SIEMENS

## Data sheet 3RQ3018-1AF00

Output coupler Relay coupler, 1 change-over contact 230 V AC/DC
Overall width 6.2 mm screw terminal 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 |
| **Shock resistance** | |
| • acc. to IEC 60068-2-27 | sinusoidal half-wave 15g / 11 ms |
| **Vibration resistance** | |
| • acc. 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 |
| **Electrical endurance (switching cycles)** | |
| • at AC-15 at 230 V typical | 100 000 |
| **Thermal current** | 6 A |
| **Reference code acc. to DIN EN 81346-2** | K |

| 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 |
| **Switch-on delay time** | |
| • at AC maximum | 9 ms |
| • at DC maximum | 8 ms |
| **Off-delay time** | 19 ms |
| **Closing delay** | |
| • at AC | 12 ms |

| | |
|---|---|
| • at DC | 8 ms |
| **Opening delay** | |
| • at AC | 20 ms |
| • at DC | 18 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 |
| **Operating current of auxiliary contacts at AC-15** | |
| • at 24 V | 3 A |
| • at 250 V | 3 A |
| **Operating 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 |

## Outputs

| | |
|---|---|
| **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** | |
| • acc. to IEC 60947-1 | ambience A (industrial sector) |
| **EMI immunity** | |
| • **acc. to IEC 60947-1** | corresponds to degree of severity 3 |

| | |
|---|---|
| **Conducted interference** | |
| • due to burst acc. to IEC 61000-4-4 | 2 kV |
| • due to conductor-earth surge acc. to IEC 61000-4-5 | 2 kV |
| • due to conductor-conductor surge acc. to IEC 61000-4-5 | 1 kV |
| **Field-bound parasitic coupling acc. to IEC 61000-4-3** | 10 V/m |
| **Electrostatic discharge acc. 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 current circuit | screw-type terminals |
| **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) |
| • at AWG conductors solid | 1 x (20 ... 14) |
| **Connectable conductor cross-section** | |
| • solid | 0.25 ... 2.5 mm² |
| • finely stranded with core end processing | 0.25 ... 1.5 mm² |
| **AWG number as coded connectable conductor cross section** | |
| • solid | 20 ... 14 |
| **Tightening torque** | |
| • with screw-type terminals | 0.5 ... 0.6 N·m |

## Installation/ mounting/ dimensions

| | |
|---|---|
| **Mounting position** | any |
| **Mounting type** | 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 |
| **Relative humidity** | |
| • during operation | 10 ... 95 % |

## Certificates/ approvals

| General Product Approval | | | | EMC | Declaration of Conformity |
|---|---|---|---|---|---|
| CCC | CSA | UL | EAC | RCM | EG-Konf. |

| Declaration of Conformity | Marine / Shipping | other |
|---|---|---|
| Miscellaneous | TYPE APPROVED PRODUCT DNV·GL DNVGL.COM/AF | Confirmation |

## Further information

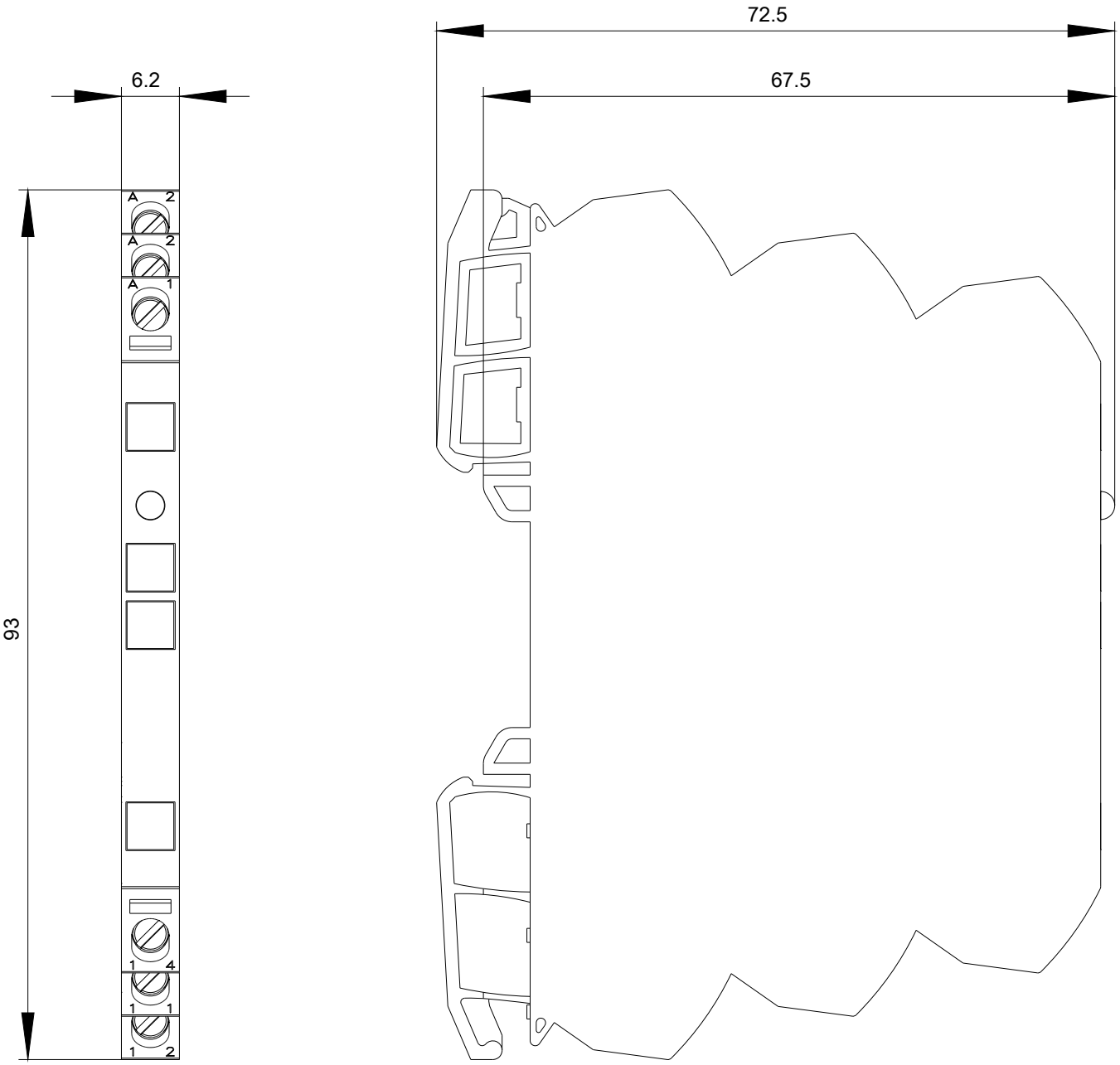
**Information- and Downloadcenter (Catalogs, Brochures,…)**
https://www.siemens.com/ic10

