

Overload relay 7.0...10 A Thermal For motor protection Size S00, Class 10 Stand-alone installation 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] total typical	6.1 W
Insulation voltage with degree of pollution 3 rated value	690 V
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
• in networks with grounded 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 grounded star point between main and auxiliary circuit	440 V
• in networks with grounded star point between main and auxiliary circuit	440 V
Protection class IP	

• on the front	IP20
• of the terminal	IP20
Shock resistance	
• acc. to IEC 60068-2-27	8g / 11 ms
Certificate of suitability according to ATEX directive 2014/34/EU	DMT 98 ATEX G 001
Protection against electrical shock	finger-safe
Reference code acc. to DIN EN 81346-2	F

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	0 ... 90 %

Main circuit	
Number of poles for main current circuit	3
Adjustable pick-up value current of the current-dependent overload release	7 ... 10 A
Operating voltage	
• rated value	690 V
• at AC-3 rated value maximum	690 V
Operating frequency rated value	50 ... 60 Hz
Operating current rated value	10 A
Operating power at AC-3	
• at 400 V rated value	4 kW
• at 500 V rated value	5.5 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
Operating 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
Operating 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 three-phase AC motor	
• at 480 V rated value	10 A
• at 600 V rated value	10 A
Short-circuit protection	
Design of the fuse link	fuse gG: 6 A, quick: 10 A
Installation/ mounting/ dimensions	
Mounting position	any
Mounting type	stand-alone installation
Height	102 mm
Width	45 mm
Depth	79 mm
Required spacing	
• with side-by-side mounting	
— forwards	0 mm
— Backwards	0 mm
— upwards	6 mm
— downwards	6 mm
— at the side	6 mm
• for grounded parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	6 mm
— at the side	6 mm

— downwards	6 mm
• for live parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	6 mm
— downwards	6 mm
— at the side	6 mm

Connections/ Terminals	
Product function	
• removable terminal for auxiliary and control circuit	No
Type of electrical connection	
• for main current circuit	spring-loaded terminals
• for auxiliary and control current circuit	spring-loaded terminals
Arrangement of electrical connectors for main current circuit	Top and bottom
Type of connectable conductor cross-sections	
• for main contacts	
— single or multi-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)
• at AWG conductors for main contacts	1x (20 ... 12)
Type of connectable conductor cross-sections	
• for auxiliary contacts	
— single or multi-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)
• at AWG conductors 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 acc. to SN 31920	50 FIT
MTTF with high demand rate	2 280 y
T1 value for proof test interval or service life acc. to IEC 61508	20 y

Display	
Display version	
• for switching status	Slide switch

Certificates/ approvals

General Product Approval



CCC



CSA



UL



ATEX



IECEx

Declaration of Conformity



EG-Konf.

[Miscellaneous](#)

Test Certificates

[Type Test Certificate/Test Report](#)[Special Test Certificate](#)

Marine / Shipping



ABS



BUREAU VERITAS

Marine / Shipping



LRS



PRIS



RINA



RMRS



DNVGL.COM/AF

other

[Confirmation](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RU2116-1JC1>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1JC1>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1JC1>

