## **SIEMENS**

Data sheet 3RB3016-2SE0



OVERLOAD RELAY 3...12 A FOR MOTOR
PROTECTION SIZE S00, CLASS 20 CONTACTOR
ASS. MAIN CIRCUIT: SPR.-LOAD.TERM.
AUX.CIRCUIT: SPR.-LOAD.TERM. MANUAL-AUTOM.RESET

| product brand name  | SIRIUS                     |  |  |
|---------------------|----------------------------|--|--|
| Product designation | solid-state overload relay |  |  |

| General technical data:                                    |    |  |
|--|----|--|
| Active power loss total typical                            | W  | 0.6  |
| Insulation voltage   |    |  |
| <ul> <li>with degree of pollution 3 Rated value</li> </ul> | V  | 690  |
| Shock resistance   |    |  |
| • acc. to IEC 60068-2-27                                   |    | 15g / 11 ms  |
| Vibration resistance                                       |    | 1-6 Hz, 15 mm; 6-500 Hz, 20 m/s <sup>2</sup> ; 10 cycles |
| Surge voltage resistance Rated value                       | kV | 6  |
| Size of contactor can be combined company-specific         |    | S00  |
| Type of assignment   |    | 2  |
| Protection class IP  |    |  |
| • on the front   |    | IP20   |
| • of the terminal  |    | IP20   |
| Type of protection   | _  | II (2) G [Ex e] [Ex d] [Ex px] II (2) D [Ex t] [Ex p]    |
| Equipment marking  |    |  |
| • acc. to DIN EN 61346-2                                   |    | F  |
| • acc. to DIN EN 81346-2                                   |    | F  |

| Main circuit:                                     |   |      |
|---|---|------|
| Number of poles for main current circuit          |   | 3    |
| Adjustable response value current of the current- | Α | 3 12 |
| dependent overload release                        |   |      |
| Operating voltage                                 |   |      |
| <ul> <li>at AC-3 Rated value maximum</li> </ul>   | V | 690  |

| Operating frequency Rated value  Operating current  • at AC-3  — at 400 V Rated value  Auxiliary circuit:  Number of NC contacts  • for auxiliary contacts  — Note  Number of NO contacts  • for auxiliary contacts  — Note  Number of NO contacts  • for auxiliary contacts  — Note | A | 12  1 for contactor disconnection |
|--|---|-----------------------------------|
| at AC-3  — at 400 V Rated value  Auxiliary circuit:  Number of NC contacts  • for auxiliary contacts  — Note  Number of NO contacts  • for auxiliary contacts  | A | 1 for contactor disconnection     |
| — at 400 V Rated value  Auxiliary circuit:  Number of NC contacts  • for auxiliary contacts  — Note  Number of NO contacts  • for auxiliary contacts   | A | 1 for contactor disconnection     |
| Auxiliary circuit:  Number of NC contacts  • for auxiliary contacts  — Note  Number of NO contacts  • for auxiliary contacts   | A | 1 for contactor disconnection     |
| Number of NC contacts  • for auxiliary contacts  — Note  Number of NO contacts  • for auxiliary contacts   |   | for contactor disconnection       |
| <ul> <li>for auxiliary contacts</li> <li>— Note</li> <li>Number of NO contacts</li> <li>for auxiliary contacts</li> </ul>  |   | for contactor disconnection       |
| <ul><li>— Note</li><li>Number of NO contacts</li><li>● for auxiliary contacts</li></ul>  |   | for contactor disconnection       |
| Number of NO contacts  • for auxiliary contacts  |   |                                   |
| • for auxiliary contacts   |   | 4                                 |
| ·  |   | 1                                 |
| — Note   |   |                                   |
| 11010  |   | for message "tripped"             |
| Number of CO contacts  |   |                                   |
| • for auxiliary contacts   |   | 0                                 |
| Design of the auxiliary switch   |   | integrated                        |
| Operating current of the auxiliary contacts at AC-15   |   |                                   |
| ● at 24 V  | Α | 4                                 |
| ● at 110 V   | Α | 4                                 |
| ● at 120 V   | Α | 4                                 |
| ● at 125 V   | Α | 4                                 |
| ● at 230 V   | Α | 3                                 |
| Operating current of the auxiliary contacts at DC-13   |   |                                   |
| ● at 24 V  | Α | 2                                 |
| ● at 60 V  | Α | 0.55                              |
| ● at 110 V   | Α | 0.3                               |
| ● at 125 V   | Α | 0.3                               |
| ● at 220 V   | Α | 0.11                              |
| Protective and monitoring functions:   |   |                                   |
| Trip class   |   | CLASS 20                          |
| Design of the overload circuit breaker   |   | electronic                        |
| UL/CSA ratings:  |   |                                   |
| Contact rating of the auxiliary contacts acc. to UL  |   | B600 / R300                       |
| Short-circuit:   |   |                                   |
| Design of the fuse link  |   |                                   |
| • for short-circuit protection of the main circuit   |   |                                   |
| — required   |   | Fuse gG: 50 A                     |
| • for short-circuit protection of the auxiliary switch   |   | fuse gG: 6 A                      |
| required   |   |                                   |
| Installation/ mounting/ dimensions:  |   |                                   |
| mounting position  |   | any                               |
| Mounting type  |   | direct mounting                   |

