## **SIEMENS**

Data sheet 3RQ3118-1AF01



Output coupler with plug-in Relay, 1 CO, hard gold-plated screw terminal 230 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
semi-conductor output	No
consumed active power	1 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	
<ul> <li>between control and auxiliary circuit</li> </ul>	300 V
percental drop-out voltage related to the input voltage	10 %
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	230 V
at 60 Hz rated value	230 V
control supply voltage frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
control supply voltage at DC	
rated value	230 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	9 ms
at DC maximum	8 ms
OFF delay time	19 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	
• at 24 V	1 A
● at 125 V	0.2 A
• at 250 V	0.1 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	corresponds to degree of severity 3
conducted interference  • due to burst acc. to IEC 61000-4-4	2 kV
• due to burst acc. to IEC 61000-4-4	2 kV
<ul> <li>due to burst acc. to IEC 61000-4-4</li> <li>due to conductor-earth surge acc. to IEC 61000-4-5</li> <li>due to conductor-conductor surge acc. to IEC</li> </ul>	2 kV 2 kV
<ul> <li>due to burst acc. to IEC 61000-4-4</li> <li>due to conductor-earth surge acc. to IEC 61000-4-5</li> <li>due to conductor-conductor surge acc. to IEC 61000-4-5</li> </ul>	2 kV 2 kV 1 kV
<ul> <li>due to burst acc. to IEC 61000-4-4</li> <li>due to conductor-earth surge acc. to IEC 61000-4-5</li> <li>due to conductor-conductor surge acc. to IEC 61000-4-5</li> <li>field-based interference acc. to IEC 61000-4-3</li> </ul>	2 kV 2 kV 1 kV
<ul> <li>due to burst acc. to IEC 61000-4-4</li> <li>due to conductor-earth surge acc. to IEC 61000-4-5</li> <li>due to conductor-conductor surge acc. to IEC 61000-4-5</li> <li>field-based interference acc. to IEC 61000-4-3</li> <li>electrostatic discharge acc. to IEC 61000-4-2</li> </ul>	2 kV 2 kV 1 kV
• 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	2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge
• 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	2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge
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	2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge  LED green
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	2 kV 2 kV 1 kV  10 V/m 6 kV contact discharge / 8 kV air discharge  LED green

at AC maximum	500 m	
at DC maximum	1 000 m	
type of connectable conductor cross-sections	1 000 111	
solid	1x (0.25 2.5 mm²)	
finely stranded with core end processing	1x (0.25 1.5 mm²)	
at AWG cables solid	1 x (20 14)	
connectable conductor cross-section solid	0.25 2.5 mm <sup>2</sup> 0.25 1.5 mm <sup>2</sup>	
<ul> <li>connectable conductor cross-section finely stranded with core end processing</li> </ul>	0.25 1.5 mm	
AWG number as coded connectable conductor	20 14	
cross section solid	20 11	
• 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	76 mm	
required spacing		
<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  Ambient conditions	0 mm	
installation altitude at height above sea level maximum	2 000 m	
ambient temperature during operation     ambient temperature during storage	-25 +60 °C	
ambient temperature during storage     ambient temperature during transport	-40 +85 °C	
ambient temperature during transport  relative hymidity during eneration.	-40 +85 °C	
relative humidity during operation  Certificates/ approvals	10 95 %	
		EMO
General Product Approval		EMC













**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=3RQ3118-1AF01

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ3118-1AF01

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

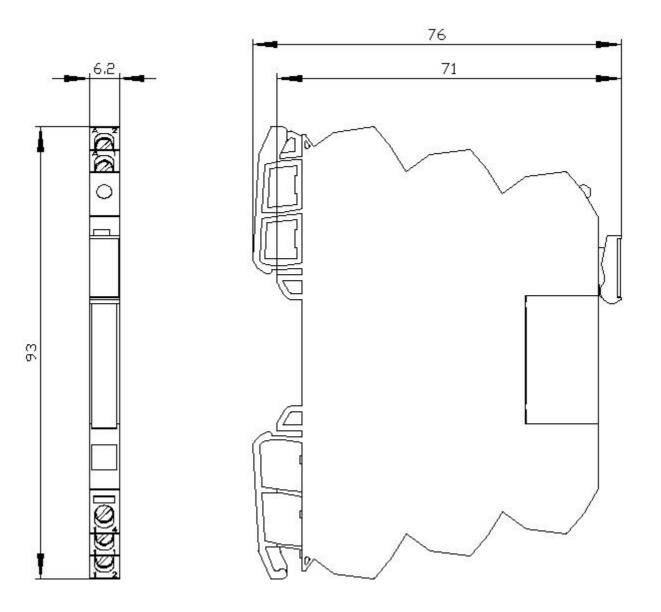
https://support.industry.siemens.com/cs/ww/en/ps/3RQ3118-1AF01

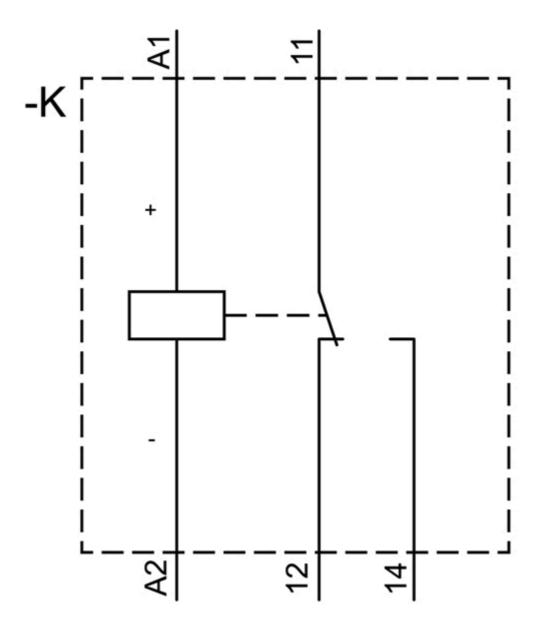
 $Image\ database\ (product\ images,\ 2D\ dimension\ drawings,\ 3D\ models,\ device\ circuit\ diagrams,\ EPLAN\ macros,\ ...)$ 

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RQ3118-1AF01&lang=en

**Characteristic: Derating** 

https://support.industry.siemens.com/cs/ww/en/ps/3RQ3118-1AF01/manual





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