# **SIEMENS**

Product data sheet 3RV2011-1AA10



CIRCUIT-BREAKER SZ S00, FOR MOTOR PROTECTION, CLASS 10, A-REL.1.1...1.6A, N-RELEASE 21A, SCREW CONNECTION, STANDARD SW. CAPACITY

| General technical data:  |    |                      |  |  |
|--|----|----------------------|--|--|
| product brand name   |    | SIRIUS               |  |  |
| Product designation  |    | 3RV2 circuit breaker |  |  |
| Size of the circuit-breaker  |    | S00                  |  |  |
| Number of poles / for main current circuit                               |    | 3                    |  |  |
| Product function   |    |                      |  |  |
| <ul> <li>removable terminal for auxiliary and control circuit</li> </ul> |    | No                   |  |  |
| overload protection  |    | Yes                  |  |  |
| phase disturbance recognition  |    | Yes                  |  |  |
| short-circuit to earth recognition                                       |    | No                   |  |  |
| Product component  |    |                      |  |  |
| auxiliary switch   |    | No                   |  |  |
| undervoltage release mechanism   |    | No                   |  |  |
| • trip indicator   |    | No                   |  |  |
| Product extension  |    |                      |  |  |
| auxiliary switch   |    | Yes                  |  |  |
| optional / motor drive   |    | No                   |  |  |
| Impulse voltage resistance / rated value                                 | kV | 6                    |  |  |
| Protection class IP / on the front                                       |    | IP20                 |  |  |
| Protection against electrical shock                                      |    | finger-safe          |  |  |

