



phase-out type power controller current range 90 A / 40 °C 110 ... 230 V / 24 V AC/DC with partial load monitoring for semiconductor relay/contactors

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| product brand name | SIRIUS |
| product designation | power controller |
| product type designation | 3RF29 |
| manufacturer's article number | |
| <ul style="list-style-type: none"> • _1 of the accessories that can be ordered | 3RF2900-0RA88 |
| product designation | |
| <ul style="list-style-type: none"> • _1 of the accessories that can be ordered • _2 of the accessories that can be ordered | sealable end cover input reactor / 3AC |
| General technical data | |
| product function | for 3RF21/23 solid-state relays/solid-state contactors |
| power loss [W] for rated value of the current | |
| <ul style="list-style-type: none"> • without load current share typical | 1 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 | K |
| Substance Prohibitance (day/month/year) | 05/01/2012 |
| SVHC substance name | Lead CAS-No. 7439-92-1 Lead monoxide (lead oxide) CAS-No. 1317-36-8 2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329) CAS-No. 3147-75-9 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5 Melamine CAS-No. 108-78-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1 |
| Net Weight | 0.166 kg |
| 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 |
| operating voltage at AC | |
| <ul style="list-style-type: none"> • at 50 Hz rated value • at 60 Hz rated value | 110 ... 230 V 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"> • at 50 Hz | 93.5 ... 253 V |

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| • at 60 Hz | 93.5 ... 253 V |
| operational current | |
| • at AC-51 rated value | 90 A |
| derating temperature | 40 °C |
| teach range current initial value | 2.9 A |
| teach range current full-scale value | 90 A |
| partial load for load monitoring | 2.9 A |
| Control circuit/ Control | |
| type of voltage | AC/DC |
| control supply voltage at AC | |
| • at 50 Hz rated value | 20.5 ... 26.5 V |
| • at 60 Hz rated value | 20.5 ... 26.5 V |
| control supply voltage at AC | |
| • at 50 Hz full-scale value for signal<0> recognition | 5 V |
| • at 60 Hz full-scale value for signal<0> recognition | 5 V |
| control supply voltage at DC rated value | 18 ... 30 V |
| control supply voltage at DC full-scale value for signal<0> recognition | 5 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 |
| • at DC | 2 mA |
| control current at AC rated value | 40 mA |
| control current at DC rated value | 40 mA |
| Auxiliary circuit | |
| number of NC contacts for auxiliary contacts | 1 |
| number of NO contacts for auxiliary contacts | 1 |
| number of CO contacts for auxiliary contacts | 0 |
| Installation/ mounting/ dimensions | |
| fastening method side-by-side mounting | Yes |
| fastening method | clip-on |
| height | 111.5 mm |
| width | 45 mm |
| depth | 69.5 mm |
| Connections/ Terminals | |
| 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 ²), 2x (0.5 ... 1 mm ²) |
| — finely stranded with core end processing | 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1 mm ²) |
| — finely stranded without core end processing | 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1 mm ²) |
| • 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 |
| Electrical Safety | |
| touch protection on the front according to IEC 60529 | finger-safe, for vertical contact from the front |
| Ambient conditions | |
| installation altitude at height above sea level maximum | 1 000 m |
| ambient temperature | |
| • during operation | -25 ... +60 °C |
| • during storage | -55 ... +80 °C |
| Electromagnetic compatibility | |

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| conducted interference | <ul style="list-style-type: none"> • 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 | <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> |
| 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

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|--------------------|---------------------------------|
| Environment | General Product Approval |
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firmations](#)



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| EMV | Test Certificates | other |
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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=3RF2990-0KA13>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF2990-0KA13>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RF2990-0KA13>

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

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RF2990-0KA13&lang=en



