



OVERLOAD RELAY 9.0...12.5 A FOR MOTOR PROTECTION BGR S00, CLASS 10 FOR MOUNTING ONTO CONTACTORS MAIN CIRCUIT: SCREW TERMINAL AUXILIARY CIRCUIT: SCREW TERMINAL MANUAL-AUTOMATIC-RESET

product brand name	SIRIUS
Product designation	3RU2 thermal overload relay

**General technical data:**

Active power loss total typical	5.1 W
Insulation voltage	690 V
<ul style="list-style-type: none"> <li>with degree of pollution 3 Rated value</li> </ul>	
Surge voltage resistance Rated value	6 kV
Temperature compensation	-40 ... +60 °C
Size of contactor can be combined company-specific	S00
Type of assignment	2
Protection class IP	IP20
<ul style="list-style-type: none"> <li>on the front</li> <li>of the terminal</li> </ul>	IP20
Type of protection	DMT 98 ATEX G 001
Equipment marking	F
<ul style="list-style-type: none"> <li>acc. to DIN EN 81346-2</li> </ul>	

**Main circuit:**

Number of poles for main current circuit	3
Adjustable response value current of the current-dependent overload release	9 ... 12.5 A
Operating voltage	690 V
<ul style="list-style-type: none"> <li>Rated value</li> <li>at AC-3 Rated value maximum</li> </ul>	690 V
Operating frequency Rated value	50 ... 60 Hz
Operating current Rated value	12.5 A

<b>Operating current</b>	
<ul style="list-style-type: none"> <li>• at AC-3</li> <li>— at 400 V Rated value</li> </ul>	12.5 A

#### Auxiliary circuit:

<b>Number of NC contacts</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts</li> <li>— Note</li> </ul>	1 for contactor disconnection
<b>Number of NO contacts</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts</li> <li>— Note</li> </ul>	1 for message "Tripped"
<b>Number of CO contacts</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts</li> </ul>	0
<b>Design of the auxiliary switch</b>	integrated
<b>Operating current of the 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>	3 A 3 A 3 A 3 A 2 A 1 A
<b>Operating current of the auxiliary contacts at DC-13</b>	
<ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 110 V</li> <li>• at 125 V</li> <li>• at 220 V</li> </ul>	2 A 0.22 A 0.22 A 0.11 A

#### Protective and monitoring functions:

<b>Trip class</b>	CLASS 10
<b>Design of the overload circuit breaker</b>	thermal

#### 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>	12.5 A 12.5 A
<b>Contact rating of the auxiliary contacts acc. to UL</b>	B600 / R300

#### Installation/ mounting/ dimensions:

<b>mounting position</b>	any
<b>Mounting type</b>	direct mounting
<b>Height</b>	76 mm
<b>Width</b>	45 mm
<b>Depth</b>	70 mm
<b>Required spacing</b>	
<ul style="list-style-type: none"> <li>• with side-by-side mounting</li> </ul>	

— 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

#### Connections/ Terminals:

<b>Product function</b>	
• removable terminal for auxiliary and control circuit	No
<b>Type of electrical connection</b>	
• for main current circuit	screw-type terminals
• for auxiliary and control current circuit	screw-type terminals
<b>Arrangement of electrical connectors for main current circuit</b>	Top and bottom
<b>Type of connectable conductor cross-section</b>	
• for main contacts	
— single or multi-stranded	2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>
— finely stranded with core end processing	2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
• 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 <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )
— finely stranded with core end processing	2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
• for AWG conductors for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14)
<b>Design of screwdriver shaft</b>	5 to 6 mm diameter
<b>Design of the thread of the connection screw</b>	
• for main contacts	M3
• of the auxiliary and control contacts	M3

#### Safety related data:

<b>Proportion of dangerous failures</b>	
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• with low demand rate acc. to SN 31920	50 %
• with high demand rate acc. to SN 31920	50 %
<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
<b>Protection against electrical shock</b>	finger-safe

<b>Mechanical data:</b>	
<b>Size of overload relay</b>	S00

<b>Ambient conditions:</b>	
<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>Relative humidity during operation</b>	0 ... 90 %

