



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

product brand name	SIRIUS
product designation	Coupling relay in industrial enclosure
product type designation	3RQ2
<b>General technical data</b>	
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 <ul style="list-style-type: none"> <li>between auxiliary and auxiliary circuit</li> <li>between control and auxiliary circuit according to IEC 60947-1</li> </ul>	300 V 300 V
protection class IP	IP20
shock resistance <ul style="list-style-type: none"> <li>according to IEC 60068-2-27</li> <li>for railway applications according to EN 61373</li> </ul>	11g / 15 ms Category 1, Class B
vibration resistance <ul style="list-style-type: none"> <li>according to IEC 60068-2-6</li> <li>for railway applications according to EN 61373</li> </ul>	10 ... 55 Hz: 0.35 mm Category 1, Class B
switching behavior	monostable
mechanical service life (operating cycles) typical	10 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
thermal current of the switching element with contacts maximum	5 A
reference code according to IEC 81346-2	K
Substance Prohibitance (Date)	05/31/2018
<b>Control circuit/ Control</b>	
control supply voltage 1 at AC <ul style="list-style-type: none"> <li>at 50 Hz</li> <li>at 60 Hz</li> </ul>	24 ... 240 V 24 ... 240 V
control supply voltage 1 <ul style="list-style-type: none"> <li>at DC</li> </ul>	24 ... 240 V
operating range factor control supply voltage rated value at DC <ul style="list-style-type: none"> <li>initial value</li> <li>full-scale value</li> </ul>	0.7 1.1
operating range factor control supply voltage rated value at AC at 50 Hz <ul style="list-style-type: none"> <li>initial value</li> <li>full-scale value</li> </ul>	0.7 1.1

<b>operating range factor control supply voltage rated value at AC at 60 Hz</b>	
• initial value	0.7
• full-scale value	1.1
<b>ON-delay time</b>	
• at AC maximum	10 ms
• at DC maximum	10 ms
<b>OFF-delay time</b>	100 ms
<b>design of the relay operating mechanism</b>	poled
<b>product component plug-in socket</b>	No
<b>Short-circuit protection</b>	
design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gL/gG: 6 A
<b>Auxiliary circuit</b>	
<b>material of switching contacts</b>	AgSnO2
<b>number of NC contacts for auxiliary contacts</b>	0
<b>number of NO contacts for auxiliary contacts</b>	0
number of CO contacts for auxiliary contacts	2
<b>contact reliability of auxiliary contacts</b>	one incorrect switching operation of 100 million switching operations (17 V, 5 mA)
<b>type of voltage</b>	AC/DC
<b>ampacity of the output relay at AC-15</b>	
• 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
<b>ampacity of the output relay at DC-13</b>	
• at 24 V	1 A
• at 125 V	0.2 A
• at 250 V	0.1 A
<b>Electromagnetic compatibility</b>	
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
<b>conducted interference</b>	
• due to burst according to IEC 61000-4-4	2 kV
• due to conductor-earth surge according to IEC 61000-4-5	2 kV (line to ground)
• due to conductor-conductor surge according to IEC 61000-4-5	1 kV (line to line)
<b>field-based interference according to IEC 61000-4-3</b>	10 V/m
<b>electrostatic discharge according to IEC 61000-4-2</b>	4 kV contact discharging, 8 kV air discharging
<b>Safety related data</b>	
<b>electromagnetic compatibility</b>	IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
<b>Connections/ Terminals</b>	
<b>product component removable terminal for auxiliary and control circuit</b>	Yes
<b>type of electrical connection</b>	spring-loaded terminal (push-in)
<b>type of connectable conductor cross-sections</b>	
• solid	0.5 ... 4 mm <sup>2</sup>
• finely stranded with core end processing	0.5 ... 2.5 mm <sup>2</sup>
• at AWG cables solid	20 ... 12
<b>connectable conductor cross-section</b>	
• solid	0.5 ... 4 mm <sup>2</sup>
• finely stranded with core end processing	2.5 mm <sup>2</sup>
• finely stranded without core end processing	0.5 mm <sup>2</sup>
<b>AWG number as coded connectable conductor cross section</b>	
• solid	12 ... 20
• stranded	12 ... 20
stripped length of the cable for auxiliary and control contacts	10 mm
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>fastening method</b>	screw and snap-on mounting onto 35 mm DIN rail
<b>height</b>	100 mm

width	22.5 mm
depth	90 mm
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
• 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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[Confirmation](#)



Declaration of Conformity	Test Certificates	Marine / Shipping
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[Type Test Certificates/Test Report](#)



Marine / Shipping	other	Railway
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[Confirmation](#)

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#### 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=3RQ2000-2BW00>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ2000-2BW00>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RQ2000-2BW00>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RQ2000-2BW00&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ2000-2BW00&lang=en)

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3RQ2000-2BW00/manual>



