

Overload relay 40... 50 A for motor protection Size S2, CLASS 10
 Contactor mounting Main circuit: Screw Auxiliary circuit: Screw
 Manual-Automatic-Reset



Figure similar

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] total typical	11 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"> in networks with grounded star point between auxiliary and auxiliary circuit 	415 V
<ul style="list-style-type: none"> in networks with grounded star point between auxiliary and auxiliary circuit 	415 V
<ul style="list-style-type: none"> in networks with grounded star point between main and auxiliary circuit 	690 V

<ul style="list-style-type: none"> in networks with grounded star point between main and auxiliary circuit 	690 V
Protection class IP	
<ul style="list-style-type: none"> on the front of the terminal 	IP20 IP00
Shock resistance	
<ul style="list-style-type: none"> acc. to IEC 60068-2-27 	8g / 11 ms
Recovery time	
<ul style="list-style-type: none"> after overload trip with automatic reset typical after overload trip with remote-reset after overload trip with manual reset 	10 min 10 min 10 min
Type of protection	Ex e
Certificate of suitability relating to ATEX	DMT 98 ATEX G 001
Protection against electrical shock	finger-safe when touched vertically from front acc. to IEC 60529
Reference code acc. to DIN EN 81346-2	F

Ambient conditions

Installation altitude at height above sea level	
<ul style="list-style-type: none"> maximum 	2 000 m
Ambient temperature	
<ul style="list-style-type: none"> during operation during storage during transport 	-40 ... +70 °C -55 ... +80 °C -55 ... +80 °C
Temperature compensation	-40 ... +60 °C
Relative humidity during operation	0 ... 90 %

Main circuit

Number of poles for main current circuit	3
Adjustable pick-up value current of the current-dependent overload release	40 ... 50 A
Operating voltage	
<ul style="list-style-type: none"> rated value at AC-3 rated value maximum 	690 V 690 V
Operating frequency rated value	50 ... 60 Hz
Operating current rated value	50 A

Auxiliary circuit

Design of the auxiliary switch	integrated
Number of NC contacts for auxiliary contacts	1
<ul style="list-style-type: none"> Note 	for contactor disconnection
Number of NO contacts for auxiliary contacts	1
<ul style="list-style-type: none"> Note 	for message "Tripped"
Number of CO contacts	
<ul style="list-style-type: none"> for auxiliary contacts 	0
Operating current of auxiliary contacts at AC-15	

<ul style="list-style-type: none"> • at 24 V • at 110 V • at 120 V • at 125 V • at 230 V • at 400 V 	3 A 3 A 3 A 3 A 2 A 1 A
Operating current of auxiliary contacts at DC-13 <ul style="list-style-type: none"> • at 24 V • at 60 V • at 110 V • at 125 V • at 220 V 	2 A 0.3 A 0.22 A 0.22 A 0.11 A
Design of the miniature circuit breaker <ul style="list-style-type: none"> • for short-circuit protection of the auxiliary switch required 	6A (SCC less than equal to 0.5 kA; U less than equal to 260V)
Contact rating of auxiliary contacts according to UL	B600 / R300

Protective and monitoring functions	
Trip class	CLASS 10
Design of the overload release	thermal

UL/CSA ratings	
Full-load current (FLA) for three-phase AC motor	
<ul style="list-style-type: none"> • at 480 V rated value • at 600 V rated value 	50 A 50 A

Short-circuit protection	
Design of the fuse link	
<ul style="list-style-type: none"> • for short-circuit protection of the auxiliary switch required 	fuse gG: 6 A, quick: 10 A

Installation/ mounting/ dimensions	
Mounting position	any
Mounting type	direct mounting
Height	90 mm
Width	55 mm
Depth	105 mm
Required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side • for grounded parts 	10 mm 0 mm 10 mm 10 mm 10 mm