| Ambient temperature  - during stroage - during operating - during operating - during operating - Active power loss / total / typical  Main circuit:  Operating voltage / rated value - V 680  Service power / at AC-3 14 400 V / rated value - Active power / at AC-3 14 400 V / rated value - Active fower / at AC-3 14 400 V / rated value - Active fower / at AC-3 14 400 V / rated value - Active fower / at AC-3 14 400 V / rated value - Active fower / at AC-3 / at 400 V / rated value - Active fower / at AC-3 / at 400 V / rated value - Active fower / ac                     | Installation altitude / at a height over sea level / maximum      | m   | 2,000    |
|--|---|-----|----------|
| - during transport - during storage - during operating over ope |   |     |          |
| - during storage - during operating Active power loss / total / typical  W 6  Main circuit:  Operating voltage / rated value  Service power / at AC-3 - at 400 V / rated value - at 600 V | ·   | °C  | -50 +80  |
| - during operating Protection function:  Trip class Adjustable response current / of the current-dependent overtoad release Proportion of dangerous failures  - with ligh demand rate / according to SN 31920  Safety:  Fround of the proof rest interval or service life / according to SN 31920  To value / with high demand rate / according to SN 31920  To value / for proof test interval or service life / according to SN 31920  To value / for proof test interval or service life / according to SN 31920  To value / for proof test interval or service life / according to SN 31920  To value / for proof test interval or service life / according to SN 31920  To value / for proof test interval or service life / according to SN 31920  To value / for proof test interval or service life / according to SN 31920  To value / for proof test interval or service life / according to EN 31920  To value / for proof test interval or service life / according to EN 31920  To value / for proof test interval or service life / according to EN 31920  To value / for proof test interval or service life / according to EN 31920  To value / for proof test interval or service life / according to EN 31920  To value / for proof test interval or service life / according to EN 31920  To value / for proof test interval or service life / according to EN 31920  To value / for proof test interval or service life / according to EN 31920  To value / for proof test interval or service life / according to EN 31920  To value / for proof test interval or service life / according to EN 31920  To value / for proof test interval or service life / according to EN 31920  To value / for proof test interval or service life / according to EN 31920  To value / for proof test interval or service life / according to EN 31920  To value / for proof test interval or service life / according to EN 31920  To value / for proof test interval or service life / according to EN 31920  To value / for proof test interval or service life / according to EN 31920  To value / for proof test | •   | °C  | -50 +80  |
| Active power loss / total / typical  Main circuit:  Operating voltage / rated value  Service power / at AC-3  - at 400 V / rated value  - at 500 V / rated value  - at 500 V / rated value  - at 500 V / rated value  - at 690 V / rated value  - at 690 V / rated value  - at 690 V / rated value  - At 1.6  Mechanical operating cycles as operating time / of the main contacts / typical  Frequency of operation / with AC-3 / maximum  - I/h  Auxiliary circuit:  Number of changeover contacts / for auxiliary contacts  Mechanical operating cycles as operating time / of the auxiliary contacts / typical  Protection function:  Trip class  - Adjustable response current / of the current-dependent overload release  - with high demand rate / according to SN 31920  - with low demand rate / according to SN 31920  - with low demand rate / according to SN 31920  Follure rate (FIT value) / with low demand rate / according to SN 31920  Tri value / for proof test interval or service life / according to IEC 6158  Installation/mounting/dimensions:  Mounting type  mounting position  Pepth  mm 96  | •   | °C  | -20 +60  |
| Operating voltage / rated value  |   | W   | 6        |
| Service power / at AC-3  |   |     |          |
| Service power at AC-3  • at 400 V / rated value  • at 500 V / rated value  • at 690 V / rated value  • at 690 V / rated value  • at 690 V / rated value  Operating current / at AC-3 / at 400 V / rated value  Mechanical operating cycles as operating time / of the main contacts / typical  Frequency of operation / with AC-3 / maximum  1/h 15  Auxiliary circuit:  Number of changeover contacts / for auxiliary contacts  O  Mechanical operating cycles as operating time / of the auxiliary contacts / typical  Protection function:  Trip class  Adjustable response current / of the current-dependent overload release  Safety:  Proportion of dangerous failures  • with high demand rate / according to SN 31920  • with low demand rate / according to SN 31920  Failure rate (FIT value) / with low demand rate / according to SN 31920  T1 value / with high demand rate / according to SN 31920  T1 value / with high demand rate / according to SN 31920  T1 value / for proof test interval or service life / according to IEC 61508  Installation/mounting/dimensions:  Mounting type  mounting position  Depth  mm 96  |   |     |          |
| - at 400 V / rated value - at 500 V / rated value - at 690 V / rated value - A 1.6  Mechanical operating cycles as operating time / of the main contacts / typical  Frequency of operation / with AC-3 / maximum - I/h 15  Auxiliary circuit:  Number of changeover contacts / for auxiliary contacts - O 0  Mechanical operating cycles as operating time / of the auxiliary contacts / typical  Protection function:  Trip class - CLASS 10 - Adjustable response current / of the current-dependent overload release - with high demand rate / according to SN 31920 - with low demand rate / according to SN 31920 - with low demand rate / according to SN 31920 - Trip value / with high demand rate / according to SN 31920 - Trip value / with high demand rate / according to SN 31920 - Trip value / with high demand rate / according to SN 31920 - Trip value / with high demand rate / according to SN 31920 - Trip value / for proof test interval or service life / according to ICC 61508  Installation/mounting/dimensions:  Mounting type - Monthing typ | <u> </u>  | V   | 690      |
| • at 500 V / rated value  • at 690 V / rated value  Operating current / at AC-3 / at 400 V / rated value  A 1.6  Mechanical operating cycles as operating time / of the main contacts / typical  Frequency of operation / with AC-3 / maximum  I/h 15  Auxiliary circuit:  Number of changeover contacts / for auxiliary contacts  Mechanical operating cycles as operating time / of the auxiliary contacts / typical  Protection function:  Trip class  Adjustable response current / of the current-dependent overload release  Safety:  Proportion of dangerous failures  • with high demand rate / according to SN 31920 • with low demand rate / according to SN 31920  **Failure rate (FIT value) / with low demand rate / according to SN 31920  B10 value / with high demand rate / according to SN 31920  **Failure rate (FIT value) / with low demand rate / according to SN 31920  B10 value / with high demand rate / according to SN 31920  **Failure rate (FIT value) / with low demand rate / according to SN 31920  Failure rate (FIT value) / with low demand rate / according to SN 31920  Failure rate (FIT value) / with high demand rate / according to SN 31920  Failure rate (FIT value) / with high demand rate / according to SN 31920  Failure rate (FIT value) / with high demand rate / according to SN 31920  Failure rate (FIT value) / with high demand rate / according to SN 31920  Failure rate (FIT value) / with high demand rate / according to SN 31920  Failure rate (FIT value) / with high demand rate / according to SN 31920  Source value / with high demand rate / according to SN 31920  Installation/mounting/dimensions:  Mounting type  acceve and snap-on mounting onto 35 mm standard mounting position  mounting position  munting position  mm 96  |   |     |          |
| - at 690 V / rated value  Operating current / at AC-3 / at 400 V / rated value  A 1.6  Mechanical operating cycles as operating time / of the main contacts / typical  Frequency of operation / with AC-3 / maximum  1/h 15  Auxiliary circuit:  Number of changeover contacts / for auxiliary contacts  Mechanical operating cycles as operating time / of the auxiliary contacts / typical  Protection function:  Trip class  CLASS 10  Adjustable response current / of the current-dependent overload release  Safety:  Proportion of dangerous failures  - with high demand rate / according to SN 31920  - with low demand rate / according to SN 31920  * with low demand rate / according to SN 31920  B10 value / with high demand rate / according to SN 31920  T1 value / for proof test interval or service life / according to IEC 61508  Installation/mounting/dimensions:  Mounting type  mm 96   | at 400 V / rated value  | W   | 550      |
| Operating current / at AC-3 / at 400 V / rated value     A     1.6       Mechanical operating cycles as operating time / of the main contacts / typical     100,000       Frequency of operation / with AC-3 / maximum     1/h     15       Auxiliary circuit:     0       Number of changeover contacts / for auxiliary contacts     0       Mechanical operating cycles as operating time / of the auxiliary contacts / typical     100,000       Protection function:       Trip class     CLASS 10       Adjustable response current / of the current-dependent overload release     A     1.1 1.6       Safety:       Proportion of dangerous failures <ul> <li>with high demand rate / according to SN 31920</li> <li>with low demand rate / according to SN 31920</li> <li>with low demand rate / according to SN 31920</li> <li>40             <li>40               Failure rate (FIT value) / with low demand rate / according to SN 31920             50,000               T1 value / for proof test interval or service life / according to IEC 61508             a             10               Installation/mounting/dimensions:               Mounting type             screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715               mounting position             any               Depth</li></li></ul>  |   |     |          |
