## **SIEMENS**

Data sheet 3RQ3118-1AE01



Output coupler with plug-in Relay, 1 CO, hard gold-plated Screw terminal 115 V AC/DC Enclosure width 6.2 mm Thermal current 6A

product brand name	SIRIUS
product category	SIRIUS 3RQ3 coupling relays in slim design
product designation	Coupling relays with plug-in relay
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>	Yes
<ul> <li>semi-conductor output</li> </ul>	No
consumed active power	0.5 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
maximum permissible voltage for safe isolation	
between control and auxiliary circuit	300 V
percental drop-out voltage related to the input voltage	9.6 %
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
operating frequency maximum	72 000 1/h
switching behavior	monostable
mechanical service life (switching cycles) typical	10 000 000
thermal current	6 A
reference code acc. to IEC 81346-2	K
Control circuit/ Control	
control supply voltage at AC	
• at 50 Hz rated value	115 V
at 60 Hz rated value	115 V
control supply voltage frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
control supply voltage at DC	
rated value	115 V
operating range factor control supply voltage rated value at DC	

initial value	0.8
full-scale value	1.1
operating range factor control supply voltage rated value at AC at 50 Hz	
• initial value	0.8
• full-scale value	1.1
operating range factor control supply voltage rated value at AC at 60 Hz	
• initial value	0.8
• full-scale value	1.1
switch ON delay time	
at AC maximum	8 ms
at DC maximum	6 ms
OFF delay time	17 ms
design of the relay operating mechanism	poled
product component plug-in socket	Yes
Short-circuit protection	
design of the fuse link for short-circuit protection of the auxiliary switch required	fuse gG: 4 A
Auxiliary circuit	
type of switching contact	Changeover contact
material of switching contacts	AgSnO2-HTV
number of CO contacts for auxiliary contacts	1
operational current of auxiliary contacts at AC-15	
• at 24 V	3 A
● at 250 V	3 A
operational current of auxiliary contacts at DC-13	
● at 24 V	1 A
• at 125 V	0.2 A
● at 250 V	0.1 A
contact reliability of auxiliary contacts	one incorrect switching operation of 100 million switching operations (5 V, 1 mA) $$
Main circuit	
type of voltage	AC/DC
Inputs/ Outputs	
property of the output short-circuit proof	No
Outputs	
ampacity of the output relay at AC-15 at 250 V at 50/60 Hz	
	3 A
ampacity of the output relay at DC-13	3 A
ampacity of the output relay at DC-13  • at 24 V	1 A
• at 24 V	1 A
<ul><li>at 24 V</li><li>at 125 V</li><li>at 250 V</li></ul>	1 A 0.2 A
<ul><li>at 24 V</li><li>at 125 V</li></ul>	1 A 0.2 A
<ul> <li>at 24 V</li> <li>at 125 V</li> <li>at 250 V</li> </ul> Electromagnetic compatibility	1 A 0.2 A 0.1 A
<ul> <li>at 24 V</li> <li>at 125 V</li> <li>at 250 V</li> </ul> Electromagnetic compatibility EMC emitted interference acc. to IEC 60947-1	1 A 0.2 A 0.1 A ambience A (industrial sector)
<ul> <li>at 24 V</li> <li>at 125 V</li> <li>at 250 V</li> </ul> Electromagnetic compatibility EMC emitted interference acc. to IEC 60947-1 EMC immunity acc. to IEC 60947-1	1 A 0.2 A 0.1 A ambience A (industrial sector)
at 24 V  at 125 V  at 250 V  Electromagnetic compatibility  EMC emitted interference acc. to IEC 60947-1  EMC immunity acc. to IEC 60947-1  conducted interference	1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3
at 24 V at 125 V at 250 V  Electromagnetic compatibility  EMC emitted interference acc. to IEC 60947-1  EMC immunity acc. to IEC 60947-1  conducted interference due to burst acc. to IEC 61000-4-4	1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV
