



Overload relay 3.5...5.0 A Thermal For motor protection Size S00, Class 10  
 Contactor mounting Main circuit: Ring cable lug Auxiliary circuit: ring cable  
 lug Manual-Automatic-Reset

product brand name	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] for rated value of the current at AC in hot operating state	6.6 W
<ul style="list-style-type: none"> <li>per pole</li> </ul>	2.2 W
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation in networks with grounded star point	
<ul style="list-style-type: none"> <li>between auxiliary and auxiliary circuit</li> <li>between auxiliary and auxiliary circuit</li> <li>between main and auxiliary circuit</li> <li>between main and auxiliary circuit</li> </ul>	440 V 440 V 440 V 440 V
shock resistance according to IEC 60068-2-27	8g / 11 ms
type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD
certificate of suitability according to ATEX directive 2014/34/EU	DMT 98 ATEX G 001
reference code according to IEC 81346-2	F
Substance Prohibitance (Date)	10/01/2009

### Ambient conditions

installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul style="list-style-type: none"> <li>during operation</li> <li>during storage</li> <li>during transport</li> </ul>	-40 ... +70 °C -55 ... +80 °C -55 ... +80 °C
temperature compensation	-40 ... +60 °C
relative humidity during operation	10 ... 95 %

### Main circuit

number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	3.5 ... 5 A
operating voltage	
<ul style="list-style-type: none"> <li>rated value</li> <li>at AC-3e rated value maximum</li> </ul>	690 V 690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	5 A
operational current at AC-3e at 400 V rated value	5 A

<b>operating power</b>	
<ul style="list-style-type: none"> <li>at AC-3 <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> </li> <li>at AC-3e <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> </li> </ul>	1.5 kW 2.2 kW 4 kW  1.5 kW 2.2 kW 4 kW
<b>Auxiliary circuit</b>	
<b>design of the auxiliary switch</b>	integrated
<b>number of NC contacts for auxiliary contacts</b>	1
<ul style="list-style-type: none"> <li>note</li> </ul>	for contactor disconnection
<b>number of NO contacts for auxiliary contacts</b>	1
<ul style="list-style-type: none"> <li>note</li> </ul>	for message "Tripped"
number of CO contacts for auxiliary contacts	0
<b>operational 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> <li>at 690 V</li> </ul>	3 A 3 A 3 A 3 A 2 A 1 A 0.75 A
<b>operational current of auxiliary contacts at DC-13</b>	
<ul style="list-style-type: none"> <li>at 24 V</li> <li>at 60 V</li> <li>at 110 V</li> <li>at 125 V</li> <li>at 220 V</li> </ul>	2 A 0.3 A 0.22 A 0.22 A 0.11 A
<b>contact rating of auxiliary contacts according to UL</b>	B600 / R300
<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 3-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>	5 A 5 A
<b>Short-circuit protection</b>	
<b>design of the fuse link</b>	
<ul style="list-style-type: none"> <li>for short-circuit protection of the auxiliary switch required</li> </ul>	fuse gG: 6 A, quick: 10 A
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>fastening method</b>	Contactor mounting
<b>height</b>	76 mm
<b>width</b>	45 mm
<b>depth</b>	70 mm
<b>Connections/ Terminals</b>	
<b>product component removable terminal for auxiliary and control circuit</b>	No
<b>type of electrical connection</b>	
<ul style="list-style-type: none"> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> </ul>	Ring cable lug connection ring terminal lug connection Top and bottom
<b>arrangement of electrical connectors for main current circuit</b>	
<b>tightening torque</b>	
<ul style="list-style-type: none"> <li>for main contacts for ring cable lug</li> <li>for auxiliary contacts for ring cable lug</li> </ul>	1.2 ... 0.8 N·m 0.8 ... 1.2 N·m
<b>outer diameter of the usable ring cable lug maximum</b>	7.5 mm
<b>design of screwdriver shaft</b>	Diameter 5 ... 6 mm
<b>size of the screwdriver tip</b>	Pozidriv PZ 2
<b>design of the thread of the connection screw</b>	

