## SIEMENS

## Data sheet

## 3RV2011-1AA10



Circuit breaker size S00 for motor protection, CLASS 10 A-release 1.1...1.6 A N-release 21 A screw terminal Standard switching capacity

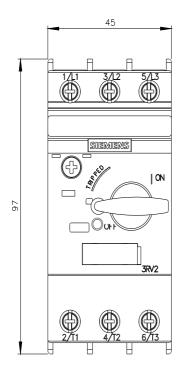
| 4/12 6/13  |                      |
|--|----------------------|
| product brand name   | SIRIUS               |
| product designation  | Circuit breaker      |
| design of the product  | For motor protection |
| product type designation   | 3RV2                 |
| General technical data   |                      |
| size of the circuit-breaker  | S00                  |
| size of contactor can be combined company-specific                                     | S00, S0              |
| product extension auxiliary switch   | Yes                  |
| power loss [W] for rated value of the current  |                      |
| <ul> <li>at AC in hot operating state</li> </ul>                                       | 7.25 W               |
| <ul> <li>at AC in hot operating state per pole</li> </ul>                              | 2.4 W                |
| insulation voltage with degree of pollution 3 at AC rated value                        | 690 V                |
| surge voltage resistance rated value   | 6 kV                 |
| shock resistance according to IEC 60068-2-27   | 25g / 11 ms          |
| mechanical service life (operating cycles)   |                      |
| <ul> <li>of the main contacts typical</li> </ul>                                       | 100 000              |
| <ul> <li>of auxiliary contacts typical</li> </ul>                                      | 100 000              |
| electrical endurance (operating cycles) typical  | 100 000              |
| type of protection according to ATEX directive 2014/34/EU                              | Ex II (2) GD         |
| certificate of suitability according to ATEX directive 2014/34/EU                      | DMT 02 ATEX F 001    |
| reference code according to IEC 81346-2  | Q                    |
| Substance Prohibitance (Date)  | 10/01/2009           |
| Ambient conditions   |                      |
| installation altitude at height above sea level maximum                                | 2 000 m              |
| ambient temperature  |                      |
| <ul> <li>during operation</li> </ul>   | -20 +60 °C           |
| <ul> <li>during storage</li> </ul>   | -50 +80 °C           |
| <ul> <li>during transport</li> </ul>   | -50 +80 °C           |
| relative humidity during operation   | 10 95 %              |
| Main circuit   |                      |
| number of poles for main current circuit   | 3                    |
| adjustable current response value current of the<br>current-dependent overload release | 1.1 1.6 A            |
| operating voltage  |                      |
| <ul> <li>rated value</li> </ul>  | 20 690 V             |
| <ul> <li>at AC-3 rated value maximum</li> </ul>  | 690 V                |
| <ul> <li>at AC-3e rated value maximum</li> </ul>                                       | 690 V                |
| operating frequency rated value  | 50 60 Hz             |
| operational current rated value  | 1.6 A                |

