



Circuit breaker size S00 for motor protection, CLASS 10 A-release  
0.45...0.63 A N-release 8.2 A Screw terminal Standard switching capacity

|   |                      |
|---|----------------------|
| product brand name  | SIRIUS               |
| product designation   | Circuit breaker      |
| design of the product   | For motor protection |
| product type designation  | 3RV1                 |
| <b>General technical data</b>   |                      |
| size of the circuit-breaker   | S00                  |
| size of contactor can be combined company-specific                                  | S00                  |
| product extension auxiliary switch  | Yes                  |
| power loss [W] for rated value of the current                                       |                      |
| • at AC in hot operating state  | 5.5 W                |
| • at AC in hot operating state per pole   | 1.8 W                |
| insulation voltage with degree of pollution 3 at AC rated value                     | 690 V                |
| surge voltage resistance rated value  | 6 kV                 |
| maximum permissible voltage for safe isolation in networks with grounded star point |                      |
| • between main and auxiliary circuit  | 400 V                |
| • between main and auxiliary circuit  | 400 V                |
| mechanical service life (switching cycles)  |                      |
| • of the main contacts typical  | 100 000              |
| • of auxiliary contacts typical   | 100 000              |
| electrical endurance (switching 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 acc. to IEC 81346-2  | Q                    |
| Substance Prohibition (Date)  | 01.01.2013 00:00:00  |
| <b>Ambient conditions</b>   |                      |
| installation altitude at height above sea level maximum                             | 2 000 m              |
| ambient temperature   |                      |
| • during operation  | -20 ... +60 °C       |
| • during storage  | -50 ... +80 °C       |
| • during transport  | -50 ... +80 °C       |
| temperature compensation  | -20 ... +60 °C       |
| relative humidity during operation  | 10 ... 95 %          |
| <b>Main circuit</b>   |                      |
| number of poles for main current circuit  | 3                    |

|  |  |
|--|--|
| <b>adjustable current response value current of the current-dependent overload release</b>     | 0.45 ... 0.63 A  |
| <b>operating voltage</b>   |  |
| • rated value  | 690 V  |
| • at AC-3 rated value maximum  | 690 V  |
| <b>operating frequency rated value</b>   | 50 ... 60 Hz   |
| <b>operational current rated value</b>   | 0.63 A   |
| operational current at AC-3 at 400 V rated value   | 0.63 A   |
| <b>operating power at AC-3</b>   |  |
| • at 230 V rated value   | 0.09 kW  |
| • at 400 V rated value   | 0.18 kW  |
| • at 500 V rated value   | 0.18 kW  |
| • at 690 V rated value   | 0.25 kW  |
| operating frequency at AC-3 maximum  | 15 1/h   |
| <b>Auxiliary circuit</b>   |  |
| number of CO contacts for auxiliary contacts   | 0  |
| <b>Protective and monitoring functions</b>   |  |
| <b>product function</b>  |  |
| • ground fault detection   | No   |
| • phase failure detection  | Yes  |
| <b>trip class</b>  | CLASS 10   |
| <b>design of the overload release</b>  | thermal  |
| <b>breaking capacity operating short-circuit current (Ics) at AC</b>                           |  |
| • 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   |
| <b>breaking capacity maximum short-circuit current (Icu)</b>                                   |  |
| • at AC at 240 V rated value   | 100 kA   |
| • at AC at 400 V rated value   | 100 kA   |
| • at AC at 500 V rated value   | 100 kA   |
| • at AC at 690 V rated value   | 100 kA   |
| response value current of instantaneous short-circuit trip unit                                | 8.2 A  |
| <b>UL/CSA ratings</b>  |  |
| <b>full-load current (FLA) for 3-phase AC motor</b>  |  |
| • at 480 V rated value   | 0.63 A   |
| • at 600 V rated value   | 0.63 A   |
| <b>Short-circuit protection</b>  |  |
| <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> |  |
| • at 240 V   | none required  |
| • at 400 V   | None required  |
| • at 500 V   | gL/gG 6 A  |
| • at 690 V   | gL/gG 6 A  |
| <b>Installation/ mounting/ dimensions</b>  |  |
| <b>mounting position</b>   | any  |
| <b>fastening method</b>  | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 |
| <b>height</b>  | 90 mm  |
| <b>width</b>   | 45 mm  |
| <b>depth</b>   | 75 mm  |
| <b>required spacing</b>  |  |
| • for grounded parts at 400 V  |  |
| — downwards  | 20 mm  |
| — upwards  | 20 mm  |