| Height                                       | mm | 72 |
|--|----|----|
| Width  | mm | 45 |
| Depth  | mm | 90 |
| Required spacing                             |    |    |
| <ul><li>with side-by-side mounting</li></ul> |    |    |
| — forwards                                   | mm | 0  |
| — Backwards                                  | mm | 0  |
| — upwards                                    | mm | 0  |
| — downwards                                  | mm | 0  |
| — at the side                                | mm | 0  |
| • for grounded parts                         |    |    |
| — forwards                                   | mm | 6  |
| — Backwards                                  | mm | 0  |
| — upwards                                    | mm | 0  |
| — at the side                                | mm | 6  |
| — downwards                                  | mm | 0  |
| • for live parts                             |    |    |
| — forwards                                   | mm | 6  |
| — Backwards                                  | mm | 0  |
| — upwards                                    | mm | 0  |
| — downwards                                  | mm | 0  |
| — at the side                                | mm | 6  |

| Connections/ Terminals:  |                                      |
|--|--------------------------------------|
| Type of electrical connection  |                                      |
| • for main current circuit   | spring-loaded terminals              |
| <ul> <li>for auxiliary and control current circuit</li> </ul>            | spring-loaded terminals              |
| Arrangement of electrical connectors for main current circuit            | Top and bottom                       |
| Product function   |                                      |
| <ul> <li>removable terminal for auxiliary and control circuit</li> </ul> | Yes                                  |
| Type of connectable conductor cross-section                              |                                      |
| • for main contacts  |                                      |
| <ul><li>— single or multi-stranded</li></ul>                             | 1x (0,5 4 mm²)                       |
| <ul> <li>finely stranded with core end processing</li> </ul>             | 1x (0.5 2.5 mm²)                     |
| <ul> <li>finely stranded without core end<br/>processing</li> </ul>      | 1x (0.5 2.5 mm²)                     |
| <ul> <li>for AWG conductors for main contacts</li> </ul>                 | 1x (20 12)                           |
| <ul> <li>for auxiliary contacts</li> </ul>                               |                                      |
| <ul> <li>single or multi-stranded</li> </ul>                             | 1x (0,5 1,5 mm²), 2x (0,5 1,5 mm²)   |
| — finely stranded with core end processing                               | 1x (0.25 1.5 mm²), 2x (0.25 1.5 mm²) |

| <ul> <li>finely stranded without core end processing</li> </ul>               |    | 1x (0.25 1.5 mm²), 2x (0.25 1.5 mm²)  |
|---|----|---|
| for AWG conductors for auxiliary contacts                                     |    | 1x (24 16), 2x (24 16)  |
| Safety related data:  |    |   |
| Protection against electrical shock   |    | finger-safe   |
| Mechanical data:  |    |   |
| Size of overload relay  |    | S00   |
| Communication/ Protocol:  |    |   |
| Protocol is supported   |    |   |
| <ul> <li>IO-Link protocol</li> </ul>  |    | No  |
| Type of voltage supply via input/output link master                           |    | No  |
| Ambient conditions:   |    |   |
| Installation altitude at height above sea level maximum                       | m  | 2 000   |
| Ambient temperature   |    |   |
| <ul><li>during operation</li></ul>  | °C | -25 +60   |
| during storage  | °C | -40 <b>+</b> 80   |
| during transport  | °C | -40 +80   |
| Relative humidity during operation  | %  | 95  |
| Electromagnetic compatibility:  |    |   |
| EMC emitted interference  |    |   |
| ● acc. to IEC 60947-1   |    | CISPR 11, environment B (residential area)                                  |
| EMI immunity acc. to IEC 60947-1  |    | corresponds to degree of severity 3   |
| 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                     |
| 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   |    |   |
| • for switching status  |    | Slide switch  |
| Certificates/ approvals:  |    |   |

## For use in **General Product Approval EMC**















| Declaration of Conformity | Test Certificates                  |                          | Shipping App | proval   |     |
|---------------------------|------------------------------------|--------------------------|--------------|--|-----|
| CE                        | Type Test Certificates/Test Report | Special Test Certificate | OF STATES    | THE STATE OF THE S | GL® |
| EG-Konf.                  |                                    |                          | ABS          | BUREAU   | GL  |

| Shi           | pping  | App   | roval |
|---------------|--------|-------|-------|
| <b>U</b> 1111 | PP1119 | , .PP | Joran |

other





Environmental Confirmations

Confirmation

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

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

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB30162SE0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) http://support.automation.siemens.com/WW/view/en/3RB30162SE0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RB30162SE0&lang=en