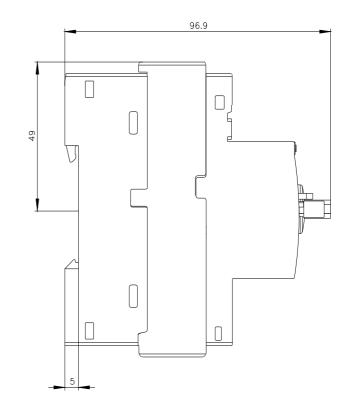
| operational ourrant   |  |
|---|--|
| <ul> <li>operational current</li> <li>at AC-3 at 400 V rated value</li> </ul>                                 | 1.6 A  |
| <ul> <li>at AC-3 at 400 V rated value</li> <li>at AC-3e at 400 V rated value</li> </ul>                       | 1.6 A  |
| operating power   | 1.0 A  |
| • at AC-3   |  |
| — at 230 V rated value  | 0.3 kW   |
| — at 400 V rated value  | 0.55 kW  |
| — at 500 V rated value  | 0.8 kW   |
| — at 690 V rated value  | 1.1 kW   |
| • at AC-3e  |  |
| — at 230 V rated value  | 0.3 kW   |
| — at 400 V rated value  | 0.55 kW  |
| — at 500 V rated value  | 0.8 kW   |
| — at 690 V rated value  | 1.1 kW   |
| operating frequency   |  |
| <ul> <li>at AC-3 maximum</li> </ul>   | 15 1/h   |
| at AC-3e maximum  | 15 1/h   |
| Auxiliary circuit   |  |
| number of NC contacts for auxiliary contacts  | 0  |
| number of NO contacts for auxiliary contacts  | 0  |
| number of CO contacts for auxiliary contacts  | 0  |
| Protective and monitoring functions   |  |
| product function  |  |
| ground fault detection  | No   |
| phase failure detection   | Yes  |
| trip class  | CLASS 10   |
| design of the overload release  | thermal  |
| <ul> <li>maximum short-circuit current breaking capacity (Icu)</li> <li>at AC at 240 V rated value</li> </ul> | 100 kA   |
| at AC at 240 V rated value     at AC at 400 V rated value   | 100 KA<br>100 kA   |
| at AC at 500 V rated value  | 100 kA   |
| at AC at 690 V rated value  | 100 kA   |
| operating short-circuit current breaking capacity (Ics)<br>at AC  |  |
| • at 240 V rated value  | 100 kA   |
| • at 400 V rated value  | 100 kA   |
| • at 500 V rated value  | 100 kA   |
| at 690 V rated value  | 100 kA   |
| response value current of instantaneous short-circuit trip unit   | 21 A   |
| UL/CSA ratings  |  |
| full-load current (FLA) for 3-phase AC motor  |  |
| <ul> <li>at 480 V rated value</li> </ul>  | 1.6 A  |
| <ul> <li>at 600 V rated value</li> </ul>  | 1.6 A  |
| yielded mechanical performance [hp]   |  |
| for single-phase AC motor   |  |
| — at 230 V rated value  | 0.1 hp   |
| • for 3-phase AC motor  | 4 ha   |
| — at 460/480 V rated value<br>— at 575/600 V rated value  | 1 hp   |
|   | 0.8 hp   |
| Short-circuit protection  | Voo  |
| product function short circuit protection   | Yes  |
| design of the short-circuit trip<br>design of the fuse link for IT network for short-circuit                  | magnetic   |
| protection of the main circuit  |  |
| • at 500 V  | gL/gG 20 A   |
| • at 690 V  | gL/gG 16 A   |
| Installation/ mounting/ dimensions  |  |
| mounting position   | any  |
| fastening method  | screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 |
| height  | 97 mm  |
| width   | 45 mm  |
|   |  |

