

OVERLOAD RELAY 3...12 A FOR MOTOR PROTECTION SIZE S00, CLASS 10 CONTACTOR ASS. MAIN CIRCUIT: SCREW CONN. AUX.CIRCUIT: SCREW CONN. MANUAL-AUTOM.-RESET



product brand name	SIRIUS
Product designation	solid-state overload relay
General technical data:	
Size of overload relay	S00
Size of contactor can be combined company-specific	S00
Power loss [W] total typical	0.6 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 	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

• of the terminal	IP20
Shock resistance	
• acc. to IEC 60068-2-27	15g / 11 ms
Vibration resistance	1-6 Hz, 15 mm; 6-500 Hz, 20 m/s ² ; 10 cycles
Thermal current	12 A
Recovery time	
• after overload trip with automatic reset typical	3 min
• after overload trip with remote-reset	0 min
• 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]
Certificate of suitability relating to ATEX	PTB 09 ATEX 3001
Protection against electrical shock	finger-safe
Equipment marking acc. to DIN EN 81346-2	F

Ambient conditions:

Installation altitude at height above sea level maximum	2 000 m
Ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C
Temperature compensation	60 ... -25 °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	3 ... 12 A
Operating voltage	
• rated value	690 V
• at AC-3 rated value maximum	690 V
Operating frequency rated value	50 ... 60 Hz
Operating current rated value	12 A

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
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 10
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 	12 A 12 A
Contact rating of auxiliary contacts according to UL	B600 / R300

Short-circuit protection

Design of the fuse link	fuse gG: 6 A
<ul style="list-style-type: none"> • for short-circuit protection of the auxiliary switch required 	

Installation/ mounting/ dimensions:

Mounting position	any
Mounting type	direct mounting
Height	79 mm
Width	45 mm
Depth	73 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 <ul style="list-style-type: none"> — forwards — Backwards — upwards 	0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 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	
• removable terminal for auxiliary and control circuit	Yes
Type of electrical connection	
• for main current circuit	screw-type terminals
• for auxiliary and control current circuit	screw-type 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	1x (0,5 ... 4 mm ²), 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 4 mm ²)
— finely stranded with core end processing	1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 2.5 mm ²)
• at AWG conductors for main contacts	1x (20 ... 12), 2x (20 ... 12)
Type of connectable conductor cross-sections	
• for auxiliary contacts	
— single or multi-stranded	1x (0,5 ... 4 mm ²), 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²)
— finely stranded with core end processing	1x (0.5 ... 1.5 mm ²), 2x (0.5 ... 1.5 mm ²), 1x (0.5 ... 2.5 mm ²)
• at AWG conductors for auxiliary contacts	1x (20 ... 14), 2x (20 ... 14)
Tightening torque	
• for main contacts with screw-type terminals	0.8 ... 1.2 N·m
• for auxiliary contacts with screw-type terminals	0.8 ... 1.2 N·m
Design of screwdriver shaft	Diameter 5 to 6 mm
Design of the thread of the connection screw	
• for main contacts	M3
• of the auxiliary and control contacts	M3

Communication/ Protocol:

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

Conducted interference due to burst acc. to IEC 61000-4-4	2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3
Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5	2 kV (line to earth) corresponds to degree of severity 3

Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5	1 kV (line to line) corresponds to degree of severity 3
Conducted interference due to high-frequency radiation acc. to IEC 61000-4-6	10 V in frequency range 0.15 to 80 MHz, modulation 80 % AM with 1 kHz
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	EMC	For use in hazardous locations
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Declaration of Conformity	Test Certificates	Shipping Approval
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Shipping Approval	other
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[Umweltbestätigung](#)