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

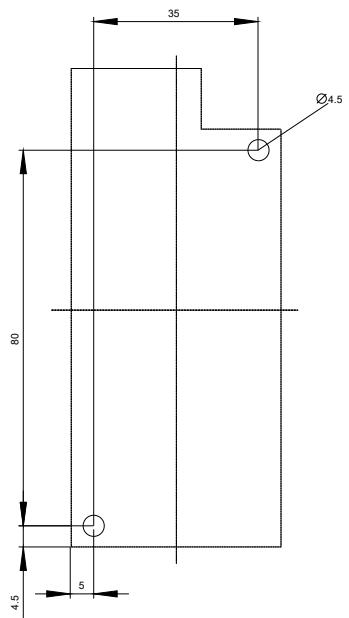
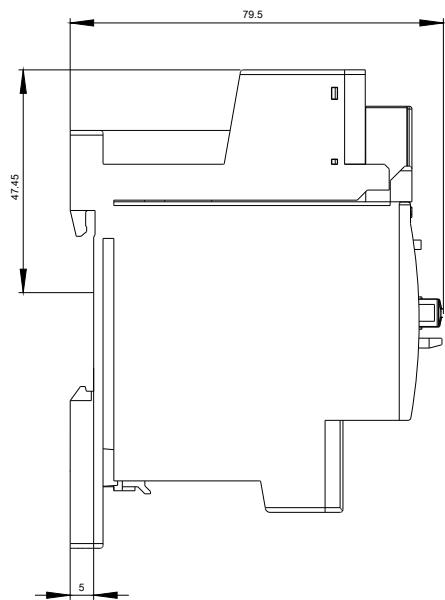
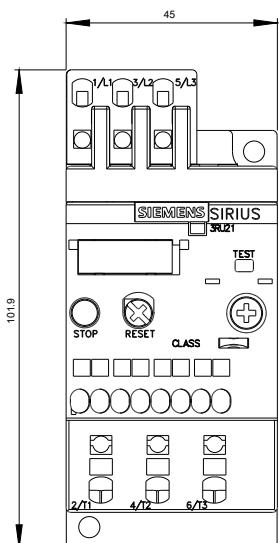
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-1JC1&lang=en

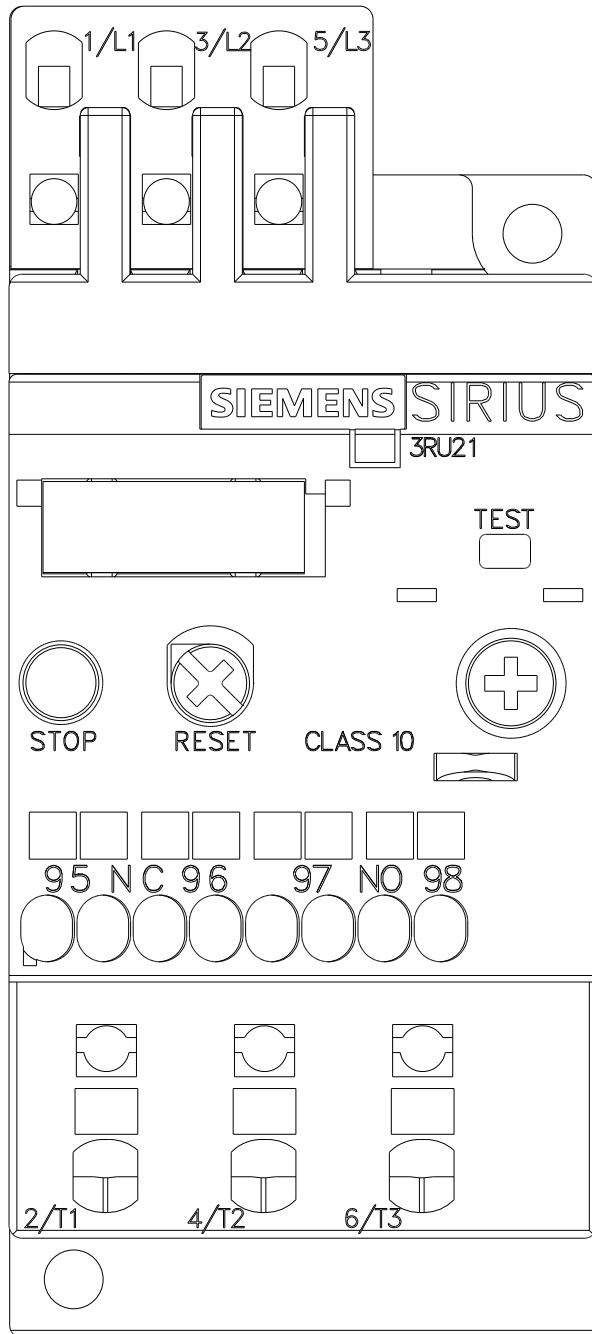
Characteristic: Tripping characteristics, I^tt, Let-through current

