



Overload relay 36...45 A Thermal For motor protection Size S2, Class 10 Contactor mounting Main circuit: Screw Auxiliary circuit: spring-type terminal Manual-Automatic-Reset

product brand name	SIRIUS
product designation	thermal overload relay
product type designation	3RU2
<b>General technical data</b>	
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
• per pole	5.2 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 protective separation	
• in networks with ungrounded 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 ungrounded star point between main and auxiliary circuit	690 V
• in networks with grounded star point between main and auxiliary circuit	690 V
shock resistance according to IEC 60068-2-27	8g / 11 ms
recovery time after overload trip	
• with automatic reset typical	10 min
• with remote-reset	10 min
• with manual reset	10 min
reference code according to IEC 81346-2	F
Substance Prohibitance (Date)	10/15/2014
SVHC substance name	Lead - 7439-92-1
Weight	0.328 kg
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-40 ... +70 °C
• during storage	-55 ... +80 °C
• during transport	-55 ... +80 °C
temperature compensation	-40 ... +60 °C
relative humidity during operation	10 ... 95 %
<b>Environmental footprint</b>	
Environmental Product Declaration(EPD)	Yes
global warming potential [CO <sub>2</sub> eq] total	108 kg
global warming potential [CO <sub>2</sub> eq] during manufacturing	1.76 kg
global warming potential [CO <sub>2</sub> eq] during sales	0.082 kg

global warming potential [CO2 eq] during operation	107 kg
global warming potential [CO2 eq] after end of life	-0.086 kg
<b>Main circuit</b>	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	36 ... 45 A
operating voltage	
● rated value	690 V
● at AC-3e rated value maximum	690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	45 A
operational current at AC-3e at 400 V rated value	45 A
operating power	
● at AC-3	
— at 400 V rated value	22 kW
— at 500 V rated value	30 kW
— at 690 V rated value	37 kW
● at AC-3e	
— at 400 V rated value	22 kW
— at 500 V rated value	30 kW
— at 690 V rated value	37 kW
<b>Auxiliary circuit</b>	
design of the auxiliary switch	integrated
number of NC contacts for auxiliary contacts	1
● note	for contactor disconnection
number of NO contacts for auxiliary contacts	1
● note	for message "Tripped"
number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15	
● 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
● at 690 V	0.75 A
operational current of auxiliary contacts at DC-13	
● 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
design of the miniature circuit breaker 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
<b>Protective and monitoring functions</b>	
trip class	CLASS 10
design of the overload release	thermal
<b>UL/CSA ratings</b>	
full-load current (FLA) for 3-phase AC motor	
● at 480 V rated value	45 A
● at 600 V rated value	45 A
<b>Short-circuit protection</b>	
design of the fuse link	
● for short-circuit protection of the auxiliary switch required	fuse gG: 6 A, quick: 10 A
<b>Installation/ mounting/ dimensions</b>	
mounting position	for mounting on contactors: with a vertical mounting plane +/-135° rotatable & +/- 22.5° tiltable, stand-alone installation: with a vertical mounting plane +/-135° rotatable and +/-45° tiltable; for more details see manual
fastening method	Contactor mounting
height	90 mm
width	55 mm

depth	105 mm
<b>Connections/ Terminals</b>	
product component 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 circuit	spring-loaded 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	
— solid or 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> )
• for AWG cables for main contacts	2x (18 ... 2), 1x (18 ... 1)
<b>type of connectable conductor cross-sections</b>	
• for auxiliary contacts	
— solid or stranded	2x (0.5 ... 2.5 mm <sup>2</sup> )
— finely stranded with core end processing	2x (0.5 ... 1.5 mm <sup>2</sup> )
— finely stranded without core end processing	2x (0.5 ... 2.5 mm <sup>2</sup> )
• for AWG cables for auxiliary contacts	2x (20 ... 14)
<b>tightening torque</b>	
• for main contacts with screw-type terminals	3 ... 4.5 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
IEC 61508	
<b>T1 value</b>	
• for proof test interval or service life according to IEC 61508	20 a
Electrical Safety	
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front
<b>Display</b>	
display version for switching status	Slide switch

<b>Approvals Certificates</b>	<b>General Product Approval</b>	<b>For use in hazardous locations</b>
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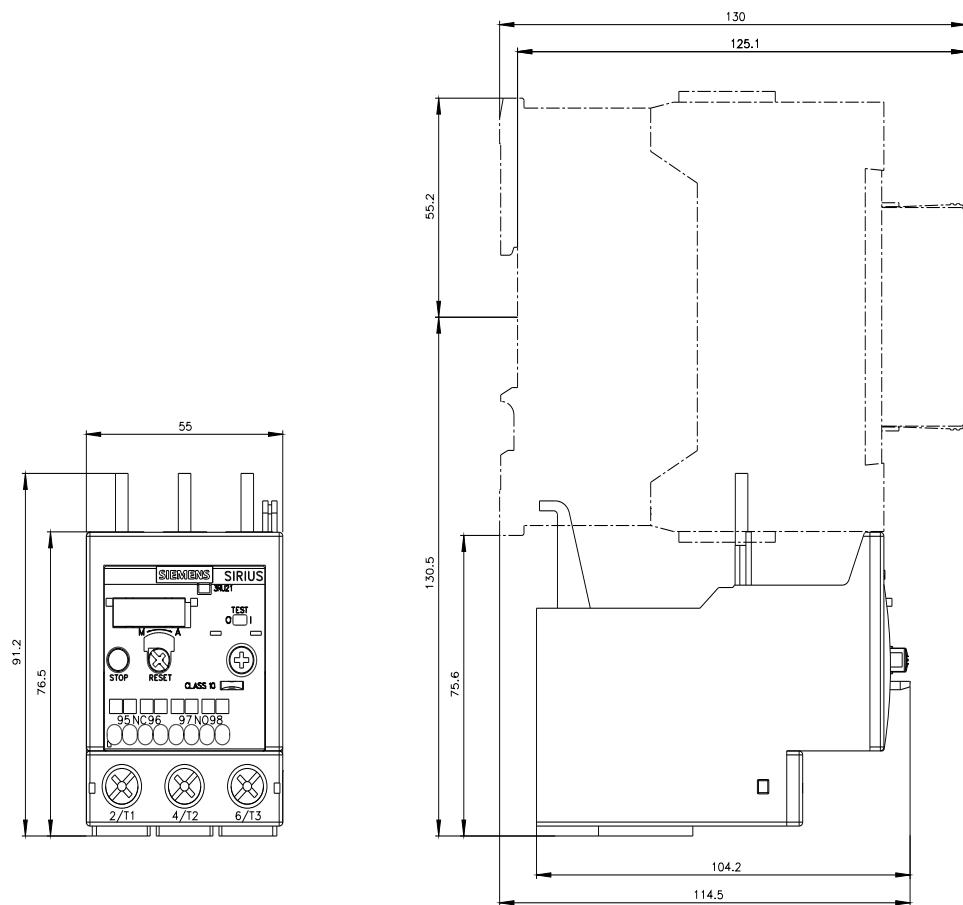