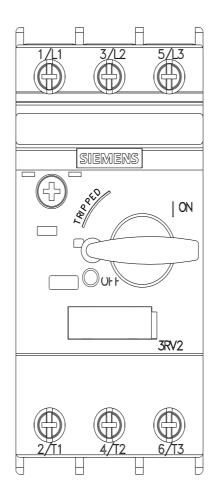
| depth<br>required spacing<br>• with side-by-side mounting at the side<br>• for grounded parts at 400 V<br>— downwards<br>— upwards<br>— at the side<br>• for live parts at 400 V<br>— downwards<br>— upwards<br>— upwards<br>— at the side                             | 97 mm<br>0 mm<br>30 mm<br>30 mm<br>9 mm<br>30 mm<br>30 mm<br>9 mm<br>30 mm<br>30 mm<br>30 mm |                                     |
|--|--|-------------------------------------|
| <ul> <li>with side-by-side mounting at the side</li> <li>for grounded parts at 400 V <ul> <li>downwards</li> <li>upwards</li> <li>at the side</li> </ul> </li> <li>for live parts at 400 V <ul> <li>downwards</li> <li>upwards</li> <li>upwards</li> </ul> </li> </ul> | 30 mm<br>30 mm<br>9 mm<br>30 mm<br>30 mm<br>9 mm<br>30 mm<br>30 mm                           |                                     |
| <ul> <li>for grounded parts at 400 V</li> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 400 V</li> <li>downwards</li> <li>upwards</li> </ul>  | 30 mm<br>30 mm<br>9 mm<br>30 mm<br>30 mm<br>9 mm<br>30 mm<br>30 mm                           |                                     |
| <ul> <li>downwards</li> <li>upwards</li> <li>at the side</li> <li>for live parts at 400 V</li> <li>downwards</li> <li>upwards</li> </ul>   | 30 mm<br>9 mm<br>30 mm<br>30 mm<br>9 mm<br>30 mm<br>30 mm                                    |                                     |
| <ul> <li>upwards</li> <li>at the side</li> <li>for live parts at 400 V</li> <li>downwards</li> <li>upwards</li> </ul>  | 30 mm<br>9 mm<br>30 mm<br>30 mm<br>9 mm<br>30 mm<br>30 mm                                    |                                     |
| <ul> <li>at the side</li> <li>for live parts at 400 V</li> <li>downwards</li> <li>upwards</li> </ul>   | 9 mm<br>30 mm<br>30 mm<br>9 mm<br>30 mm<br>30 mm   |                                     |
| <ul> <li>for live parts at 400 V</li> <li>— downwards</li> <li>— upwards</li> </ul>  | 30 mm<br>30 mm<br>9 mm<br>30 mm<br>30 mm   |                                     |
| — downwards<br>— upwards   | 30 mm<br>9 mm<br>30 mm<br>30 mm  |                                     |
| — upwards  | 30 mm<br>9 mm<br>30 mm<br>30 mm  |                                     |
| •  | 9 mm<br>30 mm<br>30 mm   |                                     |
| — at the side  | 30 mm<br>30 mm   |                                     |
|  | 30 mm  |                                     |
| <ul> <li>for grounded parts at 500 V</li> </ul>  | 30 mm  |                                     |
| — downwards  |  |                                     |
| — upwards  |  |                                     |
| — at the side  | 9 mm   |                                     |
| <ul> <li>for live parts at 500 V</li> </ul>  |  |                                     |
| — downwards  | 30 mm  |                                     |
| — upwards  | 30 mm  |                                     |
| — at the side  | 9 mm   |                                     |
| <ul> <li>for grounded parts at 690 V</li> </ul>  |  |                                     |
| — downwards  | 50 mm  |                                     |
| — upwards  | 50 mm  |                                     |
| — backwards  | 0 mm   |                                     |
| — at the side  | 30 mm  |                                     |
| — forwards   | 0 mm   |                                     |
| for live parts at 690 V  | ·  |                                     |
| — downwards  | 50 mm  |                                     |
| — upwards  | 50 mm  |                                     |
| — upwards<br>— backwards   | 0 mm   |                                     |
|  |  |                                     |
| — at the side  | 30 mm  |                                     |
| — forwards   | 0 mm   |                                     |
| Connections/ Terminals   |  |                                     |
| type of electrical connection  |  |                                     |
| <ul> <li>for main current circuit</li> </ul>   | screw-type terminals   |                                     |
| arrangement of electrical connectors for main current  | Top and bottom   |                                     |
| circuit  |  |                                     |
| type of connectable conductor cross-sections   |  |                                     |
| for main contacts  |  |                                     |
| — solid or stranded  | 2x (0,75 2,5 mm²), 2x 4 mm²  |                                     |
| <ul> <li>finely stranded with core end processing</li> </ul>   | 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  |                                     |
| <ul> <li>at AWG cables for main contacts</li> </ul>  | 2x (18 14), 2x 12  |                                     |
| tightening torque  |  |                                     |
| <ul> <li>for main contacts with screw-type terminals</li> </ul>  | 0.8 1.2 N·m  |                                     |
| design of screwdriver shaft  | Diameter 5 to 6 mm   |                                     |
| size of the screwdriver tip  | Pozidriv size 2  |                                     |
| design of the thread of the connection screw   |  |                                     |
| <ul> <li>for main contacts</li> </ul>  | M3   |                                     |
| Safety related data  |  |                                     |
| B10 value  |  |                                     |
| with high demand rate according to SN 31920  | 5 000  |                                     |
| proportion of dangerous failures   |  |                                     |
| with low demand rate according to SN 31920   | 50 %   |                                     |
|  | 50 %<br>50 %   |                                     |
| with high demand rate according to SN 31920     failure rate [EIT]   | 50 /0  |                                     |
| failure rate [FIT]   | 50 FIT   |                                     |
| with low demand rate according to SN 31920   | 50 FIT   |                                     |
| T1 value for proof test interval or service life according to<br>IEC 61508   | 10 a   |                                     |
| protection class IP on the front according to IEC  | IP20   |                                     |
| 60529  | finner offer for weiter broken to the test   |                                     |
| touch protection on the front according to IEC 60529   | finger-safe, for vertical contact from the front   |                                     |
| display version for switching status   | Handle   |                                     |
| Certificates/ approvals  |  |                                     |
| General Product Approval   |  | For use in hazard-<br>ous locations |

