

Overload relay 5.5...8.0 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] for rated value of the current at AC in hot operating state	6.6 W
• power loss [W] for rated value of the current at AC in hot operating state per pole	2.2 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 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
Type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD
Certificate of suitability according to ATEX directive 2014/34/EU	DMT 98 ATEX G 001
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
• ambient temperature during storage	-55 ... +80 °C
• ambient temperature 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 pick-up value current of the current-dependent overload release	5.5 ... 8 A
• operating voltage rated value	690 V
• operating voltage at AC-3 rated value maximum	690 V
operating frequency rated value	50 ... 60 Hz
operating current rated value	8 A
• operating power at AC-3 at 400 V rated value	3 kW
• Operating power at AC-3 at 500 V rated value	4 kW
• Operating power at AC-3 at 690 V rated value	5.5 kW

Auxiliary circuit

design of the auxiliary switch	integrated
• number of NC contacts for auxiliary contacts	1
• Number of NC contacts for auxiliary contacts	for contactor disconnection
Note	
• number of NO contacts for auxiliary contacts	1
• Number of NO contacts for auxiliary contacts	for message "Tripped"
Note	
• number of CO contacts for auxiliary contacts	0
• operating current of auxiliary contacts at AC-15 at 24 V	3 A

• Operating current of auxiliary contacts at AC-15 at 110 V	3 A
• Operating current of auxiliary contacts at AC-15 at 120 V	3 A
• Operating current of auxiliary contacts at AC-15 at 125 V	3 A
• Operating current of auxiliary contacts at AC-15 at 230 V	2 A
• operating current of auxiliary contacts at AC-15 at 400 V	1 A
• operating current of auxiliary contacts at DC-13 at 24 V	2 A
• Operating current of auxiliary contacts at DC-13 at 60 V	0.3 A
• Operating current of auxiliary contacts at DC-13 at 110 V	0.22 A
• operating current of auxiliary contacts at DC-13 at 125 V	0.22 A
• Operating current of auxiliary contacts at DC-13 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	8 A
• at 600 V rated value	8 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
• mounting type	stand-alone installation
height	102 mm
width	45 mm
depth	79 mm

Connections/ Terminals

• product function removable terminal for auxiliary and control circuit	No
type of electrical connection	

• for main current circuit • for auxiliary and control current circuit	spring-loaded terminals 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 — type of connectable conductor cross-sections for main contacts finely stranded with core end processing — Type of connectable conductor cross-sections for main contacts finely stranded without core end processing • Type of connectable conductor cross-sections at AWG conductors for main contacts • — type of connectable conductor cross-sections for auxiliary contacts single or multi-stranded — type of connectable conductor cross-sections for auxiliary contacts finely stranded with core end processing — Type of connectable conductor cross-sections for auxiliary contacts finely stranded without core end processing • Type of connectable conductor cross-sections at AWG conductors for auxiliary contacts	1x (0,5 ... 4 mm ²) 1x (0.5 ... 2.5 mm ²) 1x (0.5 ... 2.5 mm ²) 1x (20 ... 12) 2x (0,5 ... 2,5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²) 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	For use in hazardous locations
--------------------------	--------------------------------



Declaration of Conformity	Test Certificates	Marine / Shipping
---------------------------	-------------------	-------------------



[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Marine / Shipping	other
-------------------	-------



[Confirmation](#)

Railway

[Vibration and Shock](#)

Further information

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=3RU2116-1HC1>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1HC1>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1HC1>