at 24 V  at 125 V  at 250 V  Electromagnetic compatibility  EMC emitted interference acc. to IEC 60947-1  EMC immunity acc. to IEC 60947-1  conducted interference  at the due to burst acc. to IEC 61000-4-4  at the due to conductor-earth surge acc. to IEC 61000-4-5  at the due to conductor-conductor surge acc. to IEC	1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV
at 24 V at 125 V at 250 V  Electromagnetic compatibility  EMC emitted interference acc. to IEC 60947-1  EMC immunity acc. to IEC 60947-1  conducted interference due to burst acc. to IEC 61000-4-4 ature to conductor-earth surge acc. to IEC 61000-4-5 ature to conductor-conductor surge acc. to IEC 61000-4-5	1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV 1 kV
at 24 V at 125 V at 250 V  Electromagnetic compatibility  EMC emitted interference acc. to IEC 60947-1  EMC immunity acc. to IEC 60947-1  conducted interference due to burst acc. to IEC 61000-4-4 due to conductor-earth surge acc. to IEC 61000-4-5 due to conductor-conductor surge acc. to IEC 61000-4-5 field-based interference acc. to IEC 61000-4-3	1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV 1 kV
at 24 V at 125 V at 250 V  Electromagnetic compatibility  EMC emitted interference acc. to IEC 60947-1  EMC immunity acc. to IEC 60947-1  conducted interference due to burst acc. to IEC 61000-4-4 due to conductor-earth surge acc. to IEC 61000-4-5 due to conductor-conductor surge acc. to IEC 61000-4-5 field-based interference acc. to IEC 61000-4-3 electrostatic discharge acc. to IEC 61000-4-2	1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV 1 kV
at 24 V at 125 V at 250 V  Electromagnetic compatibility  EMC emitted interference acc. to IEC 60947-1  EMC immunity acc. to IEC 60947-1  conducted interference due to burst acc. to IEC 61000-4-4 ature to conductor-earth surge acc. to IEC 61000-4-5 ature to conductor-conductor surge acc. to IEC 61000-4-5  field-based interference acc. to IEC 61000-4-3 electrostatic discharge acc. to IEC 61000-4-2  Display	1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge
at 24 V at 125 V at 250 V  Electromagnetic compatibility  EMC emitted interference acc. to IEC 60947-1  EMC immunity acc. to IEC 60947-1  conducted interference due to burst acc. to IEC 61000-4-4 due to conductor-earth surge acc. to IEC 61000-4-5 due to conductor-conductor surge acc. to IEC 61000-4-5 field-based interference acc. to IEC 61000-4-3 electrostatic discharge acc. to IEC 61000-4-2  Display display version as status display by LED	1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge
at 24 V at 125 V at 250 V  Electromagnetic compatibility  EMC emitted interference acc. to IEC 60947-1  EMC immunity acc. to IEC 60947-1  conducted interference due to burst acc. to IEC 61000-4-4 due to conductor-earth surge acc. to IEC 61000-4-5 due to conductor-conductor surge acc. to IEC 61000-4-5 field-based interference acc. to IEC 61000-4-3 electrostatic discharge acc. to IEC 61000-4-2  Display display version as status display by LED  Connections/ Terminals	1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge
at 24 V at 125 V at 250 V  Electromagnetic compatibility  EMC emitted interference acc. to IEC 60947-1  EMC immunity acc. to IEC 60947-1  conducted interference due to burst acc. to IEC 61000-4-4 due to conductor-earth surge acc. to IEC 61000-4-5 due to conductor-conductor surge acc. to IEC 61000-4-5 field-based interference acc. to IEC 61000-4-3 electrostatic discharge acc. to IEC 61000-4-2  Display display version as status display by LED  Connections/ Terminals product function removable terminal	1 A 0.2 A 0.1 A  ambience A (industrial sector) corresponds to degree of severity 3  2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge

