## **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 component		
<ul><li>relay output</li></ul>	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	
shock resistance		
• acc. to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms	
vibration resistance		
• acc. to IEC 60068-2-6	6 150 Hz: 2 g	
switching frequency	10 Hz	
thermal current	3 A	
reference code acc. to IEC 81346-2	K	
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
switch 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
Outputs	
ampacity of the semiconductor output at DC	1 mA 3 A
Electromagnetic compatibility	
EMC emitted interference acc. to IEC 60947-1	ambience A (industrial sector)
EMC immunity acc. to IEC 60947-1	corresponds to degree of severity 3
conducted interference	, , , , , , , , , , , , , , , , , , , ,
due to burst acc. to IEC 61000-4-4	2 kV
• due to conductor-earth surge acc. to IEC 61000-4-5	2 kV
due to conductor-conductor surge acc. to IEC	1 kV
61000-4-5	
field-based interference acc. to IEC 61000-4-3	10 V/m
electrostatic discharge acc. to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
Display	
Display display version as status display by LED	LED green
	LED green
display version as status display by LED	LED green
display version as status display by LED  Connections/ Terminals	
display version as status display by LED  Connections/ Terminals  product function removable terminal	No
display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection for auxiliary and control circuit	No
display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection for auxiliary and control circuit  wire length	No screw-type terminals
display version as status display by LED  Connections/ Terminals  product function removable terminal type of electrical connection for auxiliary and control circuit wire length  • at AC maximum	No screw-type terminals 500 m
display version as status display by LED  Connections/ Terminals  product function removable terminal type of electrical connection for auxiliary and control circuit wire length  at AC maximum  at DC maximum	No screw-type terminals 500 m
display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection for auxiliary and control circuit  wire length  • at AC maximum  • at DC maximum  type of connectable conductor cross-sections	No screw-type terminals 500 m 1 000 m
display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection for auxiliary and control circuit  wire length  • at AC maximum  • at DC maximum  type of connectable conductor cross-sections  • solid	No screw-type terminals  500 m 1 000 m  1x (0.25 2.5 mm²)
display version as status display by LED  Connections/ Terminals  product function removable terminal type of electrical connection for auxiliary and control circuit wire length  • at AC maximum • at DC maximum  type of connectable conductor cross-sections • solid • finely stranded with core end processing	No screw-type terminals  500 m 1 000 m  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²) 1 x (20 14)
display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection for auxiliary and control circuit  wire length  at AC maximum  at DC maximum  type of connectable conductor cross-sections  solid  finely stranded with core end processing  at AWG cables solid  connectable conductor cross-section solid	No screw-type terminals  500 m 1 000 m  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²)
display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection for auxiliary and control circuit  wire length  at AC maximum  at DC maximum  type of connectable conductor cross-sections  solid  finely stranded with core end processing  at AWG cables solid	No screw-type terminals  500 m 1 000 m  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²) 1 x (20 14) 0.25 2.5 mm²
display version as status display by LED  Connections/ Terminals  product function removable terminal type of electrical connection for auxiliary and control circuit wire length  at AC maximum  at DC maximum  type of connectable conductor cross-sections  solid  finely stranded with core end processing  at AWG cables solid  connectable conductor cross-section solid  connectable conductor cross-section finely stranded	No screw-type terminals  500 m 1 000 m  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²) 1 x (20 14) 0.25 2.5 mm²
display version as status display by LED  Connections/ Terminals  product function removable terminal type of electrical connection for auxiliary and control circuit wire length	No screw-type terminals  500 m 1 000 m  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²) 1 x (20 14) 0.25 2.5 mm² 0.25 1.5 mm²
display version as status display by LED  Connections/ Terminals  product function removable terminal type of electrical connection for auxiliary and control circuit wire length  at AC maximum  at DC maximum  type of connectable conductor cross-sections  solid  finely stranded with core end processing  at AWG cables solid  connectable conductor cross-section solid  connectable conductor cross-section finely stranded with core end processing  AWG number as coded connectable conductor cross section solid	No screw-type terminals  500 m 1 000 m  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²) 1 x (20 14) 0.25 2.5 mm² 0.25 1.5 mm²
display version as status display by LED  Connections/ Terminals  product function removable terminal type of electrical connection for auxiliary and control circuit wire length	No screw-type terminals  500 m 1 000 m  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²) 1 x (20 14) 0.25 2.5 mm² 0.25 1.5 mm² 20 14
