

Overload relay 54...65 A Thermal For motor protection Size S2,  
Class 10 Stand-alone installation Main circuit: Screw Auxiliary circuit:  
Screw Manual-Automatic-Reset



Product brand name	SIRIUS
Product designation	thermal overload relay
Product type designation	3RU2

General technical data	
Size of overload relay	S2
Size of contactor can be combined company-specific	S2
Power loss [W] for rated value of the current	
• at AC in hot operating state	15.6 W
• at AC in hot operating state per pole	5.2 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	
• in networks with grounded star point between auxiliary and auxiliary circuit	415 V
• in networks with grounded star point between auxiliary and auxiliary circuit	415 V
• in networks with grounded star point between main and auxiliary circuit	690 V

<ul style="list-style-type: none"> <li>in networks with grounded star point between main and auxiliary circuit</li> </ul>	690 V
<b>Protection class IP</b> <ul style="list-style-type: none"> <li>on the front</li> <li>of the terminal</li> </ul>	IP20 IP00
<b>Shock resistance</b> <ul style="list-style-type: none"> <li>acc. to IEC 60068-2-27</li> </ul>	8g / 11 ms
<b>Recovery time</b> <ul style="list-style-type: none"> <li>after overload trip with automatic reset typical</li> <li>after overload trip with remote-reset</li> <li>after overload trip with manual reset</li> </ul>	10 min 10 min 10 min
<b>Type of protection according to ATEX directive 2014/34/EU</b>	Ex II (2) GD
Certificate of suitability according to ATEX directive 2014/34/EU	DMT 98 ATEX G 001
<b>Reference code acc. to DIN EN 81346-2</b>	F

### Ambient conditions

<b>Installation altitude at height above sea level</b> <ul style="list-style-type: none"> <li>maximum</li> </ul>	2 000 m
<b>Ambient temperature</b> <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
<b>Temperature compensation</b>	-40 ... +60 °C
Relative humidity during operation	10 ... 95 %

### 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>	54 ... 65 A
<b>Operating voltage</b> <ul style="list-style-type: none"> <li>rated value</li> <li>at AC-3 rated value maximum</li> </ul>	690 V 690 V
<b>Operating frequency rated value</b>	50 ... 60 Hz
<b>Operating current rated value</b>	65 A

### Auxiliary circuit

<b>Design of the auxiliary switch</b>	integrated
<b>Number of NC contacts for auxiliary contacts</b> <ul style="list-style-type: none"> <li>Note</li> </ul>	1 for contactor disconnection
<b>Number of NO contacts for auxiliary contacts</b> <ul style="list-style-type: none"> <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>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 60 V	0.3 A
• at 110 V	0.22 A
• at 125 V	0.22 A
• at 220 V	0.11 A
<b>Design of the miniature circuit breaker</b>	
• for short-circuit protection of the auxiliary switch required	6A (SCC less than equal to 0.5 kA; U less than equal to 260V)
<b>Contact rating of auxiliary contacts according to UL</b>	B600 / R300

### Protective and monitoring functions

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

### UL/CSA ratings

<b>Full-load current (FLA) for three-phase AC motor</b>	
• at 480 V rated value	65 A
• at 600 V rated value	65 A

### Short-circuit protection

<b>Design of the fuse link</b>	
• for short-circuit protection of the auxiliary switch required	fuse gG: 6 A, quick: 10 A

### Installation/ mounting/ dimensions

<b>Mounting position</b>	any
<b>Mounting type</b>	stand-alone installation
<b>Height</b>	105 mm
<b>Width</b>	55 mm
<b>Depth</b>	117 mm
<b>Required spacing</b>	
• with side-by-side mounting	
— forwards	10 mm
— Backwards	0 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 mm

• for grounded parts	
— forwards	10 mm
— Backwards	0 mm
— upwards	10 mm
— at the side	10 mm
— downwards	10 mm
• for live parts	
— forwards	10 mm
— Backwards	0 mm
— upwards	10 mm
— downwards	10 mm
— at the side	10 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-sections</b>	
• for main contacts	
— single or multi-stranded	2x (1 ... 35 mm <sup>2</sup> ), 1x (1 ... 50 mm <sup>2</sup> )
— finely stranded with core end processing	2x (1 ... 25 mm <sup>2</sup> ), 1x (1 ... 35 mm <sup>2</sup> )
• at AWG conductors for main contacts	2x (18 ... 2), 1x (18 ... 1)
<b>Type of connectable conductor cross-sections</b>	
• 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> )
• at AWG conductors for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14)
<b>Tightening torque</b>	
• for main contacts with screw-type terminals	3 ... 4.5 N·m
• for auxiliary contacts with screw-type terminals	0.8 ... 1.2 N·m
<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	M6
• of the auxiliary and control contacts	M3

## Safety related data

T1 value for proof test interval or service life acc. to IEC 61508

20 y

## Display

### Display version

- for switching status

Slide switch

## Certificates/ approvals

### General Product Approval



CCC



CSA



UL



ATEX



IECEX

### Declaration of Conformity



EG-Konf.

