



Coupling relay in industrial enclosure 2 changeover contacts Wide voltage range 24 V to 240 V AC/DC Screw terminals

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| product brand name | SIRIUS |
| product designation | Coupling relay in industrial enclosure |
| product type designation | 3RQ2 |
| General technical data | |
| consumed active power | 4.5 W |
| insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value | 300 V |
| degree of pollution | 3 |
| surge voltage resistance rated value | 4 kV |
| maximum permissible voltage for safe isolation | |
| • between auxiliary and auxiliary circuit | 300 V |
| • between control and auxiliary circuit acc. to IEC 60947-1 | 300 V |
| protection class IP | IP20 |
| shock resistance | |
| • acc. to IEC 60068-2-27 | 11g / 15 ms |
| • for railway applications acc. to DIN EN 61373 | Category 1, Class B |
| vibration resistance | |
| • acc. to IEC 60068-2-6 | 10 ... 55 Hz: 0.35 mm |
| • for railway applications acc. to DIN EN 61373 | Category 1, Class B |
| 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 of the switching element with contacts maximum | 5 A |
| reference code acc. to IEC 81346-2 | K |
| Substance Prohibitance (Date) | 31.05.2018 00:00:00 |
| Control circuit/ Control | |
| control supply voltage 1 at AC | |
| • at 50 Hz | 24 ... 240 V |
| • at 60 Hz | 24 ... 240 V |
| control supply voltage 1 | |
| • at DC | 24 ... 240 V |
| operating range factor control supply voltage rated value at DC | |
| • initial value | 0.7 |
| • full-scale value | 1.1 |
| operating range factor control supply voltage rated | |

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| value at AC at 50 Hz | |
| • initial value | 0.7 |
| • full-scale value | 1.1 |
| operating range factor control supply voltage rated value at AC at 60 Hz | |
| • initial value | 0.7 |
| • full-scale value | 1.1 |
| ON-delay time | |
| • at AC maximum | 10 ms |
| • at DC maximum | 10 ms |
| OFF-delay time | 100 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 gL/gG: 6 A |
| Auxiliary circuit | |
| material of switching contacts | AgSnO2 |
| number of NC contacts for auxiliary contacts | 0 |
| number of NO contacts for auxiliary contacts | 0 |
| number of CO contacts for auxiliary contacts | 2 |
| contact reliability of auxiliary contacts | one incorrect switching operation of 100 million switching operations (17 V, 5 mA) |
| type of voltage | AC/DC |
| Outputs | |
| ampacity of the output relay at AC-15 | |
| • at 24 V at 50/60 Hz | 3 A |
| • at 110 V at 50/60 Hz | 3 A |
| • 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) |
| EMC 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 (line to ground) |
| • due to conductor-conductor surge acc. to IEC 61000-4-5 | 1 kV (line to line) |
| field-based interference acc. to IEC 61000-4-3 | 10 V/m |
| electrostatic discharge acc. to IEC 61000-4-2 | 4 kV contact discharging, 8 kV air discharging |
| Safety related data | |
| electromagnetic compatibility | IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4 |
| Connections/ Terminals | |
| product component removable terminal for auxiliary and control circuit | Yes |
| type of electrical connection | screw-type terminals |
| type of connectable conductor cross-sections | |
| • solid | 1x (0.5 ... 4.0 mm ²), 2x (0.5 ... 2.5 mm ²) |
| • finely stranded with core end processing | 1x (0.5 ... 4 mm ²), 2x (0.5 ... 1.5 mm ²) |
| • at AWG cables solid | 1x (20 ... 12), 2x (20 ... 14) |
| connectable conductor cross-section | |
| • solid | 0.5 ... 4 mm ² |
| • finely stranded with core end processing | 4 mm ² |
| • finely stranded without core end processing | 0.5 mm ² |
| AWG number as coded connectable conductor cross section | |

