



SEMI-CONDUCTOR CONTAC.3-PH.3RF2 AC51 10A
 40 DEG. C 48-600V / 230V AC 2-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 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 |
| Equipment marking acc. to DIN 40719 extended according to IEC 204-2 acc. to IEC 750 | | K |
| Equipment marking 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 | | 2 |
| Number of NC contacts for main contacts | | 0 |
| Operating current | | |
| • at AC-1 at 400 V Rated value | A | 10 |
| • at AC-51 Rated value | A | 10 |

| | | |
|--|-------------------|------------|
| Reverse current of the thyristor | mA | 10 |
| Derating temperature | °C | 40 |
| Operating current minimum | mA | 100 |
| Surge current resistance Rated value | A | 200 |
| I²t value maximum | A ² ·s | 200 |
| Operating voltage with AC | | |
| • at 50 Hz Rated value | V | 48 ... 600 |
| • at 60 Hz Rated value | V | 48 ... 600 |
| Operating range relative to the operating voltage with AC | | |
| • at 50 Hz | V | 40 ... 660 |
| • at 60 Hz | V | 40 ... 660 |
| 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 |
| Short-circuit protection, design of the fuse link | | |

Control circuit/ Control:

| | | |
|---|----|-------------|
| Type of voltage of the control supply voltage | | AC |
| Control supply voltage 1 | | |
| • with AC | | |
| — at 50 Hz | V | 180 ... 230 |
| — at 60 Hz | V | 180 ... 230 |
| Control supply voltage frequency | | |
| • 1 Rated value | Hz | 45 |
| • 2 Rated value | Hz | 66 |
| Control supply voltage | | |
| • with AC | | |
| — at 50 Hz Full-scale value for signal<0> recognition | V | 180 |
| — at 60 Hz Full-scale value for signal<0> recognition | V | 180 |
| Symmetrical line frequency tolerance | Hz | 5 |
| Relative symmetrical tolerance of the supply voltage frequency | % | 10 |
| Control current | | |
| • at minimum control supply voltage | | |
| — with AC | mA | 2 |
| • with AC Rated value | mA | 15 |

Installation/ mounting/ dimensions:






| | | |
|---|-----|--|
| Mounting type | | screw and snap-on mounting onto 35 mm standard mounting rail |
| 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 | 45 |
| Height | mm | 100 |
| Depth | mm | 104.5 |

Connections/ Terminals:

| | | |
|--|---|--|
| Type of electrical connection for main current circuit | | spring-loaded terminals |
| Type of 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 core end processing — without core end processing • 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 core end processing — without core end processing | | <p>2x (0.5 ... 2.5 mm²)</p> <p>2x (0.5 ... 1.5 mm²)</p> <p>2x (0.5 ... 2.5 mm²)</p> <p>2x (18 ... 14)</p> <p>1x (AWG 20 ... 12)</p> <p>0.5 ... 1.5 mm²</p> <p>0.5 ... 2.5 mm²</p> <p>0.5 ... 2.5 mm²</p> |
| 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 — without 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 | <p>mm²</p> <p>mm²</p> <p>mm²</p> <p>mm²</p> <p>mm²</p> <p>mm²</p> <p>mm²</p> | <p>0.5 ... 2.5</p> <p>0.5 ... 1.5</p> <p>0.5 ... 2.5</p> <p>0.5 ... 1.5</p> <p>0.5 ... 2.5</p> <p>0.5 ... 2.5</p> |
| AWG number as coded connectable conductor cross section for main contacts | | 14 ... 10 |
| Type of electrical connection for auxiliary and control current circuit | | spring-loaded terminals |

| | | |
|--|----|-----------|
| AWG number as coded connectable conductor cross section for auxiliary and control contacts | | 20 ... 12 |
| Wire stripping length of the cable | | |
| • for main contacts | mm | 10 |
| • for auxiliary and control contacts | mm | 10 |

Certificates/ approvals:

| General Product Approval | EMC | Declaration of Conformity | Test Certificates |
|--|---|---|---|
|  CSA |  UL |  |  C-TICK |
| | |  EG-Konf. | Type Test Certificates/Test Report |

other

[Environmental Confirmations](#)

Further information

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

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

Industry Mall (Online ordering system)

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

Cax online generator

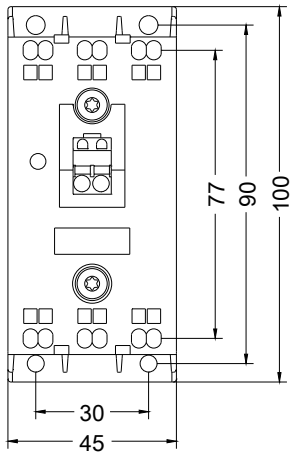
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RF24102AB55>

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

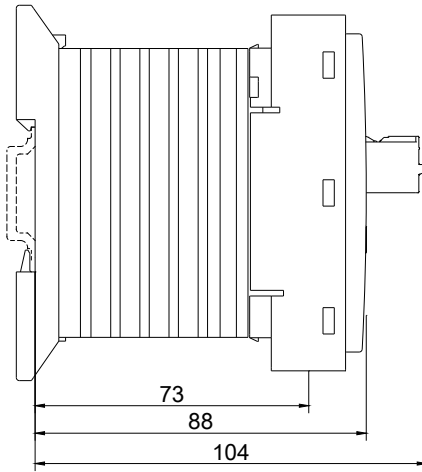
<http://support.automation.siemens.com/WW/view/en/3RF24102AB55/all>

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

<http://www.automation.siemens.com/bilddb/index.aspx?attID9=3RF24102AB55&lang=en>



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