



Overload relay 9.0...12.5 A Thermal For motor protection Size S00, Class 10
 Contactor mounting Main circuit: Ring cable lug Auxiliary circuit: ring cable lug
 Manual-Automatic-Reset

product brand name	SIRIUS
product designation	thermal overload relay
product type designation	3RU2
General technical data	
size of overload relay	S00
size of contactor can be combined company-specific	S00
power loss [W] for rated value of the current at AC in hot operating state	6.6 W
• per pole	2.2 W
type of calculation of power loss current-dependent	quadratic
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	440 V
• in networks with grounded star point between auxiliary and auxiliary circuit	440 V
• in networks with ungrounded star point between main and auxiliary circuit	440 V
• in networks with grounded star point between main and auxiliary circuit	440 V
shock resistance according to IEC 60068-2-27	8g / 11 ms
reference code according to IEC 81346-2	F
Substance Prohibitance (day/month/year)	10/01/2009
SVHC substance name	Lead CAS-No. 7439-92-1
Net Weight	0.14 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 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	9 ... 12.5 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	12.5 A
operational current at AC-3e at 400 V rated value	12.5 A
operating power	
• at AC-3	
— at 400 V rated value	5.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	7.5 kW
• at AC-3e	
— at 400 V rated value	5.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	7.5 kW
Auxiliary circuit	
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
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	
• at 480 V rated value	12.5 A
• at 600 V rated value	12.5 A
Short-circuit protection	
design of the fuse link	
• 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; for more details see manual
fastening method	Contacteur mounting
height	76 mm
width	45 mm
depth	70 mm
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	No
type of electrical connection	
• for main current circuit	Ring cable lug connection
• for auxiliary and control circuit	ring terminal lug connection
arrangement of electrical connectors for main current circuit	Top and bottom

tightening torque	
<ul style="list-style-type: none"> for main contacts for ring cable lug for auxiliary contacts for ring cable lug 	1.2 ... 0.8 N·m 0.8 ... 1.2 N·m
outer diameter of the usable ring cable lug maximum	7.5 mm
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 of the auxiliary and control contacts 	M3 M3

Safety related data

failure rate [FIT] with low demand rate according to SN 31920	50 FIT
MTTF with high demand rate	2 280 a
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	IP00
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Display

display version for switching status	Slide switch
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Approvals Certificates

Environment	General Product Approval
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[Environmental Confirmations](#)



General Product Approval	For use in hazardous locations	Test Certificates	Maritime application
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Maritime application



other	Railway
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[Confirmation](#)

[Confirmation](#)



[Special Test Certificate](#)

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?mifb=3RU2116-1KJ0>
 Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1KJ0>

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

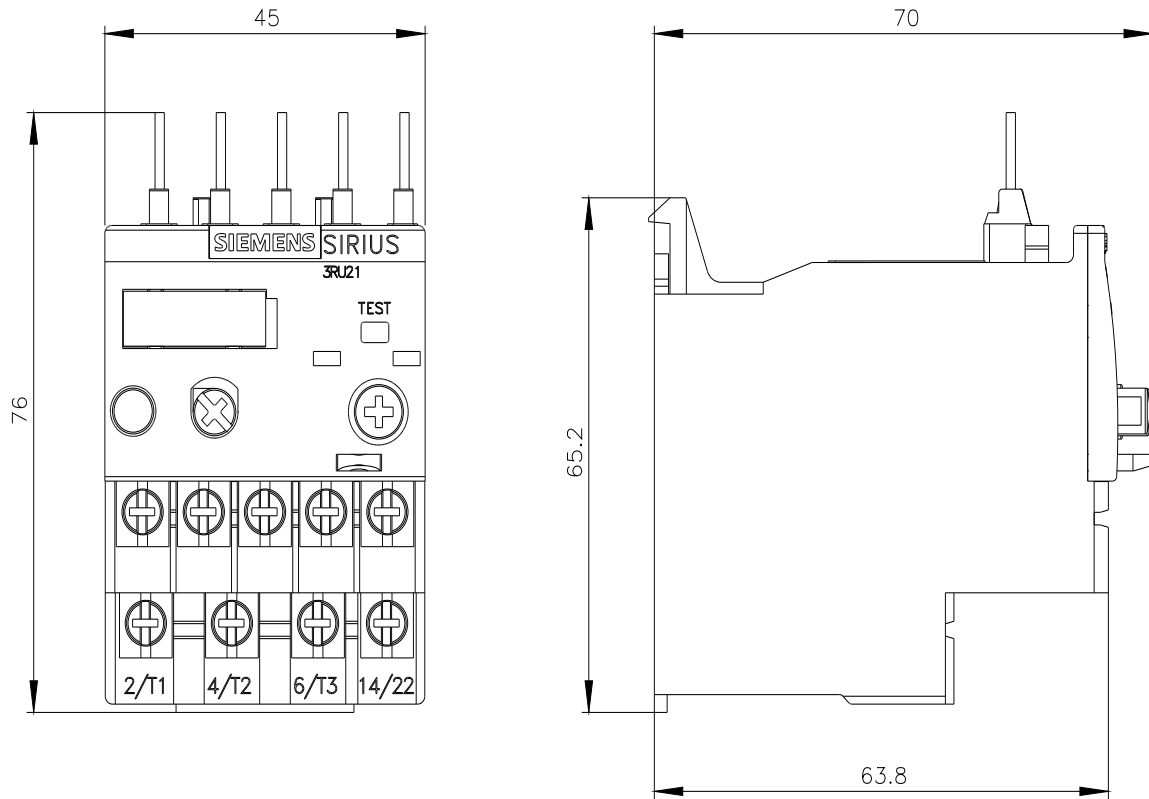
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-1KJ0&lang=en

