



Overload relay 2.2...3.2 A Thermal For motor protection Size S00, Class 10
 Contactor mounting Main circuit: Spring-type terminal Auxiliary circuit: spring-type terminal 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	5.7 W
• per pole	1.9 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 grounded star point	
• between auxiliary and auxiliary circuit	440 V
• between auxiliary and auxiliary circuit	440 V
• between main and auxiliary circuit	440 V
• 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 (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1
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	2.2 ... 3.2 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	3.2 A
operational current at AC-3e at 400 V rated value	3.2 A
operating power	
• at AC-3	

— at 400 V rated value	1.1 kW
— at 500 V rated value	1.5 kW
— at 690 V rated value	2.2 kW
• at AC-3e	
— at 400 V rated value	1.1 kW
— at 500 V rated value	1.5 kW
— at 690 V rated value	2.2 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	3.2 A
• at 600 V rated value	3.2 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	any
fastening method	Contactor mounting
height	87 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	spring-loaded terminals
• for auxiliary and control circuit	spring-loaded terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections	
• for main contacts	
— solid or stranded	1x (0,5 ... 4 mm ²)
— finely stranded with core end processing	1x (0.5 ... 2.5 mm ²)
— finely stranded without core end processing	1x (0.5 ... 2.5 mm ²)
• for AWG cables for main contacts	1x (20 ... 12)
type of connectable conductor cross-sections	
• for auxiliary contacts	

— solid or stranded	2x (0.5 ... 2.5 mm ²)
— finely stranded with core end processing	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
— finely stranded without core end processing	2x (0.5 ... 1.5 mm ²)
• for AWG cables for auxiliary contacts	2x (20 ... 14)
design of screwdriver shaft	Diameter 3 mm
size of the screwdriver tip	3,0 x 0,5 mm

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	
• 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](#)

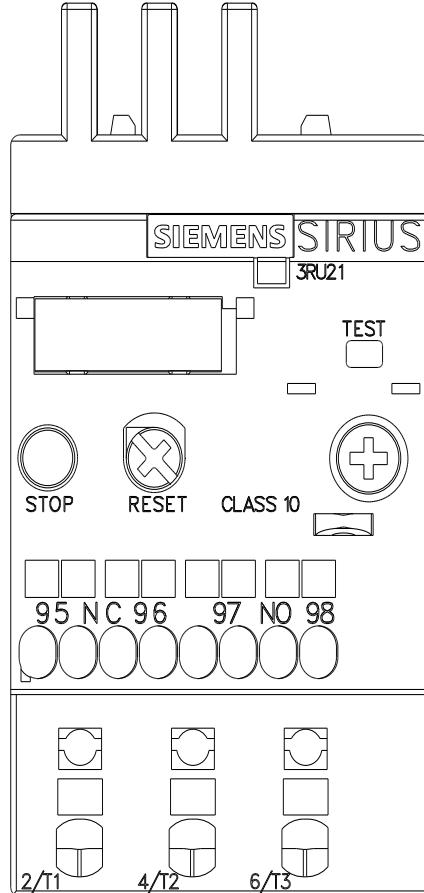
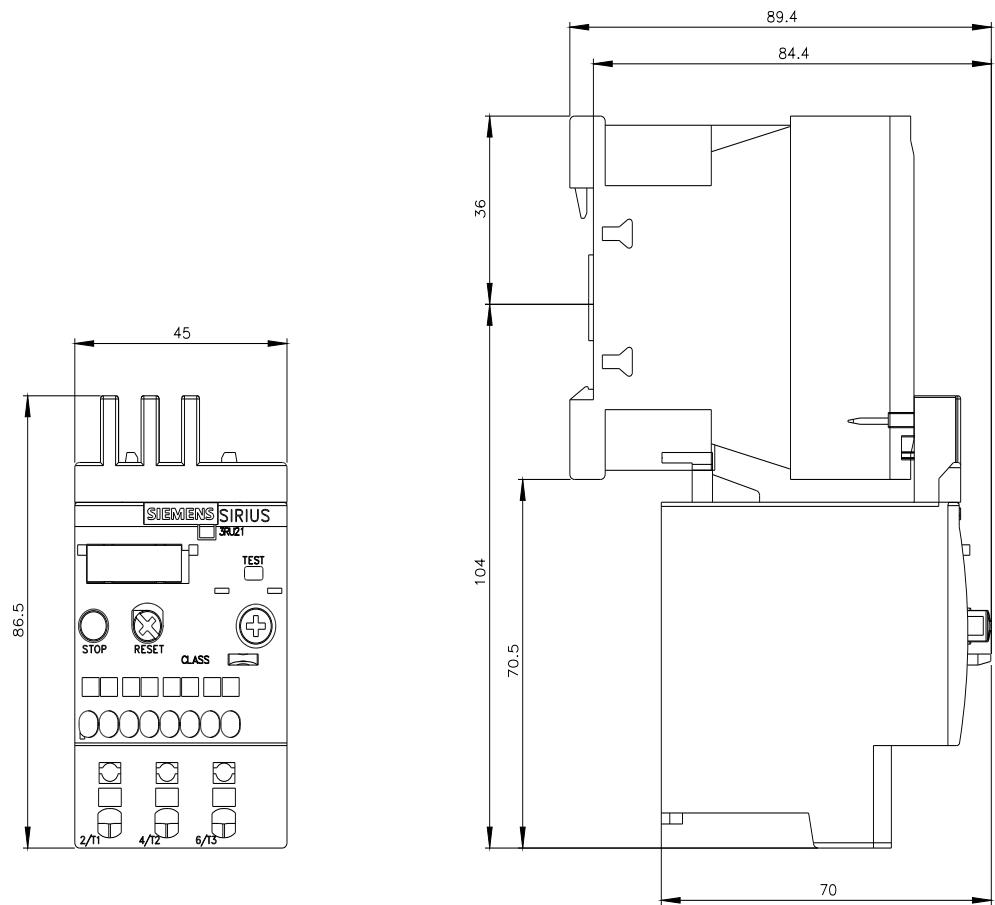


