

OVERLOAD RELAY 1...4 A FOR MOTOR PROTECTION SIZE S00,  
CLASS 5...30 CONTACTOR ASS. MAIN CIRCUIT: SCREW CONN.  
AUX.CIRCUIT: SCREW CONN. MANUAL-AUTOM.-RESET INT.  
GROUND FAULT DETECTION



product brand name	SIRIUS
Product designation	solid-state overload relay
General technical data	
Size of overload relay	S00
Size of contactor can be combined company-specific	S00
Power loss [W] total typical	0.1 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><li>in networks with grounded star point between auxiliary and auxiliary circuit</li><li>in networks with grounded star point between main and auxiliary circuit</li><li>in networks with grounded star point between main and auxiliary circuit</li></ul>	<div>300 V</div> <div>300 V</div> <div>600 V</div> <div>690 V</div>
Protection class IP <ul style="list-style-type: none"><li>on the front</li></ul>	<div>IP20</div>

• of the terminal	IP20
<b>Shock resistance</b>	
• acc. to IEC 60068-2-27	15g / 11 ms
<b>Vibration resistance</b>	1-6 Hz, 15 mm; 6-500 Hz, 20 m/s <sup>2</sup> ; 10 cycles
<b>Thermal current</b>	4 A
<b>Recovery time</b>	
• after overload trip with automatic reset typical	3 min
• after overload trip with remote-reset	0 min
• after overload trip with manual reset	0 min
<b>Type of protection</b>	II (2) G [Ex e] [Ex d] [Ex px] II (2) D [Ex t] [Ex p]
<b>Certificate of suitability relating to ATEX</b>	PTB 09 ATEX 3001
<b>Protection against electrical shock</b>	finger-safe
Equipment marking acc. to DIN EN 81346-2	F

<b>Ambient conditions</b>	
<b>Installation altitude at height above sea level maximum</b>	2 000 m
<b>Ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C
<b>Temperature compensation</b>	60 ... -25 °C
<b>Relative humidity during operation</b>	10 ... 95 %

<b>Main circuit</b>	
<b>Number of poles for main current circuit</b>	3
<b>Adjustable pick-up value current of the current-dependent overload release</b>	1 ... 4 A
<b>Operating voltage</b>	
• rated value	690 V
• for remote-reset function at DC	24 V
• at AC-3 rated value maximum	690 V
<b>Operating frequency rated value</b>	50 ... 60 Hz
<b>Operating current rated value</b>	4 A

<b>Auxiliary circuit</b>	
<b>Design of the auxiliary switch</b>	integrated
<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>Operating current of auxiliary contacts at AC-15</b>	
• at 24 V	4 A
• at 110 V	4 A
• at 120 V	4 A
• at 125 V	4 A
• at 230 V	3 A
<b>Operating current of auxiliary contacts at DC-13</b>	
• at 24 V	2 A
• at 60 V	0.55 A
• at 110 V	0.3 A
• at 125 V	0.3 A
• at 220 V	0.11 A

Protective and monitoring functions	
<b>Trip class</b>	CLASS 5E, 10E, 20E and 30E adjustable
<b>Design of the overload release</b>	electronic
<b>Response time of the ground fault protection in settled state</b>	1 000 ms
<b>Operating range of the ground fault protection relating to current setting value</b>	
• minimum	$I_{Motor} > \text{lower current setting value}$
• maximum	$I_{Motor} < \text{upper current setting value} \times 3.5$

UL/CSA ratings	
<b>Full-load current (FLA) for three-phase AC motor</b>	
• at 480 V rated value	4 A
• at 600 V rated value	4 A
<b>Contact rating of auxiliary contacts according to UL</b>	B300 / R300

Short-circuit protection	
<b>Design of the fuse link</b>	
• for short-circuit protection of the main circuit	
— with type of coordination 1 required	gG: 35 A, RK5: 15 A
— with type of assignment 2 required	gG: 20 A
• for short-circuit protection of the auxiliary switch required	fuse gG: 6 A

Installation/ mounting/ dimensions	
<b>Mounting position</b>	any
<b>Mounting type</b>	direct mounting
<b>Height</b>	79 mm
<b>Width</b>	45 mm
<b>Depth</b>	73 mm
<b>Required spacing</b>	
• with side-by-side mounting	

— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm
• for grounded parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— at the side	6 mm
— downwards	0 mm
• for live parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	6 mm

## Connections/Terminals

<b>Product function</b>	
• removable terminal for auxiliary and control circuit	Yes
<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	1x (0,5 ... 4 mm <sup>2</sup> ), 2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 4 mm <sup>2</sup> )
— finely stranded with core end processing	1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )
• at AWG conductors for main contacts	1x (20 ... 12), 2x (20 ... 12)
<b>Type of connectable conductor cross-sections</b>	
• for auxiliary contacts	
— single or multi-stranded	1x (0,5 ... 4 mm <sup>2</sup> ), 2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )
— finely stranded with core end processing	1x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> ), 1x (0.5 ... 2.5 mm <sup>2</sup> )
• at AWG conductors for auxiliary contacts	1x (20 ... 14), 2x (20 ... 14)
<b>Tightening torque</b>	
• for main contacts with screw-type terminals	0.8 ... 1.2 N·m
• for auxiliary contacts with screw-type terminals	0.8 ... 1.2 N·m
<b>Design of screwdriver shaft</b>	Diameter 5 to 6 mm
<b>Design of the thread of the connection screw</b>	