— 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

Product function	
<ul style="list-style-type: none"> removable terminal for auxiliary and control circuit 	No
Type of electrical connection	
<ul style="list-style-type: none"> for main current circuit for auxiliary and control current circuit 	<p>screw-type terminals</p> <p>screw-type terminals</p>
Arrangement of electrical connectors for main current circuit	Top and bottom
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> for main contacts <ul style="list-style-type: none"> single or multi-stranded finely stranded with core end processing at AWG conductors for main contacts 	<p>2x (1 ... 35 mm²), 1x (1 ... 50 mm²)</p> <p>2x (1 ... 25 mm²), 1x (1 ... 35 mm²)</p> <p>2x (18 ... 2), 1x (18 ... 1)</p>
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> for auxiliary contacts <ul style="list-style-type: none"> single or multi-stranded finely stranded with core end processing at AWG conductors for auxiliary contacts 	<p>2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²)</p> <p>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)</p> <p>2x (20 ... 16), 2x (18 ... 14)</p>
Tightening torque	
<ul style="list-style-type: none"> for main contacts with screw-type terminals for auxiliary contacts with screw-type terminals 	<p>3 ... 4.5 N·m</p> <p>0.8 ... 1.2 N·m</p>
Design of screwdriver shaft	Diameter 5 ... 6 mm
Size of the screwdriver tip	Pozidriv PZ 2
Design of the thread of the connection screw	
<ul style="list-style-type: none"> for main contacts of the auxiliary and control contacts 	<p>M6</p> <p>M3</p>

Safety related data

T1 value for proof test interval or service life acc. to IEC 61508	20 y
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Display

Display version

- for switching status

Slide switch

Certificates/approvals

General Product Approval



CCC



CSA



UL



ATEX



IECEX

Declaration of Conformity



EG-Konf.

Test Certificates

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

Marine / Shipping



ABS



LRS



PRS

Marine / Shipping



RINA



RMRS



DNVGL.COM/AF

other

[Confirmation](#)

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=3RU2136-4HB0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2136-4HB0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2136-4HB0>

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

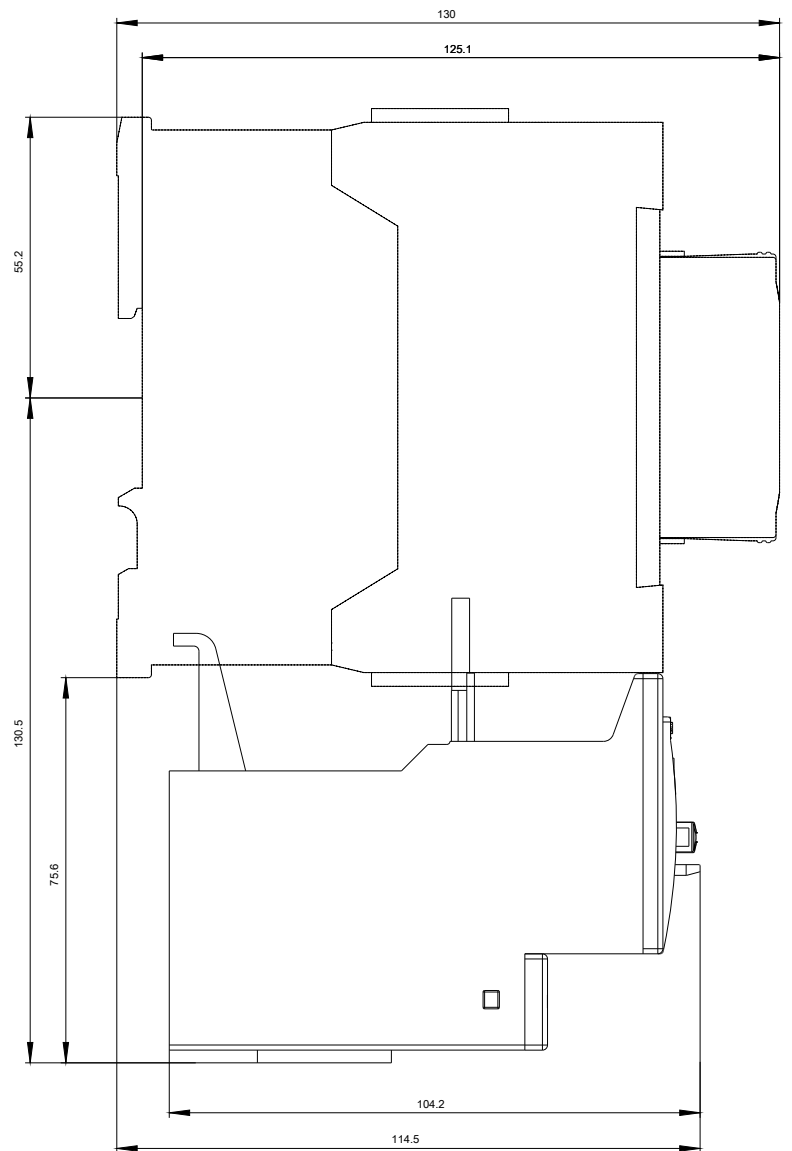
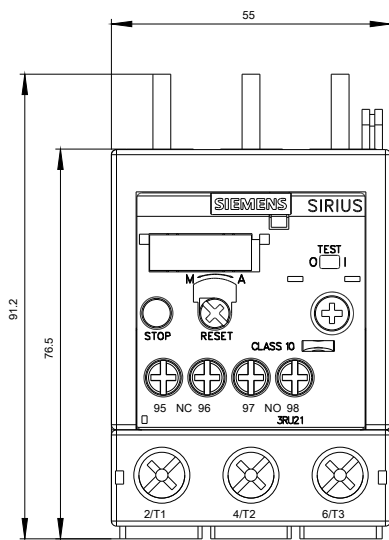
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2136-4HB0&lang=en

