

SEMI-CONDUCTOR CONTAC.3-PH.3RF2 AC51 20A 40
DEG. C 48-600V / 230V AC 3-PHASE CONTROLLED
SPRING-LOADED CONNECTION BLOCKING VOLTAGE
1200V

General technical data:

| | | |
|--|----|-----------------------|
| Product brand name | | SIRIUS |
| product designation | | solid-state contactor |
| Product function | | zero-point switching |
| Number of poles / for main current circuit | | 3 |
| Protection class IP | | IP20 |
| Ambient temperature | | |
| • during operating | °C | -25 ... 60 |
| • during storage | °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 | | |
| • according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 | | K |
| • 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 | | 3 |
| Number of NC contacts / for main contacts | | 0 |
| Operating current / at AC-1 / at 400 V / rated value | A | 20 |
| Operating current / at AC-51 / rated value | A | 20 |
| Reverse current / of the thyristor | mA | 10 |
| Derating temperature | °C | 40 |
| Operating current / minimum | mA | 500 |
| Resistance against the impulse current / rated value | A | 600 |
| I ² t-level / maximum | A ² ·s | 1,800 |
| Operating voltage | | |
| • at 50 Hz / at AC / rated value | V | 48 ... 600 |

| | | |
|---|------|---|
| • at 60 Hz / at AC / rated value | V | 48 ... 600 |
| Working area related to the operating voltage | | |
| • at 50 Hz / for AC | V | 40 ... 660 |
| • at 60 Hz / for AC | V | 40 ... 660 |
| Operating frequency | | |
| • 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 | 1,200 |
| Fuse assignments | | https://www.automation.siemens.com/cd-static/material/info/3RF24_eng.pdf |

| Control circuit: | | |
|---|----|-------------|
| Type of voltage / of the controlled supply voltage | | AC |
| Control supply voltage / 1 | | |
| • at 50 Hz | | |
| • for AC | V | 180 ... 230 |
| • at 60 Hz | | |
| • for AC | V | 180 ... 230 |
| Control supply voltage frequency | | |
| • 1 | Hz | 45 |
| • 2 | Hz | 66 |
| Control supply voltage / at 50 Hz / for AC / final value for signal<0>-recognition | V | 180 |
| Control supply voltage / at 60 Hz / for AC / final value for signal<0>-recognition | V | 180 |
| Tolerance of the line frequency | Hz | 5 |
| Relative symmetrical tolerance / of the supply voltage frequency | % | 10 |
| Control current | | |
| • at minimum control supply voltage / for AC | mA | 2 |
| • for AC / rated value | mA | 15 |

| Installation/mounting/dimensions: | | |
|--|--|--|
| Type of mounting | | screw and snap-on mounting onto 35 mm standard mounting rail |
| 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 | 90 |
| Height | mm | 100 |
| Depth | mm | 112.5 |

| Connections: | | |
|---|--|--|
| Design of the electrical connection / for main current circuit | | spring-loaded terminals |
| Type of the connectable conductor cross-section <ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> • solid • finely stranded <ul style="list-style-type: none"> • with conductor end processing • without conductor final cutting • for AWG conductors <ul style="list-style-type: none"> • for main contacts • for auxiliary and control contacts • for auxiliary and control contacts <ul style="list-style-type: none"> • solid • finely stranded <ul style="list-style-type: none"> • with conductor end processing • without conductor final cutting | | 2x (0.5 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²) 2x (0.5 ... 2.5 mm ²) 2x (18 ... 14) 1x (AWG 20 ... 12) 0.5 ... 1.5 mm ² 0.5 ... 2.5 mm ² 0.5 ... 2.5 mm ² |
| Conductor cross section that can be connected <ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> • solid • stranded wire <ul style="list-style-type: none"> • with conductor end processing • without conductor final cutting • for auxiliary and control contacts <ul style="list-style-type: none"> • solid • stranded wire <ul style="list-style-type: none"> • with conductor end processing / minimum • without conductor final cutting | mm ² mm ² mm ² mm ² mm ² mm ² | 0.5 ... 2.5 0.5 ... 1.5 0.5 ... 2.5 0.5 ... 1.5 0.5 ... 2.5 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 | | spring-loaded terminals |
| AWG number / as coded connectable conductor cross-section <ul style="list-style-type: none"> • for auxiliary and control contacts | | 20 ... 12 |

| | | |
|--|----|----|
| Stripping length / of the cable / for main contacts | mm | 10 |
| Stripping length / of the cable / for auxiliary and control contacts | mm | 10 |

Certificates/approvals:

General Product Approval



[ROSTEST](#)



Test Certificates

[Manufacturer](#)

other

[Manufacturer](#)

Further information:

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

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

Industry Mall (Online ordering system)

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

Cax online generator:

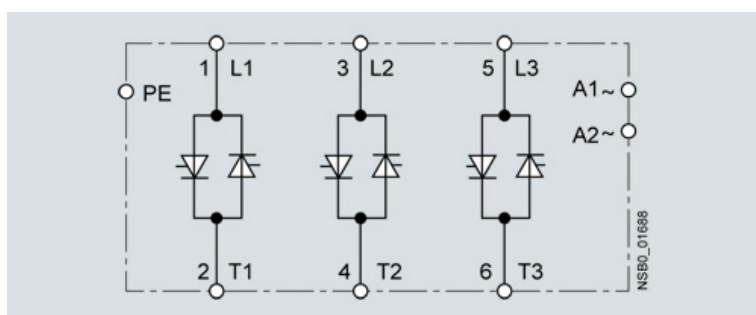
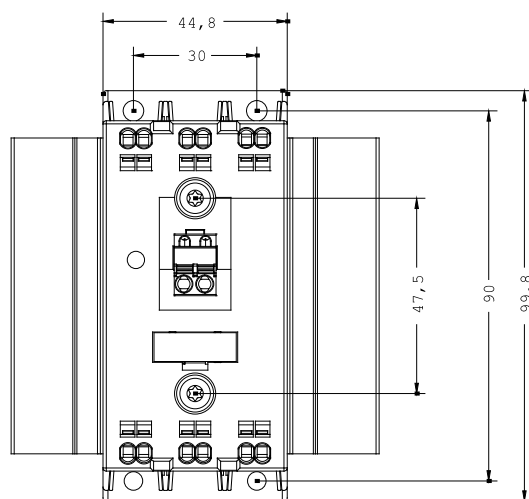
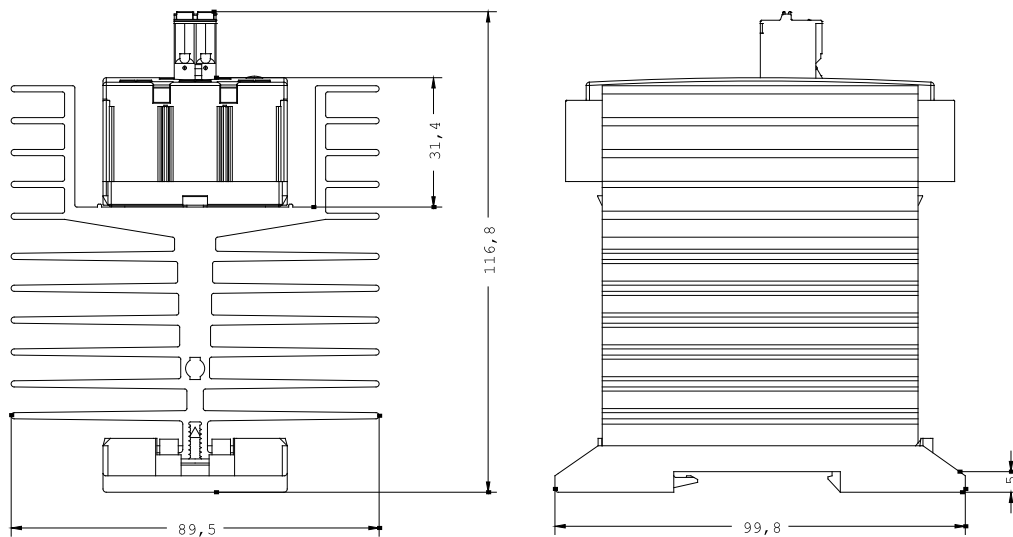
<http://www.siemens.com/cax>

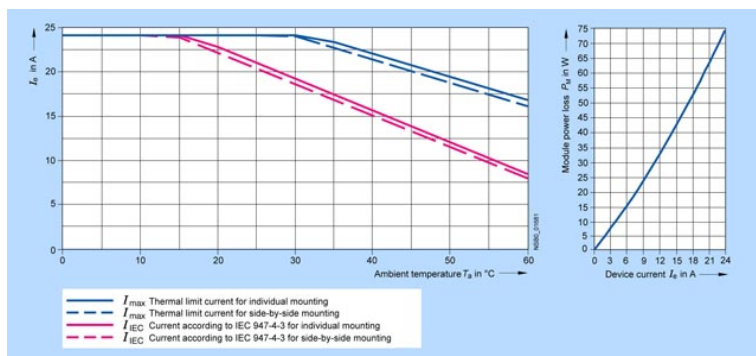
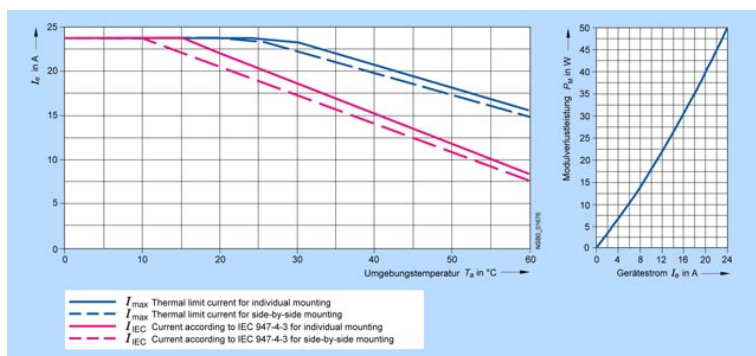
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RF2420-2AC55/all>

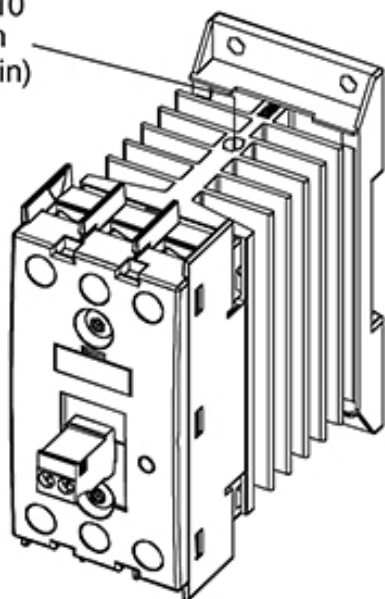
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RF2420-2AC55





PE
M 5 x 10
1,5 Nm
(13 lb·in)



last change:

Aug 22, 2011