

OVERLOAD RELAY 0.11...0.16 A FOR MOTOR PROTECTION SZ S00, CLASS 10, F. MOUNTING ONTO CONTACTOR MAIN CIRCUIT: SPRING TERMINAL AUX. CIRCUIT: SPRING TERMINAL MANUAL-AUTOMATIC-RESET



product brandname	SIRIUS
Product designation	thermal overload relay
Product type designation	3RU2

General technical data	
Size of overload relay	S00
Size of contactor can be combined company-specific	S00
Power loss [W] total typical	4.5 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"> <li>in networks with grounded star point between auxiliary and auxiliary circuit</li> </ul>	440 V
<ul style="list-style-type: none"> <li>in networks with grounded star point between auxiliary and auxiliary circuit</li> </ul>	440 V
<ul style="list-style-type: none"> <li>in networks with grounded star point between main and auxiliary circuit</li> </ul>	440 V
<ul style="list-style-type: none"> <li>in networks with grounded star point between main and auxiliary circuit</li> </ul>	440 V
Protection class IP	

<ul style="list-style-type: none"> <li>• on the front</li> <li>• of the terminal</li> </ul>	IP20
<b>Type of protection</b>	Ex e
<b>Protection against electrical shock</b>	finger-safe
Equipment marking acc. to DIN EN 81346-2	F

### Ambient conditions

<b>Ambient temperature</b>	
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul>	<p>-40 ... +70 °C</p> <p>-55 ... +80 °C</p> <p>-55 ... +80 °C</p>
<b>Temperature compensation</b>	-40 ... +60 °C

### Main circuit

<b>Number of poles for main current circuit</b>	3
<b>Adjustable pick-up value current of the current-dependent overload release</b>	0.11 ... 0.16 A
<b>Operating voltage</b>	
<ul style="list-style-type: none"> <li>• rated value</li> <li>• at AC-3 rated value maximum</li> </ul>	<p>690 V</p> <p>690 V</p>
<b>Operating frequency rated value</b>	50 ... 60 Hz
<b>Operating current rated value</b>	0.16 A
<b>Operating power at AC-3</b>	
<ul style="list-style-type: none"> <li>• at 400 V rated value</li> <li>• at 500 V rated value</li> <li>• at 690 V rated value</li> </ul>	<p>0.04 kW</p> <p>0.06 kW</p> <p>0.06 kW</p>

### Auxiliary circuit

<b>Design of the auxiliary switch</b>	integrated
<b>Number of NC contacts</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts</li> <li>— Note</li> </ul>	<p>1</p> <p>for contactor disconnection</p>
<b>Number of NO contacts</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts</li> <li>— Note</li> </ul>	<p>1</p> <p>for message "Tripped"</p>
<b>Number of CO contacts</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts</li> </ul>	0
<b>Operating current of auxiliary contacts at AC-15</b>	
<ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 110 V</li> <li>• at 120 V</li> <li>• at 125 V</li> <li>• at 230 V</li> <li>• at 400 V</li> </ul>	<p>3 A</p> <p>3 A</p> <p>3 A</p> <p>3 A</p> <p>2 A</p> <p>1 A</p>

<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

<b>Protective and monitoring functions</b>	
<b>Trip class</b>	CLASS 10
<b>Design of the overload release</b>	thermal

<b>UL/CSA ratings</b>	
<b>Full-load current (FLA) for three-phase AC motor</b>	
• at 480 V rated value	0.16 A
• at 600 V rated value	0.16 A
<b>Contact rating of auxiliary contacts according to UL</b>	B600 / R300

<b>Installation/ mounting/ dimensions</b>	
<b>Mounting position</b>	any
<b>Mounting type</b>	direct mounting
<b>Height</b>	87 mm
<b>Width</b>	45 mm
<b>Depth</b>	70 mm
<b>Required spacing</b>	
• with side-by-side mounting	
— forwards	0 mm
— Backwards	0 mm
— upwards	6 mm
— downwards	6 mm
— at the side	6 mm
• for grounded parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	6 mm
— at the side	6 mm
— downwards	6 mm
• for live parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	6 mm
— downwards	6 mm
— at the side	6 mm

