













Overload relay 40... 50 A Thermal For motor protection Size S2, Class 10  
 Contactor mounting 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	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
Net Weight	0.32 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	108 kg

global warming potential [CO2 eq] during manufacturing	1.8 kg
global warming potential [CO2 eq] during sales	0.083 kg
global warming potential [CO2 eq] during operation	107 kg
global warming potential [CO2 eq] after end of life	-0.063 kg
<b>Main circuit</b>	
<b>number of poles for main current circuit</b>	3
<b>adjustable current response value current of the current-dependent overload release</b>	40 ... 50 A
<b>operating voltage</b>	
• rated value	690 V
• at AC-3e rated value maximum	690 V
<b>operating frequency rated value</b>	50 ... 60 Hz
<b>operational current rated value</b>	50 A
operational current at AC-3e at 400 V rated value	50 A
<b>operating power</b>	
• at AC-3	
— at 400 V rated value	22 kW
— at 500 V rated value	30 kW
— at 690 V rated value	45 kW
• at AC-3e	
— at 400 V rated value	22 kW
— at 500 V rated value	30 kW
— at 690 V rated value	45 kW
<b>Auxiliary circuit</b>	
<b>design of the auxiliary switch</b>	integrated
<b>number of NC contacts for auxiliary contacts</b>	1
• note	for contactor disconnection
<b>number of NO contacts for auxiliary contacts</b>	1
• note	for message "Tripped"
number of CO contacts for auxiliary contacts	0
<b>operational current of auxiliary contacts at AC-15</b>	
• 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
<b>operational current of auxiliary contacts at DC-13</b>	
• 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)
<b>contact rating of auxiliary contacts according to UL</b>	B600 / R300
<b>Protective and monitoring functions</b>	
<b>trip class</b>	CLASS 10
<b>design of the overload release</b>	thermal
<b>UL/CSA ratings</b>	
<b>full-load current (FLA) for 3-phase AC motor</b>	
• at 480 V rated value	50 A
• at 600 V rated value	50 A
<b>Short-circuit protection</b>	
<b>design of the fuse link</b>	
• for short-circuit protection of the auxiliary switch required	fuse gG: 6 A, quick: 10 A
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	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	
Connections/ Terminals		
product component removable terminal for auxiliary and control circuit	No	
type of electrical connection	screw-type terminals screw-type terminals	
arrangement of electrical connectors for main current circuit	Top and bottom	
type of connectable conductor cross-sections	2x (1 ... 35 mm²), 1x (1 ... 50 mm²) 2x (1 ... 25 mm²), 1x (1 ... 35 mm²) 2x (18 ... 2), 1x (18 ... 1)	
type of connectable conductor cross-sections	2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) 2x (20 ... 16), 2x (18 ... 14)	
tightening torque	3 ... 4.5 N·m 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	M6 M3	
IEC 61508		
T1 value	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		For use in hazardous locations
<div><div> CCC</div><div> EG-Konf.</div><div></div><div> UL</div><div></div><div> ATEX</div></div>		
For use in hazardous locations	Test Certificates	Maritime application
 IECEX	<a href="#">Type Test Certificates/Test Report</a>	<a href="#">Special Test Certificate</a>
	 ABS	 BUREAU VERITAS
		 DNV
Maritime application		other



[Confirmation](#)

Railway

Environment

[Special Test Certificate](#)



[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=3RU2136-4HB0>

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, ...)

