SIEMENS

## Data sheet 3RQ3018-2AF00

Output coupler Relay coupler, 1 change-over contact 230 V AC/DC Overall width 6.2 mm Spring-type terminal (push-in) Thermal current 6A

| | |
|---|---|
| **product brand name** | SIRIUS |
| **product category** | SIRIUS 3RQ3 coupling relays in slim design |
| **product designation** | Coupling relays with relay output (not plug-in) |
| **design of the product** | Output coupling link |
| **product type designation** | 3RQ3 |
| **General technical data** | |
| **display version LED** | Yes |
| **product component** | |
| ● relay output | Yes |
| ● semi-conductor output | No |
| **consumed active power** | 1 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 safe isolation** | |
| ● 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 (switching cycles) typical** | 10 000 000 |
| **thermal current** | 6 A |
| **reference code according to IEC 81346-2** | K |
| **Substance Prohibitance (Date)** | 03/25/2015 |
| **Control circuit/ Control** | |
| **control supply voltage at AC** | |
| ● at 50 Hz rated value | 230 V |
| ● at 60 Hz rated value | 230 V |
| **control supply voltage frequency** | |
| ● **1 rated value** | 50 Hz |
| ● **2 rated value** | 60 Hz |
| **control supply voltage at DC** | |
| ● rated value | 230 V |
| **operating range factor control supply voltage rated value at DC** | |
| ● initial value | 0.8 |
| ● full-scale value | 1.1 |

| | |
|---|---|
| **operating range factor control supply voltage rated value at AC at 50 Hz** | |
| ● initial value | 0.8 |
| ● full-scale value | 1.1 |
| **operating range factor control supply voltage rated value at AC at 60 Hz** | |
| ● initial value | 0.8 |
| ● full-scale value | 1.1 |
| **ON-delay time** | |
| ● at AC maximum | 9 ms |
| ● at DC maximum | 8 ms |
| **OFF-delay time** | 19 ms |
| **design of the relay operating mechanism** | poled |
| **product component plug-in socket** | No |
| **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 |
| 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 (17 V, 5 mA) |
| **Main circuit** | |
| **type of voltage** | AC/DC |
| **Inputs/ Outputs** | |
| **property of the output short-circuit proof** | No |
| ampacity of the output relay at AC-15 at 250 V at 50/60 Hz | 3 A |
| **ampacity of the output relay at DC-13** | |
| ● at 24 V | 1 A |
| ● at 125 V | 0.2 A |
| ● at 250 V | 0.1 A |
| **Electromagnetic compatibility** | |
| EMC emitted interference according to IEC 60947-1 | ambience A (industrial sector) |
| EMC immunity according to IEC 60947-1 | corresponds to degree of severity 3 |
| **conducted interference** | |
| ● due to burst according to IEC 61000-4-4 | 2 kV |
| ● due to conductor-earth surge according to IEC 61000-4-5 | 2 kV |
| ● due to conductor-conductor surge according to IEC 61000-4-5 | 1 kV |
| **field-based interference according to IEC 61000-4-3** | 10 V/m |
| **electrostatic discharge according to IEC 61000-4-2** | 6 kV contact discharge / 8 kV air discharge |
| **Display** | |
| display version as status display by LED | LED green |
| **Connections/ Terminals** | |
| **product function removable terminal** | No |
| type of electrical connection for auxiliary and control circuit | spring-loaded terminals (push-in) |
| wire length | |
| ● at AC maximum | 500 m |
| ● at DC maximum | 1 000 m |
| **type of connectable conductor cross-sections** | |
| ● solid | 1x (0.25 ... 2.5 mm²) |
| ● finely stranded with core end processing | 1x (0.25 ... 1.5 mm²) |
| ● finely stranded without core end processing | 1x (0.25 ... 2.5 mm²) |
| ● at AWG cables solid | 1 x (20 ... 14) |

| | |
|---|---|
| ● at AWG cables stranded | 1x (20 ... 14) |
| **connectable conductor cross-section** | |
| ● solid | 0.25 ... 2.5 mm² |
| ● finely stranded with core end processing | 0.25 ... 1.5 mm² |
| ● finely stranded without core end processing | 0.25 ... 2.5 mm² |
| **AWG number as coded connectable conductor cross section** | |
| ● solid | 20 ... 14 |
| ● stranded | 20 ... 14 |

## Installation/ mounting/ dimensions

| | |
|---|---|
| **mounting position** | any |
| **fastening method** | snap-on mounting |
| **height** | 93 mm |
| **width** | 6.2 mm |
| **depth** | 72.5 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 |

## Ambient conditions

| | |
|---|---|
| installation altitude at height above sea level maximum | 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 % |