- for main contacts
- of the auxiliary and control contacts

M3  
M3

#### Safety related data

failure rate [FIT] with low demand rate according to SN 31920	50 FIT
<b>MTTF with high demand rate</b>	2 280 a
T1 value for proof test interval or service life according to IEC 61508	20 a
<b>protection class IP on the front according to IEC 60529</b>	IP00

#### Display

display version for switching status	Slide switch
--------------------------------------	--------------

#### Certificates/ approvals

##### General Product Approval

For use in hazard-  
ous locations



[Confirmation](#)



For use in hazard-  
ous locations

##### Declaration of Conformity

##### Test Certificates

##### Marine / Shipping



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



#### Marine / Shipping



#### other

#### Railway

[Confirmation](#)

[Vibration and Shock](#)

#### Further information

##### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

##### Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/ic10>

##### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RU2116-1FJ0>

##### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1FJ0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1FJ0>

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

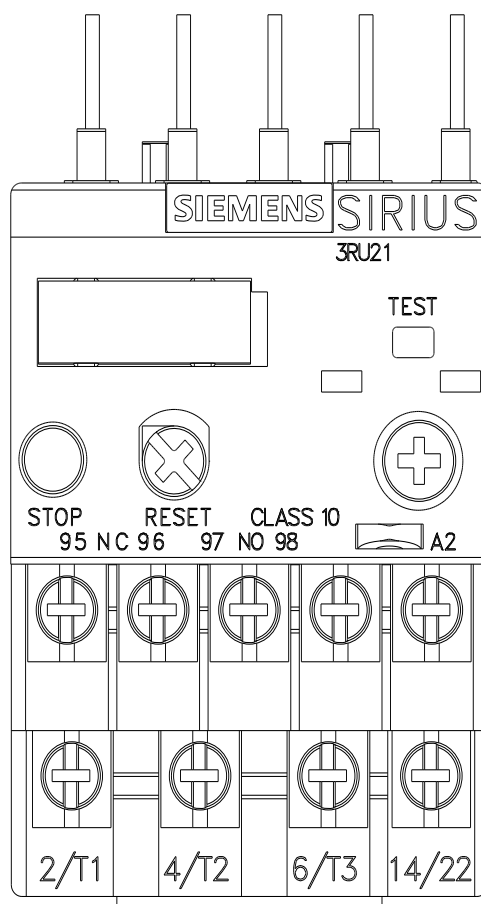
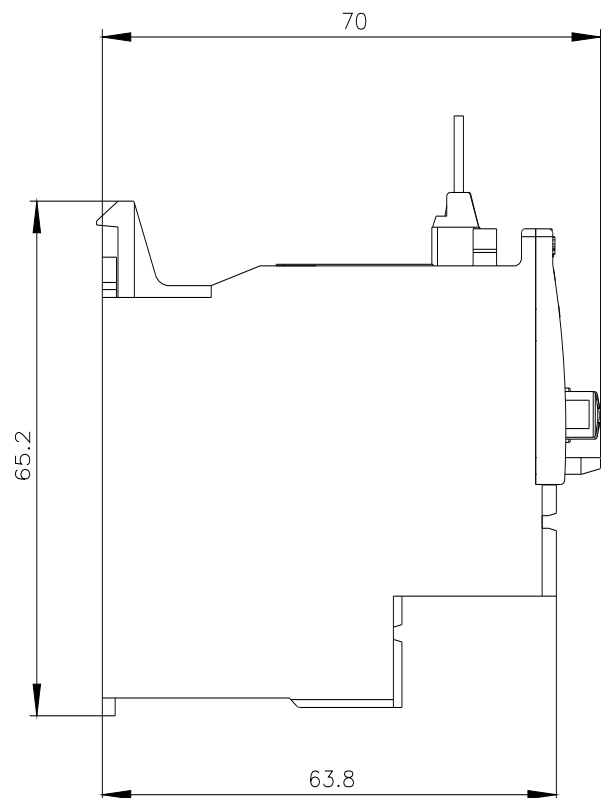
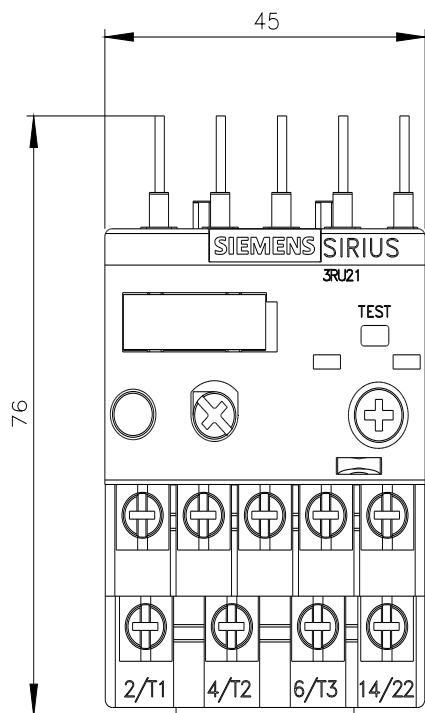
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RU2116-1FJ0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-1FJ0&lang=en)

