



OVERLOAD RELAY 1.4...2.0 A FOR MOTOR PROTECTION SZ S00, CLASS 10, F. MOUNTING ONTO CONTACTOR MAIN CIRCUIT: SCREW TERMINAL AUX. CIRCUIT: SCREW TERMINAL MANUAL-AUTOMATIC-RESET

product brand name	SIRIUS
Product designation	3RU2 thermal overload relay

General technical data:

Active power loss total typical	W	5.1
Insulation voltage	V	690
• with degree of pollution 3 Rated value		
Shock resistance		8g / 11 ms
• acc. to IEC 60068-2-27		
Surge voltage resistance Rated value	kV	6
Temperature compensation	°C	-40 ... +60
Size of contactor can be combined company-specific		S00
Type of assignment		2
Protection class IP		IP20
• on the front		
• of the terminal		IP20
Equipment marking		F
• acc. to DIN EN 81346-2		

Main circuit:

Number of poles for main current circuit		3
Adjustable response value current of the current-dependent overload release	A	1.4 ... 2
Operating voltage	V	690
• Rated value		
• at AC-3 Rated value maximum	V	690
Operating frequency Rated value	Hz	50 ... 60

Operating current Rated value	A	2
Operating current		
• at AC-3		
— at 400 V Rated value	A	2

Auxiliary circuit:

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
Design of the auxiliary switch		integrated
Operating current of the auxiliary contacts at AC-15		
• at 24 V	A	3
• at 110 V	A	3
• at 120 V	A	3
• at 125 V	A	3
• at 230 V	A	2
• at 400 V	A	1
Operating current of the auxiliary contacts at DC-13		
• at 24 V	A	2
• at 110 V	A	0.22
• at 125 V	A	0.22
• at 220 V	A	0.11

Protective and monitoring functions:

Trip class		CLASS 10
Design of the overload circuit breaker		thermal

UL/CSA ratings:

Full-load current (FLA) for three-phase AC motor		
• at 480 V Rated value	A	2
• at 600 V Rated value	A	2
Contact rating of the auxiliary contacts acc. to UL		B600 / R300

Installation/ mounting/ dimensions:

mounting position		any
Mounting type		direct mounting
Height	mm	76
Width	mm	45
Depth	mm	70
Required spacing		

• with side-by-side mounting		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	6
— downwards	mm	6
— at the side	mm	6
• for grounded parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	6
— at the side	mm	6
— downwards	mm	6
• for live parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	6
— downwards	mm	6
— at the side	mm	6

Connections/ Terminals:

Type of electrical connection		
• for main current circuit		screw-type terminals
• for auxiliary and control current circuit		screw-type terminals
Arrangement of electrical connectors for main current circuit		Top and bottom
Product function		
• removable terminal for auxiliary and control circuit		No
Type of connectable conductor cross-section		
• for main contacts		
— single or multi-stranded		2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), 2x 4 mm ²
— finely stranded with core end processing		2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• for AWG conductors for main contacts		2x (20 ... 16), 2x (20 ... 18), 2x 12
• for auxiliary contacts		
— single or multi-stranded		2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²)
— finely stranded with core end processing		2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• for AWG conductors for auxiliary contacts		2x (20 ... 16), 2x (18 ... 14)
Tightening torque		
• for main contacts with screw-type terminals	N·m	0.8 ... 1.2
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:

Proportion of dangerous failures		
<ul style="list-style-type: none"> • with low demand rate acc. to SN 31920 	%	50
<ul style="list-style-type: none"> • with high demand rate acc. to SN 31920 	%	50
Failure rate [FIT] with low demand rate acc. to SN 31920	FIT	50
MTTF with high demand rate	y	2 280
T1 value for proof test interval or service life acc. to IEC 61508	y	20
Protection against electrical shock		finger-safe

Mechanical data:

Size of overload relay		S00
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Ambient conditions:

Installation altitude at height above sea level maximum	m	2 000
Ambient temperature		
<ul style="list-style-type: none"> • during operation 	°C	-40 ... +70
<ul style="list-style-type: none"> • during storage 	°C	-55 ... +80
<ul style="list-style-type: none"> • during transport 	°C	-55 ... +80
Relative humidity during operation	%	0 ... 90

Display:

Display version		
<ul style="list-style-type: none"> • for switching status 		Slide switch

Certificates/ approvals:

General Product Approval	For use in hazardous locations	Declaration of Conformity
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CCC



CSA



UL



ATEX



EG-Konf.

