SIEMENS

Data sheet 3RQ3118-1AE00

Output coupler with plug-in Relay, 1 change-over contact 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	
 Relay output 	Yes
• semi-conductor output	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
Electrical endurance (switching cycles)	
● at AC-15 at 230 V typical	100 000
Thermal current	6 A
Reference code acc. to DIN EN 81346-2	К
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

Type of switching contact Material of switching contacts AgSnO2 Number of CO contacts of or auxiliary contacts 1 Operating current of auxiliary contacts at AC-15 of at 24 V of at 250 V Operating current of auxiliary contacts at DC-13 of at 24 V of at 250 V 1 A Ozerating current of auxiliary contacts at DC-13 of at 250 V Ozerating current of auxiliary contacts at DC-13 of at 250 V of auxiliary contacts	Short-circuit protection	
Auxiliary circuit Type of switching contacts AgsnO2 National of switching contacts • for auxiliary contacts • for auxiliary contacts • for auxiliary contacts 1 Operating current of auxiliary contacts at AC-15 • at 24 V • at 250 V Operating current of auxiliary contacts at DC-13 • at 24 V • at 125 V • at 250 V On auxiliary contacts at DC-13 • at 24 V • at 125 V • at 250 V On tact reliability of auxiliary contacts at DC-13 Actin Contact reliability of auxiliary contacts one incorrect switching operation of 100 million switching operations (17 V. 5 mA) Main circuit Type of voltage Actin Contact reliability of the output short-circuit proof No Outputs Ampacity of the output relay at AC-15 • at 250 V at 50/60 Hz Ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V •	Design of the fuse link	
Auxiliary circuit Type of switching contact Meterial of switching contacts AgSnO2 Number of CO contacts • for auxiliary contacts • for auxiliary contacts • at 24 V • at 250 V •		fuse gG: 4 A
Type of switching contact Material of switching contacts Number of CO contacts • for auxiliary contacts • for auxiliary contacts • at 24 V • at 250 V Operating current of auxiliary contacts at DC-13 • at 24 V • at 125 V • at 250 V Operating current of auxiliary contacts at DC-13 • at 24 V • at 125 V • at 250 V On a 250 V Contact reliability of auxiliary contacts Main circuit Type of voltage AC/IDC Inputs/ Outputs Property of the output relay at AC-15 • at 250 V at 250 V Ampacity of the output relay at AC-15 • at 250 V at 250 V Ampacity of the output relay at AC-15 • at 250 V at 250 V Ampacity of the output relay at AC-15 • at 250 V at 2	required	
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of rauxiliary contacts Operating current of auxiliary contacts at AC-15 at 24 V	Material of switching contacts	AgSnO2
Operating current of auxiliary contacts at AC-15 • at 24 V • at 250 V Operating current of auxiliary contacts at DC-13 • at 24 V • at 25 V • at 250 V Ontact reliability of auxiliary contacts One incorrect switching operation of 100 million switching operations (17 V, 5 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 Ampacity of the output relay at DC-13 • at 24 V • at 125 V • at 250 V • at	Number of CO contacts	
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	● at 250 V	3 A
• at 125 V • at 250 V Contact reliability of auxiliary contacts One incorrect switching operation of 100 million switching operations (17 V, 5 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 • at 125 V • at 125 V • at 125 V • at 250 V Inputs/ Output relay at DC-13 • at 24 V • at 125 V • at 250 V • at 250 V Inputs/ Output relay at OC-13 • at 25 V • at 250 V Inputs/ Output relay at DC-13 • at 24 V • at 125 V • at 250 V Inputs/ Output relay at DC-13 • at 250 V Inputs/ Output relay at DC-13 • at 26 V • at 27 V • at 28 V • at 28 V • at 28 C • at 28	Operating current of auxiliary contacts at DC-13	
• at 250 V Contact reliability of auxiliary contacts Disputs/ Outputs Property of the output Short-circuit proof • at 250 V Outputs Property of the output relay at AC-15 • at 250 V at 50/60 Hz • at 125 V • at 125 V • at 250 V Conducted interference • acc. to IEC 60947-1 EMI immunity • acc. to IEC 60947-1 Conducted interference • due to burst acc. to IEC 61000-4-4 • due to conductor-cardh surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5	● at 24 V	1 A
Contact reliability of auxiliary contacts one incorrect switching operation of 100 million switching operations (17 V, 5 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 at 24 V • at 125 V • at 250 V • at 250 V • at 250 V • at 250 V Compatibility EMC emitted interference • acc. to IEC 60947-1 EMI immunity • acc. to IEC 60947-1 Conducted interference • due to burst acc. to IEC 61000-4-4 • due to conductor-carth surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5	● at 125 V	0.2 A
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) EMI immunity • acc. to IEC 60947-1 corresponds to degree of severity 3 Conducted interference • due to burst acc. to IEC 61000-4-4 • due to conductor-carth surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5	• at 250 V	0.1 A
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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) EMI 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-conductor surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5		operations (17 V, 5 mA)
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EMC emitted interference • acc. to IEC 60947-1 ambience A (industrial sector) EMI 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 • due to conductor-conductor surge acc. to IEC 1 kV	● at 125 V	0.2 A
EMC emitted interference • acc. to IEC 60947-1 ambience A (industrial sector) EMI 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 • due to conductor-conductor surge acc. to IEC 1 kV	● at 250 V	0.1 A
EMC emitted interference • acc. to IEC 60947-1 ambience A (industrial sector) EMI 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 • due to conductor-conductor surge acc. to IEC 1 kV	Electromagnetic compatibility	
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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	EMI immunity	
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 due to conductor-earth surge acc. to IEC 61000-4-5 due to conductor-conductor surge acc. to IEC 1 kV 61000-4-5 	Conducted interference	
61000-4-5 ● due to conductor-conductor surge acc. to IEC 61000-4-5	• due to burst acc. to IEC 61000-4-4	2 kV
61000-4-5	_	2 kV
Field-bound parasitic coupling acc. to IEC 61000-4-3		1 kV
	Field-bound parasitic coupling acc. to IEC 61000-4-3	10 V/m