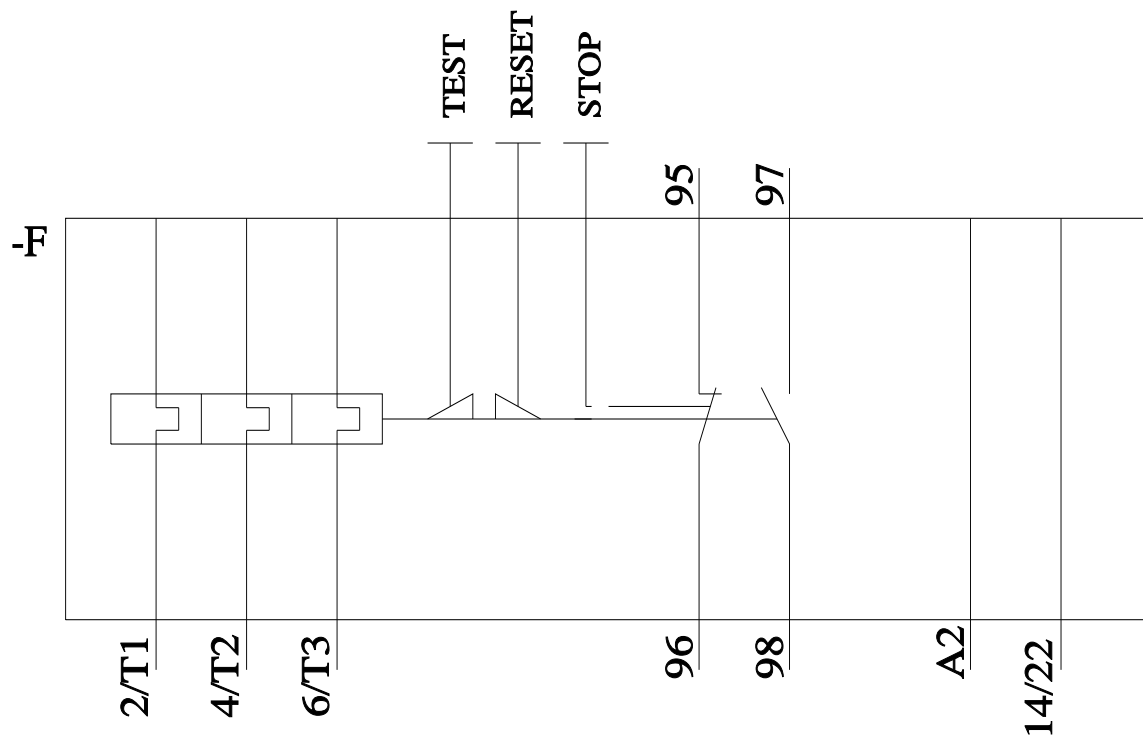
##### Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1FJ0/char>

##### Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-1FJ0&objecttype=14&gridview=view1>





last modified:

3/8/2022 