

















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
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	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	0.32 kg
Ambient conditions	
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 %
Environmental footprint	
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
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	40 ... 50 A
operating voltage <ul style="list-style-type: none"> rated value at AC-3e rated value maximum 	690 V 690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	50 A
operational current at AC-3e at 400 V rated value	50 A
operating power <ul style="list-style-type: none"> at AC-3 <ul style="list-style-type: none"> at 400 V rated value at 500 V rated value at 690 V rated value at AC-3e <ul style="list-style-type: none"> at 400 V rated value at 500 V rated value at 690 V rated value 	22 kW 30 kW 45 kW 22 kW 30 kW 45 kW
Auxiliary circuit	
design of the auxiliary switch	integrated
number of NC contacts for auxiliary contacts <ul style="list-style-type: none"> note 	1 for contactor disconnection
number of NO contacts for auxiliary contacts <ul style="list-style-type: none"> note 	1 for message "Tripped"
number of CO contacts for auxiliary contacts	0
operational 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 at 690 V 	3 A 3 A 3 A 3 A 2 A 1 A 0.75 A
operational 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 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 3-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	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
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 <ul style="list-style-type: none">for main current circuitfor auxiliary and control circuit	screw-type terminals 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">solid or strandedfinely stranded with core end processingfor AWG cables for main contacts	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 <ul style="list-style-type: none">for auxiliary contacts<ul style="list-style-type: none">solid or strandedfinely stranded with core end processingfor AWG cables for auxiliary contacts	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 <ul style="list-style-type: none">for main contacts with screw-type terminalsfor auxiliary contacts with screw-type terminals	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 <ul style="list-style-type: none">for main contactsof the auxiliary and control contacts	M6 M3	
IEC 61508		
T1 value <ul style="list-style-type: none">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		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	Marine / Shipping
 IECEX	Type Test Certificates/Test Report	Special Test Certificate
	 ABS	 BUREAU VERITAS
		 DNV
Marine / Shipping		other
Railway		
 LRS	 PRS	 RINA
	 RMRS	Confirmation
		Special Test Certificate
Environment		



Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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>

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, ...)

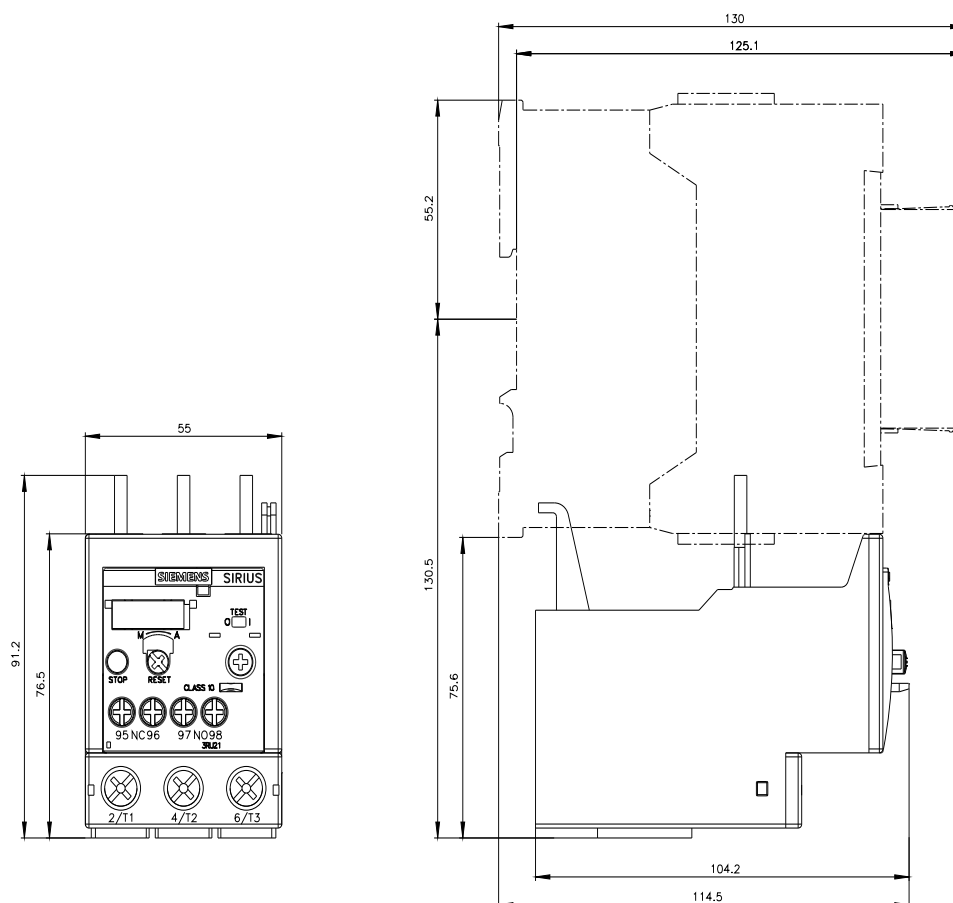
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2136-4HB0&lang=en

