SIEMENS

Data sheet

3RQ2000-1BW00



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

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 IEC60664 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 according to IEC 60947-1 	300 V
protection class IP	IP20
shock resistance	
 according to IEC 60068-2-27 	11g / 15 ms
 for railway applications according to EN 61373 	Category 1, Class B
vibration resistance	
 according to IEC 60068-2-6 	10 55 Hz: 0.35 mm
 for railway applications according to EN 61373 	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	К
Substance Prohibitance (Date)	05/31/2018
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	0.7
• full-scale value	1.1

operating range factor control supply voltage rated value at			
AC at 60 Hz	0.7		
• 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		
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	1A		
• 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 (line to ground)		
due to conductor-conductor surge according to IEC 61000-4-5	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			
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			
type of connectable conductor cross-sections solid 	1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²)		
	1x (0.5 4.0 mm²), 2x (0.5 2.5 mm²) 1x (0.5 4 mm²), 2x (0.5 1.5 mm²)		
• solid			
solidfinely stranded with core end processing	1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²)		
 solid finely stranded with core end processing at AWG cables solid 	1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²)		
solid inely stranded with core end processing at AWG cables solid connectable conductor cross-section solid	1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²) 1x (20 12), 2x (20 14) 0.5 4 mm ²		
solid inely stranded with core end processing at AWG cables solid connectable conductor cross-section solid inely stranded with core end processing	1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²) 1x (20 12), 2x (20 14) 0.5 4 mm ² 4 mm ²		
solid inely stranded with core end processing at AWG cables solid connectable conductor cross-section solid finely stranded with core end processing finely stranded without core end processing AWG number as coded connectable conductor cross	1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²) 1x (20 12), 2x (20 14) 0.5 4 mm ²		
 solid finely stranded with core end processing at AWG cables solid connectable conductor cross-section solid finely stranded with core end processing finely stranded without core end processing AWG number as coded connectable conductor cross section 	1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²) 1x (20 12), 2x (20 14) 0.5 4 mm ² 4 mm ² 0.5 mm ²		
 solid finely stranded with core end processing at AWG cables solid connectable conductor cross-section solid finely stranded with core end processing finely stranded without core end processing AWG number as coded connectable conductor cross section solid 	1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²) 1x (20 12), 2x (20 14) 0.5 4 mm ² 4 mm ² 0.5 mm ² 12 20		
• solid • finely stranded with core end processing • at AWG cables solid connectable conductor cross-section • solid • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • AWG number as coded connectable conductor cross section • solid • stranded	1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²) 1x (20 12), 2x (20 14) 0.5 4 mm ² 4 mm ² 0.5 mm ² 12 20 12 20		
 solid finely stranded with core end processing at AWG cables solid connectable conductor cross-section solid finely stranded with core end processing finely stranded without core end processing AWG number as coded connectable conductor cross section solid stranded stranded 	1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²) 1x (20 12), 2x (20 14) 0.5 4 mm ² 4 mm ² 0.5 mm ² 12 20 12 20 0.6 0.8 N·m		
• solid • finely stranded with core end processing • at AWG cables solid connectable conductor cross-section • solid • finely stranded with core end processing • finely stranded without core end processing • finely stranded without core end processing • AWG number as coded connectable conductor cross section • solid • stranded	1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²) 1x (20 12), 2x (20 14) 0.5 4 mm ² 4 mm ² 0.5 mm ² 12 20 12 20		
 solid finely stranded with core end processing at AWG cables solid connectable conductor cross-section solid finely stranded with core end processing finely stranded without core end processing AWG number as coded connectable conductor cross section solid stranded stranded tightening torque with screw-type terminals stripped length of the cable for auxiliary and control contacts 	1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²) 1x (20 12), 2x (20 14) 0.5 4 mm ² 4 mm ² 0.5 mm ² 12 20 12 20 0.6 0.8 N·m		
 solid finely stranded with core end processing at AWG cables solid connectable conductor cross-section solid finely stranded with core end processing finely stranded without core end processing AWG number as coded connectable conductor cross section solid stranded stranded tightening torque with screw-type terminals stripped length of the cable for auxiliary and control contacts 	1x (0.5 4 mm ²), 2x (0.5 1.5 mm ²) 1x (20 12), 2x (20 14) 0.5 4 mm ² 4 mm ² 0.5 mm ² 12 20 12 20 0.6 0.8 N·m 10 mm		

height			100 mm			
width			22.5 mm			
depth			90 mm			
Ambient conditions						
installation altitude at height above sea level maximum		2 000 m				
ambient temperature						
 during operation 	during operation		-40 +60 °C			
 during storage 	g storage		-40 +80 °C			
 during transport 			-40 +80 °C			
relative humidity during	relative humidity during operation		10 95 %			
Certificates/ approvals						
General Product App	roval				EMC	
	<u>Confirmation</u>			EHC	RCM	
Declaration of Confo	rmity	Test Certificates	Marine / Shipping			
CE EG-Konf.	UK CA	<u>Type Test Certif</u> ates/Test Repo		RINA	RMRS	
Marine / Shipping	other	Railway				
DNV-GL	Confirmation	<u>Confirmation</u>				
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 pa https://support.industry	nckaging . <u>siemens.com/cs/ww/en/v</u> vnloadcenter (Catalogs,	iew/109813875				

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

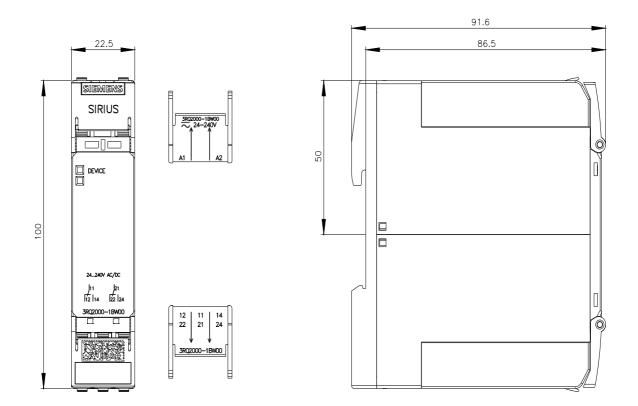
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RQ2000-1BW00

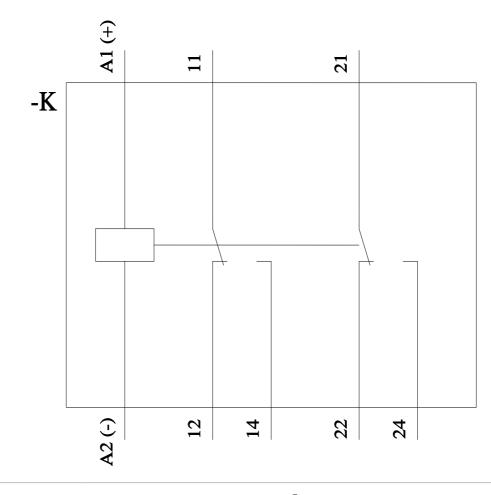
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

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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