SIEMENS

Data sheet   **3RQ3053-1SG30**

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 3A

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
protection class IP	IP20
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
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	10 ms
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 mm²)
● finely stranded with core end processing	1x (0.25 ... 1.5 mm²)
● for AWG cables solid	1 x (20 ... 14)
connectable conductor cross-section	
● solid	0.25 ... 2.5 mm²
● finely stranded with core end processing	0.25 ... 1.5 mm²
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	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm

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— downwards	0 mm
— at the side	0 mm
● for grounded parts	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— at the side	0 mm
— downwards	0 mm
● for live parts	
— 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 %

Certificates/ approvals

General Product Approval					EMC
CSA	Confirmation	CCC	UL	EAC	RCM

Declaration of Conformity		Test Certificates	Marine / Shipping	other
UKCA	CE EG-Konf.	Type Test Certificates/Test Report	DNV·GL	Confirmation

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=3RQ3053-1SG30
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ3053-1SG30
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
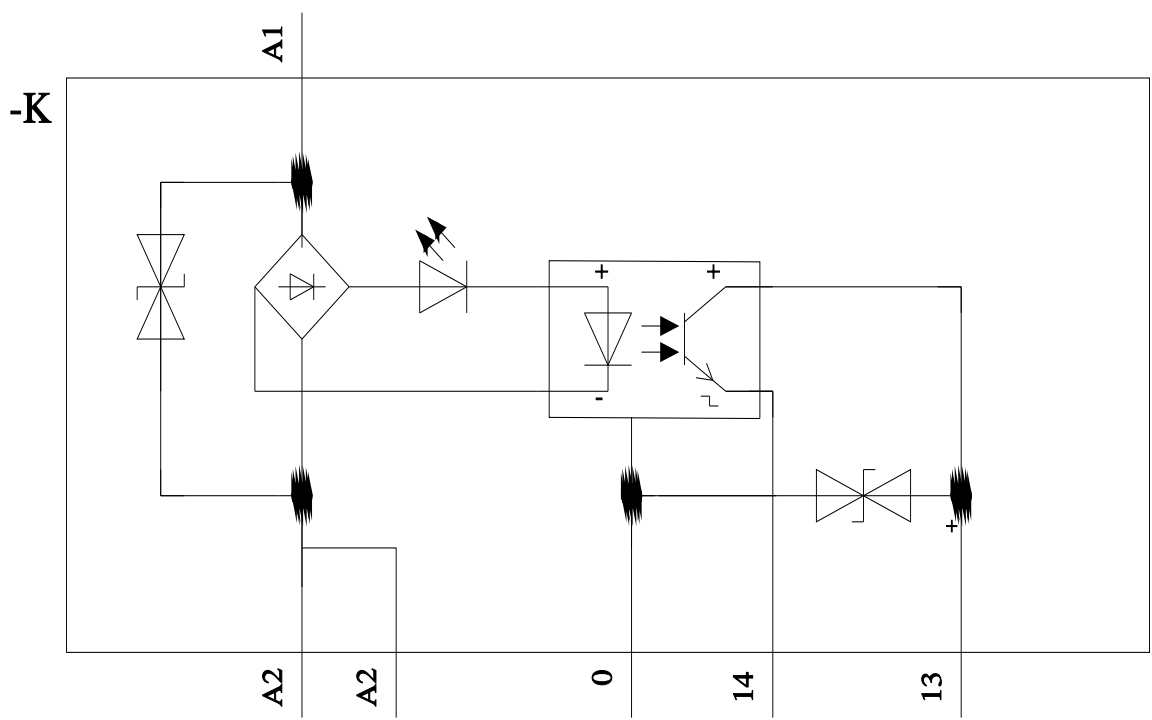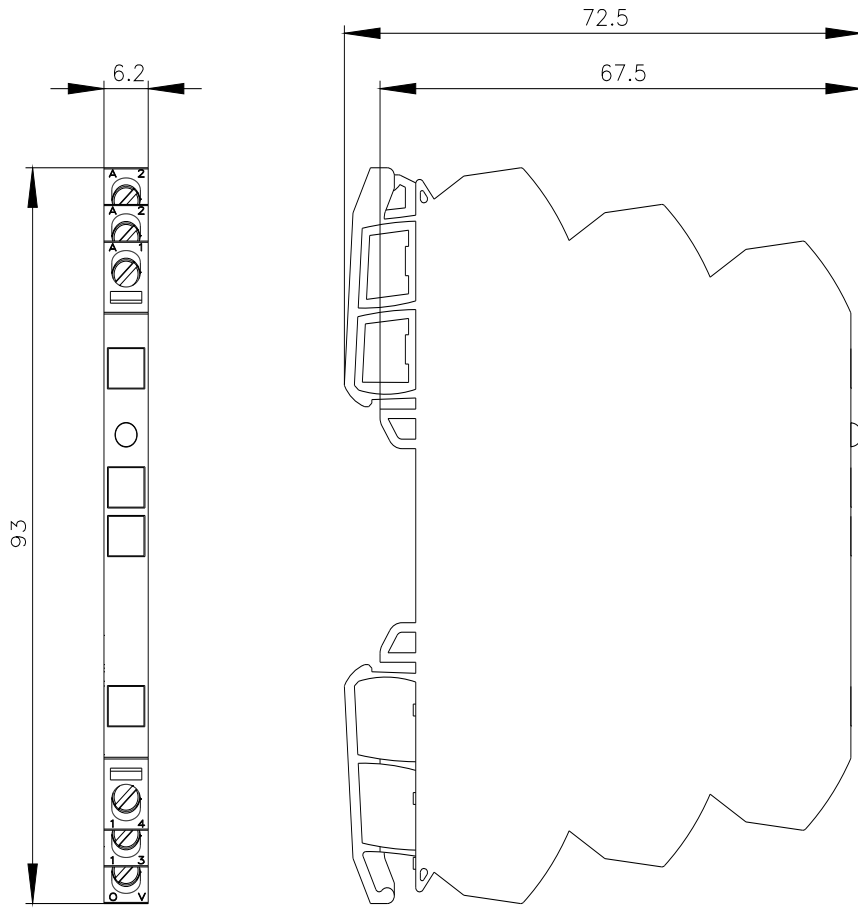https://support.industry.siemens.com/cs/ww/en/ps/3RQ3053-1SG30
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ3053-1SG30&lang=en
Characteristic: Derating
https://support.industry.siemens.com/cs/ww/en/ps/3RQ3053-1SG30/manual

72.5

67.5

6.2

93

A2

A2

A1

-K

0

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