



CIRCUIT-BREAKER SZ S00, FOR MOTOR PROTECTION, CLASS 10, A-RELEASE2.2...3.2A, N-RELEASE 42A, RING CABLE LUG CONNECTION, STANDARD SW. CAPACITY

|   |    |                      |
|---|----|----------------------|
| product brand name  |    | SIRIUS               |
| Product designation                                       |    | 3RV2 circuit breaker |
| <b>General technical data:</b>                            |    |                      |
| <b>Active power loss total typical</b>                    | W  | 6                    |
| <b>Insulation voltage</b>                                 |    |                      |
| • with degree of pollution 3 Rated value                  | V  | 690                  |
| <b>Shock resistance</b>                                   |    |                      |
| • acc. to IEC 60068-2-27                                  |    | 25g / 11 ms          |
| <b>Surge voltage resistance Rated value</b>               | kV | 6                    |
| <b>Mechanical service life (switching cycles)</b>         |    |                      |
| • of the main contacts typical                            |    | 100 000              |
| • of the auxiliary contacts typical                       |    | 100 000              |
| <b>Electrical endurance (switching cycles)</b>            |    |                      |
| • typical   |    | 100 000              |
| <b>Temperature compensation</b>                           | °C | -20 ... +60          |
| <b>Size of contactor can be combined company-specific</b> |    | S0                   |
| <b>Protection class IP</b>                                |    |                      |
| • on the front  |    | IP00                 |
| • of the terminal   |    | IP20                 |
| <b>Type of protection</b>                                 |    | Increased safety     |
| <b>Equipment marking</b>                                  |    |                      |
| • acc. to DIN EN 81346-2                                  |    | Q                    |
| <b>Main circuit:</b>                                      |    |                      |
| <b>Number of poles for main current circuit</b>           |    | 3                    |

|  |     |             |
|--|-----|-------------|
| <b>Adjustable response value current of the current-dependent overload release</b> | A   | 2.2 ... 3.2 |
| <b>Operating voltage</b>   |     |             |
| • Rated value  | V   | 690         |
| • at AC-3 Rated value maximum  | V   | 690         |
| Operating frequency Rated value  | Hz  | 50 ... 60   |
| <b>Operating current Rated value</b>   | A   | 3.2         |
| <b>Operating current</b>   |     |             |
| • at AC-3  |     |             |
| — at 400 V Rated value   | A   | 3.2         |
| <b>Operating power</b>   |     |             |
| • at AC-3  |     |             |
| — at 230 V Rated value   | W   | 550         |
| — at 400 V Rated value   | W   | 1 100       |
| — at 500 V Rated value   | W   | 1 500       |
| — at 690 V Rated value   | W   | 2 200       |
| <b>Operating frequency</b>   |     |             |
| • at AC-3 maximum  | 1/h | 15          |

#### Auxiliary circuit:

|   |  |     |
|---|--|-----|
| <b>Number of NC contacts</b>              |  |     |
| • for auxiliary contacts                  |  | 0   |
| <b>Number of NO contacts</b>              |  |     |
| • for auxiliary contacts                  |  | 0   |
| <b>Number of CO contacts</b>              |  |     |
| • for auxiliary contacts                  |  | 0   |
| <b>Product expansion Auxiliary switch</b> |  | Yes |

#### Protective and monitoring functions:

|  |    |          |
|--|----|----------|
| <b>Trip class</b>  |    | CLASS 10 |
| <b>Design of the overload circuit breaker</b>                            |    | thermal  |
| <b>Operational short-circuit current breaking capacity (Ics) with AC</b> |    |          |
| • at 240 V Rated value   | kA | 100      |
| • at 400 V Rated value   | kA | 100      |
| • at 500 V Rated value   | kA | 100      |
| • at 690 V Rated value   | kA | 10       |
| <b>Maximum short-circuit current breaking capacity (Icu)</b>             |    |          |
| • with AC at 240 V Rated value   | kA | 100      |
| • with AC at 400 V Rated value   | kA | 100      |
| • with AC at 500 V Rated value   | kA | 100      |
| • with AC at 690 V Rated value   | kA | 10       |
| <b>Breaking capacity short-circuit current (Icn)</b>                     |    |          |
| • with 1 current path for DC at 150 V Rated value                        | kA | 10       |

|  |    |    |
|--|----|----|
| <ul style="list-style-type: none"> <li>with 2 current paths in series for DC at 300 V Rated value</li> </ul> | kA | 10 |
| <ul style="list-style-type: none"> <li>with 3 current paths in series for DC at 450 V Rated value</li> </ul> | kA | 10 |
| <b>Response value current of the instantaneous short-circuit release</b>                                     | A  | 42 |

