## **SIEMENS**

Data sheet 3RQ1000-1HW00



Positively driven coupling relay in industrial enclosure 2 NO contacts / 2 NC contacts 24 V to 240 V AC/DC SIL 2 / PL c Screw terminals

product brand name	SIRIUS		
product designation	force-guided coupling relay		
design of the product	fail-safe up to SIL 2/PL c		
product type designation	3RQ1		
General technical data			
consumed active power	2.3 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		
protection class IP	IP20		
shock resistance			
<ul> <li>according to IEC 60068-2-27</li> </ul>	11g / 15 ms		
vibration resistance			
• according to IEC 60068-2-6	10 55 Hz: 0.35 mm		
operating frequency maximum	360 1/h		
switching behavior	monostable		
mechanical service life (operating cycles) typical	10 000 000		
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		
Product Function			
suitability for operation device connector 3ZY12	No		
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 value at AC at 50 Hz			
• initial value	0.85		
full-scale value	1.1		
operating range factor control supply voltage rated value at AC at 60 Hz			
initial value	0.85		
full-scale value	1.1		

ON-delay time			
<ul> <li>at AC maximum</li> </ul>	50 ms		
at DC maximum	50 ms		
OFF-delay time	60 ms		
product component plug-in socket	No		
Short-circuit protection			
design of the fuse link for short-circuit protection of the auxiliary	fuse gL/gG: 6 A		
switch required			
Auxiliary circuit			
material of switching contacts	AgSnO2 + Au flash		
number of NC contacts for auxiliary contacts	2		
number of NO contacts for auxiliary contacts	2		
number of CO contacts for auxiliary contacts	0		
type of voltage	AC/DC		
ampacity of the output relay at AC-15			
• at 250 V at 50/60 Hz	1.5 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			
<ul> <li>due to burst according to IEC 61000-4-4</li> </ul>	2 kV		
<ul> <li>due to conductor-earth surge according to IEC 61000-4-5</li> </ul>	2 kV (line to ground)		
<ul> <li>due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	1 kV (line to line)		
field-based interference according to IEC 61000-4-3	10 V/m		
electrostatic discharge according to IEC 61000-4-2	4 kV contact discharging, 8 kV air discharging		
Safety related data			
Safety Integrity Level (SIL) according to IEC 61508	2		
SIL Claim Limit (subsystem) according to EN 62061	2		
performance level (PL) according to EN ISO 13849-1	С		
PFHD			
<ul> <li>with high demand rate according to IEC 61508</li> </ul>	6E-7 1/h		
with low demand rate according to IEC 61508	0.004 1/h		
hardware fault tolorance according to IEC 64500			
hardware fault tolerance according to IEC 61508	0		
electromagnetic compatibility	0 IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4		
electromagnetic compatibility			
electromagnetic compatibility  Connections/ Terminals  product component removable terminal for auxiliary and	IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4		
electromagnetic compatibility  Connections/ Terminals  product component removable terminal for auxiliary and control circuit	IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4  Yes		
electromagnetic compatibility  Connections/ Terminals  product component removable terminal for auxiliary and control circuit  type of electrical connection	Yes screw-type terminals		
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width	22.5 mm
depth	90 mm
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul> <li>during operation</li> </ul>	-25 +60 °C
<ul> <li>during storage</li> </ul>	-40 +80 °C
during transport	-40 +80 °C
relative humidity during operation	10 95 %
Certificates/ approvals	

## **General Product Approval**



Confirmation









**EMC** 

**Declaration of Conformity** 

Marine / Shipping

other

Railway









Confirmation

Confirmation

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=3RQ1000-1HW00

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ1000-1HW00

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

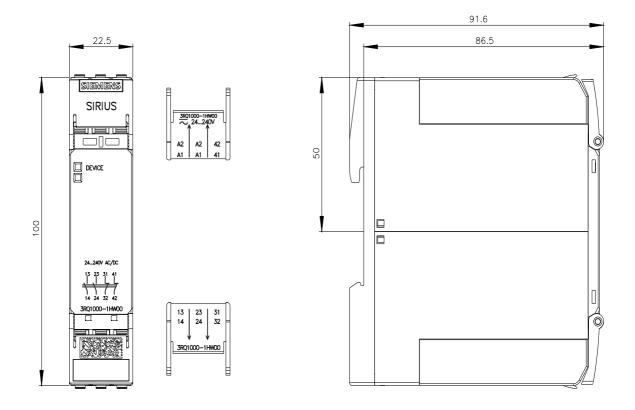
 $\underline{\text{https://support.industry.siemens.com/cs/ww/en/ps/3RQ1000-1HW00}}$ 

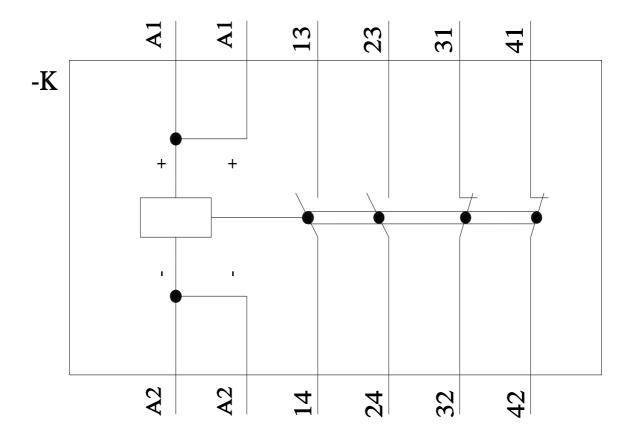
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RQ1000-1HW00&lang=en

**Characteristic: Derating** 

https://support.industry.siemens.com/cs/ww/en/ps/3RQ1000-1HW00/manual





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