



Overload relay 2.8...4.0 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	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 safe isolation in networks with grounded star point	
- between auxiliary and auxiliary circuit - between auxiliary and auxiliary circuit - between main and auxiliary circuit - between main and auxiliary circuit	440 V 440 V 440 V 440 V
shock resistance according 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 according to IEC 81346-2	F
Substance Prohibitance (Date)	10/01/2009

Ambient conditions

installation altitude at height above sea level maximum	2 000 m
ambient temperature	
- during operation - during storage - during transport	-40 ... +70 °C -55 ... +80 °C -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	2.8 ... 4 A
operating voltage	
- rated value - at AC-3e rated value maximum	690 V 690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	4 A
operational current at AC-3e at 400 V rated value	4 A

operating power	
- at AC-3 - at 400 V rated value - at 500 V rated value - at 690 V rated value - at AC-3e - at 400 V rated value - at 500 V rated value - at 690 V rated value	1.5 kW 2.2 kW 3 kW 1.5 kW 2.2 kW 3 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 - 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	
- 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
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 - at 600 V rated value	4 A 4 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	stand-alone installation
height	102 mm
width	45 mm
depth	79 mm
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	No
type of electrical connection	
- for main current circuit - for auxiliary and control 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 - solid or stranded - finely stranded with core end processing - finely stranded without core end processing - at AWG cables for main contacts	1x (0,5 ... 4 mm ²) 1x (0.5 ... 2.5 mm ²) 1x (0.5 ... 2.5 mm ²) 1x (20 ... 12)
type of connectable conductor cross-sections	

- for auxiliary contacts
 - solid or stranded
 - finely stranded with core end processing
 - finely stranded without core end processing
- at AWG cables for auxiliary contacts

2x (0.5 ... 2.5 mm²)
 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
 2x (0.5 ... 1.5 mm²)
 2x (20 ... 14)
 Diameter 3 mm
 3,0 x 0,5 mm

design of screwdriver shaft
size of the screwdriver tip

Safety related data

failure rate [FIT] with low demand rate according to SN 31920	50 FIT
MTTF with high demand rate	2 280 y
T1 value for proof test interval or service life according to IEC 61508	20 y
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
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Certificates/ approvals

General Product Approval

For use in hazard-
ous locations



[Confirmation](#)



For use in hazard-
ous locations

Declaration of Conformity

Test Certificates

Marine / Shipping



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping



other

Railway

[Confirmation](#)

[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=3RU2116-1EC1>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1EC1>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1EC1>

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

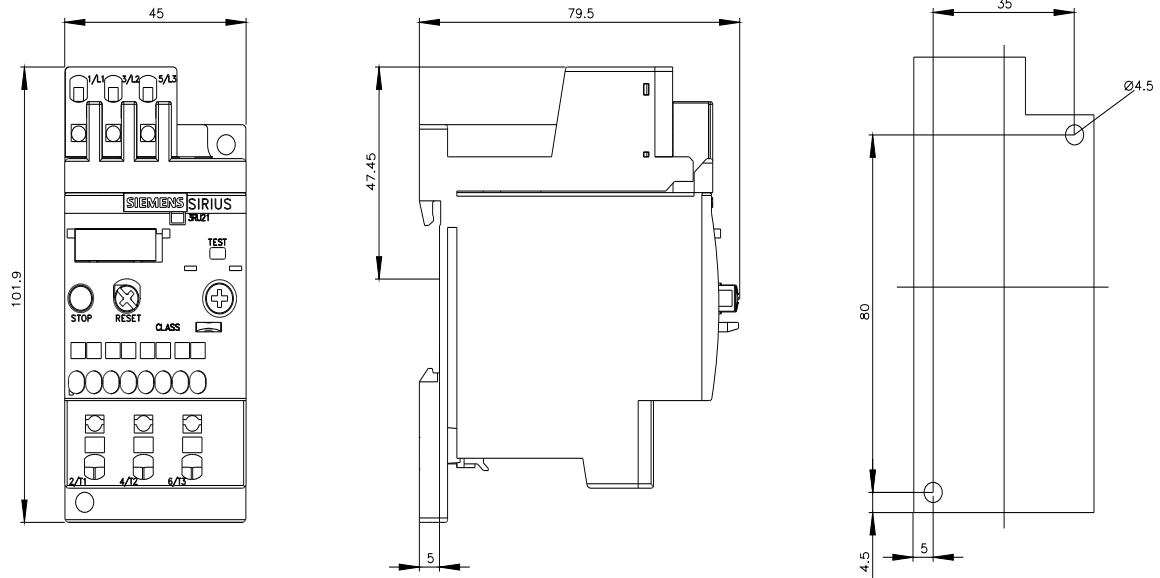
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-1EC1&lang=en