display version as status display by LED  Connections/ Terminals  product function removable terminal type of electrical connection for auxiliary and control circuit wire length  at AC maximum  at DC maximum  type of connectable conductor cross-sections  solid  finely stranded with core end processing  at AWG cables solid  connectable conductor cross-section solid  connectable conductor cross-section finely stranded with core end processing  AWG number as coded connectable conductor cross section solid  tightening torque with screw-type terminals  Installation/ mounting/ dimensions	No screw-type terminals  500 m 1 000 m  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²) 1 x (20 14) 0.25 2.5 mm² 0.25 1.5 mm² 2 0.25 1.5 mm²
display version as status display by LED  Connections/ Terminals  product function removable terminal type of electrical connection for auxiliary and control circuit wire length  at AC maximum  at DC maximum  type of connectable conductor cross-sections  solid  finely stranded with core end processing  at AWG cables solid  connectable conductor cross-section solid  connectable conductor cross-section finely stranded with core end processing  AWG number as coded connectable conductor cross section solid  tightening torque with screw-type terminals  Installation/ mounting/ dimensions  mounting position	No screw-type terminals  500 m 1 000 m  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²) 1 x (20 14) 0.25 2.5 mm² 0.25 1.5 mm² 2 0.25 1.5 mm² any
display version as status display by LED  Connections/ Terminals  product function removable terminal type of electrical connection for auxiliary and control circuit wire length  at AC maximum  at DC maximum  type of connectable conductor cross-sections  solid  finely stranded with core end processing  at AWG cables solid  connectable conductor cross-section solid  connectable conductor cross-section finely stranded with core end processing  AWG number as coded connectable conductor cross section solid  tightening torque with screw-type terminals  Installation/ mounting/ dimensions  mounting position fastening method	No screw-type terminals  500 m 1 000 m  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²) 1 x (20 14) 0.25 2.5 mm² 0.25 1.5 mm² 2 0.25 1.5 mm² any snap-on mounting
display version as status display by LED  Connections/ Terminals  product function removable terminal type of electrical connection for auxiliary and control circuit wire length	No screw-type terminals  500 m 1 000 m  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²) 1 x (20 14) 0.25 2.5 mm² 0.25 1.5 mm² 2 0.25 1.5 mm²  20 14  0.5 0.6 N·m
display version as status display by LED  Connections/ Terminals  product function removable terminal type of electrical connection for auxiliary and control circuit wire length	No screw-type terminals  500 m 1 000 m  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²) 1 x (20 14) 0.25 2.5 mm² 0.25 1.5 mm² 20 14  0.5 0.6 N·m  any snap-on mounting 93 mm 6.2 mm
display version as status display by LED  Connections/ Terminals  product function removable terminal type of electrical connection for auxiliary and control circuit wire length	No screw-type terminals  500 m 1 000 m  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²) 1 x (20 14) 0.25 2.5 mm² 0.25 1.5 mm² 2 0.25 1.5 mm²  20 14  0.5 0.6 N·m
display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection for auxiliary and control circuit  wire length  • at AC maximum  • at DC maximum  type of connectable conductor cross-sections  • solid  • finely stranded with core end processing  • at AWG cables solid  • connectable conductor cross-section solid  • connectable conductor cross-section finely stranded with core end processing  • AWG number as coded connectable conductor cross section solid  • tightening torque with screw-type terminals  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing	No screw-type terminals  500 m 1 000 m  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²) 1 x (20 14) 0.25 2.5 mm² 0.25 1.5 mm² 20 14  0.5 0.6 N·m  any snap-on mounting 93 mm 6.2 mm
display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection for auxiliary and control circuit  wire length  at AC maximum  at DC maximum  type of connectable conductor cross-sections  solid  finely stranded with core end processing  at AWG cables solid  connectable conductor cross-section solid  connectable conductor cross-section finely stranded with core end processing  AWG number as coded connectable conductor cross section solid  tightening torque with screw-type terminals  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  with side-by-side mounting	No screw-type terminals  500 m 1 000 m  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²) 1x (20 14) 0.25 2.5 mm² 0.25 1.5 mm²  20 14  0.5 0.6 N·m  any snap-on mounting 93 mm 6.2 mm 72.5 mm
display version as status display by LED  Connections/ Terminals  product function removable terminal  type of electrical connection for auxiliary and control circuit  wire length  • at AC maximum  • at DC maximum  type of connectable conductor cross-sections  • solid  • finely stranded with core end processing  • at AWG cables solid  • connectable conductor cross-section solid  • connectable conductor cross-section finely stranded with core end processing  • AWG number as coded connectable conductor cross section solid  • tightening torque with screw-type terminals  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing	No screw-type terminals  500 m 1 000 m  1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²) 1 x (20 14) 0.25 2.5 mm² 0.25 1.5 mm² 20 14  0.5 0.6 N·m  any snap-on mounting 93 mm 6.2 mm

