

OVERLOAD RELAY 2.2...3.2 A FOR MOTOR PROTECTION SZ S00, CLASS 10, F. MOUNTING ONTO CONTACTOR MAIN CIRCUIT: SCREW TERMINAL AUX. CIRCUIT: SCREW 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	5.2 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	
<ul style="list-style-type: none"> in networks with grounded star point between auxiliary and auxiliary circuit 	440 V
<ul style="list-style-type: none"> in networks with grounded star point between auxiliary and auxiliary circuit 	440 V
<ul style="list-style-type: none"> in networks with grounded star point between main and auxiliary circuit 	440 V
<ul style="list-style-type: none"> in networks with grounded star point between main and auxiliary circuit 	440 V
Protection class IP	

<ul style="list-style-type: none"> • on the front • of the terminal 	IP20 IP20
Shock resistance	
<ul style="list-style-type: none"> • acc. to IEC 60068-2-27 	8g / 11 ms
Type of protection	Ex e
Certificate of suitability relating to ATEX	DMT 98 ATEX G 001
Protection against electrical shock	finger-safe
Equipment marking acc. to DIN EN 81346-2	F

Ambient conditions

Installation altitude at height above sea level	
<ul style="list-style-type: none"> • maximum 	2 000 m
Ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage • during transport 	-40 ... +70 °C -55 ... +80 °C -55 ... +80 °C
Temperature compensation	-40 ... +60 °C

Main circuit

Number of poles for main current circuit	3
Adjustable pick-up value current of the current-dependent overload release	2.2 ... 3.2 A
Operating voltage	
<ul style="list-style-type: none"> • rated value • at AC-3 rated value maximum 	690 V 690 V
Operating frequency rated value	50 ... 60 Hz
Operating current rated value	3.2 A
Operating power at AC-3	
<ul style="list-style-type: none"> • at 400 V rated value • at 500 V rated value • at 690 V rated value 	1.1 kW 1.5 kW 2.2 kW

Auxiliary circuit

Design of the auxiliary switch	integrated
Number of NC contacts	
<ul style="list-style-type: none"> • for auxiliary contacts — Note 	1 for contactor disconnection
Number of NO contacts	
<ul style="list-style-type: none"> • for auxiliary contacts — Note 	1 for message "Tripped"
Number of CO contacts	
<ul style="list-style-type: none"> • for auxiliary contacts 	0
Operating current of auxiliary contacts at AC-15	
<ul style="list-style-type: none"> • 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 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	3.2 A
• at 600 V rated value	3.2 A

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	direct mounting
Height	76 mm
Width	45 mm
Depth	70 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
- at the side

6 mm

6 mm

Connections/Terminals

Product function	
<ul style="list-style-type: none"> • removable terminal for auxiliary and control circuit 	No
Type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit 	screw-type terminals screw-type terminals
Arrangement of electrical connectors for main current circuit	Top and bottom
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing • at AWG conductors for main contacts 	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), 2x 4 mm ² 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14), 2x 12
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing • at AWG conductors for auxiliary contacts 	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14)
Tightening torque	
<ul style="list-style-type: none"> • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals 	0.8 ... 1.2 N·m 0.8 ... 1.2 N·m
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]	
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • for switching status 	Slide switch

Certificates/approvals

General Product Approval	For use in hazardous locations
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Declaration of Conformity	Test Certificates	Marine / Shipping			
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[Type Test Certificates/Test Report](#)



Marine / Shipping	other	Railway
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[Confirmation](#)

[Vibration and Shock](#)