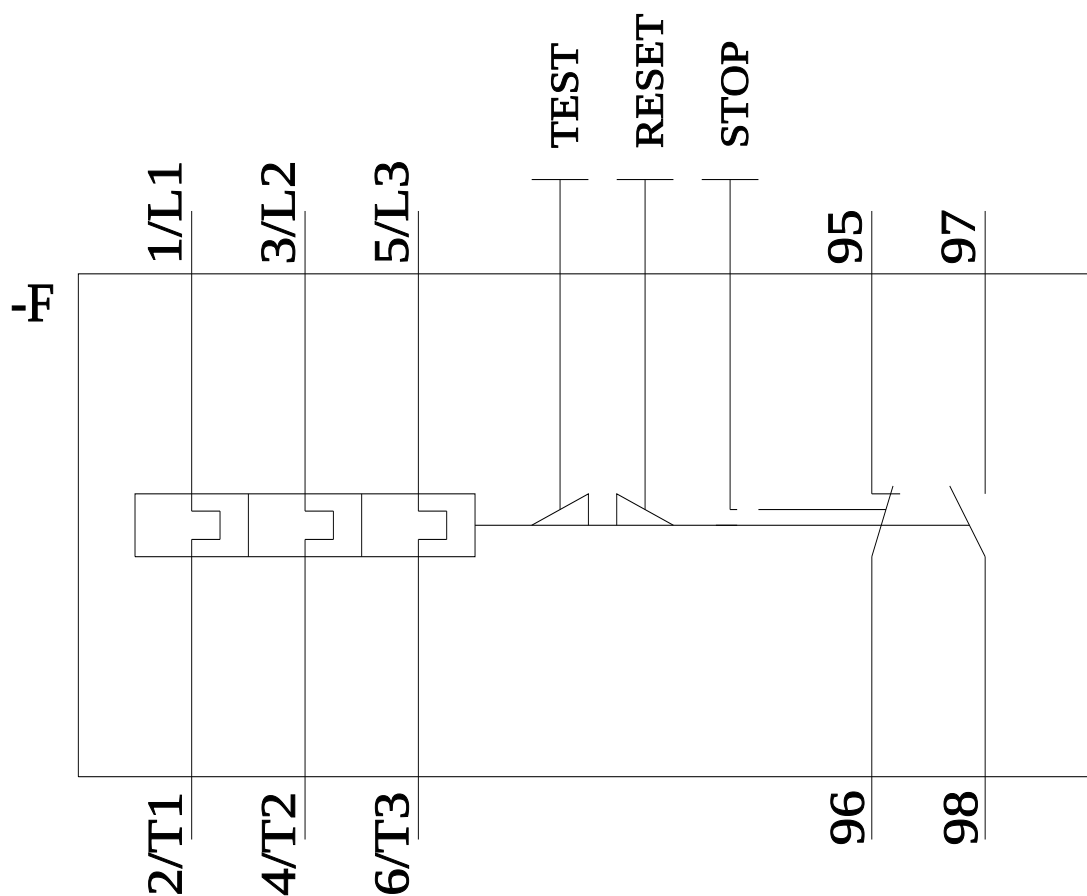
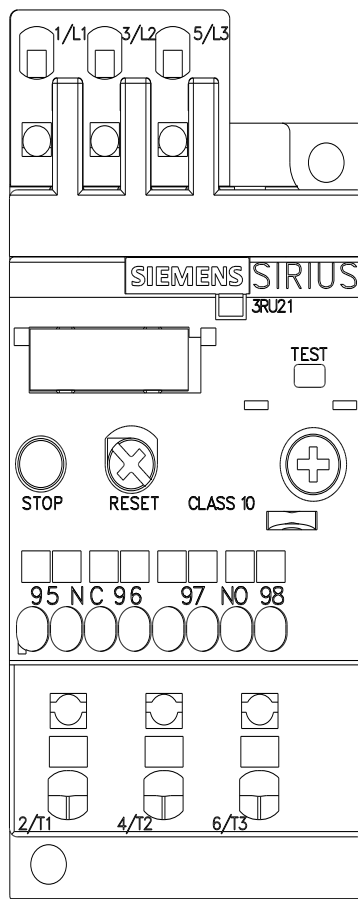
Characteristic: Tripping characteristics, I^2t , Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1EC1/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RU2116-1EC1&objecttype=14&gridview=view1>





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