| Mechanical operating cycles as operating time / of the main contacts / typical  Frequency of operation / with AC-3 / maximum  1/h 15  Auxiliary circuit:  Number of changeover contacts / for auxiliary contacts  Mechanical operating cycles as operating time / of the auxiliary contacts / typical  Protection function:  Trip class  Adjustable response current / of the current-dependent overload release  Safety:  Proportion of dangerous failures  • with high demand rate / according to SN 31920 • with low demand rate / according to SN 31920  • with low demand rate / according to SN 31920  10 40  Filt 50  31920  B10 value / with high demand rate / according to SN 31920  T1 value / for proof test interval or service life / according to IEC 61508  Installation/mounting/dimensions:  Mounting type  mounting position  Depth  mm 96  |   | W   |          |
| contacts / typical  Frequency of operation / with AC-3 / maximum  1/h 15  Auxillary circuit:  Number of changeover contacts / for auxillary contacts  Mechanical operating cycles as operating time / of the auxiliary contacts / typical  Protection function:  Trip class  Adjustable response current / of the current-dependent overload release  Safety:  Proportion of dangerous failures  • with high demand rate / according to SN 31920 • with low demand rate / according to SN 31920  • with low demand rate / according to SN 31920  Failure rate (FIT value) / with low demand rate / according to SN 31920  B10 value / with high demand rate / according to SN 31920  T1 value / for proof test interval or service life / according to IEC 61508  Installation/mounting/dimensions:  Mounting type  screw and snap-on mounting onto 35 mm standard mounting position  physical processors with a position mm 96  | <u> </u>  | A   | 1.6      |
| Auxiliary circuit:  Number of changeover contacts / for auxiliary contacts  Mechanical operating cycles as operating time / of the auxiliary contacts / typical  Protection function:  Trip class  CLASS 10  Adjustable response current / of the current-dependent overload release  Safety:  Proportion of dangerous failures  • with high demand rate / according to SN 31920  • with low demand rate / according to SN 31920  * with low demand rate / according to SN 31920  Failure rate (FIT value) / with low demand rate / according to SN 31920  To vith vith high demand rate / according to SN 31920  Failure rate (FIT value) / with high demand rate / according to SN 31920  To vith low demand rate / according to SN 31920  Solution of the current of the current of the auxiliary and the current overload rate / according to SN 31920  Failure rate (FIT value) / with high demand rate / according to EC a 10  Installation/mounting/dimensions:  Mounting type  screw and snap-on mounting onto 35 mm standard mounting type  screw and snap-on mounting to DIN EN 60715  mounting position  mm 96  |   |     | 100,000  |
| Number of changeover contacts / for auxiliary contacts  Mechanical operating cycles as operating time / of the auxiliary contacts / typical  Protection function:  Trip class  Adjustable response current / of the current-dependent overload release  Safety:  Proportion of dangerous failures  • with high demand rate / according to SN 31920  • with low demand rate / according to SN 31920  • with low demand rate / according to SN 31920  131920  B10 value / with high demand rate / according to SN 31920  T1 value / for proof test interval or service life / according to IEC 61508  Installation/mounting/dimensions:  Mounting type  mum 96   | Frequency of operation / with AC-3 / maximum                      | 1/h | 15       |
| Mechanical operating cycles as operating time / of the auxiliary contacts / typical  Protection function:  Trip class CLASS 10  Adjustable response current / of the current-dependent overload release  Safety:  Proportion of dangerous failures  • with high demand rate / according to SN 31920  • with low demand rate / according to SN 31920  Failure rate (FIT value) / with low demand rate / according to SN 31920  B10 value / with high demand rate / according to SN 31920  B10 value / for proof test interval or service life / according to IEC 61508  Installation/mounting/dimensions:  Mounting type  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  mounting position  mm 96  | Auxiliary circuit:  |     |          |
| Protection function:  Trip class  Adjustable response current / of the current-dependent overload release  Safety:  Proportion of dangerous failures  • with high demand rate / according to SN 31920 • with low demand rate / according to SN 31920  • with low demand rate / according to SN 31920  Failure rate (FIT value) / with low demand rate / according to SN 31920  To value / with high demand rate / according to SN 31920  To value / for proof test interval or service life / according to IEC 61508  Installation/mounting/dimensions:  Mounting type  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  mounting position  mm 96   | Number of changeover contacts / for auxiliary contacts            |     | 0        |
| Trip class  Adjustable response current / of the current-dependent overload release  Safety:  Proportion of dangerous failures  • with high demand rate / according to SN 31920  • with low demand rate / according to SN 31920  • with low demand rate / according to SN 31920  Failure rate (FIT value) / with low demand rate / according to SN 31920  B10 value / with high demand rate / according to SN 31920  T1 value / for proof test interval or service life / according to IEC 61508  Installation/mounting/dimensions:  Mounting type  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  mounting position  mm 96   |   |     | 100,000  |
| Adjustable response current / of the current-dependent overload release  Safety:  Proportion of dangerous failures  • with high demand rate / according to SN 31920  • with low demand rate / according to SN 31920  Failure rate (FIT value) / with low demand rate / according to SN 31920  B10 value / with high demand rate / according to SN 31920  F1T value / for proof test interval or service life / according to IEC 61508  Installation/mounting/dimensions:  Mounting type  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  mounting position  Depth  mm 96   | Protection function:  |     |          |
| Safety:  Proportion of dangerous failures  • with high demand rate / according to SN 31920  • with low demand rate / according to SN 31920  * with low demand rate / according to SN 31920  Failure rate (FIT value) / with low demand rate / according to SN 31920  B10 value / with high demand rate / according to SN 31920  50,000  T1 value / for proof test interval or service life / according to IEC 61508  Installation/mounting/dimensions:  Mounting type  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  mounting position  pepth  mm  96  | Trip class  |     | CLASS 10 |
| Proportion of dangerous failures  • with high demand rate / according to SN 31920  • with low demand rate / according to SN 31920  Failure rate (FIT value) / with low demand rate / according to SN 31920  Failure rate (FIT value) / with low demand rate / according to SN 31920  B10 value / with high demand rate / according to SN 31920  T1 value / for proof test interval or service life / according to IEC 61508  Installation/mounting/dimensions:  Mounting type  Screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  mounting position  Depth  mm  96  |   | Α   | 1.1 1.6  |
| with high demand rate / according to SN 31920     with low demand rate / according to SN 31920     % 40  Failure rate (FIT value) / with low demand rate / according to SN 31920  B10 value / with high demand rate / according to SN 31920  T1 value / for proof test interval or service life / according to IEC 61508  Installation/mounting/dimensions:  Mounting type  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  mounting position  pepth  mm  96   | Safety:   |     |          |
| • with low demand rate / according to SN 31920 % 40  Failure rate (FIT value) / with low demand rate / according to SN 31920 FIT 50  B10 value / with high demand rate / according to SN 31920 50,000  T1 value / for proof test interval or service life / according to IEC 61508 10  Installation/mounting/dimensions:  Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 any  Depth mm 96  | Proportion of dangerous failures                                  |     |          |
| Failure rate (FIT value) / with low demand rate / according to SN 31920  B10 value / with high demand rate / according to SN 31920  T1 value / for proof test interval or service life / according to IEC 61508  Installation/mounting/dimensions:  Mounting type  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  mounting position  pepth  mm 96   | <ul> <li>with high demand rate / according to SN 31920</li> </ul> | %   | 40       |
| B10 value / with high demand rate / according to SN 31920  T1 value / for proof test interval or service life / according to IEC 61508  Installation/mounting/dimensions:  Mounting type  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  mounting position  pepth  mm  96   | <ul> <li>with low demand rate / according to SN 31920</li> </ul>  | %   | 40       |
| T1 value / for proof test interval or service life / according to IEC 61508  Installation/mounting/dimensions:  Mounting type screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  mounting position any  Depth mm 96   |   | FIT | 50       |
| Installation/mounting/dimensions:  Mounting type  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  mounting position  any  Depth  mm  96  | B10 value / with high demand rate / according to SN 31920         |     | 50,000   |
| Mounting type  screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715  mounting position  any  Depth  mm  96   | •   | а   | 10       |
| mounting rail according to DIN EN 60715  mounting position any  Depth mm 96  | Installation/mounting/dimensions:                                 |     |          |
| Depth mm 96  | Mounting type   |     |          |
| ·  | mounting position   |     | any      |
| Uniole 07  | Depth   | mm  | 96       |
| mm 9/  | Height  | mm  | 97       |

