

OVERLOAD RELAY 32...115 A FOR MOTOR PROTECTION SIZE S3, CLASS 20E F. MOUNTING ONTO CONTACTORS MAIN CIRCUIT: SCREW TERMINAL AUX. CIRCUIT: SPRING-T. TERM. MANUAL-AUTOMATIC RESET



Figure similar

Product brand name	SIRIUS
Product designation	solid-state overload relay
Product type designation	3RB3

General technical data	
Size of overload relay	S3
Size of contactor can be combined company-specific	S3
Power loss [W] total typical	4.6 W
Insulation voltage with degree of pollution 3 rated value	1 000 V
Surge voltage resistance rated value	8 kV
maximum permissible voltage for safe isolation	
<ul style="list-style-type: none"> • in networks with grounded star point between auxiliary and auxiliary circuit 	300 V
<ul style="list-style-type: none"> • in networks with grounded star point between auxiliary and auxiliary circuit 	300 V
<ul style="list-style-type: none"> • in networks with grounded star point between main and auxiliary circuit 	600 V

<ul style="list-style-type: none"> • in networks with grounded star point between main and auxiliary circuit 	690 V
Protection class IP	
<ul style="list-style-type: none"> • on the front 	IP20
<ul style="list-style-type: none"> • of the terminal 	IP00
Vibration resistance	1-6 Hz, 15 mm; 6-500 Hz, 20 m/s ² ; 10 cycles
Thermal current	115 A
Recovery time	
<ul style="list-style-type: none"> • after overload trip with automatic reset typical 	3 min
<ul style="list-style-type: none"> • after overload trip with remote-reset 	0 min
<ul style="list-style-type: none"> • after overload trip with manual reset 	0 min
Type of protection	II (2) G [Ex e] [Ex d] [Ex px] II (2) D [Ex t] [Ex p]
Protection against electrical shock	finger-safe when touched vertically from front acc. to IEC 60529
Equipment marking acc. to DIN EN 81346-2	F

Ambient conditions

Ambient temperature	
<ul style="list-style-type: none"> • during operation 	-25 ... +60 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +80 °C
<ul style="list-style-type: none"> • during transport 	-40 ... +80 °C
Temperature compensation	60 ... -25 °C

Main circuit

Number of poles for main current circuit	3
Adjustable pick-up value current of the current-dependent overload release	32 ... 115 A
Operating voltage	
<ul style="list-style-type: none"> • rated value 	1 000 V
<ul style="list-style-type: none"> • at AC-3 rated value maximum 	1 000 V
Operating frequency rated value	50 ... 60 Hz
Operating current rated value	115 A
Operating power for three-phase motors at 400 V at 50 Hz	18.5 ... 55 kW

Auxiliary circuit

Design of the auxiliary switch	integrated
Number of NC contacts	
<ul style="list-style-type: none"> • for auxiliary contacts 	1
— Note	for contactor disconnection
Number of NO contacts	
<ul style="list-style-type: none"> • for auxiliary contacts 	1
— Note	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 • at 110 V • at 120 V • at 125 V • at 230 V 	4 A 4 A 4 A 4 A 3 A
Operating current of auxiliary contacts at DC-13	
<ul style="list-style-type: none"> • at 24 V • at 60 V • at 110 V • at 125 V • at 220 V 	2 A 0.55 A 0.3 A 0.3 A 0.11 A

Protective and monitoring functions

Trip class	CLASS 20E
Design of the overload release	electronic

UL/CSA ratings

Full-load current (FLA) for three-phase AC motor	
<ul style="list-style-type: none"> • at 480 V rated value • at 600 V rated value 	115 A 115 A
Contact rating of auxiliary contacts according to UL	B600 / R300

Short-circuit protection

Design of the fuse link	
<ul style="list-style-type: none"> • for short-circuit protection of the main circuit <ul style="list-style-type: none"> — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required 	gG: 315 A gG: 315 A fuse gG: 6 A

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	direct mounting
Height	106 mm
Width	70 mm
Depth	124 mm
Required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side • for grounded parts 	0 mm 0 mm 0 mm 0 mm 0 mm