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|---|-----------------|
| • solid | 12 ... 20 |
| • stranded | 12 ... 20 |
| tightening torque with screw-type terminals | 0.6 ... 0.8 N·m |
| stripped length of the cable for auxiliary and control contacts | 10 mm |

Installation/ mounting/ dimensions

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|-------------------|--|
| mounting position | any |
| fastening method | screw and snap-on mounting onto 35 mm standard mounting rail |
| height | 100 mm |
| width | 22.5 mm |
| depth | 90 mm |

Ambient conditions

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|---|----------------|
| installation altitude at height above sea level maximum | 2 000 m |
| ambient temperature | |
| • during operation | -40 ... +60 °C |
| • during storage | -40 ... +80 °C |
| • during transport | -40 ... +80 °C |
| relative humidity during operation | 10 ... 95 % |

Certificates/ approvals

| | |
|--------------------------|-----|
| General Product Approval | EMC |
|--------------------------|-----|



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|---------------------------|-------------------|-------------------|
| Declaration of Conformity | Test Certificates | Marine / Shipping |
|---------------------------|-------------------|-------------------|

[Miscellaneous](#)



[Type Test Certificates/Test Report](#)



| | | |
|-------------------|-------|---------|
| Marine / Shipping | other | Railway |
|-------------------|-------|---------|



[Confirmation](#)

[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=3RQ2000-1BW00>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ2000-1BW00>

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

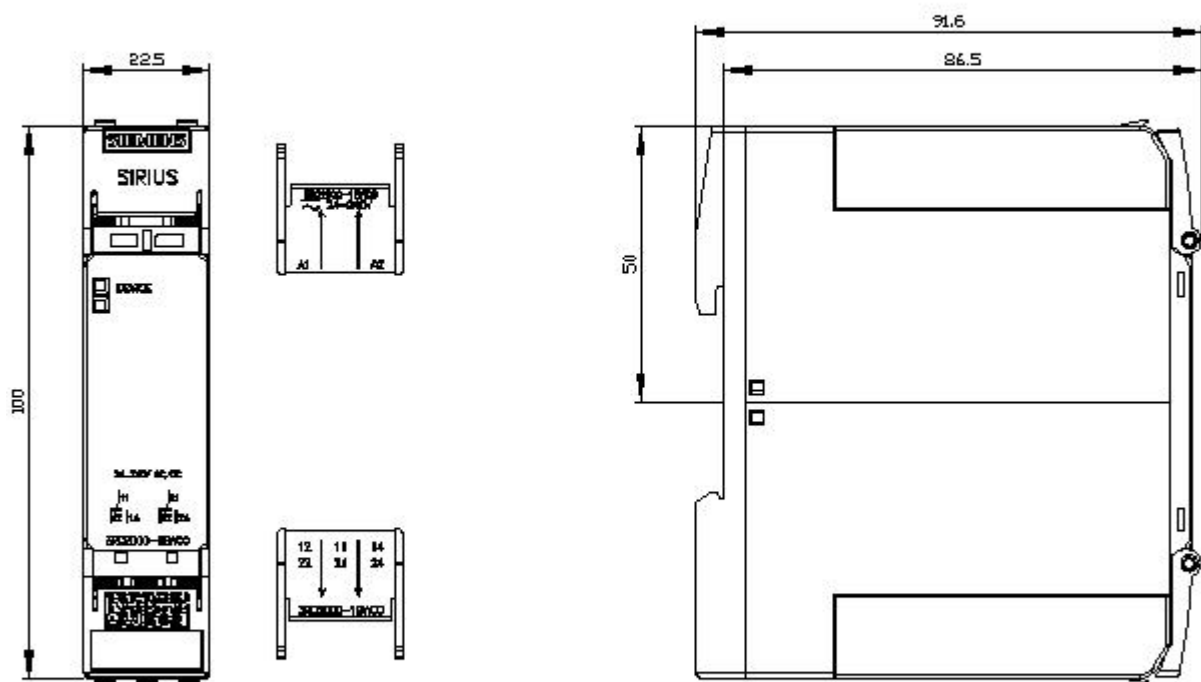
<https://support.industry.siemens.com/cs/ww/en/ps/3RQ2000-1BW00>

