

SEMI-COND. CONTACTOR 3RF2,1-PH. AC 51 70 A 40
DEGREES C 24-230 V / 110-230 V AC RING TERMINAL



| General technical data: | | |
|---|----|-------------------------------|
| Product brand name | | SIRIUS |
| product designation | | solid-state contactor |
| 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 / _4 / of the accessories that can be ordered | | load monitoring |
| Manufacturer article number / _4 / of the accessories that can be ordered | | 3RF2990-0GA33 |
| Ambient temperature <ul style="list-style-type: none">during operatingduring storage | °C | -25 ... 60 |
| | °C | -55 ... 80 |
| Installation altitude / at a height over sea level / maximum | m | 1,000 |
| Resistance against vibration / according to IEC 60068-2-6 | | 2g |
| Resistance against shock / according to IEC 60068-2-27 | | 15g / 11 ms |
| Item designation | | |

| | |
|--|---|
| <ul style="list-style-type: none"> • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 | K |
| <ul style="list-style-type: none"> • according to DIN EN 61346-2 | Q |
| Number of NC contacts / for auxiliary contacts | 0 |
| Number of NO contacts / for auxiliary contacts | 0 |
| Number of change-over switches / for auxiliary contacts | 0 |

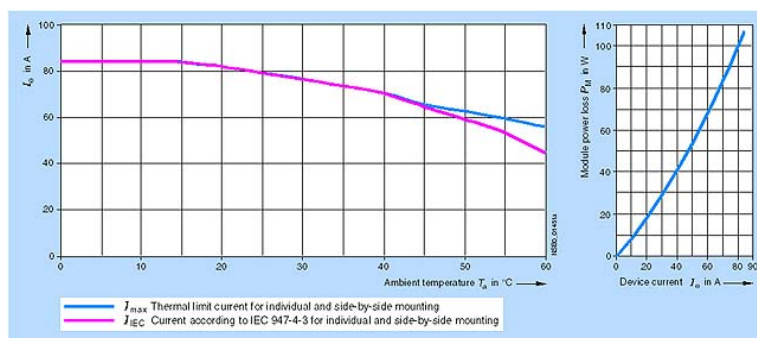
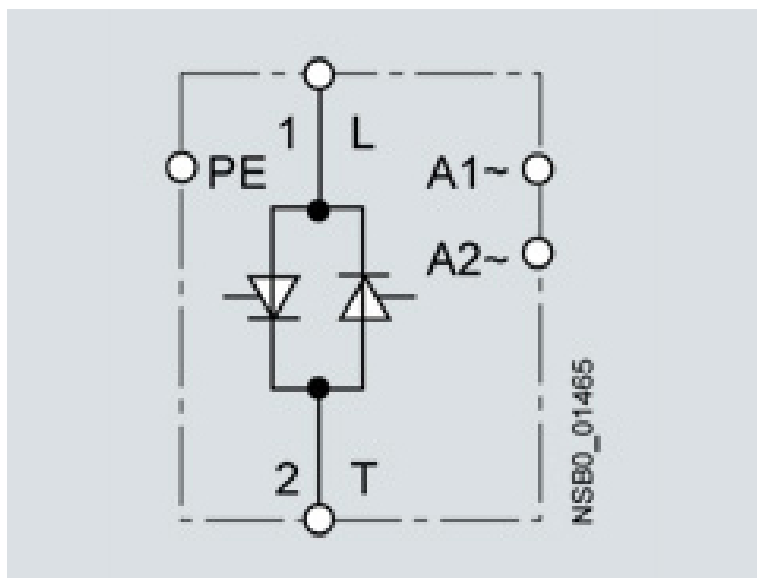
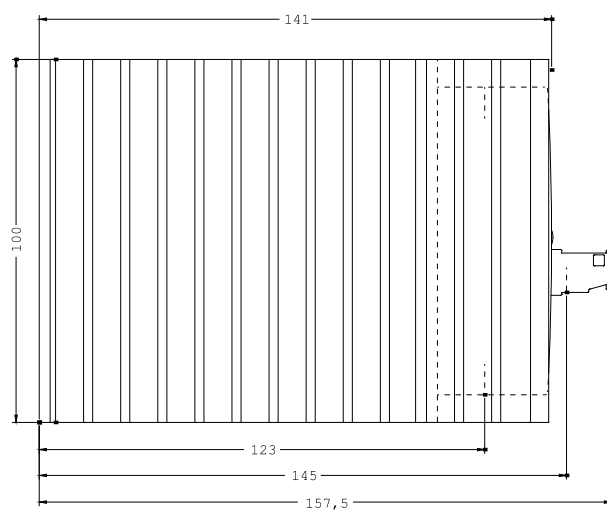
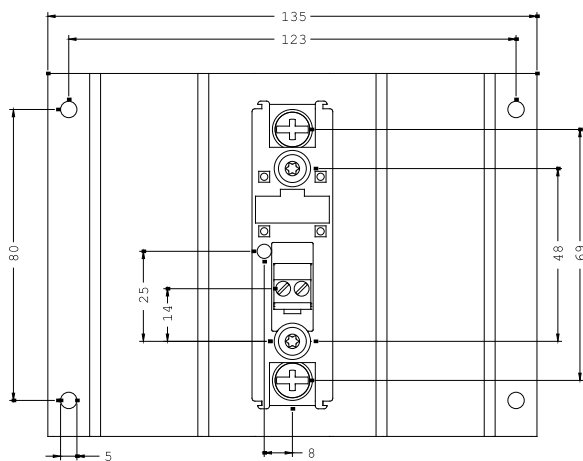
| Main circuit: | | |
|---|-------------------|------------|
| Number of NO contacts / for main contacts | | 1 |
| Number of NC contacts / for main contacts | | 0 |
| Operating current | | |
| <ul style="list-style-type: none"> • at AC-1 / at 400 V / rated value | A | 70 |
| <ul style="list-style-type: none"> • at AC-51 / rated value | A | 70 |
| Operating current / minimum | mA | 500 |
| Operating voltage | | |
| <ul style="list-style-type: none"> • at 50 Hz / at AC / rated value | V | 24 ... 230 |
| <ul style="list-style-type: none"> • at 60 Hz / at AC / rated value | V | 24 ... 230 |
| Working area related to the operating voltage | | |
| <ul style="list-style-type: none"> • at 50 Hz / for AC | V | 20 ... 253 |
| <ul style="list-style-type: none"> • at 60 Hz / for AC | V | 20 ... 253 |
| Operating frequency | | |
| <ul style="list-style-type: none"> • rated value | Hz | 50 ... 60 |
| Relative symmetrical tolerance / of the operation frequency | % | 10 |
| Insulation voltage / rated value | V | 600 |
| Voltage slew rate / at the thyristor / for main contacts / maximum permissible | V/μs | 1,000 |
| Block voltage / at the thyristor / for main contacts / maximum permissible | V | 800 |
| Reverse current / of the thyristor | mA | 10 |
| Derating temperature | °C | 40 |
| Active power loss / total / typical | W | 83 |
| Resistance against the impulse current / rated value | A | 1,150 |
| I²t-level / maximum | A ² ·s | 6,600 |