<b>Connections/Terminals</b>	
<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>	1x (0,5 ... 4 mm <sup>2</sup> ) 1x (0.5 ... 2.5 mm <sup>2</sup> ) 1x (0.5 ... 2.5 mm <sup>2</sup> ) 1x (20 ... 12)
<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>	2x (0,5 ... 2,5 mm <sup>2</sup> ) 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) 2x (0.5 ... 1.5 mm <sup>2</sup> ) 2x (20 ... 14)
<b>Design of screwdriver shaft</b>	Diameter 3 mm

#### Safety related data

<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
--------------------------	--------------------------------



Declaration of Conformity	Test Certificates	Shipping Approval
---------------------------	-------------------	-------------------



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Shipping Approval	other	Railway
-------------------	-------	---------



[Environmental Confirmations](#)

[Confirmation](#)

[Vibration and Shock](#)

Further information

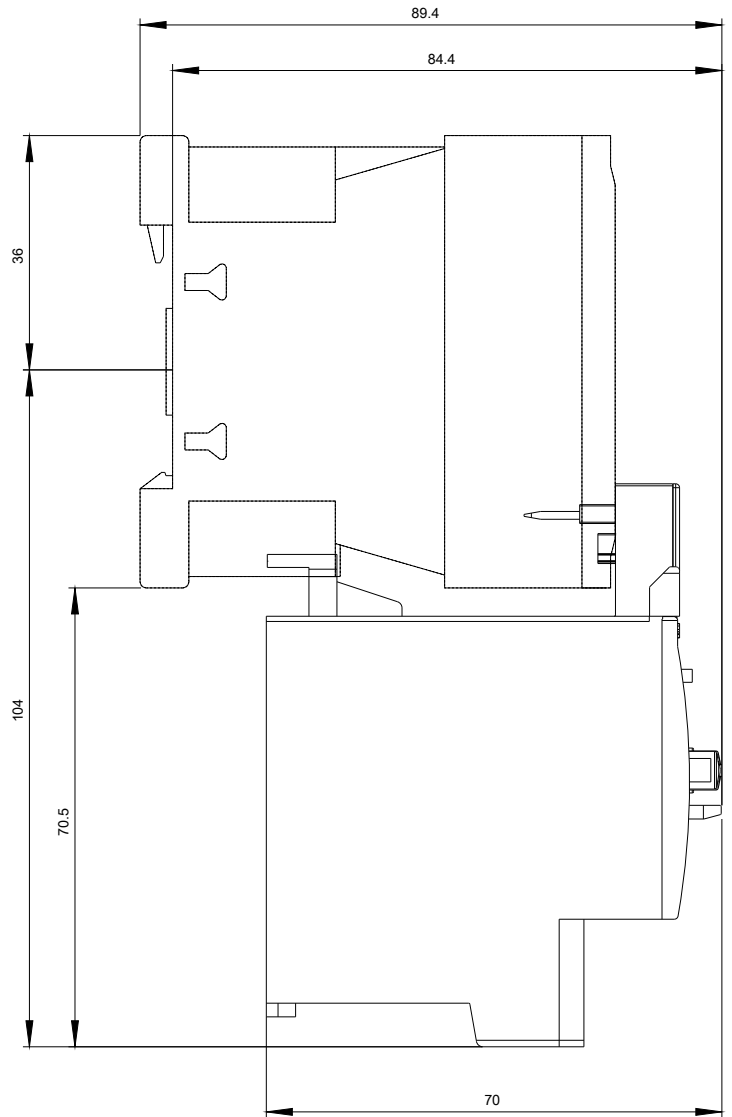
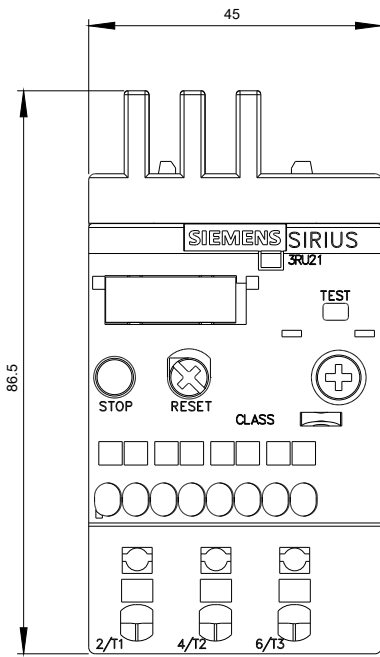
**Information- and Downloadcenter (Catalogs, Brochures,...)**  
<http://www.siemens.com/industrial-controls/catalogs>