— upwards	0 mm		
— downwards	0 mm		
— at the side	0 mm		
<ul> <li>for grounded parts</li> </ul>			
— forwards	0 mm		
— backwards	0 mm		
— upwards	0 mm		
— at the side	0 mm		
— downwards	0 mm		
<ul> <li>for live parts</li> </ul>			
— 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		
<ul> <li>ambient temperature during operation</li> </ul>	-25 +60 °C		
<ul> <li>ambient temperature during storage</li> </ul>	-40 +85 °C		
ambient temperature during transport	-40 +85 °C		
relative humidity during operation	10 95 %		
Certificates/ approvals			
General Product Approval		EMC	













**Declaration of Conformity** 

Marine / Shipping

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**Miscellaneous** 





Confirmation

## Further information

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,...)

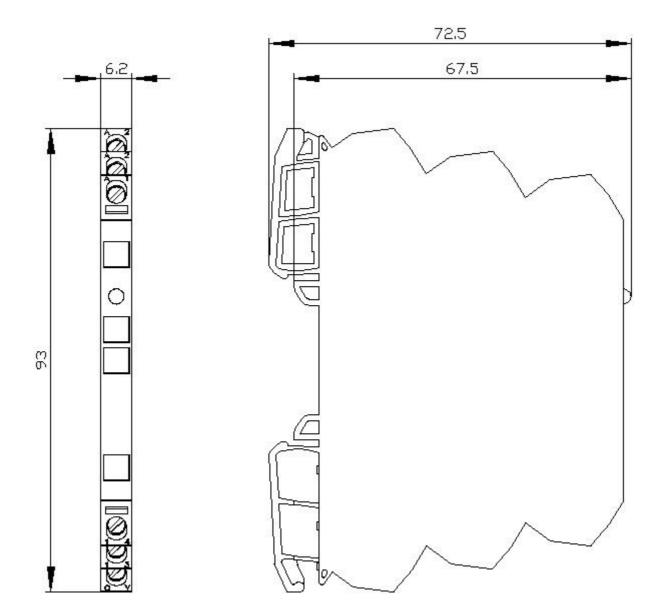
https://support.industry.siemens.com/cs/ww/en/ps/3RQ3053-1SG30

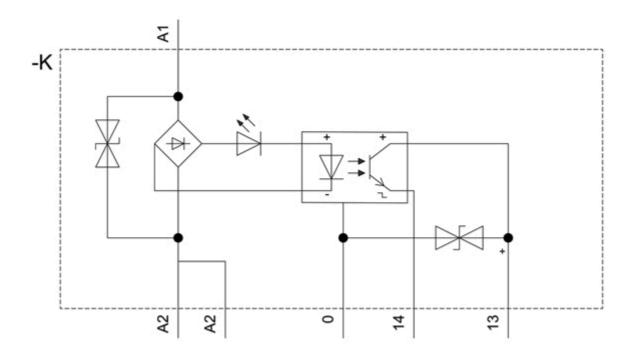
 $Image\ database\ (product\ images, 2D\ dimension\ drawings, 3D\ models, device\ circuit\ diagrams,\ EPLAN\ macros, ...)$ 

 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RQ3053-1SG30\&lang=en}}$ 

**Characteristic: Derating** 

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





last modified: 8/11/2020 🖸