Further information

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

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RU2116-1DB0>

Cax online generator

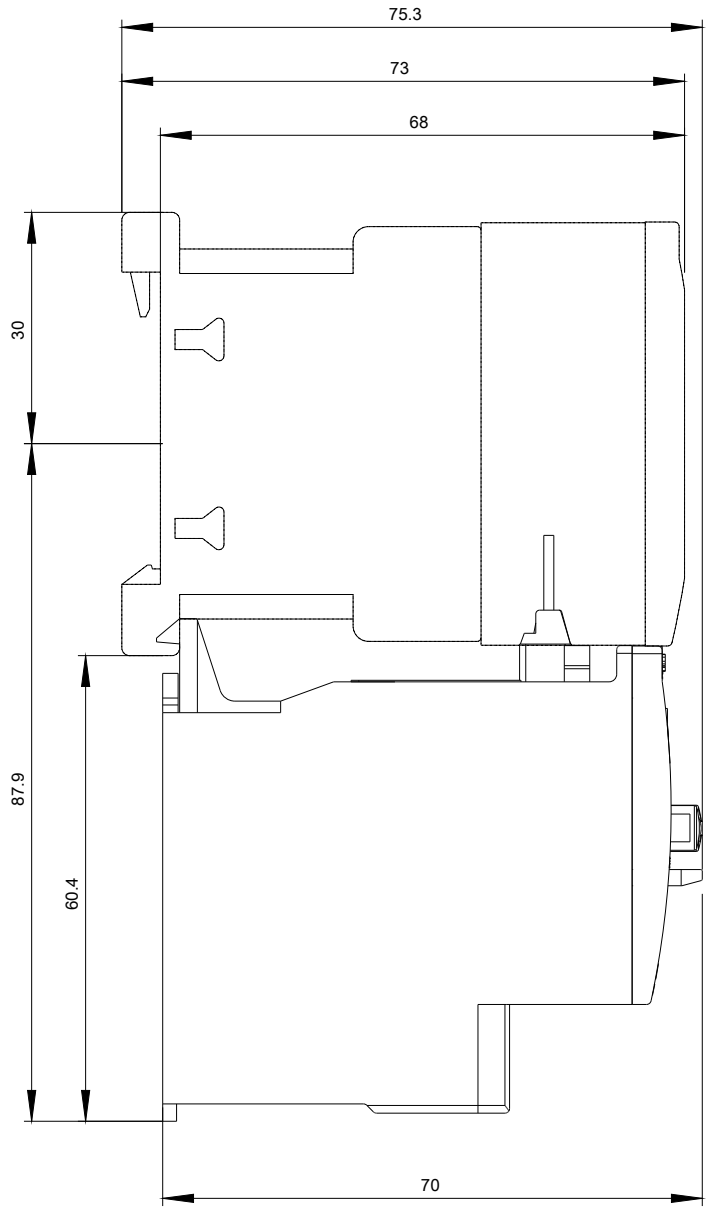
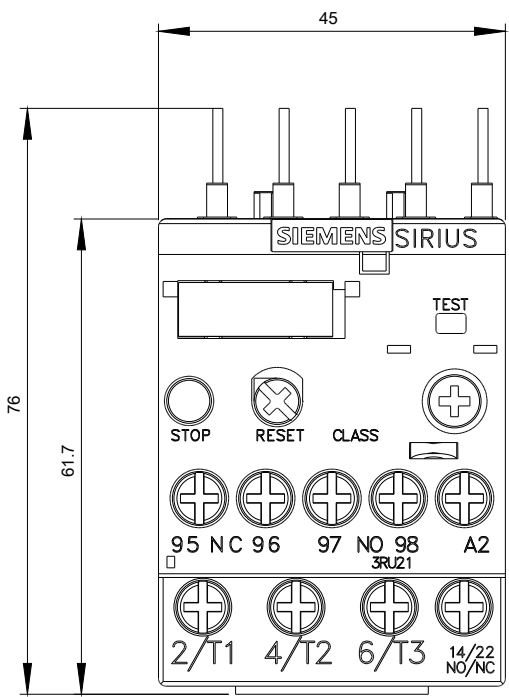
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RU2116-1DB0>