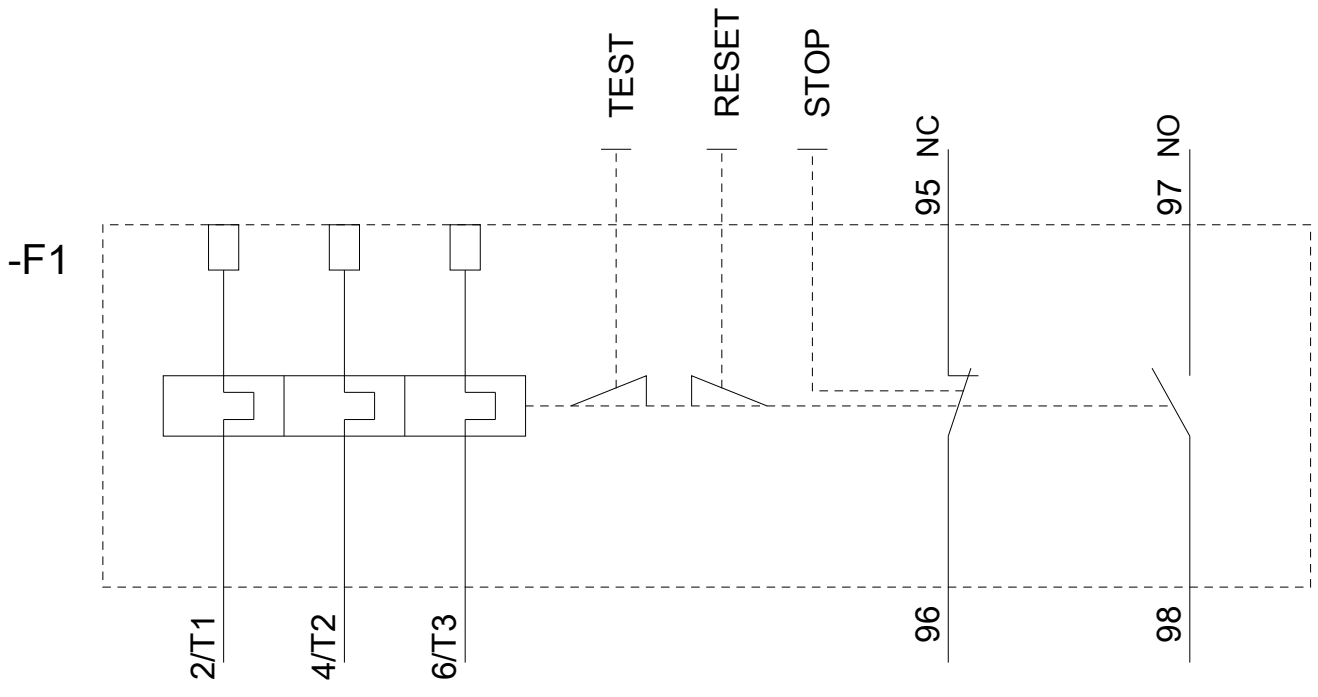
Characteristic: Tripping characteristics, I^t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2136-4HB0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2136-4HB0&objecttype=14&gridview=view1>





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