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

Connections/Terminals

Product function	
<ul style="list-style-type: none"> removable terminal for auxiliary and control circuit 	Yes
Type of electrical connection	
<ul style="list-style-type: none"> for main current circuit for auxiliary and control current circuit 	<p>screw-type terminals</p> <p>spring-loaded terminals</p>
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"> — solid — stranded — single or multi-stranded — finely stranded with core end processing at AWG conductors for main contacts 	<p>2x (2.5 ... 16 mm²)</p> <p>2x 16 mm²</p> <p>1x (2,5 ... 70 mm²), 2x (2,5 ... 50 mm²)</p> <p>1x (2,5 ... 50 mm²), 2x (2,5 ... 35 mm²)</p> <p>1x (10 ... 2/0), 2x (10 ... 1/0)</p>
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> for auxiliary contacts <ul style="list-style-type: none"> — solid — single or multi-stranded — finely stranded with core end processing — finely stranded without core end processing at AWG conductors for auxiliary contacts 	<p>2x (0.25 ... 1.5 mm²)</p> <p>2x (0,25 ... 1,5 mm²)</p> <p>2x (0.25 ... 1.5 mm²)</p> <p>2x (0.25 ... 1.5 mm²)</p> <p>2x (24 ... 16)</p>
Tightening torque	
<ul style="list-style-type: none"> for main contacts with screw-type terminals 	4.5 ... 6 N·m
Design of screwdriver shaft	Diameter 5 to 6 mm
Size of the screwdriver tip	Pozidriv PZ 2

Communication/ Protocol

Type of voltage supply via input/output link master	No
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Electromagnetic compatibility


Field-bound parasitic coupling acc. to IEC 61000-4-3	10 V/m
Electrostatic discharge acc. to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge

Display

Display version	Slide switch
• for switching status	

Certificates/approvals

General Product Approval	For use in hazardous locations	Declaration of Conformity	Marine / Shipping		
 CSA	 UL	 EAC	 ATEX	 EG-Konf.	 PRS