<ul> <li>at AC maximum</li> <li>at DC maximum</li> <li>type of connectable conductor cross-sections</li> <li>solid</li> <li>finely stranded with core end processing</li> <li>at AWG cables solid</li> <li>connectable conductor cross-section solid</li> <li>connectable conductor cross-section finely stranded with core end processing</li> <li>AWG number as coded connectable conductor cross section solid</li> <li>tightening torque with screw-type terminals</li> <li>Installation/ mounting/ dimensions</li> <li>mounting position</li> <li>fastening method</li> <li>height</li> <li>width</li> <li>depth</li> <li>required spacing</li> </ul>	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	
type of connectable conductor cross-sections	1x (0.25 2.5 mm²) 1x (0.25 1.5 mm²) 1 x (20 14) 0.25 2.5 mm²	
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	1x (0.25 1.5 mm²) 1 x (20 14) 0.25 2.5 mm²	
• 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	1x (0.25 1.5 mm²) 1 x (20 14) 0.25 2.5 mm²	
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	1 x (20 14) 0.25 2.5 mm <sup>2</sup>	
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	0.25 2.5 mm²	
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 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	0.25 1.5 11111	
cross section solid  • tightening torque with screw-type terminals  Installation/ mounting/ dimensions  mounting position fastening method height width depth required spacing		
Installation/ mounting/ dimensions mounting position fastening method height width depth required spacing	20 14	
mounting position fastening method height width depth required spacing	0.5 0.6 N·m	
fastening method height width depth required spacing		
height width depth required spacing	any	
width depth required spacing	snap-on mounting	
depth required spacing	93 mm	
required spacing	6.2 mm	
	76 mm	
<ul> <li>with side-by-side mounting</li> </ul>		
— forwards	0 mm	
— backwards	0 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	
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	
<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		
relative humidity during operation	-40 +85 °C	
Certificates/ approvals	-40 +85 °C 10 95 %	
General Product Approval		













**Declaration of Conformity** 

Marine / Shipping

other



## 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=3RQ3118-1AE01

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ3118-1AE01

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

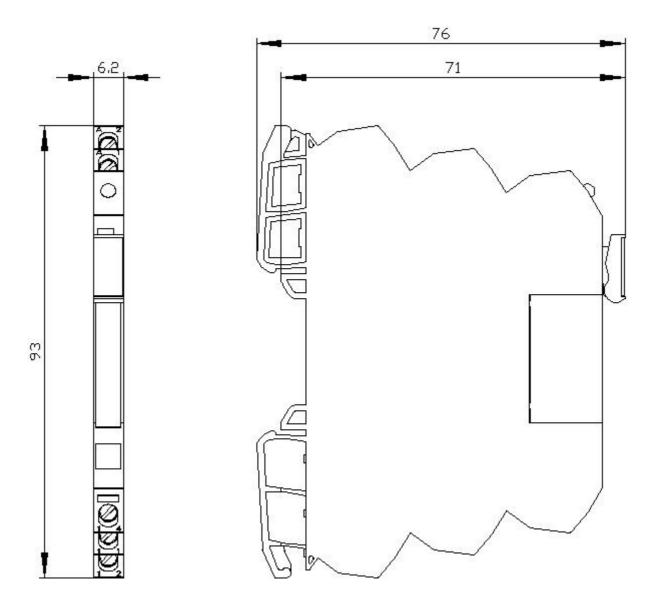
https://support.industry.siemens.com/cs/ww/en/ps/3RQ3118-1AE01

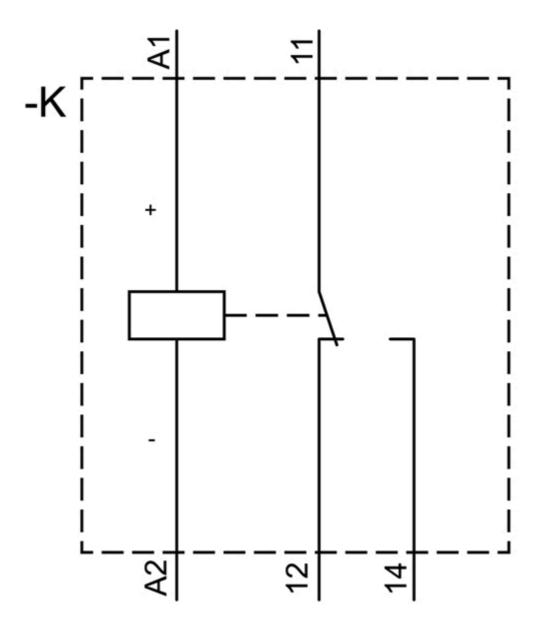
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ EPLAN\ macros,\ ...)$ 

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RQ3118-1AE01&lang=en

**Characteristic: Derating** 

https://support.industry.siemens.com/cs/ww/en/ps/3RQ3118-1AE01/manual





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