambient conditions</b>                                                               |                                                                       |
| installation altitude at height above sea level maximum                                 | 1 000 m                                                               |
| ambient temperature                                                                     |                                                                       |
| • during operation                                                                      | -25 ... +60 °C                                                        |
| • during storage                                                                        | -55 ... +80 °C                                                        |
| <b>Electromagnetic compatibility</b>                                                    |                                                                       |
| conducted interference                                                                  |                                                                       |
| • due to burst according to IEC 61000-4-4                                               | 2 kV / 5 kHz, behavior criterion 2                                    |
| • due to conductor-earth surge according to IEC 61000-4-5                               | 2 kV, behavior criterion 2                                            |
| • due to conductor-conductor surge according to IEC 61000-4-5                           | 1 kV, behavior criterion 2                                            |
| • due to high-frequency radiation according to IEC 61000-4-6                            | 140 dBuV in the frequency range 0.15 ... 80 MHz, behavior criterion 1 |
| electrostatic discharge according to IEC 61000-4-2                                      | 4 kV contact discharging / 8 kV air discharging, behavior criterion 2 |
| conducted HF interference emissions according to CISPR11                                | Class A for industrial environment                                    |
| field-bound HF interference emission according to CISPR11                               | Class B for the domestic, business and commercial environments        |

## Approvals Certificates

Environment

General Product Approval

[Environmental Confirmations](#)



EMV

Test Certificates

other



[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=3RF2920-0GA33>

Cax online generator

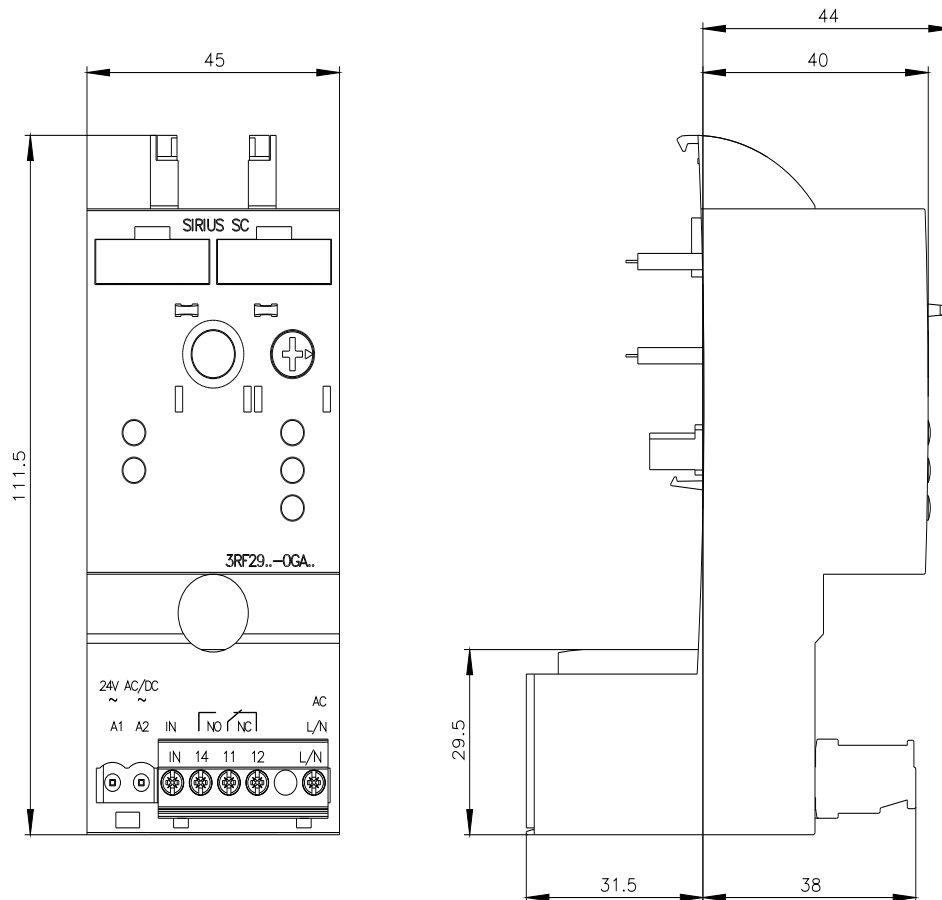
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF2920-0GA33>

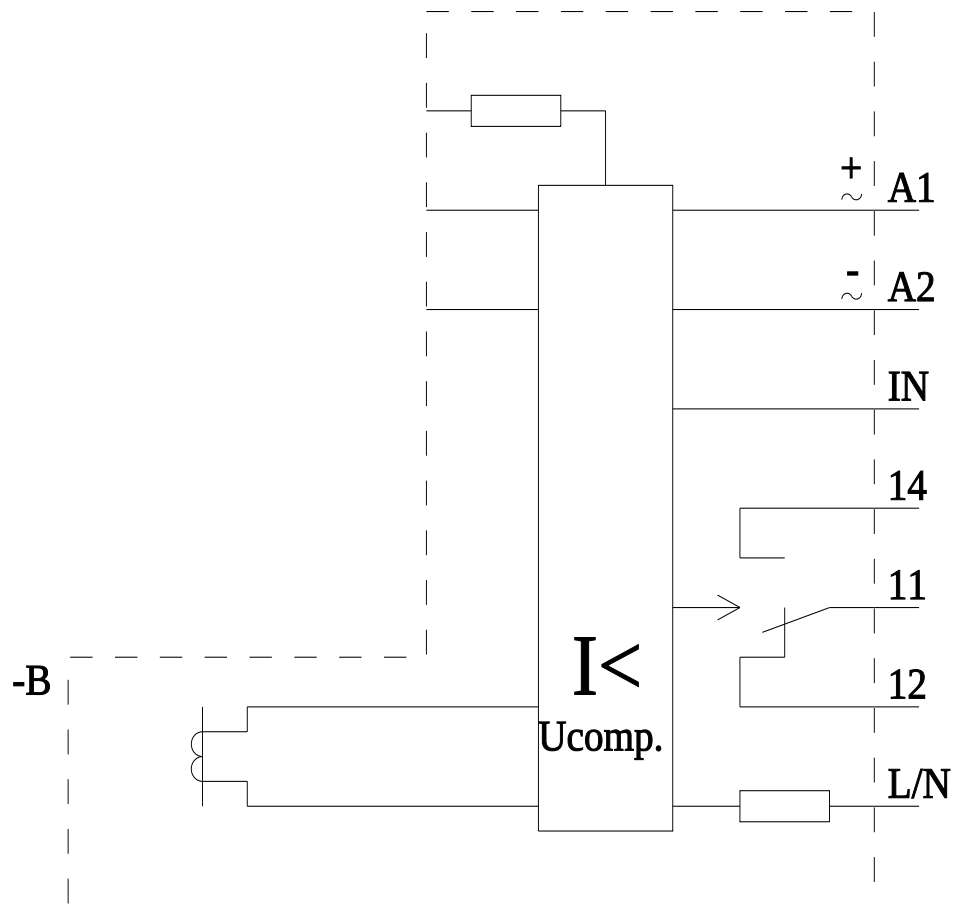
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RF2920-0GA33>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RF2920-0GA33&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RF2920-0GA33&lang=en)





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