- for main contacts
- of the auxiliary and control contacts

M3

M3

### Communication/ Protocol

Type of voltage supply via input/output link master

No

### Electromagnetic compatibility

Field-bound parasitic coupling acc. to IEC 61000-4-3

10 V/m

Electrostatic discharge acc. to IEC 61000-4-2

6 kV contact discharge / 8 kV air discharge

### Display

Display version

- for switching status

Slide switch

### Certificates/approvals

General Product Approval

EMC

For use in  
hazardous  
locations

CCC



CSA



UL



C-Tick



ATEX

Declaration of  
Conformity

Test Certificates

Shipping Approval



EG-Konf.

[Typprüfbescheinigung/Werkszeugnis](#)
[spezielle  
Prüfbescheinigungen](#)


ABS

BUREAU  
VERITAS

GL

Shipping Approval

other



LRS



RINA

[Umweltbestätigung](#)
[Bestätigungen](#)

### 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=3RB3113-4PB0>

Cax online generator

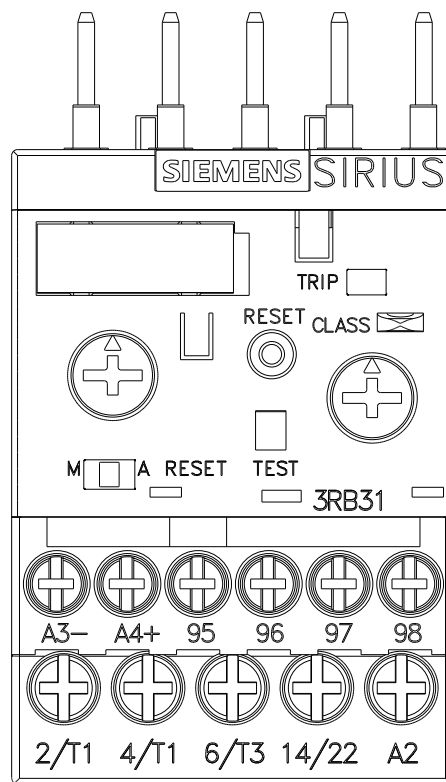
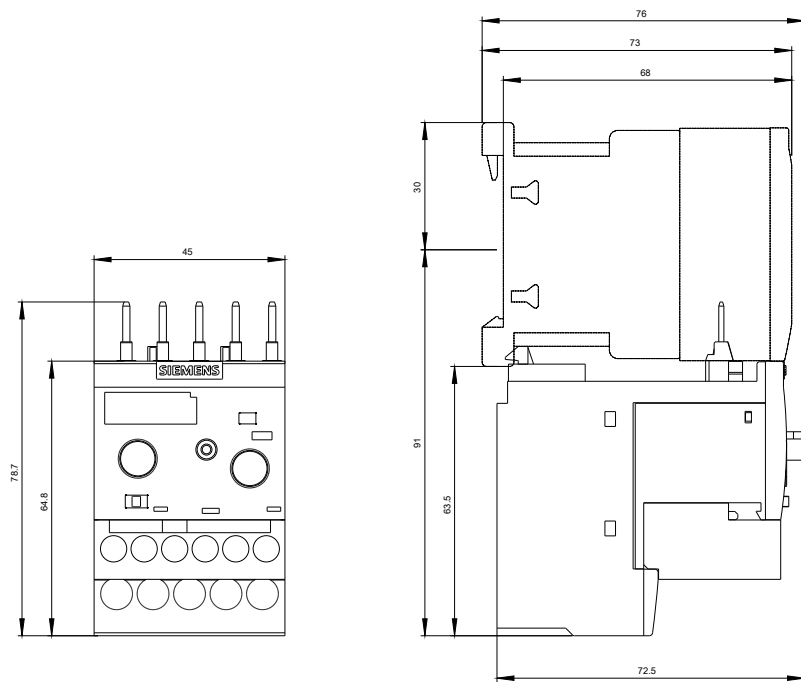
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB3113-4PB0>

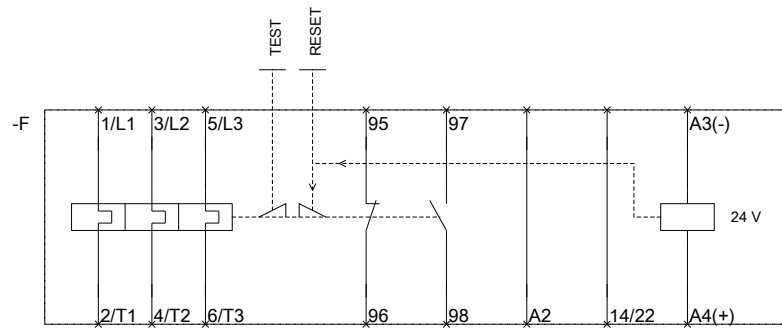
Service&amp;Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RB3113-4PB0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RB3113-4PB0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB3113-4PB0&lang=en)





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