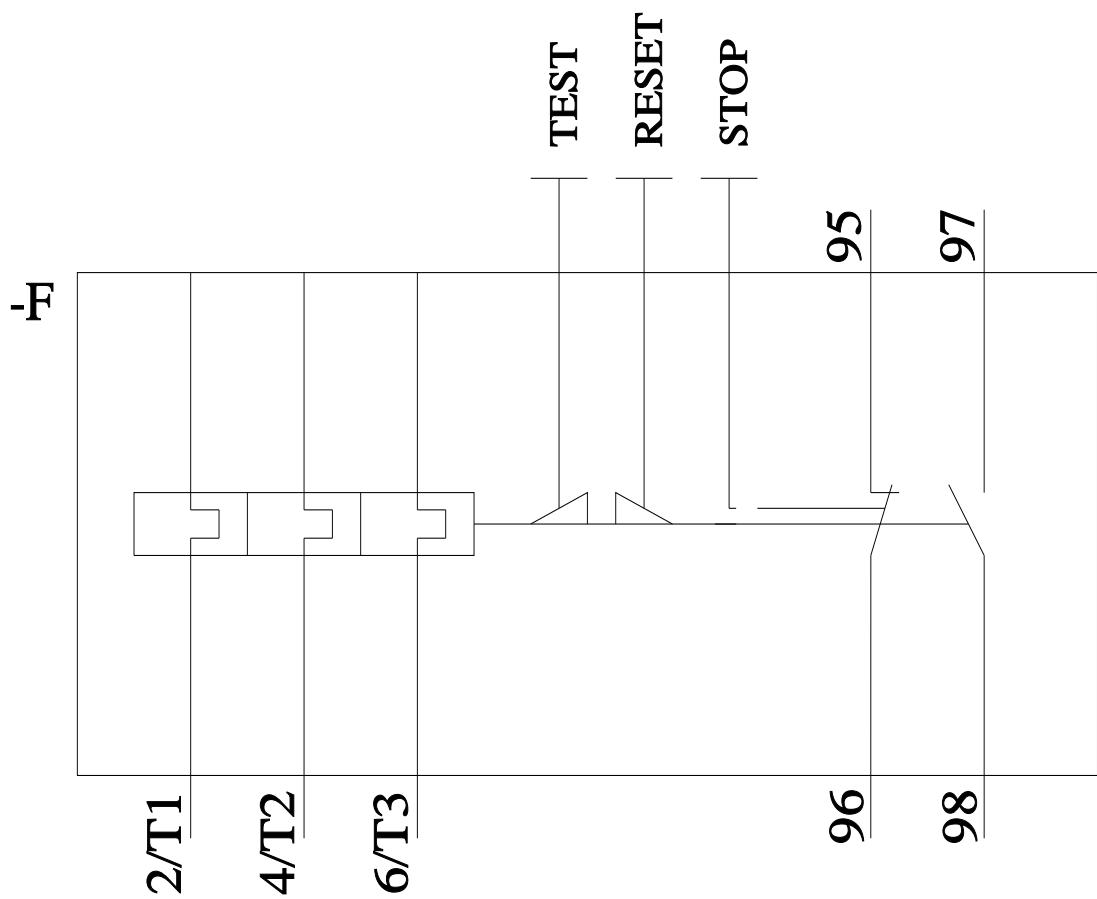
For use in hazardous locations	Test Certificates	Marine / Shipping
IECEx	ATEX	Special Test Certificate Type Test Certificates/Test Report
		ABS BUREAU VERITAS

Marine / Shipping	other
DNV	LRS
PRIS	RINA
RMRS	Miscellaneous

other	Railway	Environment
Confirmation	Special Test Certificate	Environmental Confirmations

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=3RU2116-1DC0		
Cax online generator		
http://support.automation.siemens.com/WW/CAxOrder/default.aspx?lang=en&mlfb=3RU2116-1DC0		
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)		
https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1DC0		
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)		
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-1DC0&lang=en		
Characteristic: Tripping characteristics, I ² t, Let-through current		
https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1DC0/char		
Further characteristics (e.g. electrical endurance, switching frequency)		





last modified:

4/5/2024 