| Connections:  |                                     |  |  |  |
|---|-------------------------------------|--|--|--|
| Arrangement of electrical connectors / for main current circuit | Top and bottom                      |  |  |  |
| Design of the electrical connection                             |                                     |  |  |  |
| for main current circuit  | screw-type terminals                |  |  |  |
| Type of the connectable conductor cross-section                 |                                     |  |  |  |
| • for main contacts   |                                     |  |  |  |
| • finely stranded   |                                     |  |  |  |
| <ul> <li>with conductor end processing</li> </ul>               | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) |  |  |  |
| • for AWG conductors / for main contacts                        | 2x (18 14), 2x 12                   |  |  |  |

| UL/CSA ratings:   |    |      |  |
|---|----|------|--|
| yielded mechanical performance (hp)                       |    |      |  |
| <ul> <li>for single-phase squirrel cage motors</li> </ul> |    |      |  |
| at 230 V / rated value                                    | hp | 0.1  |  |
| • for three-phase squirrel cage motors                    |    |      |  |
| • at 460/480 V / rated value                              | hp | 0.75 |  |
| • at 575/600 V / rated value                              | hp | 0.75 |  |
| Full-load current (FLA) / for 3-phase motor               |    |      |  |
| • at 480 V / rated value                                  | Α  | 1.6  |  |
| • at 600 V / rated value                                  | Α  | 1.3  |  |