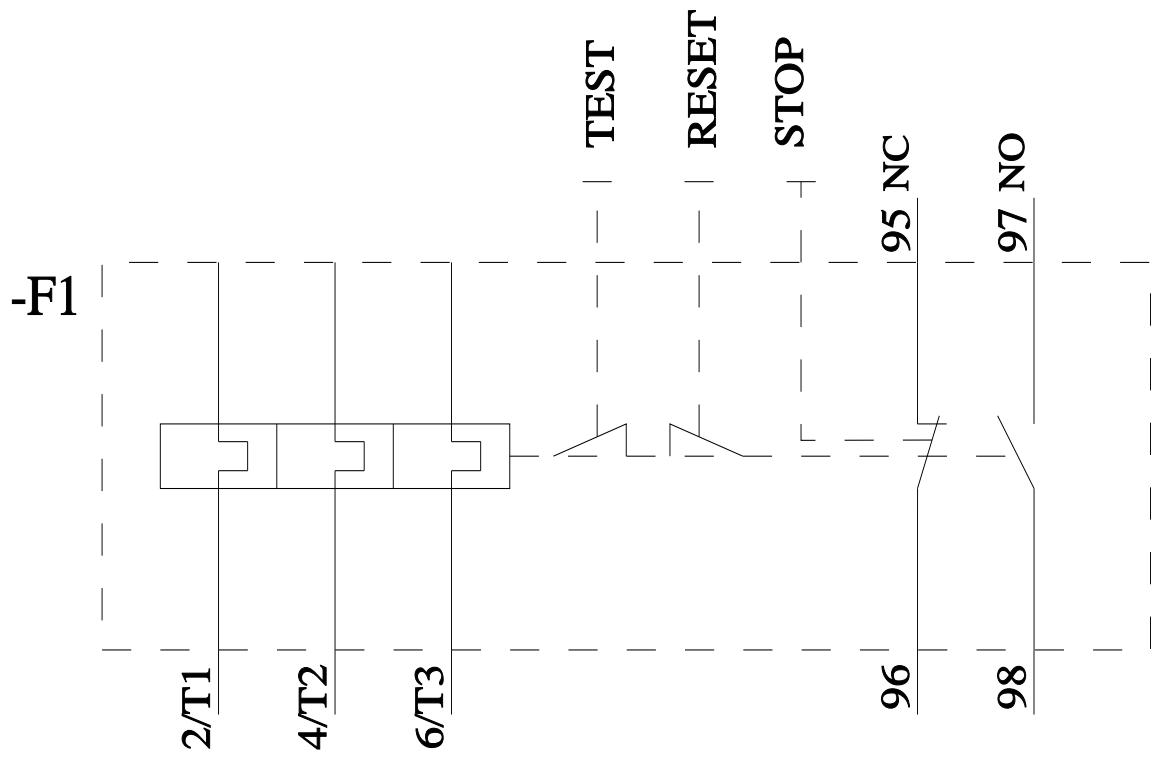
<b>For use in hazardous locations</b>	<b>Test Certificates</b>	<b>Maritime application</b>
	<a href="#">Miscellaneous</a> <a href="#">Type Test Certificates/Test Report</a> <a href="#">Special Test Certificate</a>	

<b>Maritime application</b>	<b>other</b>
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<b>other</b>	<b>Railway</b>	<b>Environment</b>
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**Further information****Information on the packaging**<https://support.industry.siemens.com/cs/ww/en/view/109813875>**Information for data generation and storage**<https://support.industry.siemens.com/cs/ww/en/view/109995012>**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=3RU2136-4GD0>**Cax online generator**<http://support.automation.siemens.com/WW/CAOrder/default.aspx?lang=en&mlfb=3RU2136-4GD0>**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**<https://support.industry.siemens.com/cs/ww/en/ps/3RU2136-4GD0>**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RU2136-4GD0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2136-4GD0&lang=en)**Characteristic: Tripping characteristics, I<sup>t</sup>t, Let-through current**<https://support.industry.siemens.com/cs/ww/en/ps/3RU2136-4GD0/char>**Further characteristics (e.g. electrical endurance, switching frequency)**<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2136-4GD0&objecttype=14&gridview=view1>



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