SIEMENS

Data sheet 3RQ3018-2AB01

	Output coupler 1 change-over contact hard gold-plated 24 V AC/DC Enclosure width 6.2 mm Spring-type terminal (push-in) Thermal current 6A
Product brand name	SIRIUS
Product category	SIRIUS 3RQ3 coupling relays in slim design
Product designation	Coupling relays with relay output (not plug-in)
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
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	K
Reference code acc. to DIN EN 61346-2	K

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
Closing delay	
• at AC	12 ms
• at DC	6 ms
Opening delay	
• at AC	14 ms
• at DC	13 ms
Design of the relay operating mechanism	poled
Product component Plug-in socket	No

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
Operating current of auxiliary contacts at AC-15	

• at 24 V	3 A
• at 250 V	3 A
Operating 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)
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	2 kV
• due to conductor-conductor surge acc. to IEC 61000-4-5	1 kV
Field-bound parasitic coupling 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 version	
• as status display by LED	LED green

Connections/ Terminals

Product function	
• removable terminal	No
Type of electrical connection	
• for auxiliary and control current circuit	spring-loaded terminals (push-in)

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)
• finely stranded without core end processing	1x (0.25 ... 2.5 mm²)
• at AWG conductors solid	1 x (20 ... 14)
• at AWG conductors stranded	1x (20 ... 14)
Connectable conductor cross-section	
• solid	0.25 ... 2.5 mm²
• finely stranded with core end processing	0.25 ... 1.5 mm²
• finely stranded without core end processing	0.25 ... 2.5 mm²
AWG number as coded connectable conductor cross section	
• solid	20 ... 14
• stranded	20 ... 14

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	snap-on mounting
Height	93 mm
Width	6.2 mm
Depth	72.5 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

Installation altitude at height above sea level	
• maximum	2 000 m
Relative humidity	
• during operation	10 ... 95 %

Certificates/ approvals

General Product Approval				EMC	Declaration of Conformity
CCC	CSA	UL		RCM	EG-Konf.

Declaration of Conformity	Marine / Shipping	other
Miscellaneous		Confirmation

Further information

Information- and Downloadcenter (Catalogs, Brochures,…)
www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RQ3018-2AB01

Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RQ3018-2AB01

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RQ3018-2AB01

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RQ3018-2AB01&lang=en

last modified: 11/20/2019