

Motor overload protection  
for standard applications:  
**SIRIUS 3RB20/21 solid-state overload relays**



**Product Highlights:**

- Current-dependent protection of electrical loads continuously from 0.1 to 630 A
- Large current setting ranges of 1:4 maximize coverage and minimize inventory – 6 frame sizes cover the entire current protection range
- Low power loss: 98% lower power consumption compared to thermal overload relays
- 4 tripping classes (3RB20: CLASS 10 and 20, permanently set; 3RB21: CLASS 5 to 30, selectable) for Ex motors and normal/heavy starting
- Internal ground fault detection (3RB21) reduces maintenance and down time
- Integrated electronic remote RESET (3RB21) for automatic relay reset (with external 24V DC)
- Straight-through transformer versions for fast assembly and wiring
- ATEX-certified and therefore also suitable for motors with "increased safety" type of protection EEx e
- Compliance with relevant international standards and approvals

# sirius

## PROTECTING

If you want your motors and systems to be in safe hands and at the same time keep an eye on the profitability of your investments, our SIRIUS 3RB20/21 solid-state overload relays for standard applications are the right choice. In main circuits, these relays provide current-dependent overload protection for loads as well as for other switching and protective devices in the respective load feeder. Our overload relays are integrated in the SIRIUS modular system and distinguished by their wide application range, innovative technology and substantially reduced number of variants.

**SIEMENS**

## Technology in detail



- 1 Connecting pins for contactor installation**

The optimum prerequisite for the direct installation of overload relays. In terms of electrics, mechanics and design, they are perfectly matched to the SIRIUS contactors and soft starters. Stand alone installation is also possible with the appropriate adapter module. Straight-through transformer versions are available as well.
- 2 Selector switch for manual/automatic RESET**

For easy selection between manual and automatic RESET.
- 3 RESET button**

By pressing the RESET button, the device can be reset directly on site if the manual RESET function is activated. The 3RB21 has an additional integrated electrical remote RESET (24V DC).
- 4 Switch position indicator and wiring test function**

Signals when the device has tripped and facilitates wiring tests.
- 5 Electronics test**

Testing of important device components and functions.
- 6 Rotary dial for setting motor current**

Easy setting of the device to the nominal motor current.
- 7 Rotary dial for setting the trip class and internal ground fault detection (3RB21 only)**

By means of this dial, the required tripping class – depending on the applicable starting conditions – can be set and the internal ground fault detection activated.
- 8 Terminals (removable auxiliary circuit terminal block for easy installation)**

The terminals are generously dimensioned and allow for the connection of two conductors with different cross sections for the main and auxiliary circuits. Connection of the auxiliary circuit is possible by means of a screw-type or spring-loaded terminal system.

By the way:

SIRIUS overload relays are also available for high-feature applications: These modularly designed 3RB22/23 solid-state overload relays offer maximum functionality and full motor protection.

More information on our overload relays is available on the Internet at [www.siemens.com/overloadrelays](http://www.siemens.com/overloadrelays)

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