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

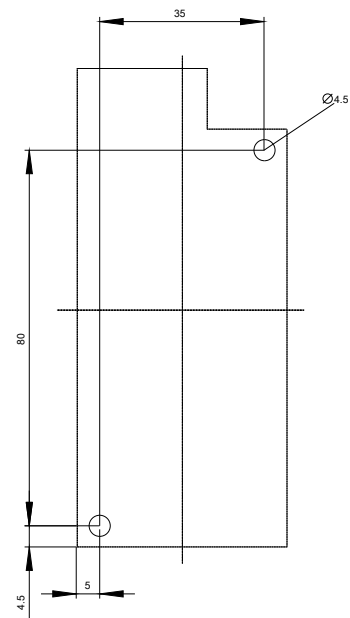
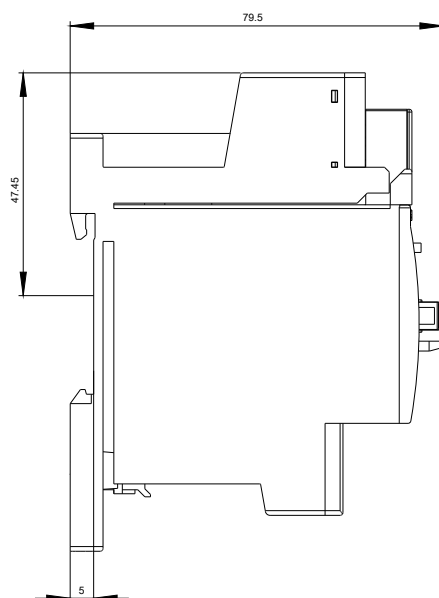
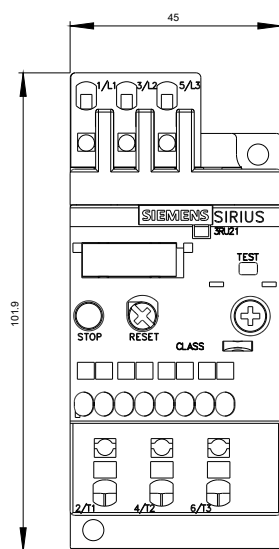
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-1HC1&lang=en

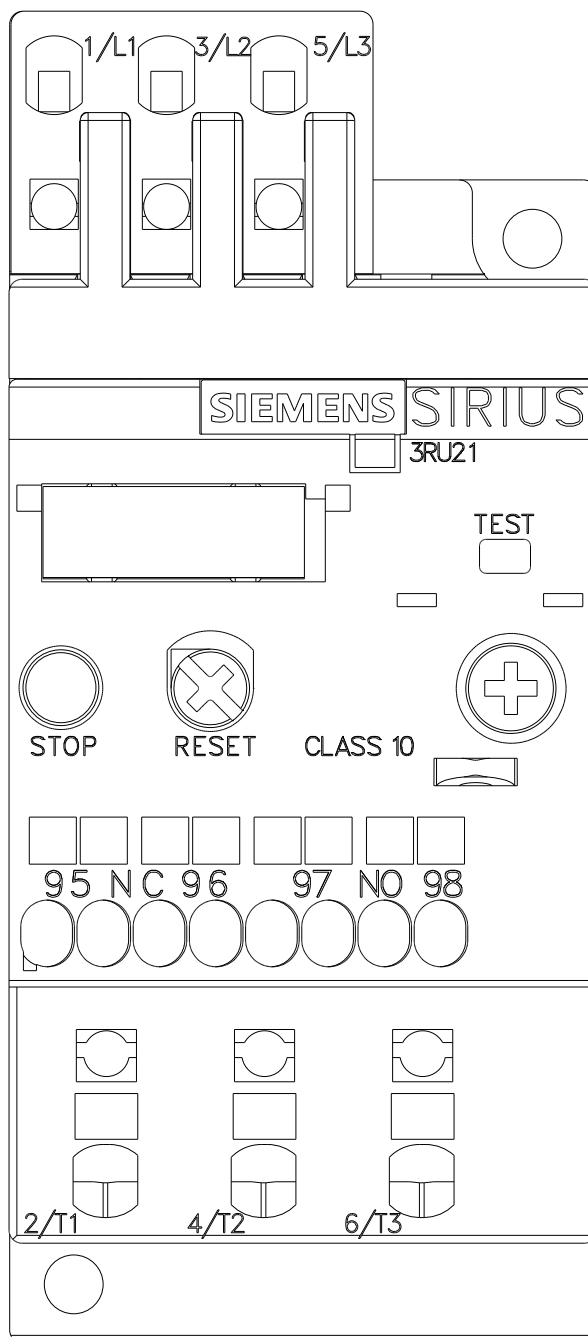
Characteristic: Tripping characteristics, I²t, Let-through current

