SIEMENS

Data sheet

3RQ3118-1AB01



Output coupler with plug-in Relay, 1 CO, hard gold-plated screw terminal 24 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	
 relay output 	Yes
 semi-conductor output 	No
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
maximum permissible voltage for safe isolation	
 between control and auxiliary circuit 	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	К
Control circuit/ Control	
control supply voltage at AC	
 at 50 Hz rated value 	24 V
 at 60 Hz rated value 	24 V
control supply voltage frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
control supply voltage at DC	
rated value	24 V
operating range factor control supply voltage rated value at DC	

initial value	0.8
full-scale value	1.25
operating range factor control supply voltage rated	
value at AC at 50 Hz	
• initial value	0.8
• full-scale value	1.25
operating range factor control supply voltage rated value at AC at 60 Hz	
initial value	0.8
 full-scale value 	1.25
switch ON delay time	
 at AC maximum 	12 ms
• at DC maximum	12 ms
OFF delay time	14 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 125 V ● at 250 V	
 at 125 V at 250 V Electromagnetic compatibility 	0.2 A 0.1 A
at 125 V at 250 V Electromagnetic compatibility EMC emitted interference acc. to IEC 60947-1	0.2 A 0.1 A ambience A (industrial sector)
at 125 V at 250 V Electromagnetic compatibility EMC emitted interference acc. to IEC 60947-1 EMC immunity acc. to IEC 60947-1	0.2 A 0.1 A
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	0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3
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	0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV
 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 	0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV
 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 	0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV 1 kV
 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 	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
 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 	0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV 1 kV
 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 	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 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 	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
 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 	0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV 2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge LED green
 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 	0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 2 kV 2 kV 1 kV 10 V/m 6 kV contact discharge / 8 kV air discharge LED green No
 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 	0.2 A 0.1 A ambience A (industrial sector) corresponds to degree of severity 3 2 kV 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	
• solid	1x (0.25 2.5 mm²)
 finely stranded with core end processing 	1x (0.25 1.5 mm ²)
 at AWG cables solid 	1 x (20 14)
connectable conductor cross-section solid	0.25 2.5 mm² 0.25 1.5 mm²
connectable conductor cross-section finely stranded with core end processing	0.25 1.5 mm ⁻
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	76 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	
Ambient conditions	2 000 m
installation altitude at height above sea level maximum	2 000 m
installation altitude at height above sea level maximum ambient temperature during operation	-25 +60 °C
 installation altitude at height above sea level maximum ambient temperature during operation ambient temperature during storage 	-25 +60 °C -40 +85 °C
 installation altitude at height above sea level maximum ambient temperature during operation ambient temperature during storage ambient temperature during transport 	-25 +60 °C -40 +85 °C -40 +85 °C
installation altitude at height above sea level maximum ambient temperature during operation ambient temperature during storage ambient temperature during transport relative humidity during operation	-25 +60 °C -40 +85 °C
 installation altitude at height above sea level maximum ambient temperature during operation ambient temperature during storage ambient temperature during transport 	-25 +60 °C -40 +85 °C -40 +85 °C
installation altitude at height above sea level maximum ambient temperature during operation ambient temperature during storage ambient temperature during transport relative humidity during operation	-25 +60 °C -40 +85 °C -40 +85 °C
installation altitude at height above sea level maximum ambient temperature during operation ambient temperature during storage ambient temperature during transport relative humidity during operation Certificates/ approvals	-25 +60 °C -40 +85 °C -40 +85 °C 10 95 %
installation altitude at height above sea level maximum ambient temperature during operation ambient temperature during storage ambient temperature during transport relative humidity during operation Certificates/ approvals	-25 +60 °C -40 +85 °C -40 +85 °C 10 95 % EMC
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installation altitude at height above sea level maximum ambient temperature during operation ambient temperature during storage ambient temperature during transport relative humidity during operation Certificates/ approvals	-25 +60 °C -40 +85 °C -40 +85 °C 10 95 % EMC
installation altitude at height above sea level maximum ambient temperature during operation ambient temperature during storage ambient temperature during transport relative humidity during operation Certificates/ approvals General Product Approval Ccc UL	-25 +60 °С -40 +85 °С -40 +85 °С 10 95 % EMC EAC EAC EAC
installation altitude at height above sea level maximum ambient temperature during operation ambient temperature during storage ambient temperature during transport relative humidity during operation Certificates/ approvals	-25 +60 °С -40 +85 °С -40 +85 °С 10 95 % EMC EAC EAC EAC





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=3RQ3118-1AB01

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ3118-1AB01

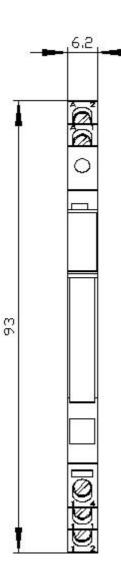
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

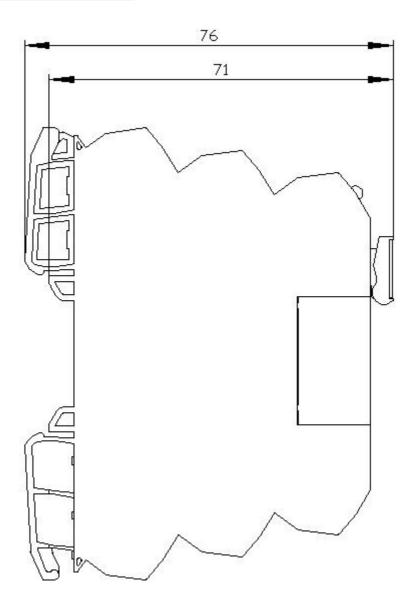
https://support.industry.siemens.com/cs/ww/en/ps/3RQ3118-1AB01

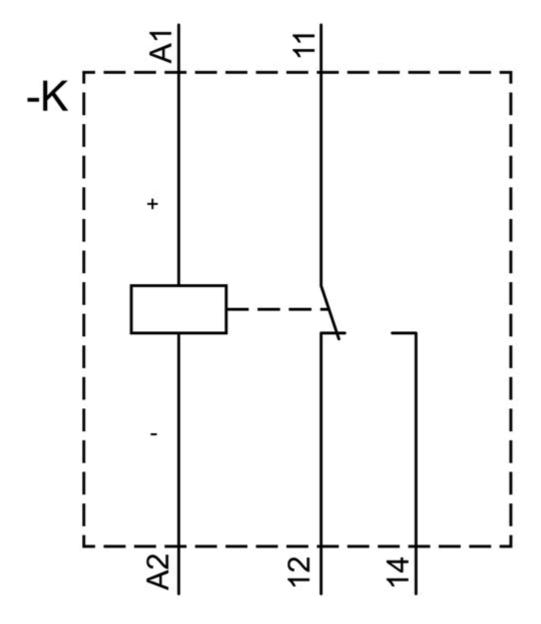
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ3118-1AB01&lang=en

Characteristic: Derating

https://support.industry.siemens.com/cs/ww/en/ps/3RQ3118-1AB01/manual







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