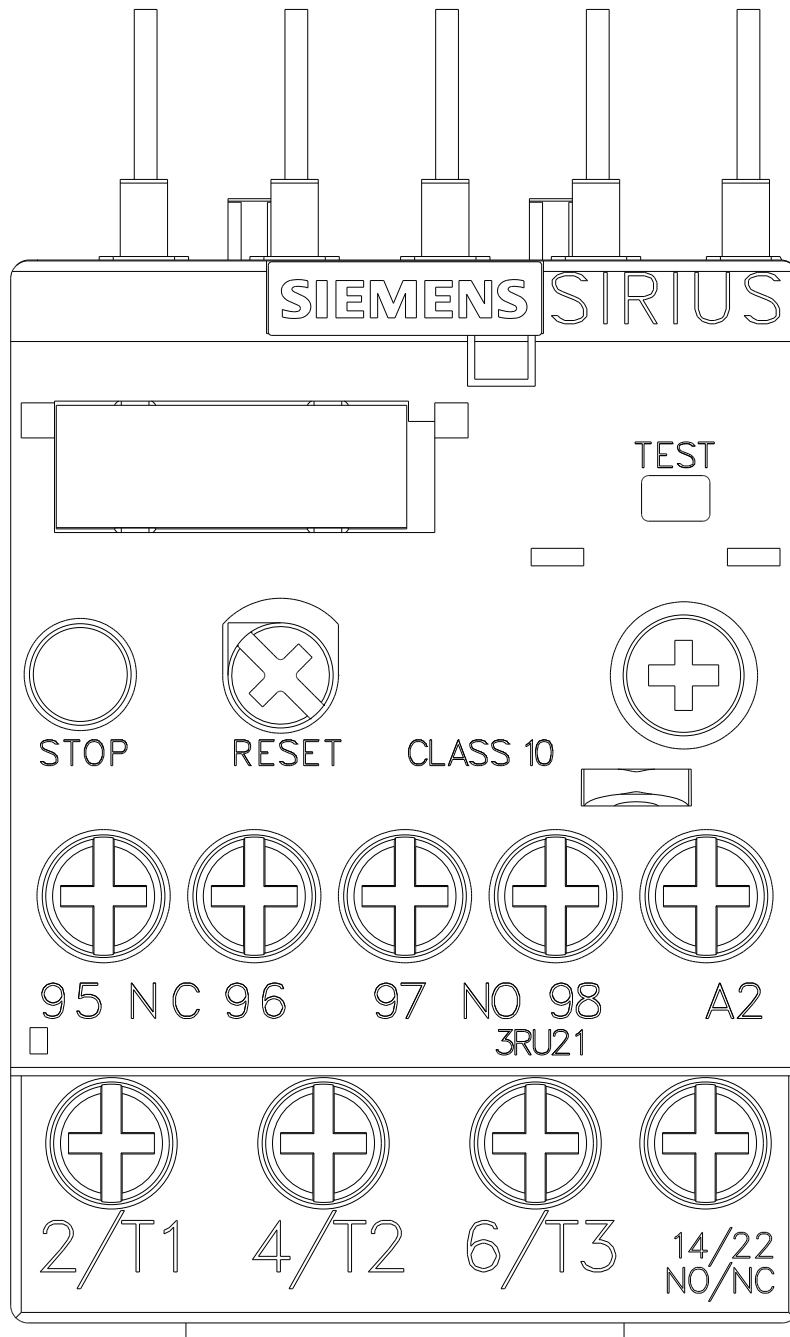
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

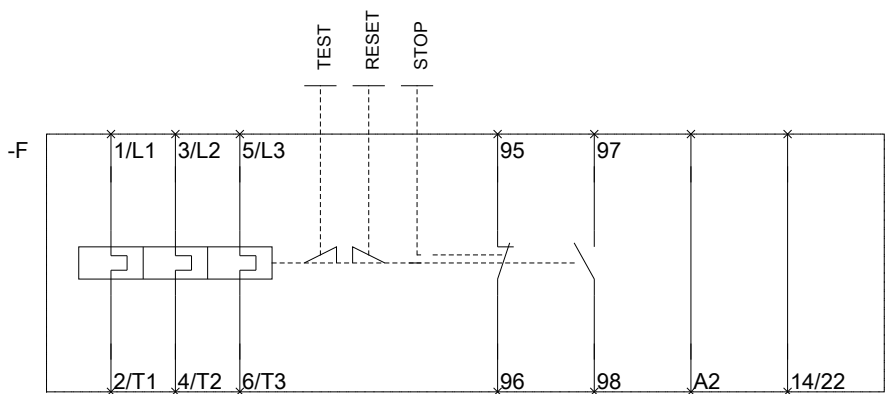
<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1DB0>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RU2116-1DB0&lang=en







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