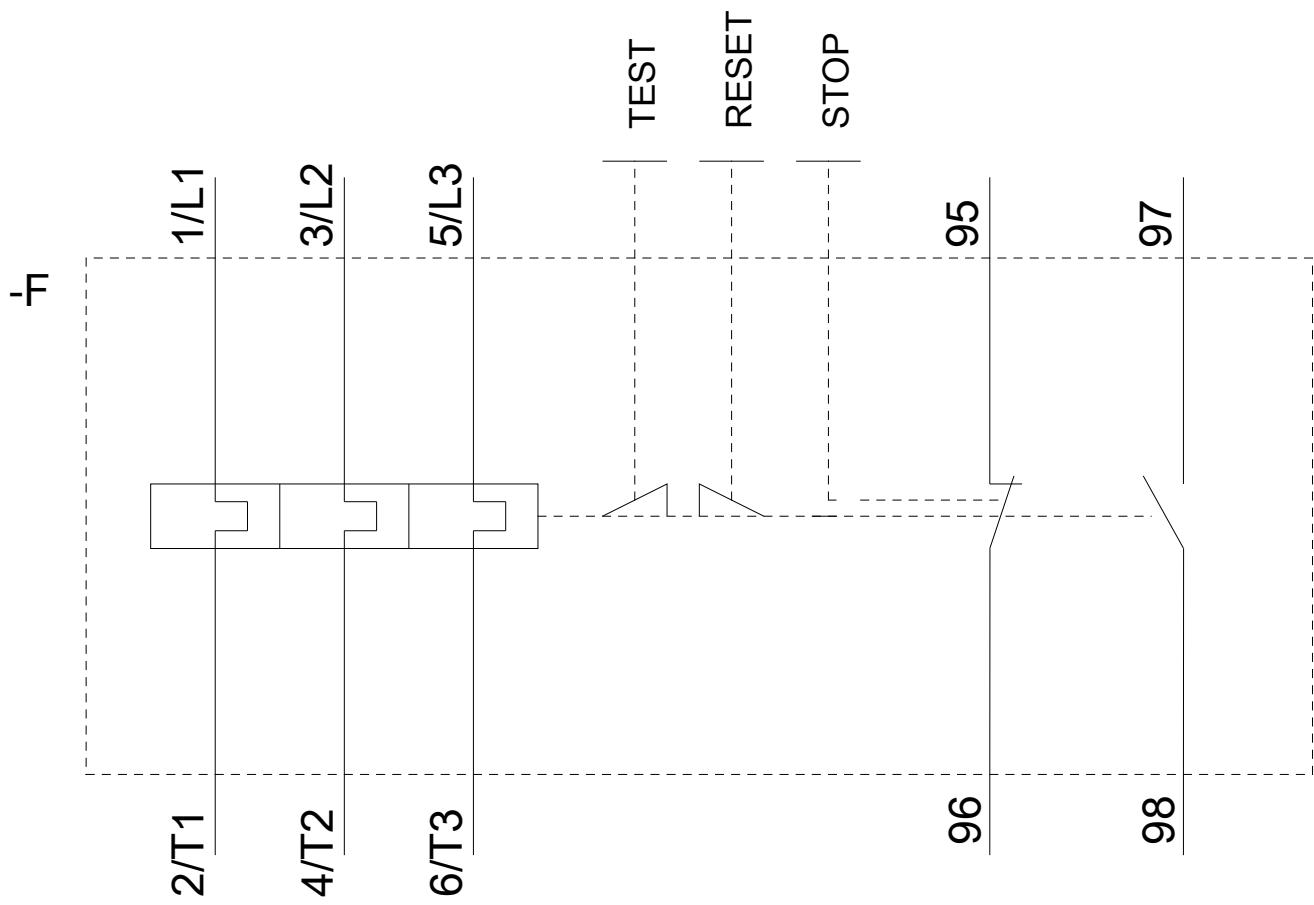
<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1JC1/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-1JC1&objecttype=14&gridview=view1>







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