SIEMENS

Data sheet

3RQ3118-1AB01



Output coupler with plug-in Relay, 1 CO, hard gold-plated screw terminal 24 V AC/DC Enclosure width 6.2 mm Thermal current 6A

| product brand name | SIRIUS | | |
|---|--|--|--|
| product category | SIRIUS 3RQ3 coupling relays in slim design | | |
| product designation | Coupling relays with plug-in relay | | |
| design of the product | Output coupling link | | |
| product type designation | 3RQ3 | | |
| General technical data | | | |
| display version LED | Yes | | |
| product feature protective coating on printed-circuit board | No | | |
| product component | | | |
| relay output | Yes | | |
| semi-conductor output | No | | |
| consumed active power | 0.3 W | | |
| insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value | 300 V | | |
| surge voltage resistance rated value | 4 kV | | |
| maximum permissible voltage for protective separation | | | |
| between control and auxiliary circuit | 300 V | | |
| percental drop-out voltage related to the input voltage | 10 % | | |
| protection class IP | IP20 | | |
| flammability class of enclosure material | UL94 V-0 | | |
| shock resistance | | | |
| according to IEC 60068-2-27 | sinusoidal half-wave 15g / 11 ms | | |
| vibration resistance | | | |
| according to IEC 60068-2-6 | 6 150 Hz: 2 g | | |
| operating frequency maximum | 72 000 1/h | | |
| switching behavior | monostable | | |
| mechanical service life (operating cycles) typical | 10 000 000 | | |
| thermal current | 6 A | | |
| reference code according to IEC 81346-2 | К | | |
| Substance Prohibitance (Date) | 03/25/2015 | | |
| Control circuit/ Control | | | |
| control supply voltage at AC | | | |
| • at 50 Hz rated value | 24 V | | |
| • at 60 Hz rated value | 24 V | | |
| control supply voltage frequency | | | |
| • 1 rated value | 50 Hz | | |
| • 2 rated value | 60 Hz | | |
| control supply voltage at DC | | | |
| rated value | 24 V | | |
| operating range factor control supply voltage rated value at DC | | | |

| initial value | 0.8 | | |
|--|--|--|--|
| full-scale value | 1.25 | | |
| operating range factor control supply voltage rated value at AC at 50 Hz | | | |
| initial value | 0.8 | | |
| full-scale value | 1.25 | | |
| operating range factor control supply voltage rated value at AC at 60 Hz | | | |
| initial value | 0.8 | | |
| full-scale value | 1.25 | | |
| ON-delay time | | | |
| • at AC maximum | 12 ms | | |
| • at DC maximum | 12 ms | | |
| OFF-delay time | 14 ms | | |
| design of the relay operating mechanism | poled | | |
| product component plug-in socket | Yes | | |
| Short-circuit protection | | | |
| design of the fuse link for short-circuit protection of the auxiliary switch required | fuse gG: 4 A | | |
| Auxiliary circuit | | | |
| type of switching contact | Changeover contact | | |
| material of switching contacts | AgSnO2 hard gold-plated | | |
| number of CO contacts for auxiliary contacts | 1 | | |
| operational current of auxiliary contacts at AC-15 | | | |
| • at 24 V | 3 A | | |
| • at 250 V | 3 A | | |
| operational current of auxiliary contacts at DC-13 | | | |
| • at 24 V | 1 A | | |
| • at 125 V | 0.2 A | | |
| • at 250 V | 0.1 A | | |
| contact reliability of auxiliary contacts | one incorrect switching operation of 100 million switching operations (5 V, 1 mA) | | |
| | | | |
| Main circuit | | | |
| Main circuit | AC/DC | | |
| type of voltage | AC/DC | | |
| type of voltage Inputs/ Outputs | | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof | No | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz | | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 | No 3 A | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V | No | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 | No 3 A 1 A | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V | No 3 A 1 A 0.2 A | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V | No 3 A 1 A 0.2 A 0.1 A | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V | No 3 A 1 A 0.2 A | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 | No 3 A 1 A 0.2 A 0.1 A ambience A (industrial sector) | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1 | No 3 A 1 A 0.2 A 0.1 A ambience A (industrial sector) | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1 conducted interference | No 3 A 1 A 0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1 enducted interference • due to burst according to IEC 61000-4-4 | No 3 A 1 A 0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC | No 3 A 1 A 0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 | No 3 A 1 A 0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV 1 kV | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • field-based interference according to IEC 61000-4-3 | No 3 A 1 A 0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV 1 kV 10 V/m | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 250 V Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 | No 3 A 1 A 0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV 1 kV 10 V/m | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 250 V Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Display | No 3 A 1 A 0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV 1 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 25 V • at 250 V Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Display display version as status display by LED | No 3 A 1 A 0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV 1 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Display display version as status display by LED Connections/ Terminals | No 3 A 1 A 0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 250 V Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to scharge according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Display display version as status display by LED Connections/ Terminals product function removable terminal | No 3 A 1 A 0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV 2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge LED green No | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 250 V Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to scharge according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Display display version as status display by LED Connections/ Terminals product function removable terminal type of electrical connection for auxiliary and control circuit | No 3 A 1 A 0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV 2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge LED green No | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 250 V Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 60947-1 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to scharge according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Display display version as status display by LED Connections/ Terminals product function removable terminal type of electrical connection for auxiliary and control circuit wire length | No 3 A 1 A 0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV 2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge LED green No screw-type terminals | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 conducted interference • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Display display version as status display by LED Connections/ Terminals product function removable terminal type of electrical connection for auxiliary and control circuit wire length • at AC maximum | No 3 A 1 A 0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV 2 kV 10 V/m 6 kV contact discharge / 8 kV air discharge LED green No screw-type terminals 500 m | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 61000-4-4 • due to burst according to IEC 61000-4-4 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Display display version as status display by LED Connections/ Terminals product function removable terminal type of electrical connection for auxiliary and | No 3 A 1 A 0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV 2 kV 10 V/m 6 kV contact discharge / 8 kV air discharge LED green No screw-type terminals 500 m | | |
| type of voltage Inputs/ Outputs property of the output short-circuit proof ampacity of the output relay at AC-15 at 250 V at 50/60 Hz ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V Electromagnetic compatibility EMC emitted interference according to IEC 60947-1 EMC immunity according to IEC 61000-4-4 • due to burst according to IEC 61000-4-4 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 field-based interference according to IEC 61000-4-3 electrostatic discharge according to IEC 61000-4-2 Display display version as status display by LED Connections/ Terminals product function removable terminal type of electrical connection for auxiliary and control circuit wire length • at AC maximum • at DC maximum • at DC maximum | No 3 A 1 A 0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV 2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge LED green No screw-type terminals 500 m 1 000 m | | |

