

OVERLOAD RELAY 1.1...1.6 A FOR MOTOR PROTECTION SZ
S00, CLASS 10, STAND-ALONE INSTALLATION MAIN CIRCUIT:
SCREW TERMINAL AUX. CIRCUIT: SCREW TERMINAL MANUAL-
AUTOMATIC-RESET

product brand name	SIRIUS
Product designation	3RU2 thermal overload relay

General technical data:

Size of overload relay	S00
Size of contactor can be combined company-specific	S00
Power loss [W] total typical	5.1 W
Insulation voltage with degree of pollution 3 rated value	690 V
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
<ul style="list-style-type: none"> in networks with grounded star point between auxiliary and auxiliary circuit 	440 V
<ul style="list-style-type: none"> in networks with grounded star point between auxiliary and auxiliary circuit 	440 V
<ul style="list-style-type: none"> in networks with grounded star point between main and auxiliary circuit 	440 V
<ul style="list-style-type: none"> in networks with grounded star point between main and auxiliary circuit 	440 V
Protection class IP	
<ul style="list-style-type: none"> on the front 	IP20
<ul style="list-style-type: none"> of the terminal 	IP20
Shock resistance	
<ul style="list-style-type: none"> acc. to IEC 60068-2-27 	8g / 11 ms
Type of protection	Ex e
Certificate of suitability relating to ATEX	DMT 98 ATEX G 001
Protection against electrical shock	finger-safe
Equipment marking acc. to DIN EN 81346-2	F

Ambient conditions:

Installation altitude at height above sea level maximum	2 000 m
Ambient temperature	
<ul style="list-style-type: none"> during operation 	-40 ... +70 °C
<ul style="list-style-type: none"> during storage 	-55 ... +80 °C
<ul style="list-style-type: none"> during transport 	-55 ... +80 °C
Temperature compensation	-40 ... +60 °C

Main circuit:	
Number of poles for main current circuit	3
Adjustable pick-up value current of the current-dependent overload release	1.1 ... 1.6 A
Operating voltage	
• rated value	690 V
• at AC-3 rated value maximum	690 V
Operating frequency rated value	50 ... 60 Hz
Operating current rated value	1.6 A

Auxiliary circuit:	
Design of the auxiliary switch	integrated
Number of NC contacts	
• for auxiliary contacts	1
— Note	for contactor disconnection
Number of NO contacts	
• for auxiliary contacts	1
— Note	for message "Tripped"
Number of CO contacts	
• for auxiliary contacts	0
Operating current of auxiliary contacts at AC-15	
• at 24 V	3 A
• at 110 V	3 A
• at 120 V	3 A
• at 125 V	3 A
• at 230 V	2 A
• at 400 V	1 A
Operating current of auxiliary contacts at DC-13	
• at 24 V	2 A
• at 110 V	0.22 A
• at 125 V	0.22 A
• at 220 V	0.11 A

Protective and monitoring functions:	
Trip class	Class 10
Design of the overload release	thermal

UL/CSA ratings:	
Full-load current (FLA) for three-phase AC motor	
• at 480 V rated value	1.6 A
• at 600 V rated value	1.6 A
Contact rating of auxiliary contacts according to UL	B600 / R300

Installation/ mounting/ dimensions:

Mounting position	any
Mounting type	stand-alone installation
Height	89 mm
Width	45 mm
Depth	80 mm
Required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards 0 mm — Backwards 0 mm — upwards 6 mm — downwards 6 mm — at the side 6 mm • for grounded parts <ul style="list-style-type: none"> — forwards 0 mm — Backwards 0 mm — upwards 6 mm — at the side 6 mm — downwards 6 mm • for live parts <ul style="list-style-type: none"> — forwards 0 mm — Backwards 0 mm — upwards 6 mm — downwards 6 mm — at the side 6 mm 	

Connections/ Terminals:	
Product function	
<ul style="list-style-type: none"> • removable terminal for auxiliary and control circuit 	No
Type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit 	screw-type terminals screw-type terminals
Arrangement of electrical connectors for main current circuit	Top and bottom
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing • at AWG conductors for main contacts 	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), 2x 4 mm ² 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14), 2x 12
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing 	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)

• at AWG conductors for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14)
Tightening torque	
• for main contacts with screw-type terminals	0.8 ... 1.2 N·m
• for auxiliary contacts with screw-type terminals	0.8 ... 1.2 N·m
Design of screwdriver shaft	5 to 6 mm diameter
Design of the thread of the connection screw	
• for main contacts	M3
• of the auxiliary and control contacts	M3







Safety related data:

Failure rate [FIT]	
• with low demand rate acc. to SN 31920	50 FIT
MTTF with high demand rate	2 280 y
T1 value for proof test interval or service life acc. to IEC 61508	20 y





Display:

Display version	
• for switching status	Slide switch

Certificates/approvals

General Product Approval			For use in hazardous locations		
 CCC	 CSA	 EAC	 UL	 ATEX	 IECEX

Declaration of Conformity	Test Certificates	Shipping Approval			
 EG-Konf.	Typprüfbescheinigung/Werkszeugnis	 ABS	 BUREAU VERITAS	 DNV	 GL

Shipping Approval				other	Railway
 LRS	 PRS	 RINA	 RMRS	Umweltbestätigung	Schwingen/Schocke n

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RU21161AB1>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU21161AB1>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU21161AB1>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU21161AB1&lang=en

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