Marine / Shipping	other
 RINA	Confirmation

Further information

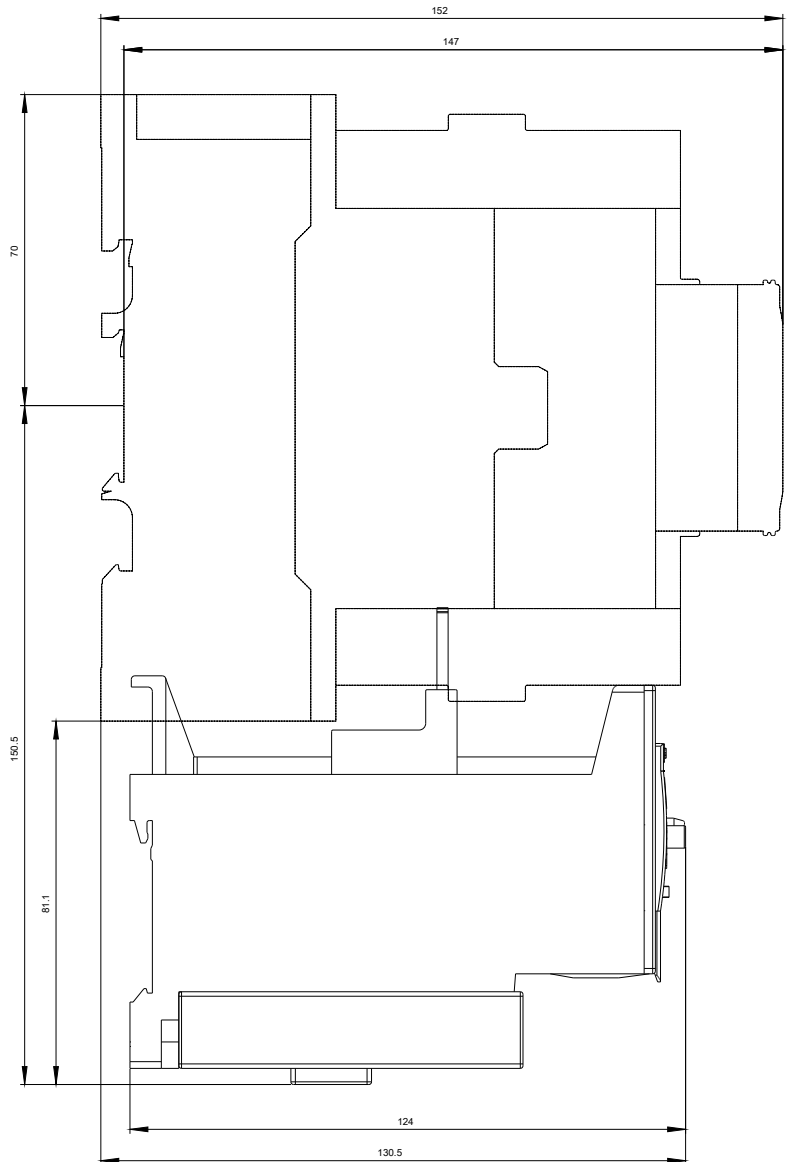
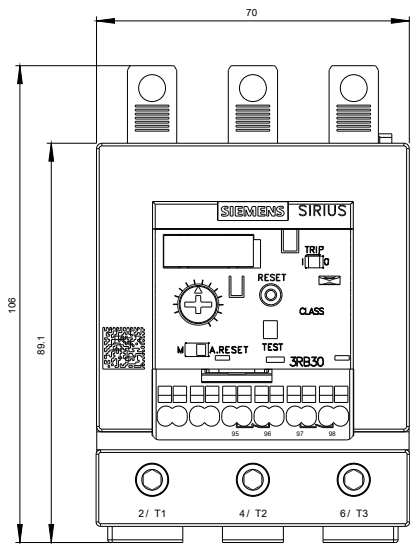
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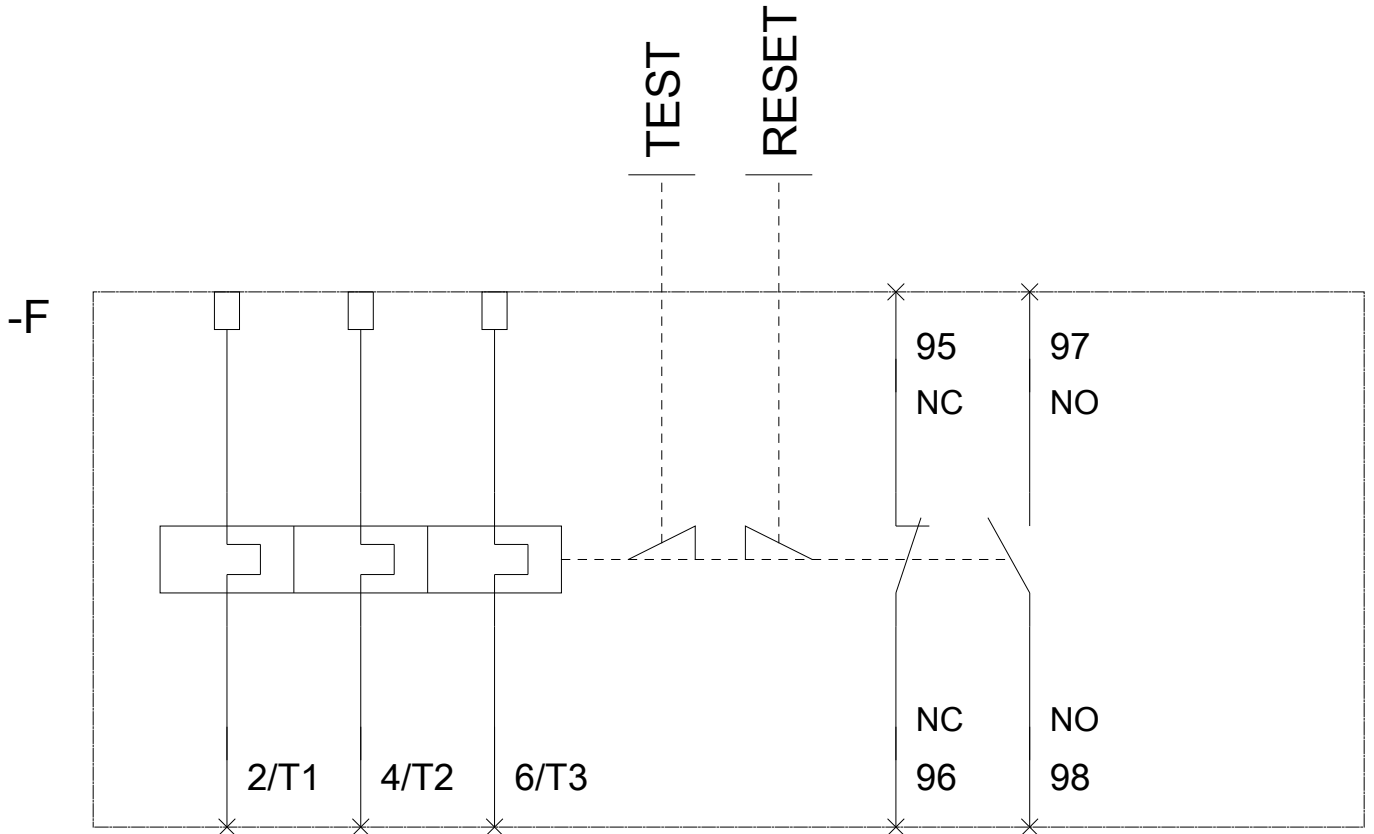
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