| for AWG cables solid | | 1 x (20 14) | | |
|--|---------------------------------------|--------------------------|------------------------------|----------|
| connectable conductor cross-section | | | | |
| • solid | | 0.25 2.5 mm ² | | |
| finely stranded with core end processing | | 0.25 1.5 mm² | | |
| AWG number as coded connectable conductor section | r cross | | | |
| • solid | | 20 14 | | |
| tightening torque with screw-type terminals | | 0.5 0.6 N·m | | |
| stallation/ mounting/ dimensions | | 0.0 0.0 14 11 | | |
| | | 001/ | | |
| mounting position | | any | | |
| fastening method | | snap-on mounting | | |
| height | | 93 mm | | |
| width | | 6.2 mm | | |
| depth | | 76 mm | | |
| required spacing | | | | |
| • with side-by-side mounting | | | | |
| — forwards | | 0 mm | | |
| — backwards | | 0 mm | | |
| — upwards | | 0 mm | | |
| — downwards | | 0 mm | | |
| — at the side | | 0 mm | | |
| for grounded parts | | | | |
| — forwards | | 0 mm | | |
| — backwards | | 0 mm | | |
| — upwards | | 0 mm | | |
| — at the side | | 0 mm | | |
| — downwards | | 0 mm | | |
| for live parts | | | | |
| — forwards | | 0 mm | | |
| — backwards | | 0 mm | | |
| — upwards | | 0 mm | | |
| — downwards | | 0 mm | | |
| — at the side | | 0 mm | | |
| mbient conditions | | | | |
| installation altitude at height above sea level maxi | mum | 2 000 m | | |
| ambient temperature | | | | |
| during operation | | -25 +60 °C | | |
| during storage | | -40 +85 °C | | |
| during transport | | -40 +85 °C | | |
| relative humidity during operation | | 10 95 % | | |
| ertificates/ approvals | | | | |
| General Product Approval | | | | EMC |
| | <u>Confirmatio</u> | • | | A |
| | | ų. | EAC | |
| | | UL | | RGM |
| CSA CCC | | | | |
| CSA CCC Declaration of Conformity | Test Certificate | es Marine / Shipping | other | |
| CSA CCC Declaration of Conformity | | | | |
| | Test Certificato | tific- | other <u>Confirmation</u> | |
| UK CE | Type Test Cer | tific- port | | |
| | Type Test Cer | tific- | | |
| | Type Test Cer | tific- port | | |
| | <u>Type Test Cer</u> ates/Test Rep | tific- port | | |

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=3RQ3118-1AB01

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ3118-1AB01

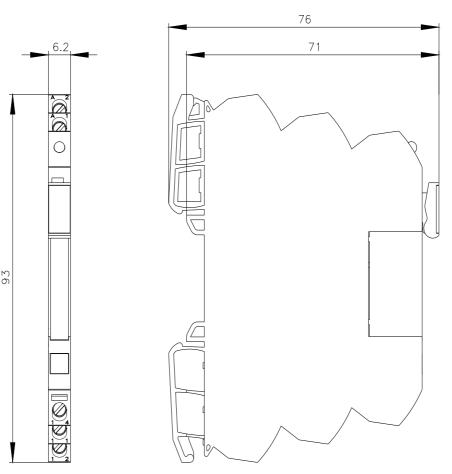
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

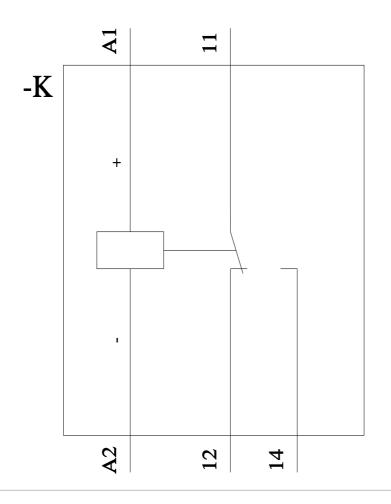
https://support.industry.siemens.com/cs/ww/en/ps/3RQ3118-1AB01

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ3118-1AB01&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3RQ3118-1AB01/manual





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