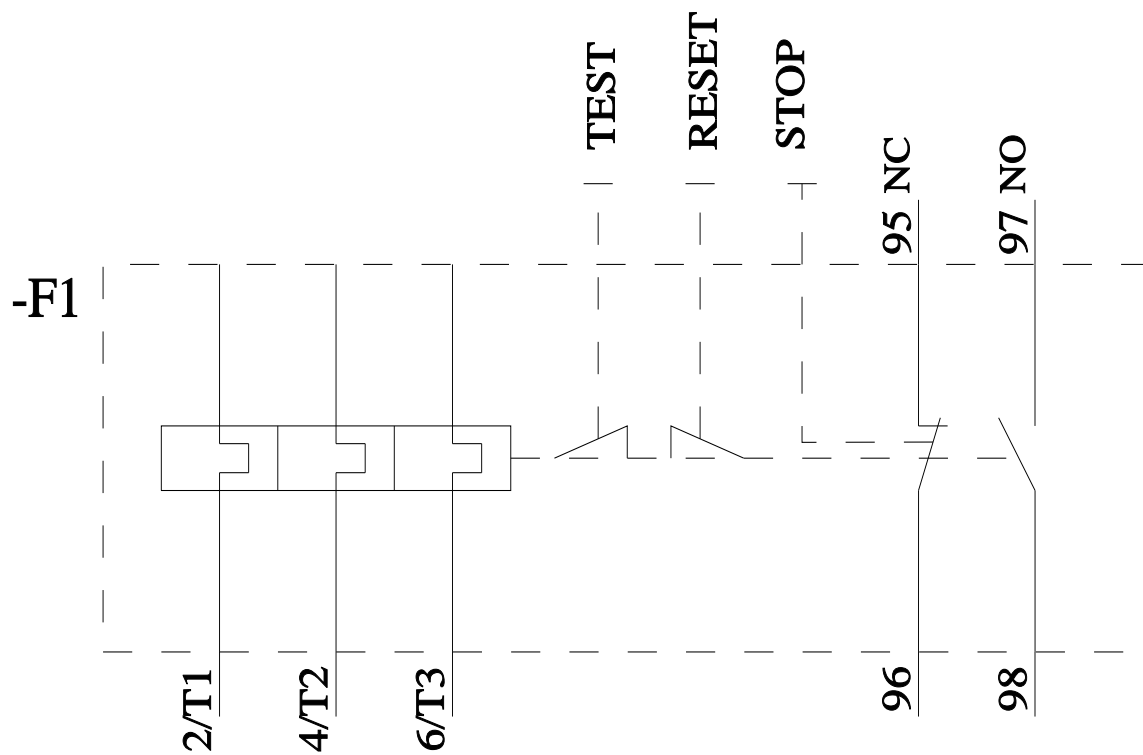
Characteristic: Tripping characteristics, I_t, Let-through current

<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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