



SEMICONDUCTOR RELAY 3RF2,
1-PH. WIDTH 22.5MM,
30 A 48-460 V / 24 V DC SCREW TERMINAL

| General technical data: | |
|---|-------------------------------|
| product brand name | SIRIUS |
| Product designation | solid-state relay |
| Product function | zero-point switching |
| Number of poles / for main current circuit | 1 |
| Protection class IP | IP20 |
| Product designation / _1 / of the accessories that can be ordered | terminal cover |
| Manufacturer article number / _1 / of the accessories that can be ordered | 3RF2900-3PA88 |
| Product designation / _2 / of the accessories that can be ordered | power regulator |
| Manufacturer article number / _2 / of the accessories that can be ordered | 3RF2950-0HA16 |
| Product designation / _3 / of the accessories that can be ordered | converter |
| Manufacturer article number / _3 / of the accessories that can be ordered | 3RF2900-0EA18 |
| Product designation / _4 / of the accessories that can be ordered | load monitoring |
| Manufacturer article number / _4 / of the accessories that can be ordered | 3RF2950-0GA16 |

| | | |
|--|----|-------------------------------|
| Product designation / _5 / of the accessories that can be ordered | | load monitoring, basis |
| Manufacturer article number / _5 / of the accessories that can be ordered | | 3RF2920-0FA08 |
| Ambient temperature | | |
| • during operation | °C | -25 ... +60 |
| • during storage | °C | -55 ... +80 |
| Installation altitude / at height above sea level / maximum | m | 1,000 |
| Vibration resistance / acc. to IEC 60068-2-6 | | 2g |
| Shock resistance / acc. to IEC 60068-2-27 | | 15g / 11 ms |
| Reference code | | |
| • acc. to DIN 40719 extended according to IEC 204-2 / acc. to IEC 750 | | K |
| • acc. to DIN EN 61346-2 | | Q |
| Number of NC contacts / for auxiliary contacts | | 0 |
| Number of NO contacts / for auxiliary contacts | | 0 |
| Number of CO contacts / for auxiliary contacts | | 0 |

Main circuit:

| | | |
|--|------|------------|
| Number of NO contacts / for main contacts | | 1 |
| Number of NC contacts / for main contacts | | 0 |
| Operating current | | |
| • Rated value / maximum | A | 30 |
| • at AC-51 / Rated value | A | 30 |
| • minimum | mA | 500 |
| Operating voltage | | |
| • with AC / at 50 Hz / Rated value | V | 48 ... 460 |
| • with AC / at 60 Hz / Rated value | V | 48 ... 460 |
| Operating range relative to the operating voltage | | |
| • with AC / at 50 Hz | V | 40 ... 506 |
| • with AC / at 60 Hz | V | 40 ... 506 |
| Operating frequency | | |
| • Rated value | Hz | 50 ... 60 |
| Relative symmetrical tolerance / of the operating frequency | % | 10 |
| Insulation voltage / Rated value | V | 600 |
| Rate of voltage rise / at the thyristor / for main contacts / maximum permissible | V/μs | 500 |
| Blocking voltage / at the thyristor / for main contacts / maximum permissible | V | 1,200 |
| Reverse current / of the thyristor | mA | 10 |
| Derating temperature | °C | 40 |
| Active power loss / total / typical | W | 44.2 |

| | | |
|---|-------------------|---|
| Apparent power loss / maximum | V·A | 44.2 |
| Surge current resistance / Rated value | A | 300 |
| I ² t value / maximum | A ² ·s | 450 |
| Short-circuit protection, design of the fuse link | | https://www.automation.siemens.com/cd-static/material/info/3RF21_eng.pdf |

Control circuit/ Control:

| | | |
|---|----|----|
| Type of voltage / of the control supply voltage | | DC |
| Control supply voltage / 1 | | |
| • for DC | | |
| • Initial rated value | V | 15 |
| • Final rated value | V | 24 |
| Control supply voltage | | |
| • for DC / Full-scale value for signal<0> recognition | V | 5 |
| Control current | | |
| • at minimum control supply voltage / for DC | mA | 2 |
| • for DC / Rated value | mA | 15 |