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=3RB30161SB0>

Cax online generator

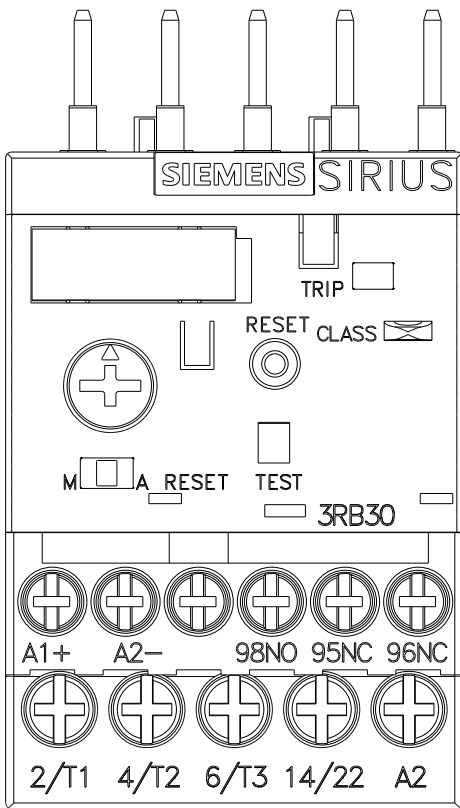
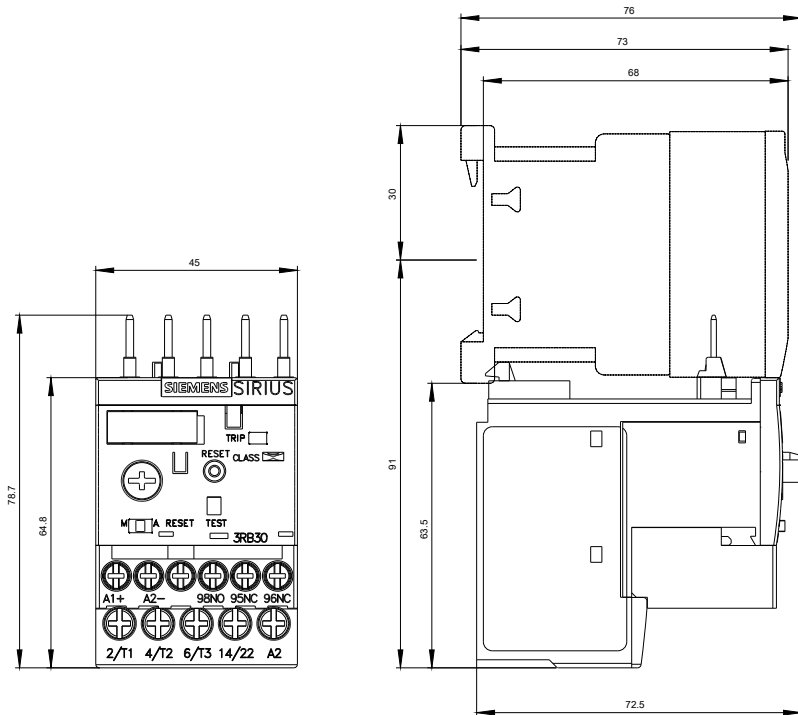
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB30161SB0>

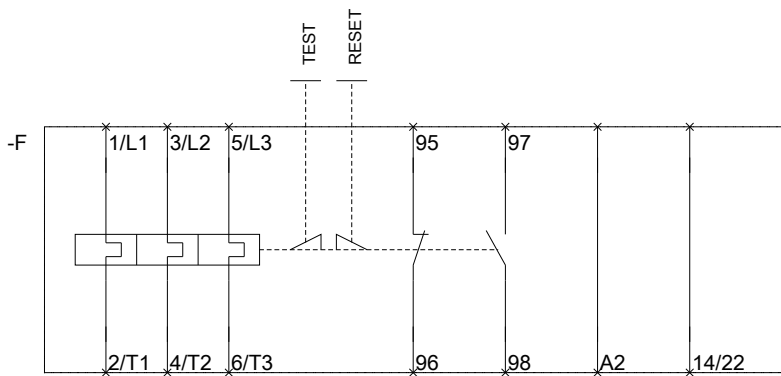
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RB30161SB0>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RB30161SB0&lang=en





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