

Data sheet

3RQ3053-1SG30



!!! phased-out product !!! the preferred successor is 3RQ4053-1SG30 output coupler optocoupler 1 NO transistor, 110-230 V AC/DC output max. 30 V DC, 3 A short-circuit-proof enclosure width 6.2 mm screw terminal thermal current 3 A

product brand name	SIRIUS
product category	SIRIUS 3RQ3 coupling relays in slim design
product designation	Coupling relays with semiconductor output (not plug-in)
design of the product	Output coupling link
product type designation	3RQ3
General technical data	
display version LED	Yes
product feature protective coating on printed-circuit board	No
product component	
• relay output	No
• semi-conductor output	Yes
consumed active power	0.3 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
flammability class of enclosure material	UL94 V-0
shock resistance	
• according to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
vibration resistance	
• according to IEC 60068-2-6	6 ... 150 Hz: 2 g
switching frequency	10 Hz
thermal current	3 A
reference code according to IEC 81346-2	K
Substance Prohibitance (Date)	03/25/2015
Net Weight	0.032 kg
Control circuit/ Control	
control supply voltage at AC	
• at 50 Hz rated value	110 ... 230 V
• at 60 Hz rated value	110 ... 230 V
control supply voltage frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
control supply voltage at DC rated value	110 ... 230 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	
• initial value	0.7
• full-scale value	1.1
minimum switching voltage when switching on	74 V
maximum switching voltage when switching off	20 V
ON-delay time	
• at AC maximum	3 ms
• at DC maximum	2 ms
OFF-delay time maximum	10 ms
Mechanical data	
product component plug-in socket	No
Auxiliary circuit	
type of switching contact	NO contact
number of NO contacts for auxiliary contacts	1
Main circuit	
type of voltage	AC/DC
Inputs/ Outputs	
property of the output short-circuit proof	Yes
switching voltage of the semiconductor output at DC	10 ... 30 V
ampacity of the semiconductor output at DC	1 mA ... 3 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
• due to conductor-conductor surge according to IEC 61000-4-5	1 kV
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according 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 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 mm ²)
• finely stranded with core end processing	1x (0.25 ... 1.5 mm ²)
• for AWG cables solid	1x (20 ... 14)
connectable conductor cross-section	
• solid	0.25 ... 2.5 mm ²
• finely stranded with core end processing	0.25 ... 1.5 mm ²
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
fastening method	snap-on mounting
height	93 mm
width	6.2 mm
depth	72.5 mm
required spacing	

• with side-by-side mounting	0 mm
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
• for grounded parts	0 mm
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— at the side	0 mm
— downwards	0 mm
• for live parts	0 mm
— 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
ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-40 ... +85 °C
• during transport	-40 ... +85 °C
relative humidity during operation	10 ... 95 %

Approvals Certificates

Environment	General Product Approval
Environmental Confirmations	    
EMV	 
Test Certificates	Type Test Certificates/Test Report
Maritime application	
other	 Confirmation

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3RQ3053-1SG30>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ3053-1SG30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RQ3053-1SG30>

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

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ3053-1SG30&lang=en