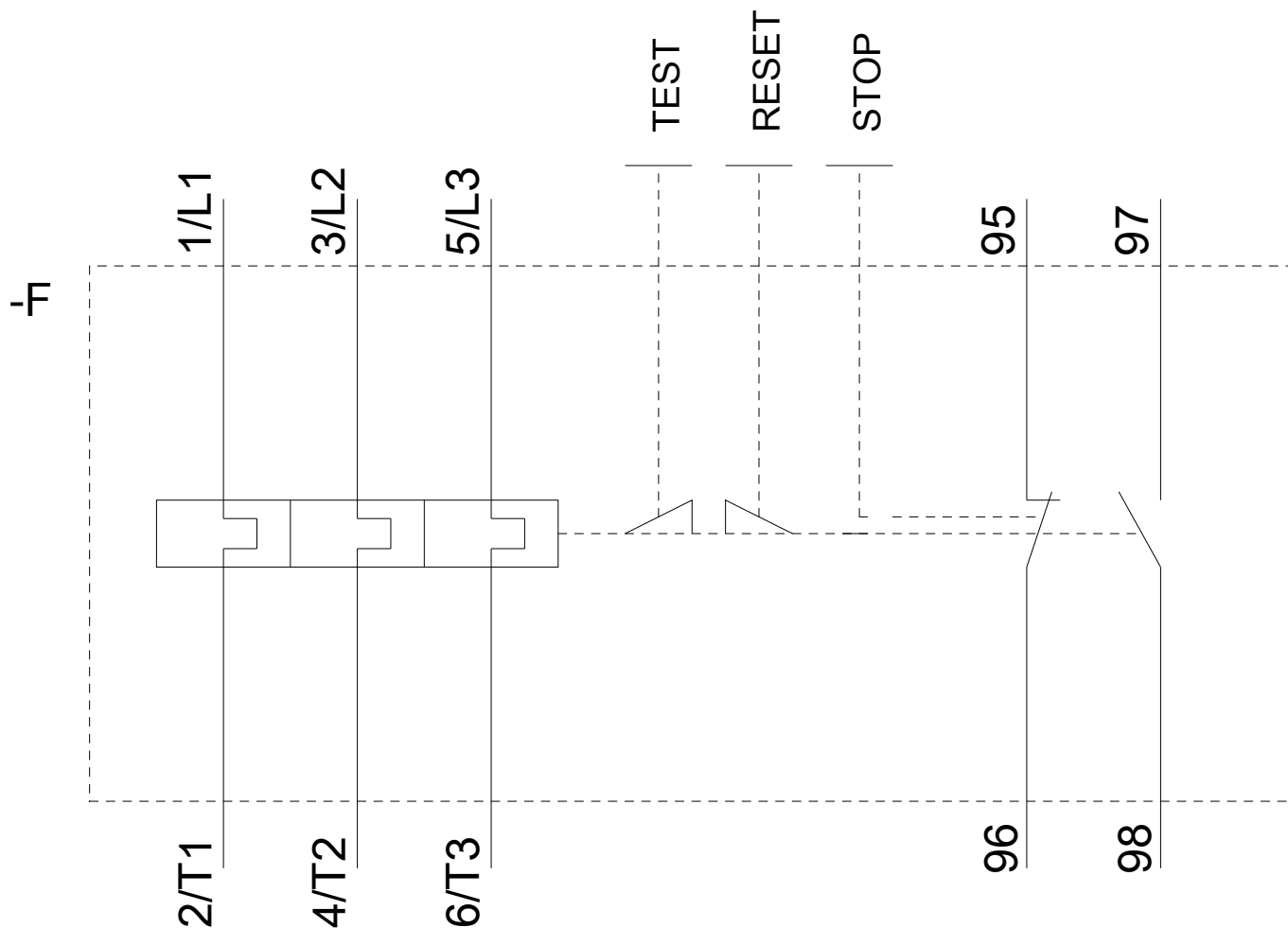
<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1HC1/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-1HC1&objecttype=14&gridview=view1>







last modified:

08/21/2020