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
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	

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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 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
— 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 %

Approvals Certificates

General Product Approval

CSA	UKCA	CE EG-Konf.	Confirmation	CCC	UL

General Product Approval	EMV		Test Certificates	Marine / Shipping	other
EAC	RCM	KC	Type Test Certificates/Test Report	DNV	Confirmation

Environment

Environmental Confirmations

Further information

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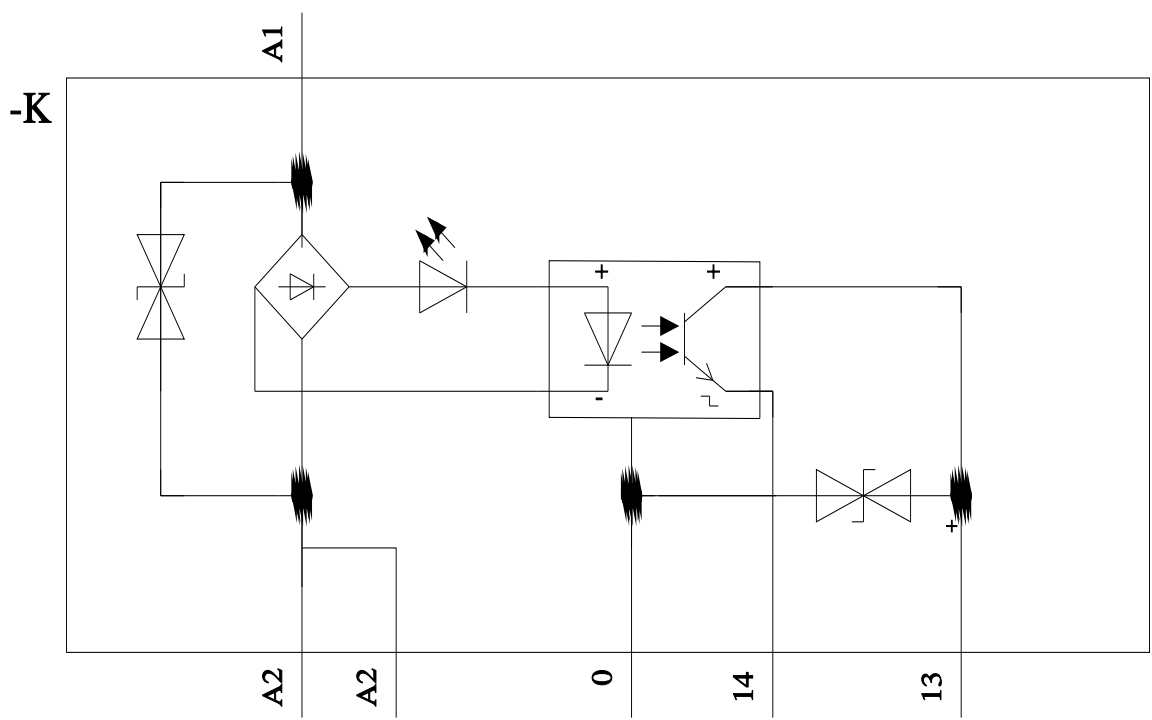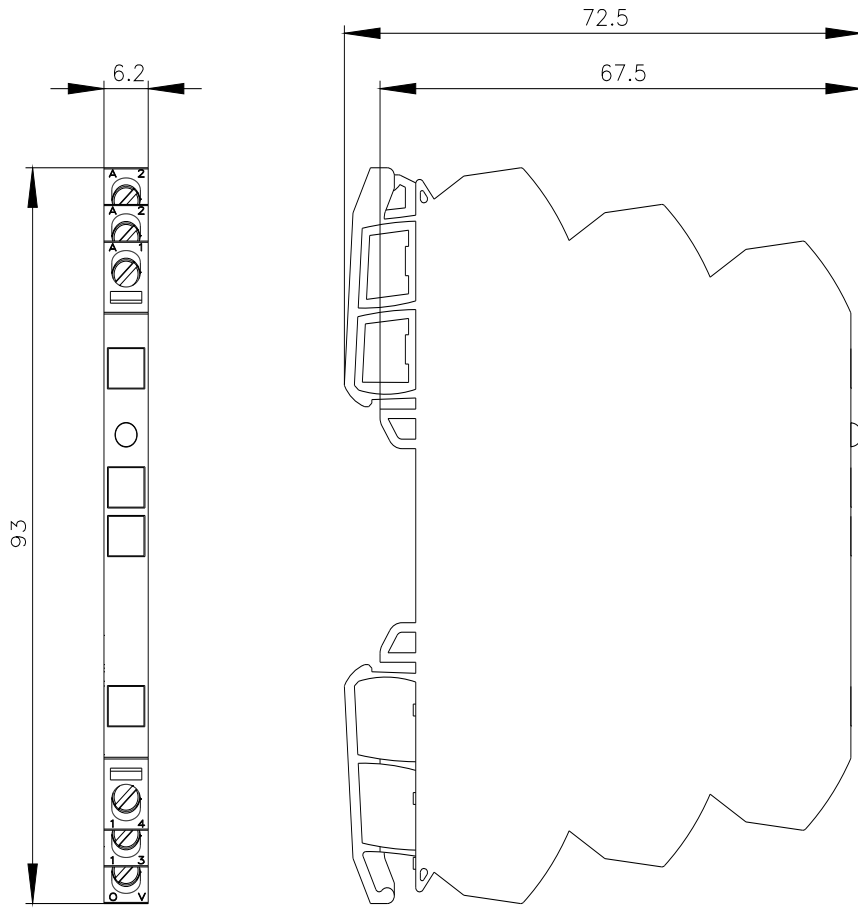https://support.industry.siemens.com/cs/ww/en/ps/3RQ3053-1SG30

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
A1

-K

A1

A2

A2

0

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