	Electrostatic discharge acc.	to IFC 61000-4-2
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6 kV contact discharge / 8 kV air discharge

Display	
Display version	
as status display by LED	LED green

as status display by LED	LED green
Connections/ Terminals	
Product function	
• removable terminal	No
Type of electrical connection	
 for auxiliary and control current 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)
 at AWG conductors solid 	1 x (20 14)
Connectable conductor cross-section	
• solid	0.25 2.5 mm ²
 finely stranded with core end processing 	0.25 1.5 mm ²
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
Mounting type	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

0 mm
0 mm
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 %	

Certificates/ approvals

General Product Approval EMC Declaration of Conformity













Declaration of Conformity	Marine / Ship- ping	other		
Miscellaneous	+OVED :	Confirmation		

Miscellaneous



w.c.

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=3RQ3118-1AE00

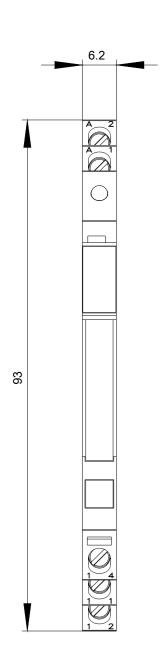
Cax online generator

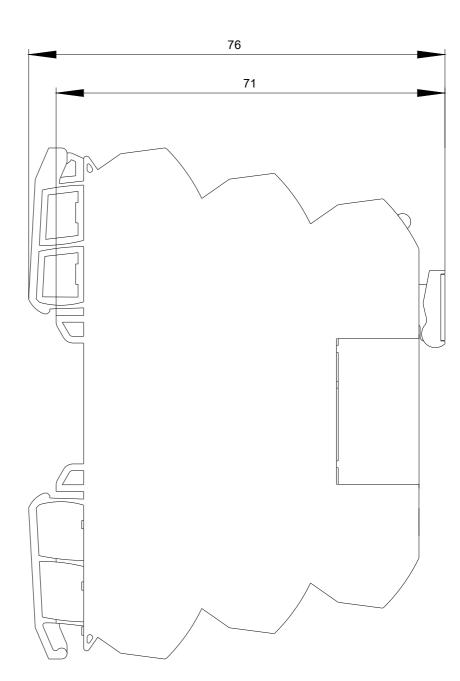
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ3118-1AE00

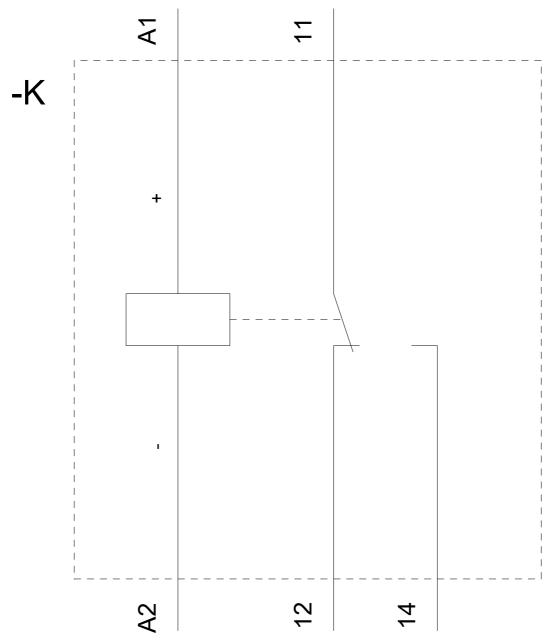
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RQ3118-1AE00

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ3118-1AE00&lang=en







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