

OVERLOAD RELAY 11...16 A FOR MOTOR PROTECTION SZ S00,  
CLASS 10, STAND-ALONE INSTALLATION MAIN CIRCUIT:  
SPRING TERMINAL AUX. CIRCUIT: SPRING TERMINAL MANUAL-  
AUTOMATIC-RESET



product brand name	SIRIUS
Product designation	3RU2 thermal overload relay
<b>General technical data:</b>	
Size of overload relay	S00
Size of contactor can be combined company-specific	S00
Power loss [W] total typical	6.3 W
Insulation voltage with degree of pollution 3 rated value	690 V
Surge voltage resistance rated value	6 kV
Protection class IP	
• on the front	IP20
• of the terminal	IP20
Shock resistance	
• 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:**

<b>Installation altitude at height above sea level maximum</b>	2 000 m
<b>Ambient temperature</b>	
• during operation	-40 ... +70 °C
• during storage	-55 ... +80 °C
• during transport	-55 ... +80 °C
<b>Temperature compensation</b>	-40 ... +60 °C
<b>Relative humidity during operation</b>	0 ... 90 %

#### Main circuit:

<b>Number of poles for main current circuit</b>	3
<b>Adjustable response value current of the current-dependent overload release</b>	11 ... 16 A
<b>Operating voltage</b>	
• rated value	690 V
• at AC-3 rated value maximum	690 V
<b>Operating frequency rated value</b>	50 ... 60 Hz
<b>Operating current rated value</b>	16 A

#### Auxiliary circuit:

<b>Design of the auxiliary switch</b>	integrated
<b>Number of NC contacts</b>	
• for auxiliary contacts	1
— Note	for contactor disconnection
<b>Number of NO contacts</b>	
• for auxiliary contacts	1
— Note	for message "Tripped"
<b>Number of CO contacts</b>	
• for auxiliary contacts	0
<b>Operating current of auxiliary contacts at AC-15</b>	
• 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
<b>Operating current of auxiliary contacts at DC-13</b>	
• 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:

<b>Trip class</b>	Class 10
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<b>Design of the overload release</b>	thermal
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### UL/CSA ratings:

<b>Full-load current (FLA) for three-phase AC motor</b>	
<ul style="list-style-type: none"> <li>• at 480 V rated value</li> <li>• at 600 V rated value</li> </ul>	16 A 16 A
<b>Contact rating of auxiliary contacts according to UL</b>	B600 / R300

### Installation/ mounting/ dimensions:

<b>Mounting position</b>	any
<b>Mounting type</b>	stand-alone installation
<b>Height</b>	102 mm
<b>Width</b>	45 mm
<b>Depth</b>	79 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>	0 mm 0 mm 6 mm 6 mm 6 mm  0 mm 0 mm 6 mm 6 mm 6 mm  0 mm 0 mm 6 mm 6 mm 6 mm

### 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>	spring-loaded terminals spring-loaded terminals
<b>Arrangement of electrical connectors for main current circuit</b>	Top and bottom
<b>Type of connectable conductor cross-sections</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> <li>— finely stranded without core end processing</li> </ul> </li> <li>• at AWG conductors for main contacts</li> </ul>	<p>1x (0,5 ... 4 mm<sup>2</sup>)</p> <p>1x (0.5 ... 2.5 mm<sup>2</sup>)</p> <p>1x (0.5 ... 2.5 mm<sup>2</sup>)</p> <p>1x (20 ... 12)</p>
<b>Type of connectable conductor cross-sections</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> <li>— finely stranded without core end processing</li> </ul> </li> <li>• at AWG conductors for auxiliary contacts</li> </ul>	<p>2x (0,5 ... 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 (0.5 ... 1.5 mm<sup>2</sup>)</p> <p>2x (20 ... 14)</p>
<b>Design of screwdriver shaft</b>	5 to 6 mm diameter

**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>Failure rate [FIT]</b>	
<ul style="list-style-type: none"> <li>• with low demand rate acc. to SN 31920</li> </ul>	50 FIT
<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

**Display:**

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

**Certificates/ approvals:**

General Product Approval	For use in hazardous locations
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Declaration of Conformity	Test Certificates	Shipping Approval
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[Typprüfbescheinigung/Werkszeugnis](#)

[spezielle Prüfbescheinigungen](#)



Shipping Approval	other
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[Umweltbestätigung](#)

Railway
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[Schwingen/Schocke](#)

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Further information
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**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**

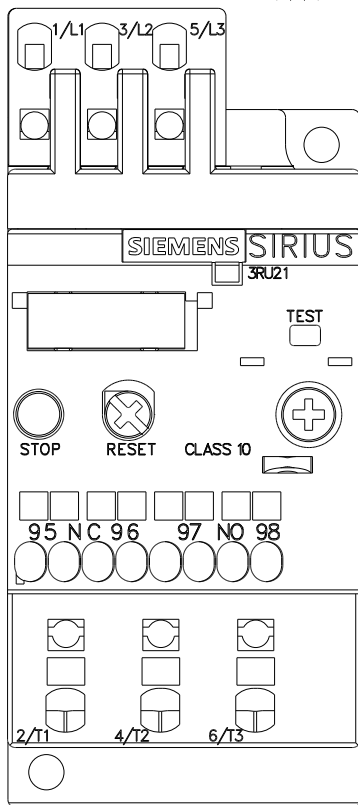
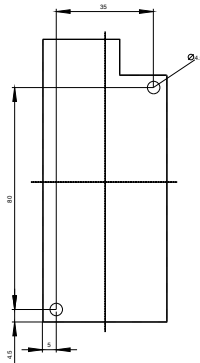
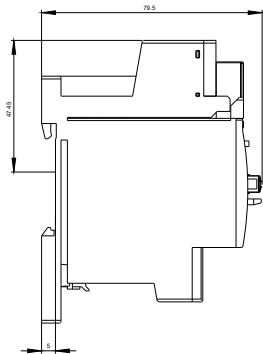
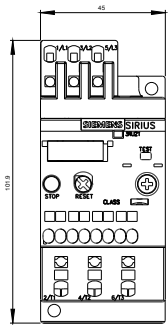
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU21164AC1>

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

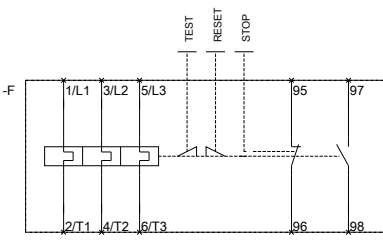
<https://support.industry.siemens.com/cs/ww/en/ps/3RU21164AC1>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RU21164AC1&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU21164AC1&lang=en)



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