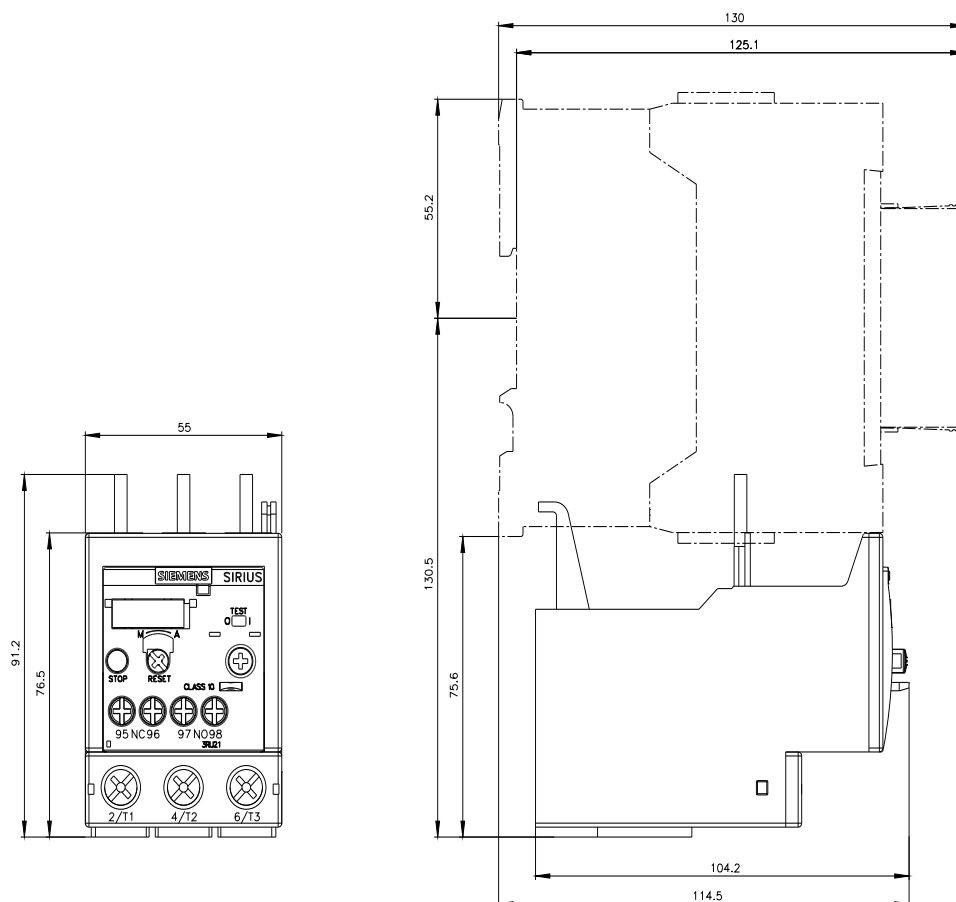
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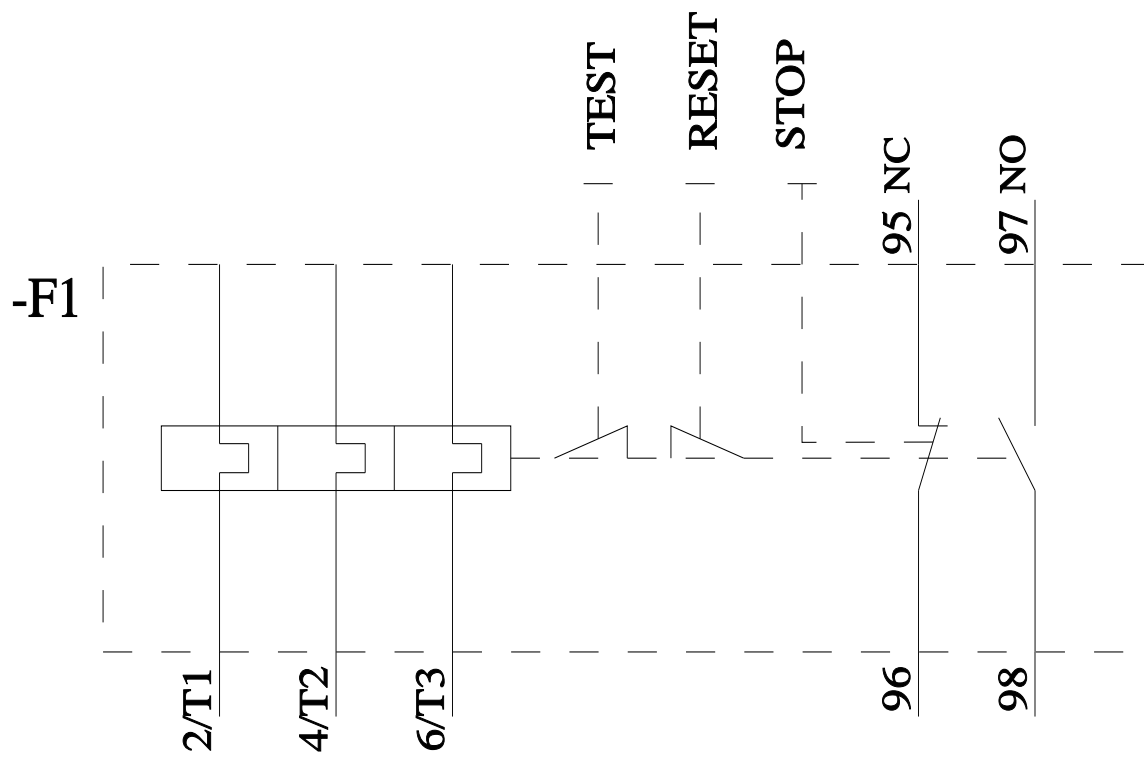
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<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2136-4HB0>

Characteristic curves

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