## Certificates/ approvals

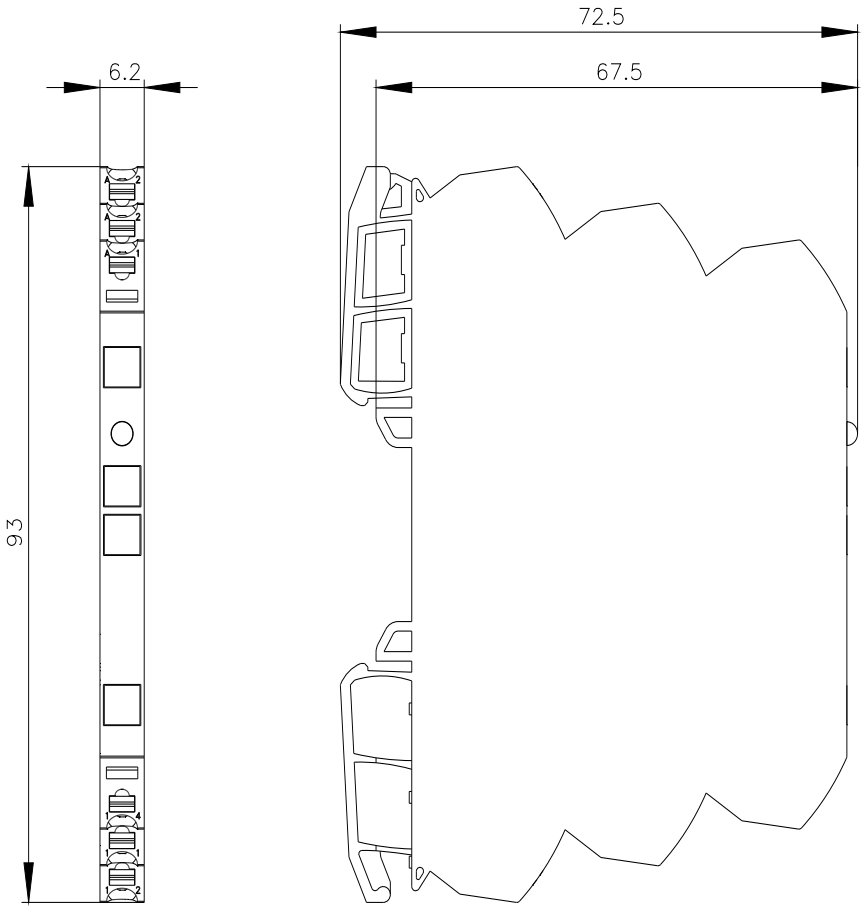
| General Product Approval | | | | | EMC |
|---|---|---|---|---|---|
| CSA | CCC | Confirmation | UL | EAC | RCM |

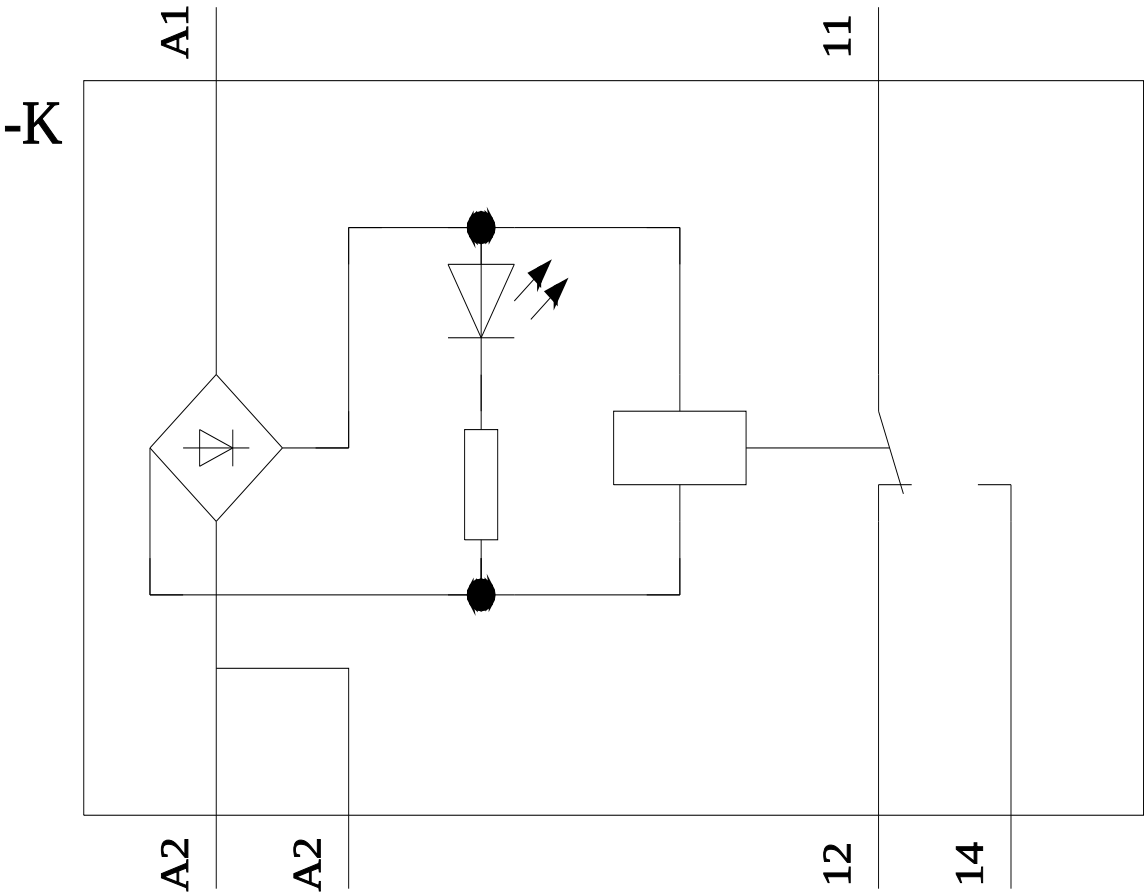
| Declaration of Conformity | Test Certificates | Marine / Shipping | other |
|---|---|---|---|
| CE EG-Konf. UKCA | Type Test Certificates/Test Report | DNV-GL | Confirmation |

## Further information

**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=3RQ3018-2AF00

**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ3018-2AF00
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3RQ3018-2AF00
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ3018-2AF00&lang=en
**Characteristic: Derating**
https://support.industry.siemens.com/cs/ww/en/ps/3RQ3018-2AF00/manual






**last modified:** 5/6/2021