<b>Display:</b>	
<b>Display version</b>	
• for switching status	Slide switch

<b>Certificates/ approvals:</b>	
<b>General Product Approval</b>	<b>For use in hazardous locations</b>
	<b>Declaration of Conformity</b>



<b>Test Certificates</b>	<b>Shipping Approval</b>
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<b>Shipping Approval</b>	<b>other</b>
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**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**

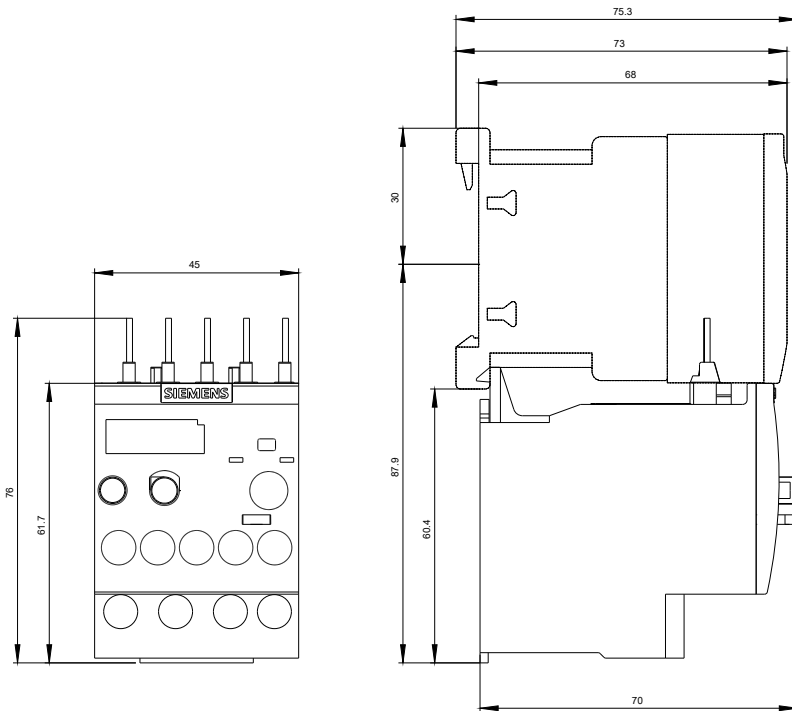
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RU21161KB0>

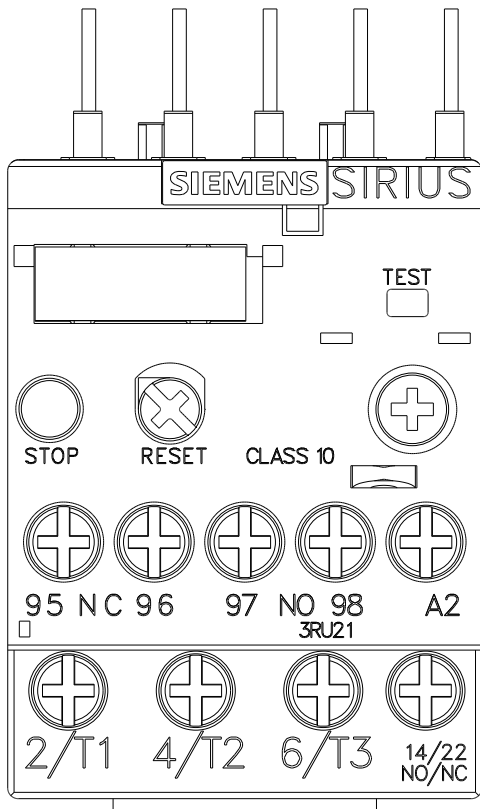
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RU21161KB0>

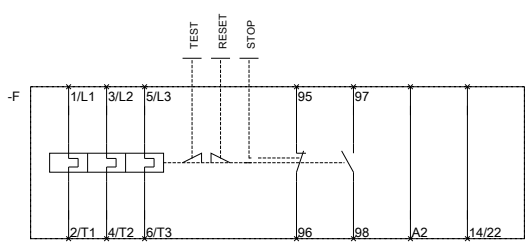
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mfb=3RU21161KB0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RU21161KB0&lang=en)





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