SIEMENS

Data sheet 3RF3410-2BB04



Solid-state contactor 3-phase 3RF3 AC 53 / 9.2 A / 40 $^{\circ}\text{C}$ 48-480 V / 24 V DC 2-phase controlled Instantaneous switching Spring-type terminal

| product brand name | SIRIUS |
|---|------------------------------------|
| product designation | solid-state contactor |
| design of the product | two-phase controlled |
| product type designation | 3RF34 |
| General technical data | |
| product function | instantaneous switching |
| power loss [W] for rated value of the current | |
| at AC in hot operating state | 16 W |
| at AC in hot operating state per pole | 5.33 W |
| without load current share typical | 0.4 W |
| insulation voltage rated value | 600 V |
| type of voltage | |
| of the operating voltage | AC |
| of the control supply voltage | DC |
| surge voltage resistance of main circuit rated value | 6 kV |
| shock resistance according to IEC 60068-2-27 | 15g / 11 ms |
| vibration resistance according to IEC 60068-2-6 | 2g |
| certificate of suitability | CE / UL / CSA / CCC / C-Tick (RCM) |
| reference code according to EN 61346-2 | Q |
| reference code according to IEC 81346-2 | Q |
| Substance Prohibitance (Date) | 05/28/2009 |
| Main circuit | |
| number of poles for main current circuit | 3 |
| number of NO contacts for main contacts | 2 |
| number of NC contacts for main contacts | 0 |
| type of voltage of the operating voltage | AC |
| operating voltage | |
| • at AC | |
| — at 50 Hz rated value | 48 480 V |
| — at 60 Hz rated value | 48 480 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 | |
| • at 50 Hz | 40 506 V |
| • at 60 Hz | 40 506 V |
| operational current | |
| • at AC-3 at 400 V rated value | 9.2 A |
| • at AC-53a at 400 V at ambient temperature 40 °C rated | 9.2 A |
| value | |

| anavating names | |
|---|--|
| operating power • at AC-3 at 400 V rated value | 4 kW |
| • at AC-3 at 400 V rated value rate of voltage rise at the thyristor for main contacts | 1 000 V/µs |
| maximum permissible | 1 000 ν/μο |
| blocking voltage at the thyristor for main contacts maximum permissible | 1 200 V |
| reverse current of the thyristor | 10 mA |
| derating temperature | 40 °C |
| surge current resistance rated value | 600 A |
| l2t value maximum | 1 800 A²·s |
| Control circuit/ Control | |
| type of voltage of the control supply voltage | DC |
| control supply voltage 1 | |
| at DC rated value | 24 V |
| control supply voltage | |
| • at DC initial value for signal <1> detection | 15 V |
| at DC full-scale value for signal<0> recognition | 5 V |
| symmetrical line frequency tolerance | 5 Hz |
| operating range factor control supply voltage rated value at DC | |
| • initial value | 0.63 |
| full-scale value | 1.25 |
| control current at minimum control supply voltage | |
| • at DC | 2 mA |
| control current at DC rated value | 15 mA |
| ON-delay time | 1 ms |
| OFF-delay time | 1 ms; additionally max. one half-wave |
| Auxiliary circuit | |
| number of NC contacts for auxiliary contacts | 0 |
| number of NO contacts for auxiliary contacts | 0 |
| number of CO contacts for auxiliary contacts | 0 |
| In a tallation I was well to the | |
| Installation/ mounting/ dimensions | |
| mounting position | vertical |
| mounting position fastening method | screw and snap-on mounting onto 35 mm DIN rail |
| mounting position fastening method • side-by-side mounting | screw and snap-on mounting onto 35 mm DIN rail Yes |
| mounting position fastening method | screw and snap-on mounting onto 35 mm DIN rail |
| mounting position fastening method • side-by-side mounting design of the thread of the screw for securing the | screw and snap-on mounting onto 35 mm DIN rail Yes |
| mounting position fastening method • side-by-side mounting design of the thread of the screw for securing the equipment | screw and snap-on mounting onto 35 mm DIN rail Yes M4 |
| mounting position fastening method • side-by-side mounting design of the thread of the screw for securing the equipment height | screw and snap-on mounting onto 35 mm DIN rail Yes M4 95 mm |
| mounting position fastening method • side-by-side mounting design of the thread of the screw for securing the equipment height width | screw and snap-on mounting onto 35 mm DIN rail Yes M4 95 mm 90 mm |
| mounting position fastening method • side-by-side mounting design of the thread of the screw for securing the equipment height width depth | screw and snap-on mounting onto 35 mm DIN rail Yes M4 95 mm 90 mm |
| mounting position fastening method • side-by-side mounting design of the thread of the screw for securing the equipment height width depth required spacing with side-by-side mounting | screw and snap-on mounting onto 35 mm DIN rail Yes M4 95 mm 90 mm 100.8 mm |
| mounting position fastening method • side-by-side mounting design of the thread of the screw for securing the equipment height width depth required spacing with side-by-side mounting • upwards | screw and snap-on mounting onto 35 mm DIN rail Yes M4 95 mm 90 mm 100.8 mm |
| mounting position fastening method • side-by-side mounting design of the thread of the screw for securing the equipment height width depth required spacing with side-by-side mounting • upwards • downwards | screw and snap-on mounting onto 35 mm DIN rail Yes M4 95 mm 90 mm 100.8 mm |
| mounting position fastening method • side-by-side mounting design of the thread of the screw for securing the equipment height width depth required spacing with side-by-side mounting • upwards • downwards Connections/ Terminals product component removable terminal for auxiliary and | screw and snap-on mounting onto 35 mm DIN rail Yes M4 95 mm 90 mm 100.8 mm 70 mm 50 mm |
| mounting position fastening method • side-by-side mounting design of the thread of the screw for securing the equipment height width depth required spacing with side-by-side mounting • upwards • downwards Connections/ Terminals product component removable terminal for auxiliary and control circuit | screw and snap-on mounting onto 35 mm DIN rail Yes M4 95 mm 90 mm 100.8 mm 70 mm 50 mm |
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|--|---|
| finely stranded with core end processing | 0.5 2.5 mm ² |
| — finely stranded without core end processing | 0.5 2.5 mm ² |
| for AWG cables for auxiliary and control contacts | 1x (AWG 20 12) |
| AWG number as coded connectable conductor cross section for main contacts | 14 10 |
| stripped length of the cable | |
| • for main contacts | 10 mm |
| for auxiliary and control contacts | 10 mm |
| UL/CSA ratings | |
| full-load current (FLA) for 3-phase AC motor | |
| at 480 V rated value | 4.8 A |
| yielded mechanical performance [hp] for 3-phase AC motor | |
| • at 200/208 V rated value | 1.5 hp |
| • at 220/230 V rated value | 2 hp |
| at 460/480 V rated value | 3 hp |
| Safety related data | |
| proportion of dangerous failures with high demand rate according to SN 31920 | 50 % |
| MTTF with high demand rate | 76 a |
| T1 value for proof test interval or service life according to IEC 61508 | 20 a |
| protection class IP on the front according to IEC 60529 | IP20 |
| 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 | |
| conducted interference | |
| due to burst according to IEC 61000-4-4 | 2 kV / 5 kHz behavior criterion 2 |
| • due to conductor-earth surge according to IEC 61000-4-5 | 2 kV behavior criterion 2 |
| due to conductor-conductor surge according to IEC 61000-4-5 | 1 kV behavior criterion 2 |
| due to high-frequency radiation according to IEC 61000- 4-6 | 140 dBuV in the frequency range 0.15 80 MHz, behavior criterion 1 |
| 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 A for industrial environment |
| Short-circuit protection, design of the fuse link | |
| manufacturer's article number | |
| of full range R fuse link for semiconductor protection at NH design usable | <u>3NE1802-0</u> |
| of full range R fuse link for semiconductor protection at cylindrical design usable | <u>5SE1335</u> |
| of back-up R fuse link for semiconductor protection at NH design usable | <u>3NE8020-1</u> |
| of back-up R fuse link for semiconductor protection at cylindrical design 10 x 38 mm usable | <u>3NC1032</u> |
| of back-up R fuse link for semiconductor protection at cylindrical design 14 x 51 mm usable | <u>3NC1450</u> |
| of back-up R fuse link for semiconductor protection at cylindrical design 22 x 58 mm usable | 3NC2263 |
| manufacturer's article number of the gG fuse | |
| • at NH design usable | <u>3NA3805-6</u> |
| • at cylindrical design 10 x 38 mm usable | <u>3NW6005-1</u> |
| • at cylindrical design 14 x 51 mm usable | <u>3NW6105-1</u> |
| • at cylindrical design 22 x 58 mm usable | 3NW6205-1 |
| Certificates/ approvals | |
| General Product Approval | EMC |
| | |