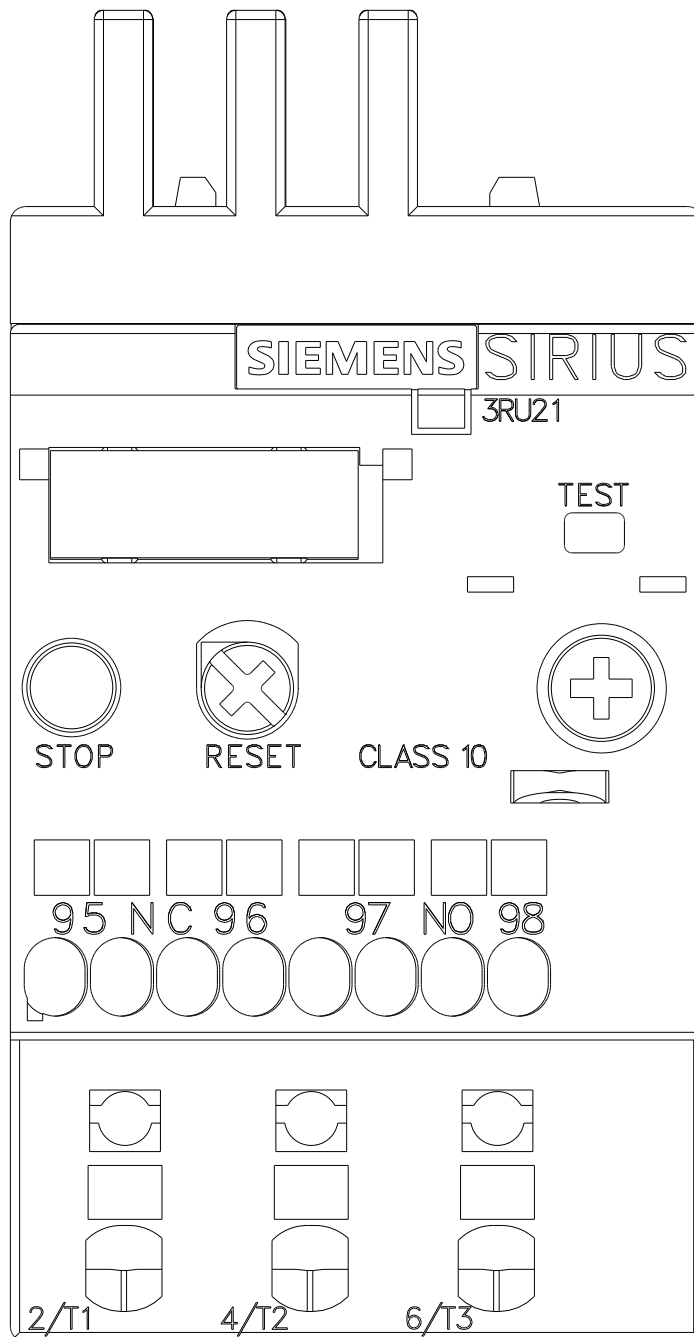
**Industry Mall (Online ordering system)**  
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RU2116-0AC0>

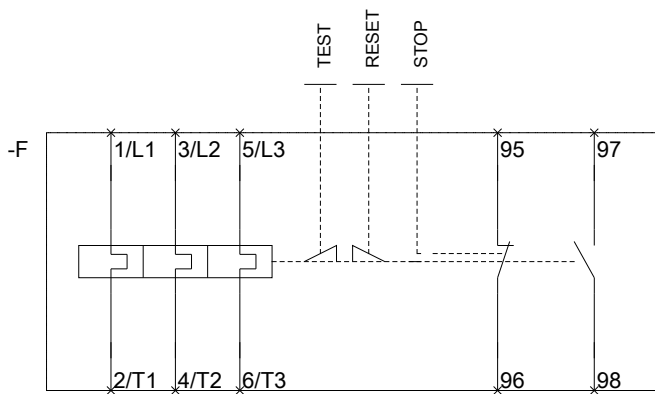
**Cax online generator**  
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-0AC0>

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**  
<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-0AC0>

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**  
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RU2116-0AC0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-0AC0&lang=en)







last modified:

07/05/2017