Installation/ mounting/ dimensions:

| | | |
|--|-----|--------------|
| Mounting type | | screw fixing |
| Mounting type / Side-by-side mounting | | Yes |
| Design of the thread / of the screw for securing the equipment | | M4 |
| Tightening torque / of the screw for securing the equipment | N·m | 1.5 |
| Width | mm | 22.5 |
| Height | mm | 85 |
| Depth | mm | 48 |

Connections/ terminals:

| | | |
|--|--------|---|
| Design of the electrical connection / for main current circuit | | screw-type terminals |
| Design of the thread / of the connection screw / for main contacts | | M4 |
| Tightening torque / for main contacts | | |
| • with screw-type terminals | N·m | 2 ... 2.5 |
| Tightening torque [lbf·in] / for main contacts | | |
| • with screw-type terminals | lbf·in | 7 ... 10.3 |
| Type of connectable conductor cross-section | | |
| • for main contacts | | |
| • solid | | 2x (1.5 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²) |
| • finely stranded | | |
| • with core end processing | | 2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²), 1x 10 mm ² |
| • for AWG conductors | | |

| | | |
|---|-----------------|--|
| <ul style="list-style-type: none"> • for main contacts • for auxiliary and control contacts | | 2x (14 ... 10) |
| <ul style="list-style-type: none"> • for auxiliary and control contacts <ul style="list-style-type: none"> • solid • finely stranded <ul style="list-style-type: none"> • with core end processing • without core end processing | | 1x (AWG 20 ... 12) |
| | | 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²) |
| | | 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²) |
| | | 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²) |
| Connectable conductor cross-section | | |
| <ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> • single or multi-stranded • finely stranded <ul style="list-style-type: none"> • with core end processing • for auxiliary and control contacts <ul style="list-style-type: none"> • solid • finely stranded <ul style="list-style-type: none"> • with core end processing • without core end processing | mm ² | 1.5 ... 6 |
| | mm ² | 1 ... 10 |
| | mm ² | 0.5 ... 2.5 |
| | mm ² | 0.5 ... 2.5 |
| | mm ² | 0.5 ... 2.5 |
| AWG number / as coded connectable conductor cross section / for main contacts | | 14 ... 10 |
| Design of the electrical connection / for auxiliary and control current circuit | | screw-type terminals |
| Design of the thread / of the connection screw / of the auxiliary and control contacts | | M3 |
| AWG number / as coded connectable conductor cross section | | |
| <ul style="list-style-type: none"> • for auxiliary and control contacts | | 20 ... 12 |
| Wire stripping length / of the cable / for main contacts | mm | 7 |
| Wire stripping length / of the cable / for auxiliary and control contacts | mm | 7 |
| Tightening torque / for auxiliary and control contacts | | |
| <ul style="list-style-type: none"> • with screw-type terminals | N·m | 0.5 ... 0.6 |
| Tightening torque [lbf·in] / for auxiliary and control contacts | | |
| <ul style="list-style-type: none"> • with screw-type terminals | lbf·in | 4.5 ... 5.3 |

Certificates/ approvals:

General Product Approval



EMC

Declaration of Conformity

Test Certificates

other

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

[Environmental Confirmations](#)

Further information:

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

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/>

Cax online generator

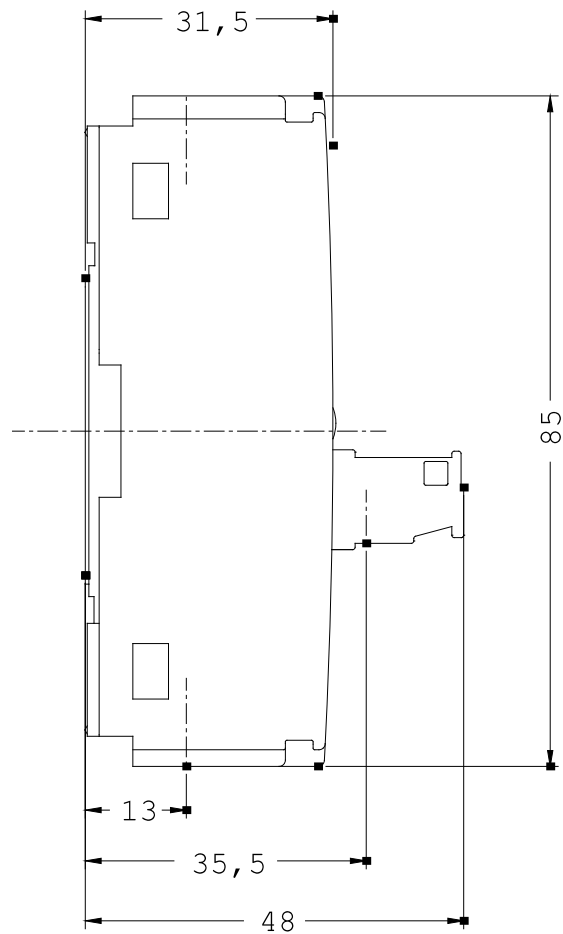
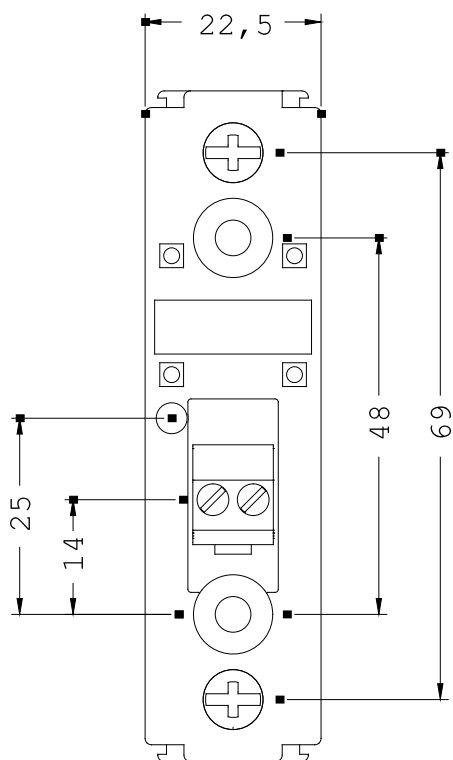
<http://www.siemens.com/cax>

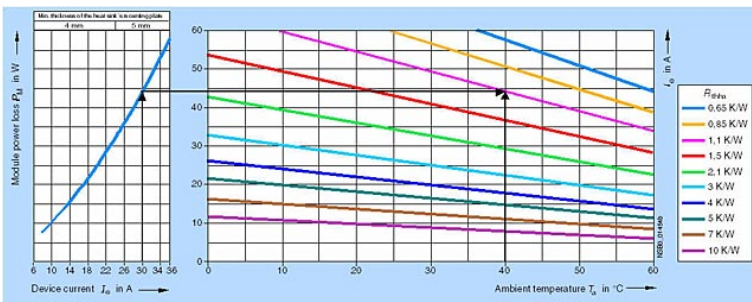
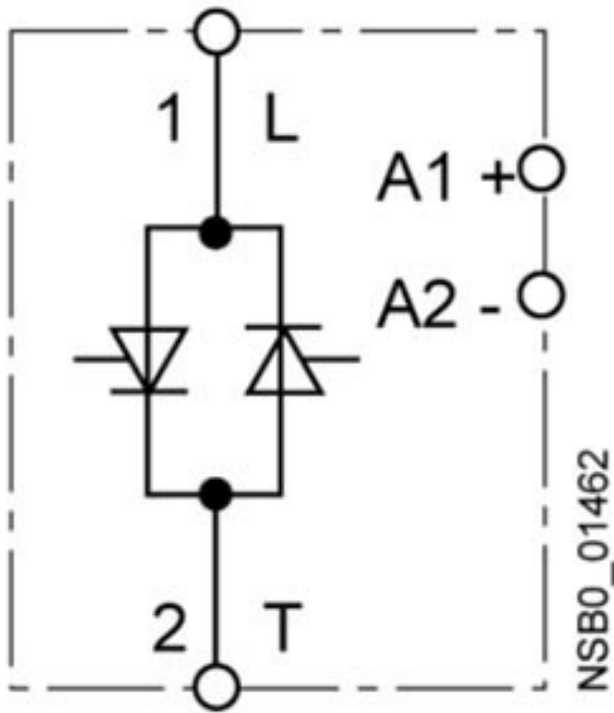
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RF2130-1AA04/all>

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

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RF2130-1AA04





last change:

Jun 16, 2014