Confirmation







Declaration of Conformity

Test Certificates

other





Type Test Certificates/Test Report

Confirmation

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RF3410-2BB04

Cax online generator

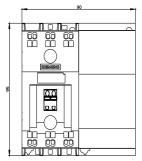
 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RF3410-2BB04}$

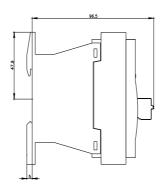
 $Service \& Support \ (Manuals, \ Certificates, \ Characteristics, \ FAQs, ...)$

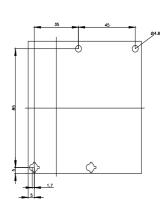
https://support.industry.siemens.com/cs/ww/en/ps/3RF3410-2BB04

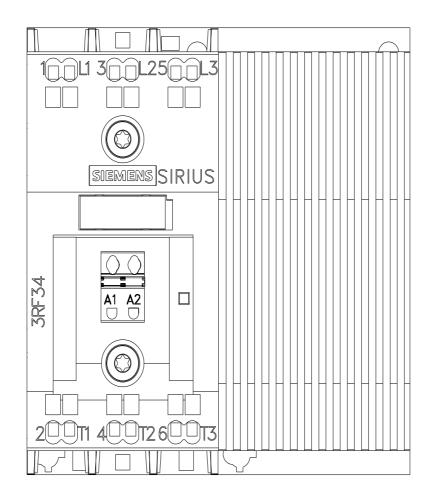
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

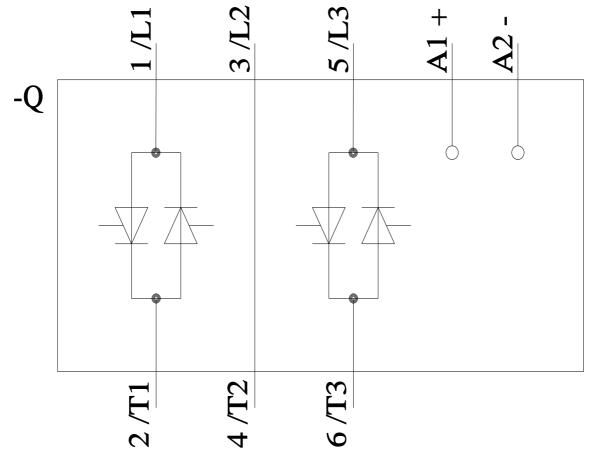
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RF3410-2BB04&lang=en











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