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|   | <u>Confirmation</u>     | UL.                        | <u>KC</u>                                      | EAC                           | K<br>ATEX           |  |  |
|---|-------------------------|----------------------------|--|-------------------------------|---------------------|--|--|
| For use in hazard-<br>ous locations   | Declaration of Conf     | formity                    | Test Certificates                              |                               | Marine / Shipping   |  |  |
| IECEx   | CE<br>EG-Konf.          | UK<br>CA                   | <u>Type Test Certific-</u><br>ates/Test Report | Special Test Certific-<br>ate | ABS                 |  |  |
| Marine / Shipping   |                         |                            |  |                               | other               |  |  |
| B U R E A U<br>VERITAS  |                         | Lloyd's<br>Register<br>urs | PRS  | RINA                          | <u>Confirmation</u> |  |  |
| other   | Railway                 |                            |  |                               |                     |  |  |
| VDE<br>Further information  | <u>Confirmation</u>     | Vibration and Shock        |  |                               |                     |  |  |
| Siemens has decide  |                         |                            |  |                               |                     |  |  |
| Siemens has decided to exit the Russian market (see here).<br>https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business<br>Siemens is working on the renewal of the current EAC certificates.<br>Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these<br>products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).<br>Information on the packaging<br>https://support.industry.siemens.com/cs/ww/en/view/109813875<br>Information- and Downloadcenter (Catalogs, Brochures,)<br>https://www.siemens.com/ic10<br>Industry Mall (Online ordering system)<br>https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2011-1AA10<br>Cax online generator<br>http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1AA10<br>Service&Support (Manuals, Certificates, Characteristics, FAQs,)<br>http://support.industry.siemens.com/id1/LAA10<br>Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,)<br>http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1AA10⟨=en<br>Characteristic: Tripping characteristics, I*1, Let.through current<br>http://www.automation.siemens.com/cs/ww/en/ps/3RV2011-1AA10⟨=en<br>Characteristics (e.g. electricial endurance, switching frequency)<br>http://www.automation.siemens.com/cs/ww/en/ps/3RV2011-1AA10⟨=en4<br>Further characteristics (e.g. electricial endurance, switching frequency)<br>http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1AA10&objecttype=14&gridview=view1 |                         |                            |  |                               |                     |  |  |
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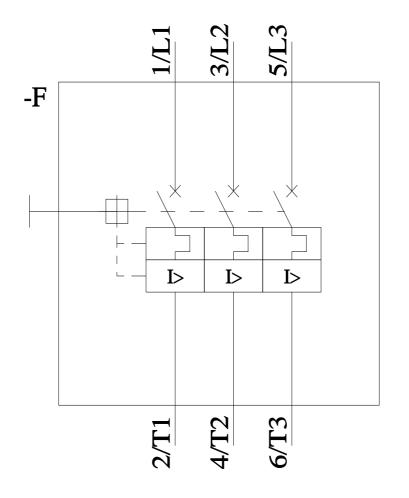






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