[Miscellaneous](#)

### Test Certificates

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

### Marine / Shipping



ABS



BUREAU VERITAS

### Marine / Shipping



LRS



PRS



RINA



RMRS



DNVGL.COM/AF

### other

[Confirmation](#)

### Railway

[Special Test Certificate](#)

## Further information

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

[www.siemens.com/sirius/catalogs](http://www.siemens.com/sirius/catalogs)

### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RU2136-4JB1>

### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2136-4JB1>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2136-4JB1>

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

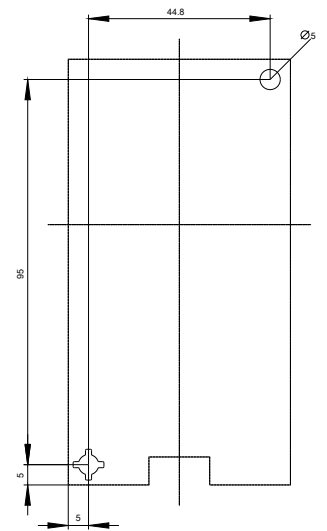
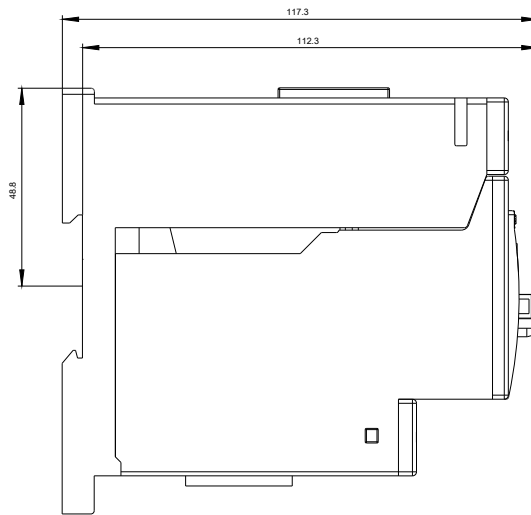
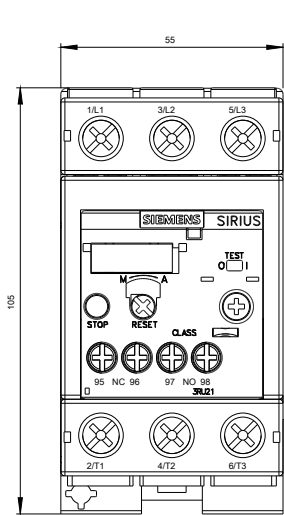
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RU2136-4JB1&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2136-4JB1&lang=en)

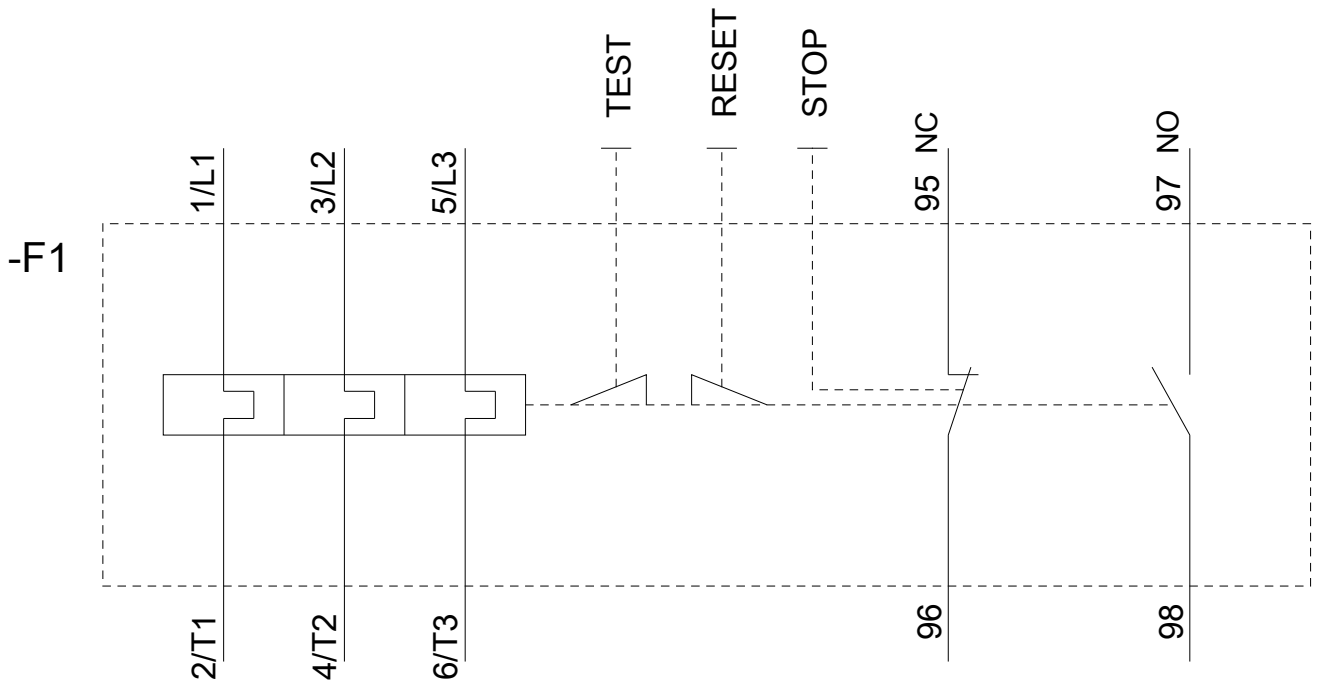
### Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2136-4JB1/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2136-4JB1&objecttype=14&gridview=view1>





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