Test Certificates	Shipping Approval
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[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



ABS



BUREAU VERITAS



DNV



GL

Shipping Approval	other
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LRS



PRS



RINA



RMRS

[Environmental Confirmations](#)

Further information

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

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

Industry Mall (Online ordering system)

<http://www.siemens.com/industrymall>

Cax online generator

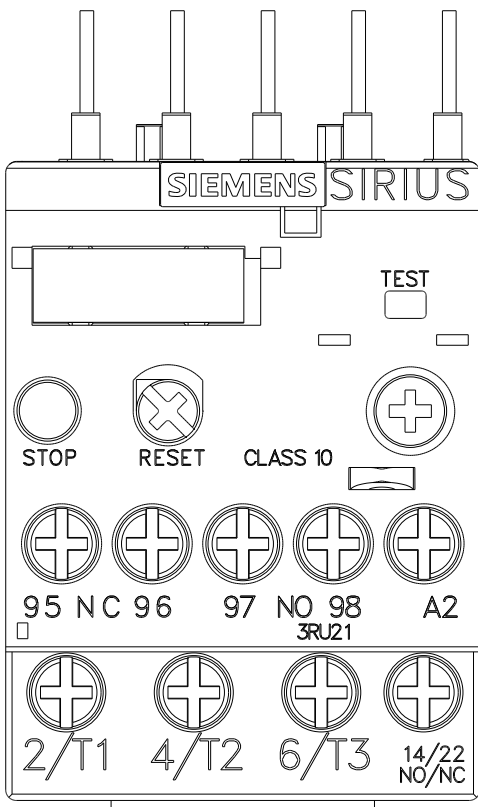
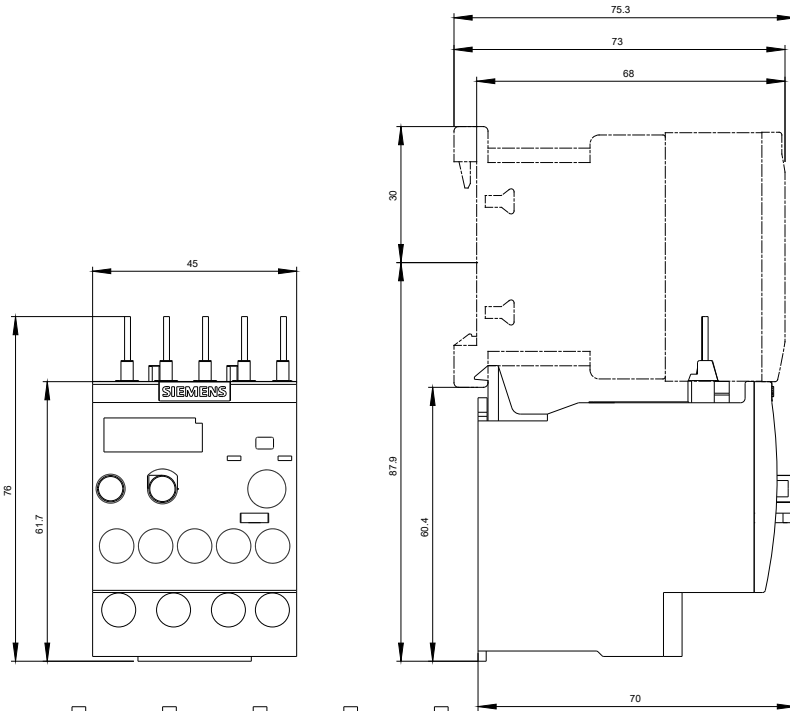
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RU21161BB0>

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

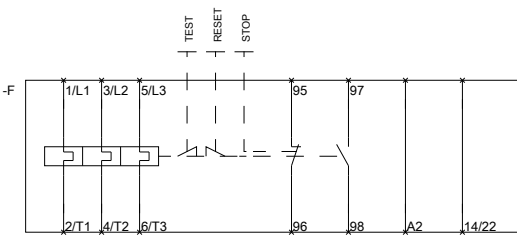
<http://support.automation.siemens.com/WW/view/en/3RU21161BB0/all>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RU21161BB0&lang=en



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