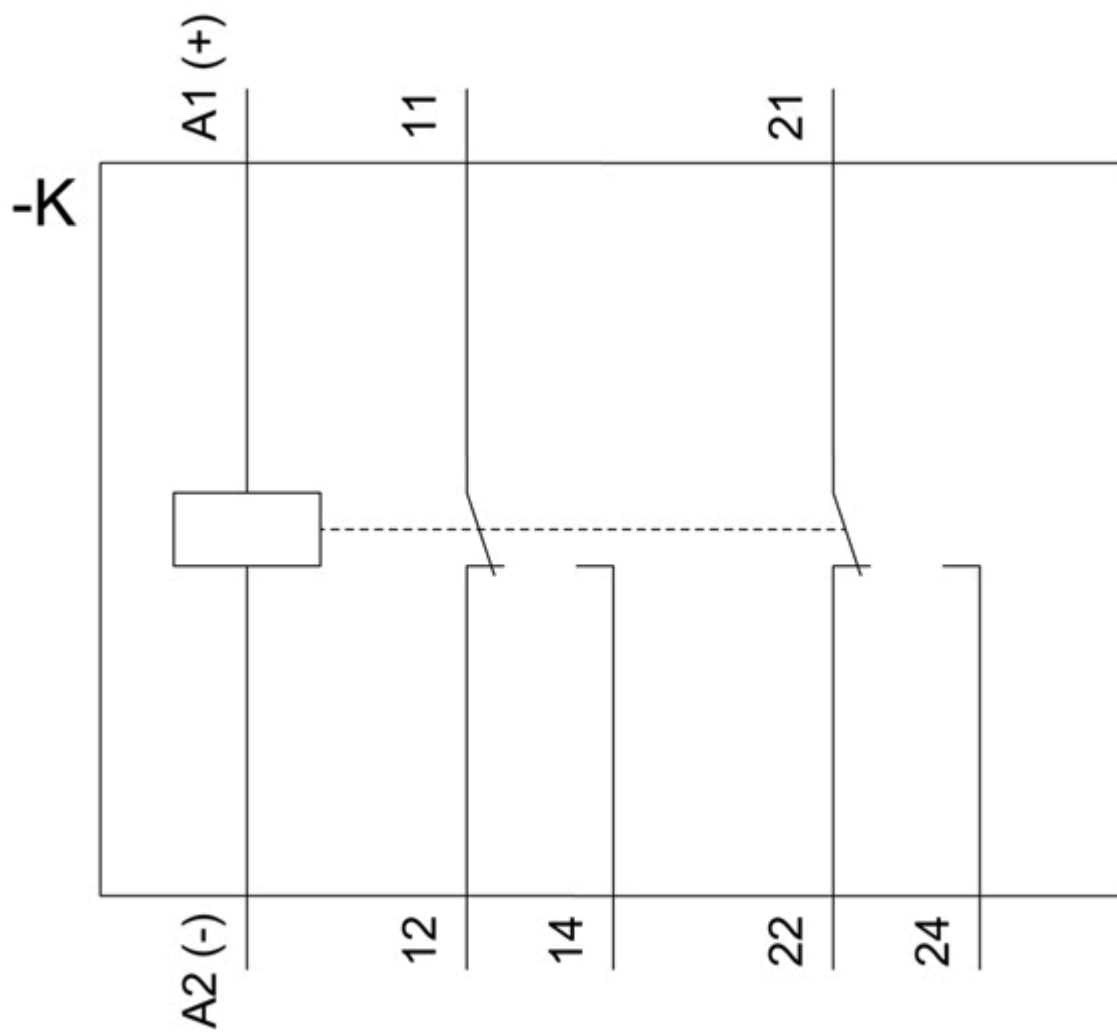
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ2000-1BW00&lang=en

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RQ2000-1BW00/manual>





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