



OVERLOAD RELAY 2.2...3.2 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:**

Size of contactor can be combined company-specific	S00
Active power loss total typical	5.2 W
Insulation voltage	
• with degree of pollution 3 Rated value	690 V
Surge voltage resistance Rated value	6 kV
Temperature compensation	-40 ... +60 °C
Type of assignment	2
Protection class IP	
• on the front	IP20
• of the terminal	IP20
Type of protection	DMT 98 ATEX G 001
Equipment marking	
• acc. to DIN EN 81346-2	F

**Ambient conditions:**

Installation altitude at height above sea level maximum	2 000 m
Ambient temperature	
• during operation	-40 ... +70 °C
• during storage	-55 ... +80 °C
• during transport	-55 ... +80 °C
Relative humidity during operation	0 ... 90 %

Main circuit:	
Number of poles for main current circuit	3
Adjustable response value current of the current-dependent overload release	2.2 ... 3.2 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	3.2 A
Operating current	
• at AC-3	
— at 400 V Rated value	3.2 A

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	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 the 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 circuit breaker	thermal

UL/CSA ratings:	
Full-load current (FLA) for three-phase AC motor	
• at 480 V Rated value	3.2 A
• at 600 V Rated value	3.2 A

Contact rating of the auxiliary contacts acc. to UL	B600 / R300
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### Installation/ mounting/ dimensions:

mounting position	any
Mounting type	direct mounting
Height	76 mm
Width	45 mm
Depth	70 mm
<b>Required spacing</b>	
<ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>0 mm</li> <li>0 mm</li> <li>6 mm</li> <li>6 mm</li> <li>6 mm</li> <li>0 mm</li> <li>0 mm</li> <li>6 mm</li> <li>6 mm</li> <li>6 mm</li> <li>0 mm</li> <li>0 mm</li> <li>6 mm</li> <li>6 mm</li> <li>6 mm</li> </ul>

### Connections/ Terminals:

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

<ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— single or multi-stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG conductors for auxiliary contacts</li> </ul>	<p>2x (0,5 ... 1,5 mm<sup>2</sup>), 2x (0,75 ... 2,5 mm<sup>2</sup>)</p> <p>2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</p> <p>2x (20 ... 16), 2x (18 ... 14)</p>
<b>Design of screwdriver shaft</b>	5 to 6 mm diameter
<b>Design of the thread of the connection screw</b>	
<ul style="list-style-type: none"> <li>• for main contacts</li> <li>• of the auxiliary and control contacts</li> </ul>	<p>M3</p> <p>M3</p>

**Safety related data:**

<b>Proportion of dangerous failures</b>	
<ul style="list-style-type: none"> <li>• with low demand rate acc. to SN 31920</li> <li>• with high demand rate acc. to SN 31920</li> </ul>	<p>50 %</p> <p>50 %</p>
<b>MTTF with high demand rate</b>	2 280 y
<b>T1 value for proof test interval or service life acc. to IEC 61508</b>	20 y

**Mechanical data:**

<b>Size of overload relay</b>	S00
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**Display:**

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

**Certificates/ approvals:**

<b>General Product Approval</b>	<b>For use in hazardous locations</b>	<b>Declaration of Conformity</b>
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<b>Test Certificates</b>	<b>Shipping Approval</b>
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



<b>Shipping Approval</b>	<b>other</b>
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[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

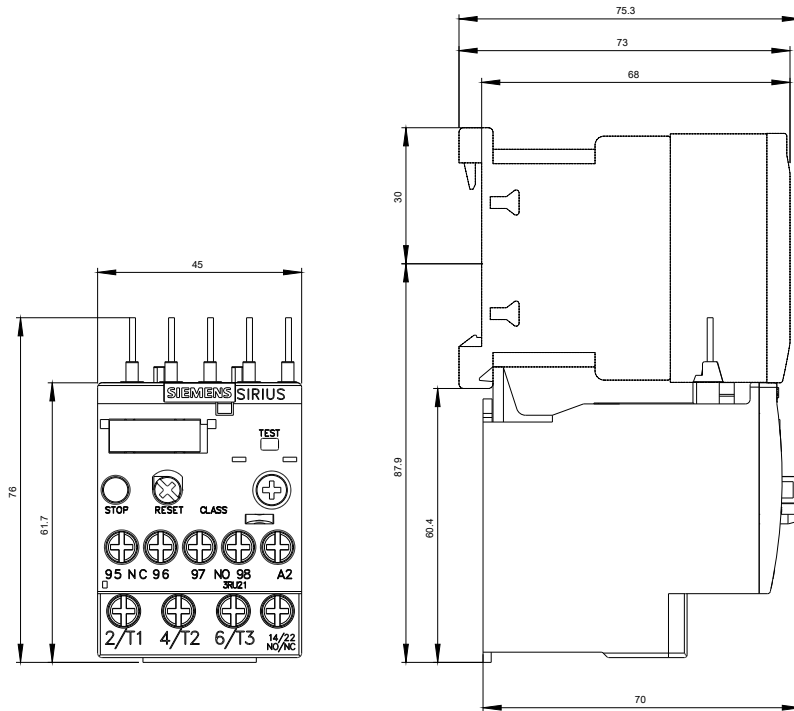
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RU21161DB0>

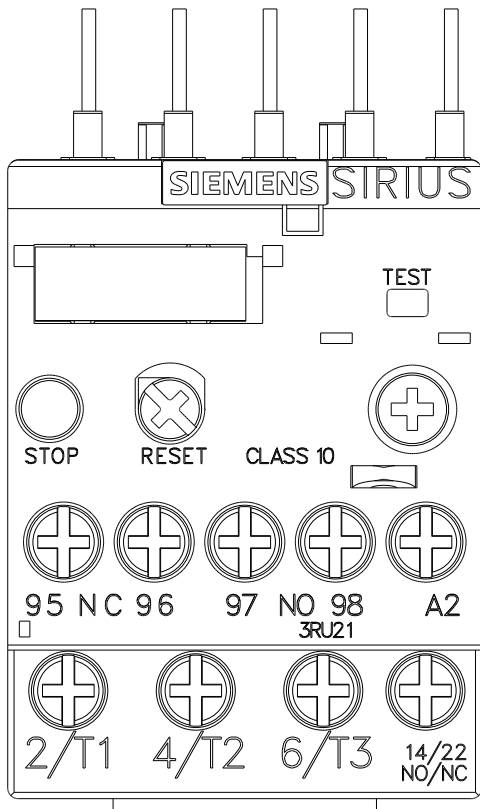
### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RU21161DB0>

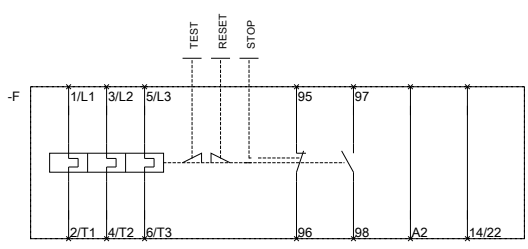
### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mfb=3RU21161DB0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RU21161DB0&lang=en)





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