

OVERLOAD RELAY 9.0...12.5 A FOR MOTOR PROTECTION BGR S00, CLASS 10 STAND-ALONE INSTALLATION MAIN CIRCUIT: SPRING-LOADED TERMINAL AUXILIARY CIRCUIT:SPRING-LOADED 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	5.1 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	
<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
Type of protection	Ex e
Protection against electrical shock	finger-safe
Equipment marking acc. to DIN EN 81346-2	F

Ambient conditions

Ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage • during transport 	<p>-40 ... +70 °C</p> <p>-55 ... +80 °C</p> <p>-55 ... +80 °C</p>
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	9 ... 12.5 A
Operating voltage	
<ul style="list-style-type: none"> • rated value • at AC-3 rated value maximum 	<p>690 V</p> <p>690 V</p>
Operating frequency rated value	50 ... 60 Hz
Operating current rated value	12.5 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 	<p>5.5 kW</p> <p>7.5 kW</p> <p>7.5 kW</p>

Auxiliary circuit

Design of the auxiliary switch	integrated
Number of NC contacts	
<ul style="list-style-type: none"> • for auxiliary contacts — Note 	<p>1</p> <p>for contactor disconnection</p>
Number of NO contacts	
<ul style="list-style-type: none"> • for auxiliary contacts — Note 	<p>1</p> <p>for message "Tripped"</p>
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 • at 110 V • at 120 V • at 125 V • at 230 V • at 400 V 	<p>3 A</p> <p>3 A</p> <p>3 A</p> <p>3 A</p> <p>2 A</p> <p>1 A</p>

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	12.5 A
• at 600 V rated value	12.5 A

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	direct mounting
Height	87 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	6 mm
— at the side	6 mm

Connections/Terminals

Product function	
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<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 	spring-loaded terminals spring-loaded 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 finely stranded without core end processing at AWG conductors 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 <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 finely stranded without core end processing at AWG conductors for auxiliary contacts 	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

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
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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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[Environmental Confirmations](#)

[Confirmation](#)

[Vibration and Shock](#)

