



Overload relay 22...32 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
<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	13.8 W
• per pole	4.6 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
Net Weight	0.469 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 [CO2 eq] total	109 kg

global warming potential [CO2 eq] during manufacturing	2.7 kg
global warming potential [CO2 eq] during sales	0.121 kg
global warming potential [CO2 eq] during operation	107 kg
global warming potential [CO2 eq] after end of life	0.0072 kg
<b>Main circuit</b>	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	22 ... 32 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	32 A
operational current at AC-3e at 400 V rated value	32 A
operating power	
• at AC-3	
— at 400 V rated value	15 kW
— at 500 V rated value	18.5 kW
— at 690 V rated value	30 kW
• at AC-3e	
— at 400 V rated value	15 kW
— at 500 V rated value	18.5 kW
— at 690 V rated value	30 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	32 A
• at 600 V rated value	32 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	stand-alone installation: with a vertical mounting plane +/-135° rotatable and +/-

fastening method	45° tilttable; for more details see manual
height	stand-alone installation
width	105 mm
depth	55 mm
117 mm	
<b>Connections/ Terminals</b>	
product component removable terminal for auxiliary and control circuit	No
type of electrical connection	
• for main current circuit	screw-type terminals
• for auxiliary and control circuit	screw-type terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections	
• 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)
type of connectable conductor cross-sections	
• for auxiliary contacts	
— solid or 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> )
• for AWG cables for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14)
tightening torque	
• 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
design of screwdriver shaft	Diameter 5 ... 6 mm
size of the screwdriver tip	Pozidriv PZ 2
design of the thread of the connection screw	
• for main contacts	M6
• of the auxiliary and control contacts	M3
IEC 61508	
T1 value	
• for proof test interval or service life according to IEC 61508	20 a
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
Display	
display version for switching status	Slide switch
Approvals Certificates	
General Product Approval	



[Confirmation](#)



[Miscellaneous](#)

General Product Approval	Test Certificates	Maritime application	other
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[Type Test Certificates/Test Report](#)



[Miscellaneous](#)

other	Environment
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[Confirmation](#)

[Environmental Confirmations](#)

[Environmental Confirmations](#)

## 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=3RU2136-4EB1>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2136-4EB1>

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

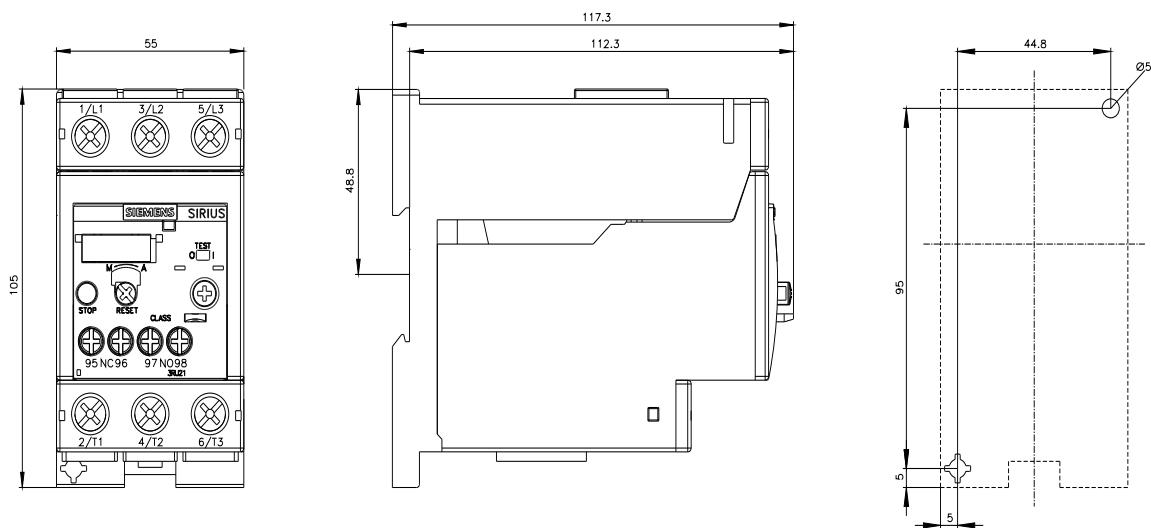
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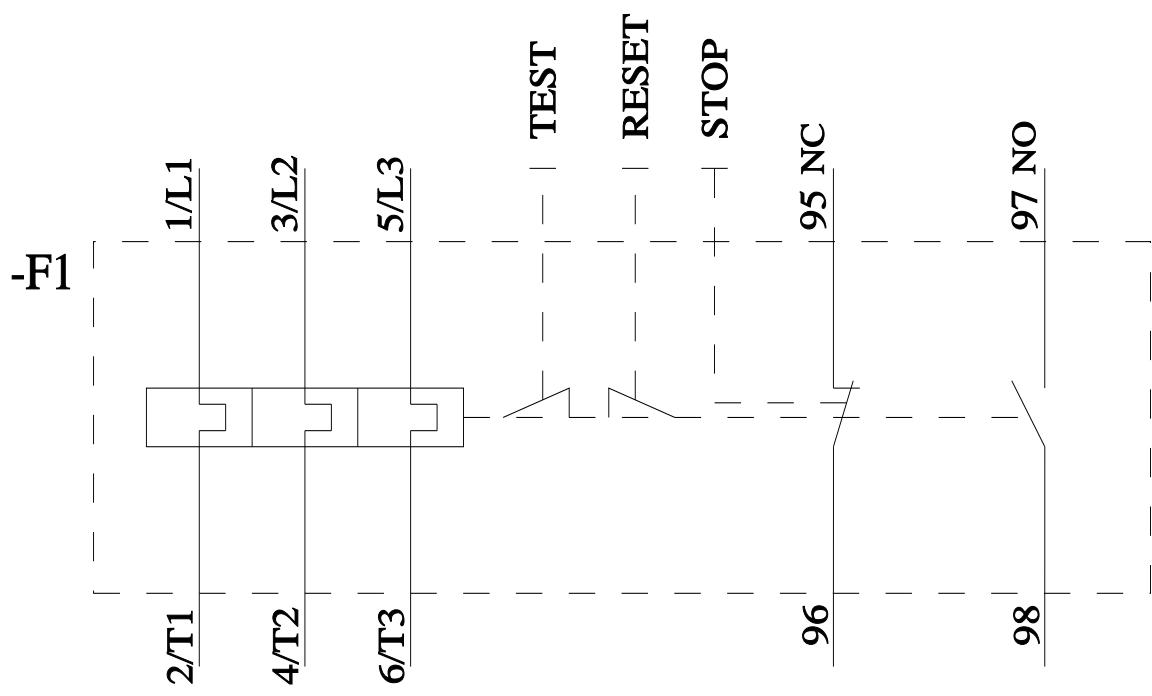
Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2136-4EB1>

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)





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