#### UL/CSA ratings:

|  |              |      |
|--|--------------|------|
| <b>Full-load current (FLA) for three-phase AC motor</b>  |              |      |
| <ul style="list-style-type: none"> <li>at 480 V Rated value</li> </ul>                               | A            | 3.2  |
| <ul style="list-style-type: none"> <li>at 600 V Rated value</li> </ul>                               | A            | 3.2  |
| <b>yielded mechanical performance [hp]</b>   |              |      |
| <ul style="list-style-type: none"> <li>for single-phase AC motor at 110/120 V Rated value</li> </ul> | metric<br>hp | 0.1  |
| <ul style="list-style-type: none"> <li>for single-phase AC motor at 230 V Rated value</li> </ul>     | metric<br>hp | 0.25 |
| <ul style="list-style-type: none"> <li>for three-phase AC motor at 200/208 V Rated value</li> </ul>  | metric<br>hp | 0.5  |
| <ul style="list-style-type: none"> <li>for three-phase AC motor at 220/230 V Rated value</li> </ul>  | metric<br>hp | 0.75 |
| <ul style="list-style-type: none"> <li>for three-phase AC motor at 460/480 V Rated value</li> </ul>  | metric<br>hp | 1.5  |
| <ul style="list-style-type: none"> <li>for three-phase AC motor at 575/600 V Rated value</li> </ul>  | metric<br>hp | 2    |

#### Short-circuit:

|  |  |            |
|--|--|------------|
| <b>Product function Short circuit protection</b>   |  | Yes        |
| <b>Design of the short-circuit trip</b>  |  | magnetic   |
| <b>Design of the fuse link for IT network for short-circuit protection of the main circuit</b> |  |            |
| <ul style="list-style-type: none"> <li>at 400 V</li> </ul>                                     |  | gL/gG 25 A |
| <ul style="list-style-type: none"> <li>at 500 V</li> </ul>                                     |  | gL/gG 32 A |
| <ul style="list-style-type: none"> <li>at 690 V</li> </ul>                                     |  | gL/gG 25 A |

#### Installation/ mounting/ dimensions:

|  |    |  |
|--|----|--|
| <b>mounting position</b>   |    | any  |
| <b>Mounting type</b>   |    | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 |
| <b>Height</b>  | mm | 97   |
| <b>Width</b>   | mm | 45   |
| <b>Depth</b>   | mm | 96   |
| <b>Required spacing</b>  |    |  |
| <ul style="list-style-type: none"> <li>with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> </ul> </li> </ul> | mm | 0  |
|  | mm | 0  |
|  | mm | 50   |

|                      |    |    |
|----------------------|----|----|
| — downwards          | mm | 50 |
| — at the side        | mm | 0  |
| • for grounded parts |    |    |
| — forwards           | mm | 0  |
| — Backwards          | mm | 0  |
| — upwards            | mm | 50 |
| — at the side        | mm | 30 |
| — downwards          | mm | 50 |
| • for live parts     |    |    |
| — forwards           | mm | 0  |
| — Backwards          | mm | 0  |
| — upwards            | mm | 50 |
| — downwards          | mm | 50 |
| — at the side        | mm | 30 |

#### Connections/ Terminals:

|  |     |                       |
|--|-----|-----------------------|
| <b>Type of electrical connection</b>                                 |     |                       |
| • for main current circuit   |     | ring cable connection |
| • for auxiliary and control current circuit                          |     | ring cable connection |
| <b>Arrangement of electrical connectors for main current circuit</b> |     | Top and bottom        |
| <b>Product function</b>  |     |                       |
| • removable terminal for auxiliary and control circuit               |     | No                    |
| <b>Tightening torque</b>   |     |                       |
| • for ring cable lug   |     |                       |
| — for main contacts  | N·m | 1.2 ... 0.8           |
| — for auxiliary contacts   | N·m | 1.2 ... 0.8           |
| <b>Outer diameter of the usable ring cable lug maximum</b>           | mm  | 7.5                   |
| <b>Design of screwdriver shaft</b>                                   |     | Diameter 5 to 6 mm    |
| <b>Design of the thread of the connection screw</b>                  |     |                       |
| • for main contacts  |     | M3                    |
| • of the auxiliary and control contacts                              |     | M3                    |

#### Safety related data:

|   |     |             |
|---|-----|-------------|
| <b>B10 value with high demand rate acc. to SN 31920</b>                   |     | 50 000      |
| <b>Proportion of dangerous failures</b>                                   |     |             |
| • with low demand rate acc. to SN 31920                                   | %   | 40          |
| • with high demand rate acc. to SN 31920                                  | %   | 40          |
| <b>Failure rate [FIT] with low demand rate acc. to SN 31920</b>           | FIT | 50          |
| <b>T1 value for proof test interval or service life acc. to IEC 61508</b> | y   | 10          |
| <b>Protection against electrical shock</b>                                |     | finger-safe |

**Mechanical data:**

|                                    |  |     |
|------------------------------------|--|-----|
| <b>Size of the circuit-breaker</b> |  | S00 |
|------------------------------------|--|-----|

**Ambient conditions:**

|  |                    |                |
|--|--------------------|----------------|
| <b>Installation altitude at height above sea level maximum</b> | m                  | 2 000          |
| <b>Ambient temperature</b>                                     | • during operation | °C -20 ... +60 |
|  | • during storage   | °C -50 ... +80 |
|  | • during transport | °C -50 ... +80 |
| <b>Relative humidity during operation</b>                      | %                  | 10 ... 95      |