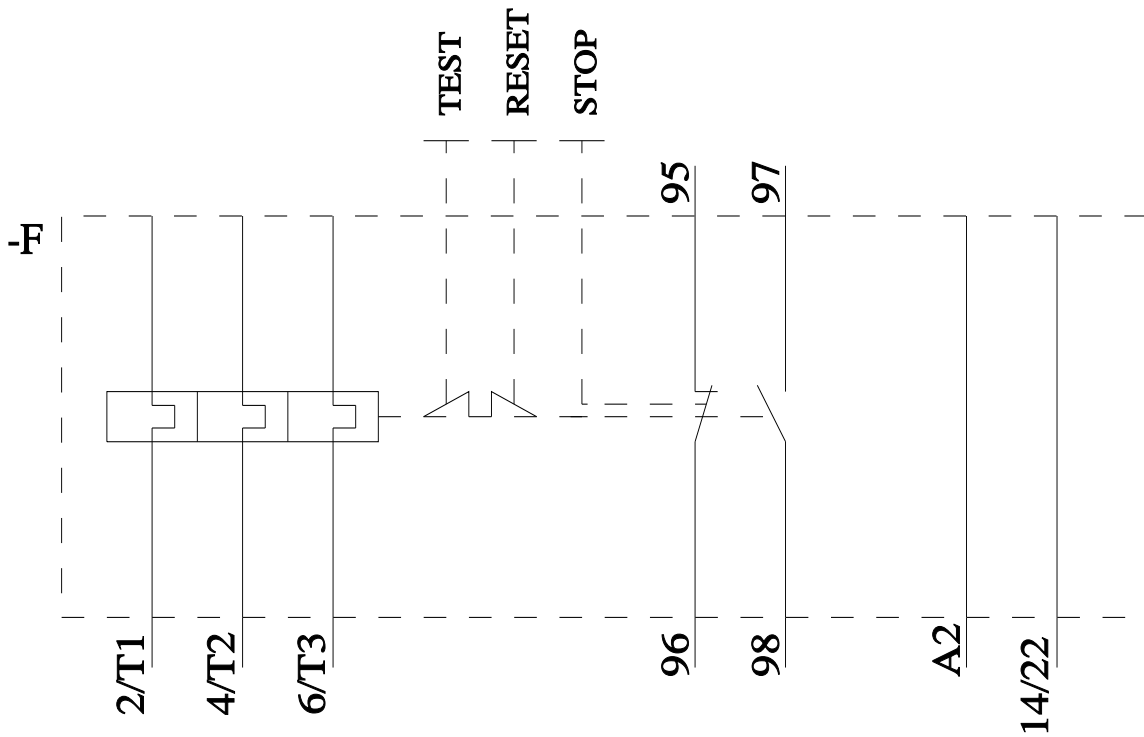
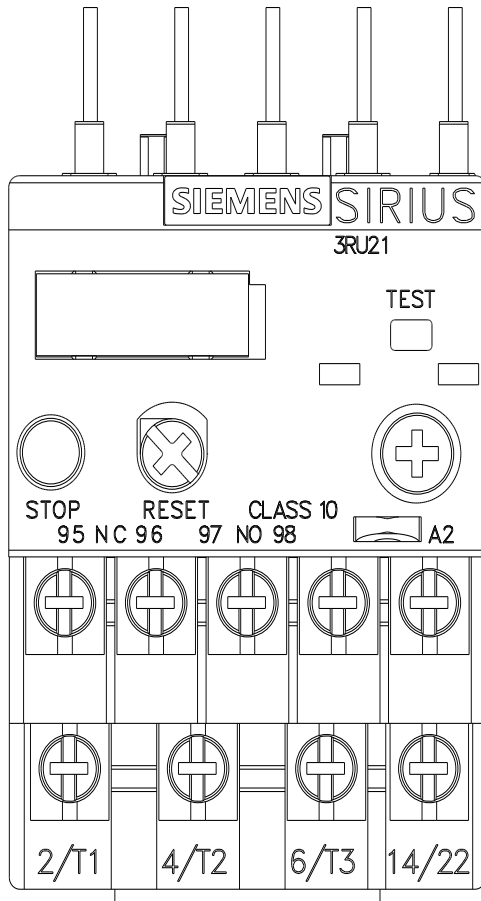
Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1KJ0>

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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