| Control circuit: | | |
|---|----|----|
| Control supply voltage frequency | | |
| <ul style="list-style-type: none"> • 1 / rated value | Hz | 50 |
| <ul style="list-style-type: none"> • 2 / rated value | Hz | 60 |
| Type of voltage / of the controlled supply voltage | | AC |
| Control supply voltage / 1 | | |
| <ul style="list-style-type: none"> • at 50 Hz / for AC | | |

| | | |
|---|---|-----|
| <ul style="list-style-type: none"> • initial rated value | V | 110 |
| <ul style="list-style-type: none"> • final rated value | V | 230 |
| <ul style="list-style-type: none"> • at 60 Hz / for AC | | |
| <ul style="list-style-type: none"> • initial rated value | V | 110 |
| <ul style="list-style-type: none"> • final rated value | V | 230 |
| Control supply voltage | | |
| <ul style="list-style-type: none"> • at 50 Hz / for AC / final value for signal<0>-recognition | V | 40 |
| <ul style="list-style-type: none"> • at 60 Hz / for AC / final value for signal<0>-recognition | V | 40 |
| Tolerance of the line frequency | Hz | 5 |
| Relative symmetrical tolerance / of the supply voltage frequency | % | 10 |
| Control current | | |
| <ul style="list-style-type: none"> • at minimum control supply voltage / for AC | mA | 2 |
| <ul style="list-style-type: none"> • for AC / rated value | mA | 15 |
| Fuse assignments | https://www.automation.siemens.com/cd-static/material/info/3RF21_eng.pdf | |

| Installation/mounting/dimensions: | | |
|--|-----|--------------|
| Type of mounting | | screw fixing |
| Type of fixing/fixation / series installation | | Yes |
| Design of the thread / of the screw for fastening of the operating resource | | M4 |
| Tightening torque / of the screw for fastening of the operating resource | N-m | 1.5 |
| Width | mm | 135 |
| Height | mm | 100 |
| Depth | mm | 157.5 |

| Connections: | | |
|---|-----|--|
| Design of the electrical connection / for main current circuit | | ring cable connection |
| Design of the thread / of the connection screw / for main contacts | | M5 |
| Tightening torque / for main contacts | | |
| <ul style="list-style-type: none"> • with screw-type terminals | N-m | 2 ... 2.5 |
| Type of the connectable conductor cross-section | | |
| <ul style="list-style-type: none"> • for main contacts / for JIS cable lug | | JIS C 2805 R 2-5, 5,5-5, 8-5, 14-5 |
| <ul style="list-style-type: none"> • for DIN cable lug / for main contacts | | DIN 46234 -5-2,5, -5-6, -5-10, -5-16, -5-25 |
| <ul style="list-style-type: none"> • for AWG conductors | | |
| <ul style="list-style-type: none"> • for auxiliary and control contacts | | 1x (AWG 20 ... 12) |
| <ul style="list-style-type: none"> • for auxiliary and control contacts | | |
| <ul style="list-style-type: none"> • solid | | 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.0 mm ²) |
| <ul style="list-style-type: none"> • finely stranded | | |





last change:

Aug 22, 2011