

Overload relay 70...80 A Thermal For motor protection Size S2,
Class 10A 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	18.9 W
• at AC in hot operating state per pole	6.3 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 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"> • in networks with grounded star point between main and auxiliary circuit 	690 V
<ul style="list-style-type: none"> • protection class IP on the front 	IP20
<ul style="list-style-type: none"> • Protection class IP of the terminal 	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 	10 min
<ul style="list-style-type: none"> • after overload trip with remote-reset 	10 min
<ul style="list-style-type: none"> • after overload trip with manual reset 	10 min
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 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 	-40 ... +70 °C
<ul style="list-style-type: none"> • during storage 	-55 ... +80 °C
<ul style="list-style-type: none"> • during transport 	-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 pick-up value current of the current-dependent overload release	70 ... 80 A
Operating voltage	
<ul style="list-style-type: none"> • rated value 	690 V
<ul style="list-style-type: none"> • at AC-3 rated value maximum 	690 V
Operating frequency rated value	50 ... 60 Hz
Operating current rated value	80 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

<ul style="list-style-type: none"> operating current of auxiliary contacts at AC-15 at 24 V 	3 A
<ul style="list-style-type: none"> Operating current of auxiliary contacts at AC-15 at 110 V 	3 A
<ul style="list-style-type: none"> Operating current of auxiliary contacts at AC-15 at 120 V 	3 A
<ul style="list-style-type: none"> Operating current of auxiliary contacts at AC-15 at 125 V 	3 A
<ul style="list-style-type: none"> Operating current of auxiliary contacts at AC-15 at 230 V 	2 A
<ul style="list-style-type: none"> operating current of auxiliary contacts at AC-15 at 400 V 	1 A
<ul style="list-style-type: none"> operating current of auxiliary contacts at DC-13 at 24 V 	2 A
<ul style="list-style-type: none"> Operating current of auxiliary contacts at DC-13 at 60 V 	0.3 A
<ul style="list-style-type: none"> Operating current of auxiliary contacts at DC-13 at 110 V 	0.22 A
<ul style="list-style-type: none"> operating current of auxiliary contacts at DC-13 at 125 V 	0.22 A
<ul style="list-style-type: none"> Operating current of auxiliary contacts at DC-13 at 220 V 	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 10A
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 	80 A
<ul style="list-style-type: none"> at 600 V rated value 	80 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

<ul style="list-style-type: none"> mounting position 	any
Mounting type	stand-alone installation
Height	105 mm
Width	55 mm
Depth	117 mm

Connections/ Terminals	
Product function	
<ul style="list-style-type: none"> removable terminal for auxiliary and control circuit 	No
<ul style="list-style-type: none"> Type of electrical connection for main current circuit 	screw-type terminals
<ul style="list-style-type: none"> Type of electrical connection for auxiliary and control current circuit 	screw-type terminals
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 	2x (1 ... 35 mm ²), 1x (1 ... 50 mm ²)
<ul style="list-style-type: none"> — finely stranded with core end processing 	2x (1 ... 25 mm ²), 1x (1 ... 35 mm ²)
<ul style="list-style-type: none"> at AWG conductors for main contacts 	2x (18 ... 2), 1x (18 ... 1)
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 	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²)
<ul style="list-style-type: none"> — finely stranded with core end processing 	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
<ul style="list-style-type: none"> at AWG conductors for auxiliary contacts 	2x (20 ... 16), 2x (18 ... 14)
Tightening torque	
<ul style="list-style-type: none"> for main contacts with screw-type terminals 	3 ... 4.5 N·m
<ul style="list-style-type: none"> for auxiliary contacts with screw-type terminals 	0.8 ... 1.2 N·m
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 	M6
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> for switching status 	Slide switch
Certificates/ approvals	

General Product Approval	For use in hazardous locations
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CCC



CSA



UL



ATEX



IECEX

Declaration of Conformity	Test Certificates	Marine / Shipping
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EG-Konf.

[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



ABS



BUREAU VERITAS

Marine / Shipping	other
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LRS



PRS



RINA



RMRS



DNVGL.COM/AF

[Confirmation](#)

Railway

[Special Test Certificate](#)

Further information

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=3RU2136-4RB1>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2136-4RB1>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2136-4RB1>