## Certificates/approvals:

Conformity

**Test Certificates** 









**Declaration of** 

Special Test Certificate Type Test
Certificates/Test
Report

### **Shipping Approval**













## **Shipping Approval**





Confirmation

other



other

Environmental Confirmations

## Further information:

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

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

#### Industry Mall (Online ordering system)

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

#### Cax online generator:

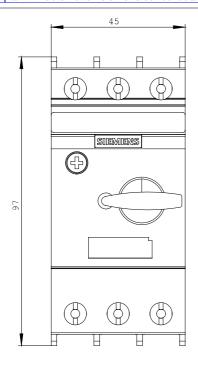
http://www.siemens.com/cax

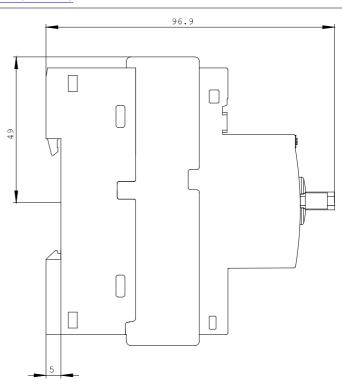
## Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

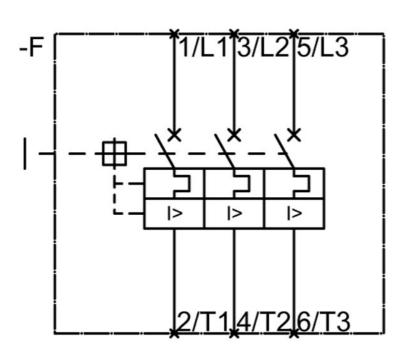
http://support.automation.siemens.com/WW/view/en/3RV2011-1AA10/all

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

 $\underline{http://www.automation.siemens.com/bilddb/cax\_en.aspx?mlfb=3RV2011-1AA10}$ 







last change: Apr 5, 2014