Further information

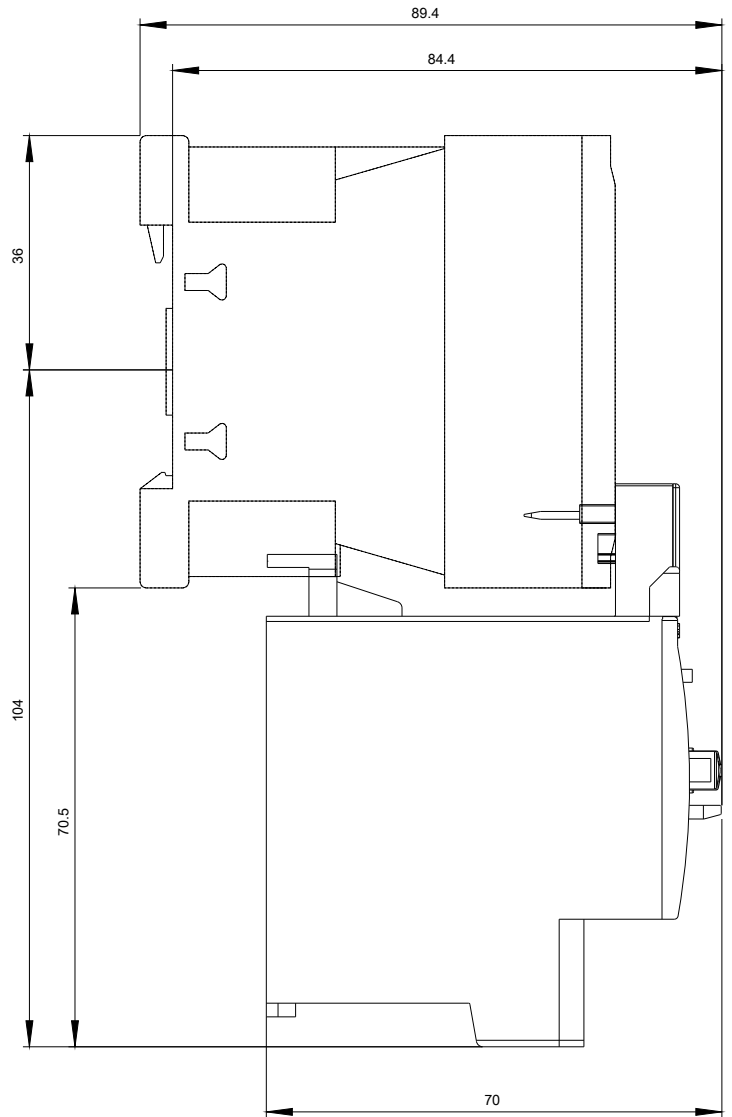
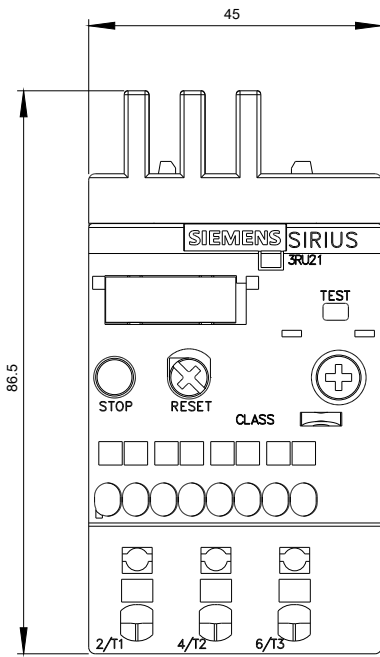
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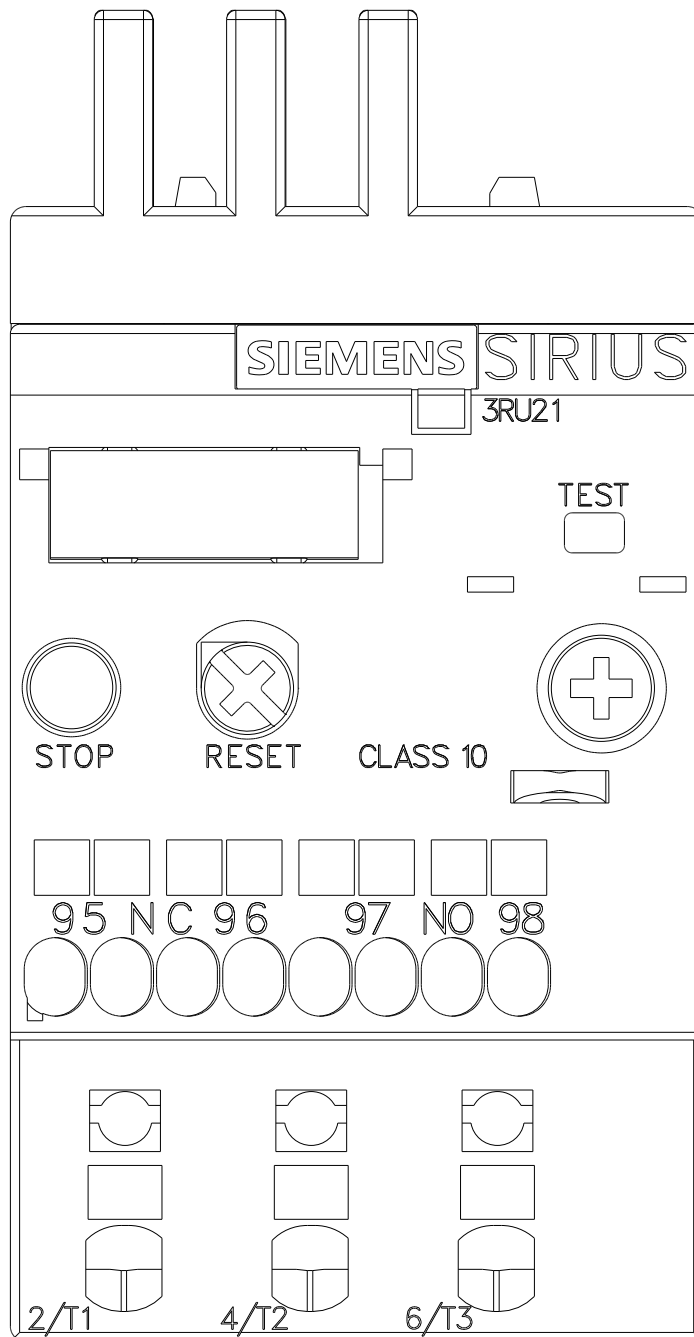
Industry Mall (Online ordering system)
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RU2116-1KC0>

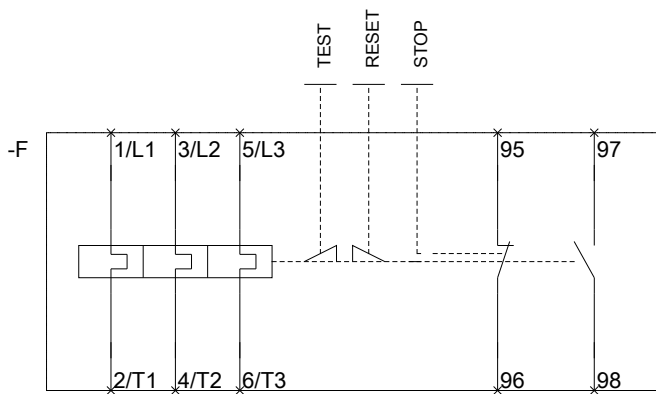
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Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3RU2116-1KC0>

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