**Display:**

|                        |  |        |
|------------------------|--|--------|
| <b>Display version</b> |  | Handle |
| • for switching status |  |        |

**Certificates/ approvals:**

|                                 |                                  |                          |
|---------------------------------|----------------------------------|--------------------------|
| <b>General Product Approval</b> | <b>Declaration of Conformity</b> | <b>Test Certificates</b> |
|---------------------------------|----------------------------------|--------------------------|



[KTL](#)



[Special Test Certificate](#)

|                          |                          |
|--------------------------|--------------------------|
| <b>Test Certificates</b> | <b>Shipping Approval</b> |
|--------------------------|--------------------------|

[Type Test Certificates/Test Report](#)



|                          |              |
|--------------------------|--------------|
| <b>Shipping Approval</b> | <b>other</b> |
|--------------------------|--------------|



[Confirmation](#)

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|              |
|--------------|
| <b>other</b> |
|--------------|

[other](#)

## Further information

### 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

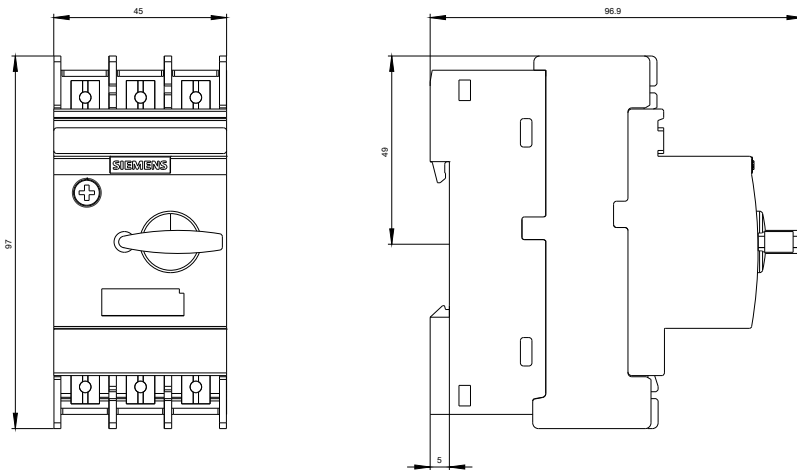
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RV20111DA40>

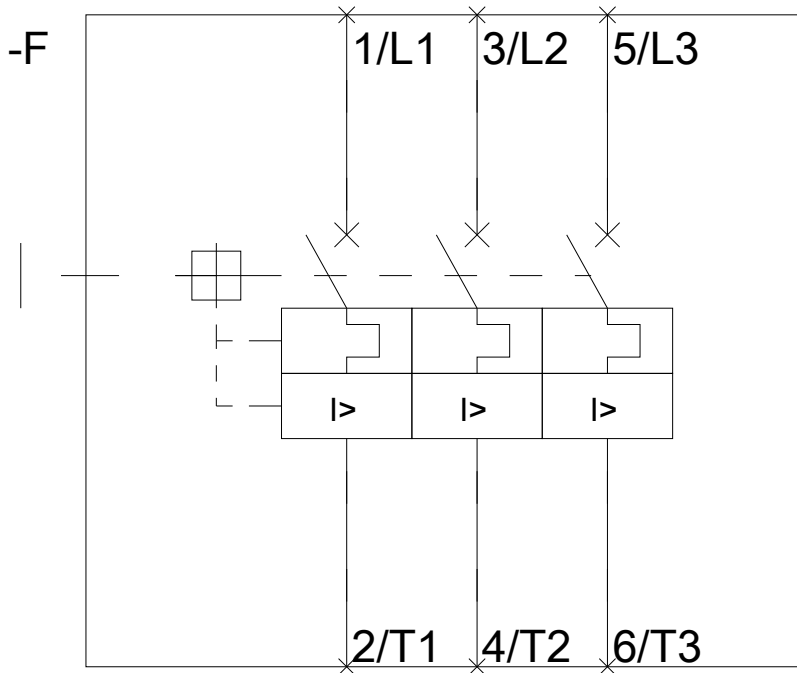
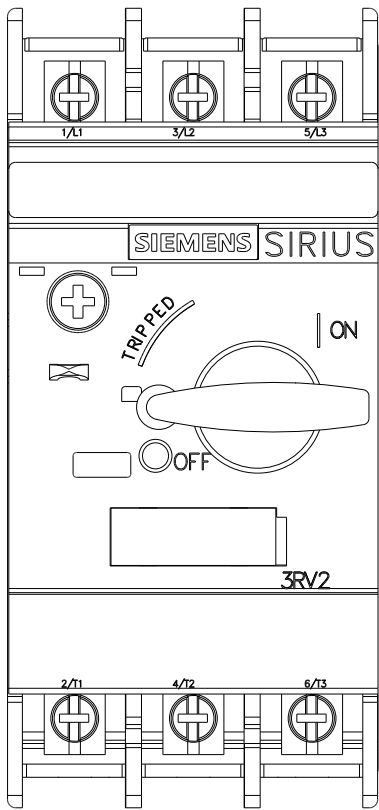
### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RV20111DA40/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mfb=3RV20111DA40&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RV20111DA40&lang=en)





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