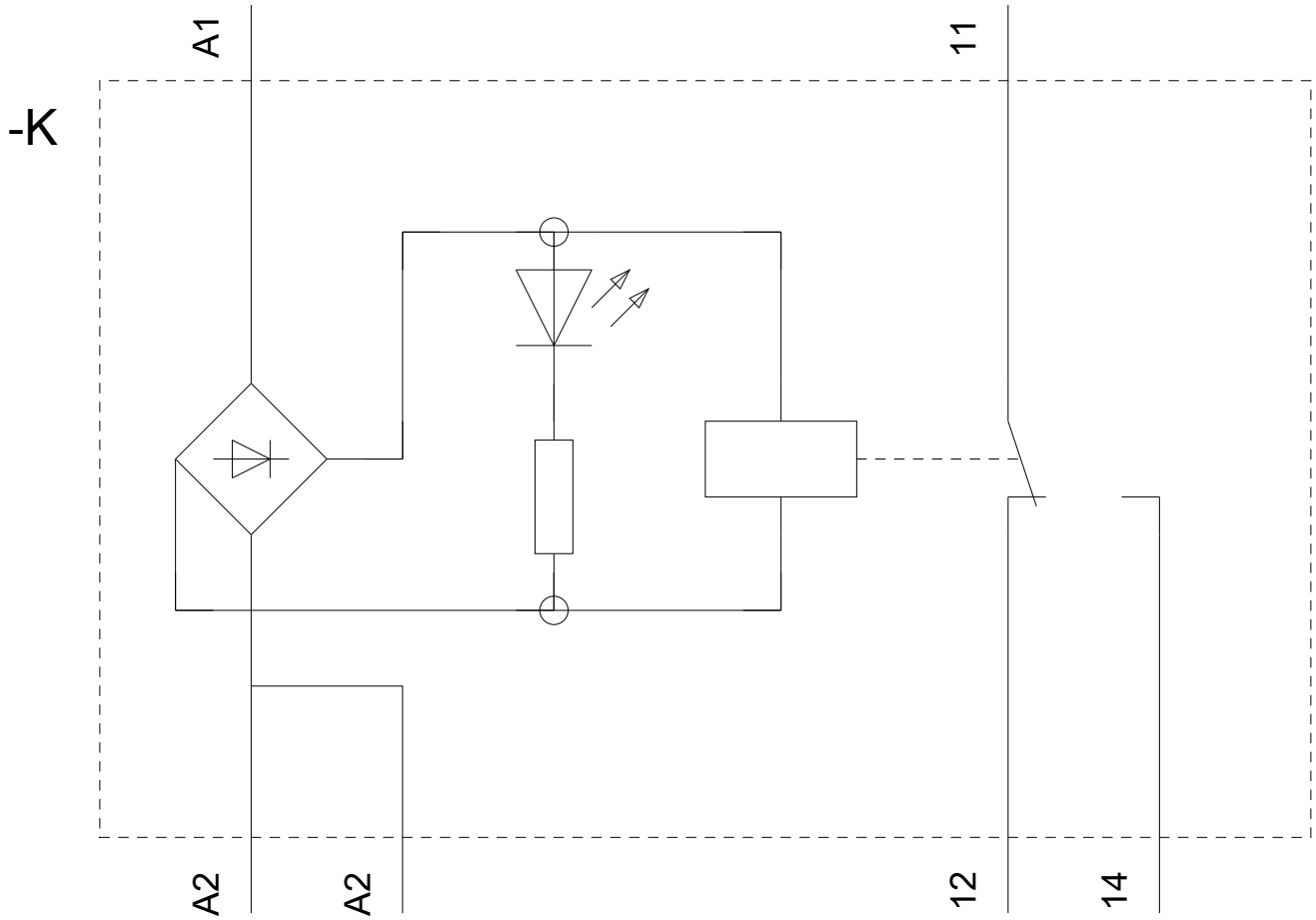
**Industry Mall (Online ordering system)**
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RQ3018-1AF00

**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ3018-1AF00

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3RQ3018-1AF00

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ3018-1AF00&lang=en



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