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

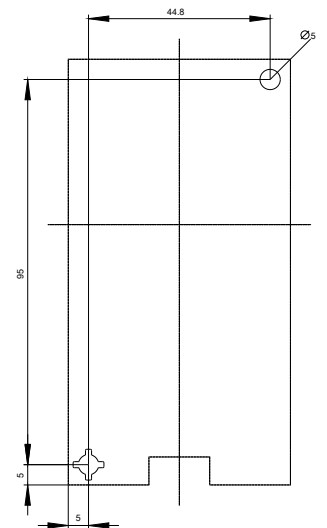
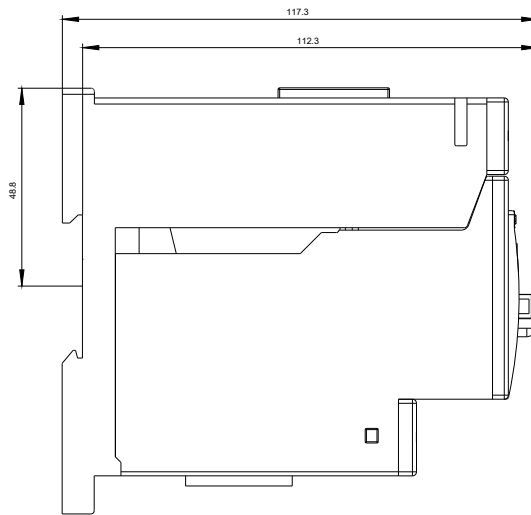
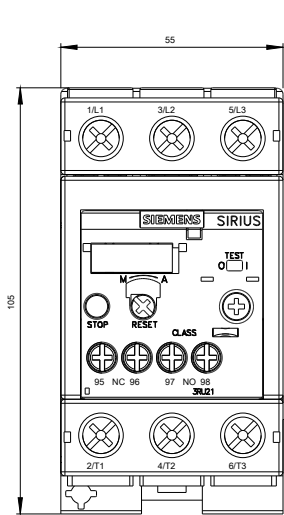
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2136-4RB1&lang=en

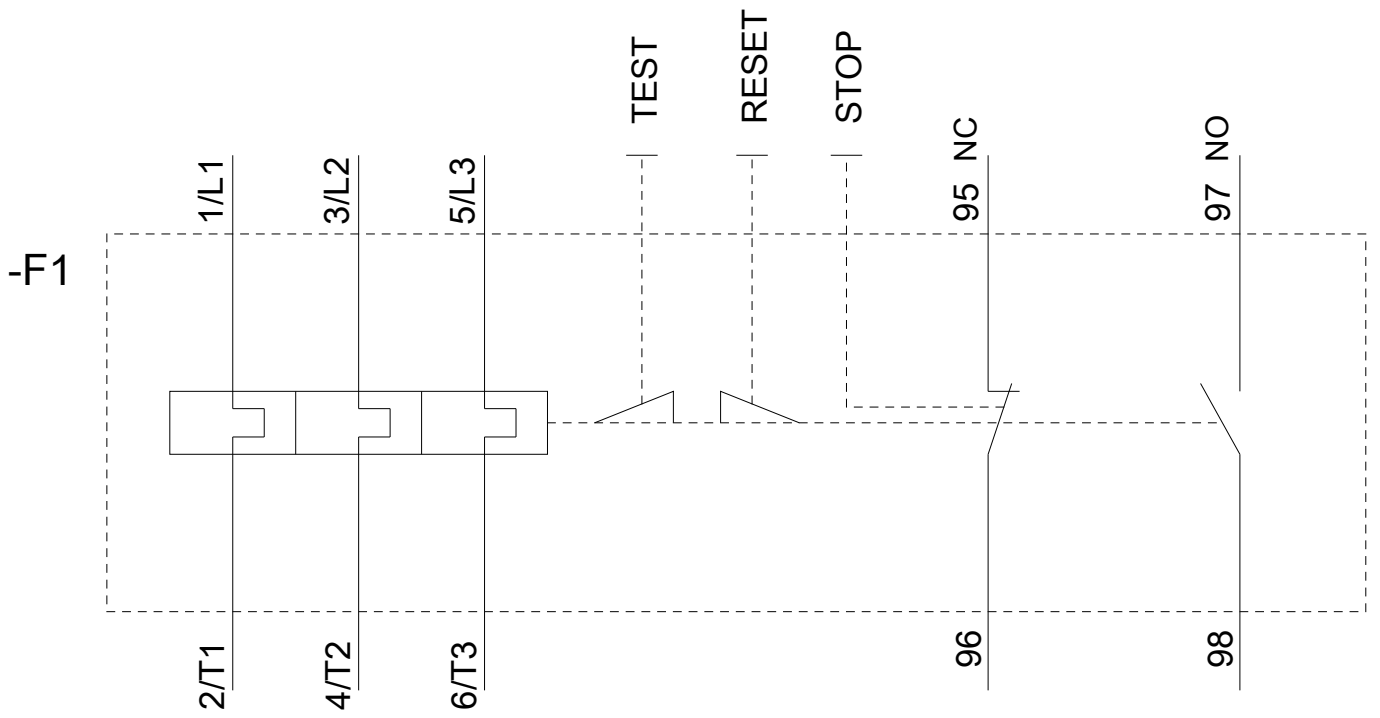
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2136-4RB1/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2136-4RB1&objecttype=14&gridview=view1>





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