

OVERLOAD RELAY 3.5...5.0 A FOR MOTOR PROTECTION SZ S00, CLASS 10, F. MOUNTING ONTO CONTACTOR MAIN CIRCUIT: RING CABLE LUG AUX. CIRCUIT: RING CABLE LUG MANUAL-AUTOMATIC-RESET

product brand name	SIRIUS
Product designation	3RU2 thermal overload relay

**General technical data:**

<b>Active power loss total typical</b>	W	6.1
<b>Insulation voltage</b>	V	690
• with degree of pollution 3 Rated value		
<b>Shock resistance</b>		8g / 11 ms
• acc. to IEC 60068-2-27		
<b>Surge voltage resistance Rated value</b>	kV	6
<b>Temperature compensation</b>	°C	-40 ... +60
<b>Size of contactor can be combined company-specific</b>		S00
<b>Type of assignment</b>		2
<b>Protection class IP</b>		IP20
• on the front		
• of the terminal		IP20
<b>Equipment marking</b>		F
• acc. to DIN EN 81346-2		

**Main circuit:**

<b>Number of poles for main current circuit</b>		3
<b>Adjustable response value current of the current-dependent overload release</b>	A	3.5 ... 5
<b>Operating voltage</b>	V	690
• Rated value		
• at AC-3 Rated value maximum	V	690
<b>Operating frequency Rated value</b>	Hz	50 ... 60

<b>Operating current Rated value</b>	A	5
<b>Operating current</b>		
• at AC-3		
— at 400 V Rated value	A	5

#### Auxiliary circuit:

<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>Design of the auxiliary switch</b>		integrated
<b>Operating current of the auxiliary contacts at AC-15</b>		
• 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
<b>Operating current of the auxiliary contacts at DC-13</b>		
• 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:

<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>		
• at 480 V Rated value	A	5
• at 600 V Rated value	A	5
<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>	mm	76
<b>Width</b>	mm	45
<b>Depth</b>	mm	70
<b>Required spacing</b>		

• 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:

<b>Type of electrical connection</b>		
• for main current circuit		ring cable connection
• for auxiliary and control current circuit		ring cable connection
<b>Arrangement of electrical connectors for main current circuit</b>		Top and bottom
<b>Product function</b>		
• removable terminal for auxiliary and control circuit		No
<b>Tightening torque</b>		
• for ring cable lug		
— for main contacts	N·m	1.2 ... 0.8
— for auxiliary contacts	N·m	0.8 ... 1.2
<b>Outer diameter of the usable ring cable lug maximum</b>	mm	7.5
<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>		
• with low demand rate acc. to SN 31920	%	50
• 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		
• during operation	°C	-40 ... +70
• during storage	°C	-55 ... +80
• during transport	°C	-55 ... +80
Relative humidity during operation	%	0 ... 90

#### Display:

Display version		Slide switch
• for switching status		

#### Certificates/ approvals:

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

[Special Test Certificate](#)



Shipping Approval	other
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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**

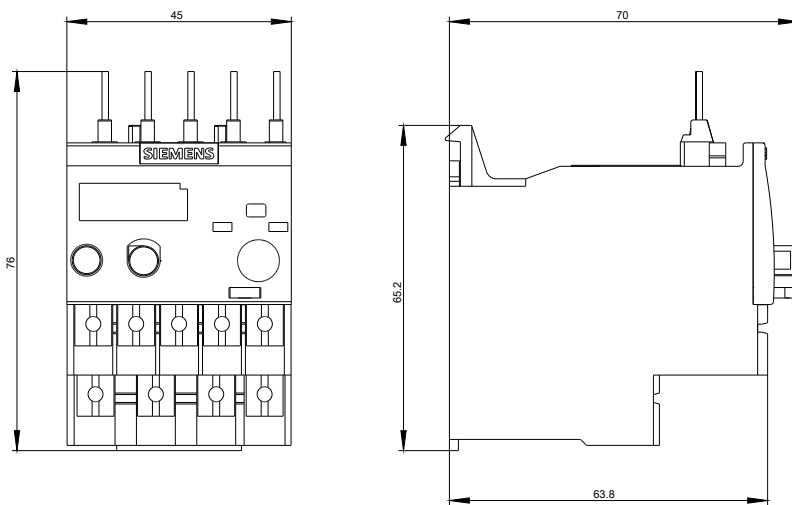
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RU21161FJ0>

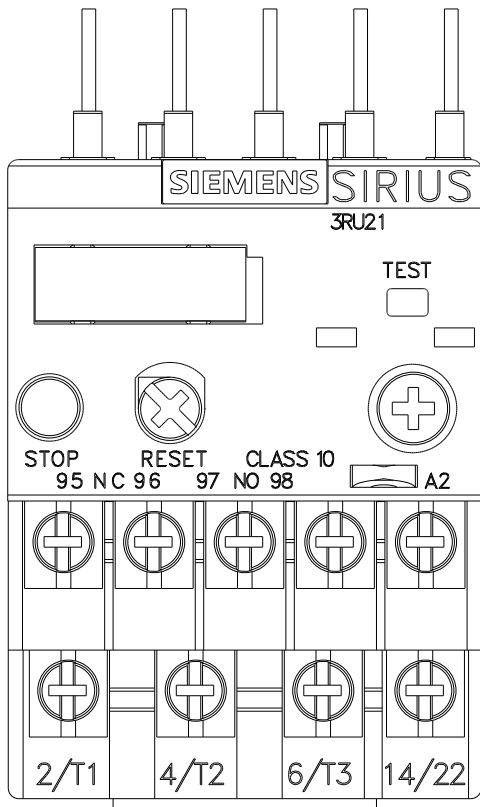
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RU21161FJ0/all>

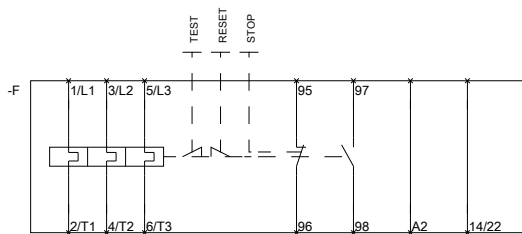
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mfb=3RU21161FJ0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RU21161FJ0&lang=en)





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