|   |  |                          |                                |
|---|--|--------------------------|--------------------------------|
| <ul style="list-style-type: none"> <li>— at the side</li> <li>• for live parts at 400 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts at 500 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> <li>• for live parts at 500 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts at 690 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— backwards</li> <li>— at the side</li> <li>— forwards</li> </ul> </li> <li>• for live parts at 690 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— backwards</li> <li>— at the side</li> <li>— forwards</li> </ul> </li> </ul> | 9 mm<br><br>20 mm<br>20 mm<br>9 mm<br><br>20 mm<br>20 mm<br>9 mm<br><br>20 mm<br>20 mm<br>9 mm<br><br>20 mm<br>20 mm<br>0 mm<br>9 mm<br>0 mm<br><br>20 mm<br>20 mm<br>0 mm<br>9 mm<br>0 mm |                          |                                |
| <b>Connections/ Terminals</b>   |  |                          |                                |
| product component removable terminal for auxiliary and control circuit  | No   |                          |                                |
| <b>type of electrical connection</b>  |  |                          |                                |
| • for main current circuit  | screw-type terminals   |                          |                                |
| <b>arrangement of electrical connectors for main current circuit</b>  | Top and bottom   |                          |                                |
| <b>type of connectable conductor cross-sections</b>   |  |                          |                                |
| • for main contacts <ul style="list-style-type: none"> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul>   | 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x (1 ... 4 mm²)<br>2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²)   |                          |                                |
| <b>type of connectable conductor cross-sections</b>   |  |                          |                                |
| • for auxiliary contacts <ul style="list-style-type: none"> <li>— solid or stranded</li> </ul>  | 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²)  |                          |                                |
| <b>tightening torque</b>  |  |                          |                                |
| • for main contacts with screw-type terminals   | 0.8 ... 1.2 N·m  |                          |                                |
| • for auxiliary contacts with screw-type terminals  | 0.8 ... 1.2 N·m  |                          |                                |
| <b>size of the screwdriver tip</b>  | Pozidriv 2   |                          |                                |
| <b>design of the thread of the connection screw</b>   |  |                          |                                |
| • for main contacts   | M3   |                          |                                |
| <b>Safety related data</b>  |  |                          |                                |
| <b>B10 value</b>  |  |                          |                                |
| • with high demand rate acc. to SN 31920  | 5 000  |                          |                                |
| <b>proportion of dangerous failures</b>   |  |                          |                                |
| • with low demand rate acc. to SN 31920   | 50 %   |                          |                                |
| • with high demand rate acc. to SN 31920  | 50 %   |                          |                                |
| <b>failure rate [FIT]</b>   |  |                          |                                |
| • with low demand rate acc. to SN 31920   | 50 FIT   |                          |                                |
| <b>protection class IP on the front acc. to IEC 60529</b>   | IP20   |                          |                                |
| <b>touch protection on the front acc. to IEC 60529</b>  | finger-safe, for vertical contact from the front   |                          |                                |
| display version for switching status  | Rocker switch  |                          |                                |
| <b>Certificates/ approvals</b>  |  |                          |                                |
| <table> <tr> <td>General Product Approval</td><td>For use in hazardous locations</td></tr> </table>   |  | General Product Approval | For use in hazardous locations |
| General Product Approval  | For use in hazardous locations   |                          |                                |



#### Declaration of Conformity

#### Test Certificates

#### Marine / Shipping



EG-Konf.

[UK Declaration of Conformity](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



ABS



BUREAU VERITAS

#### Marine / Shipping

#### other



LRS



RINA



RMRS



DNV GL

[Confirmation](#)

[Miscellaneous](#)

#### other

#### Railway



VDE

[Special Test Certificate](#)

#### Further information

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

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV1011-0GA10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-0GA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-0GA10>

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

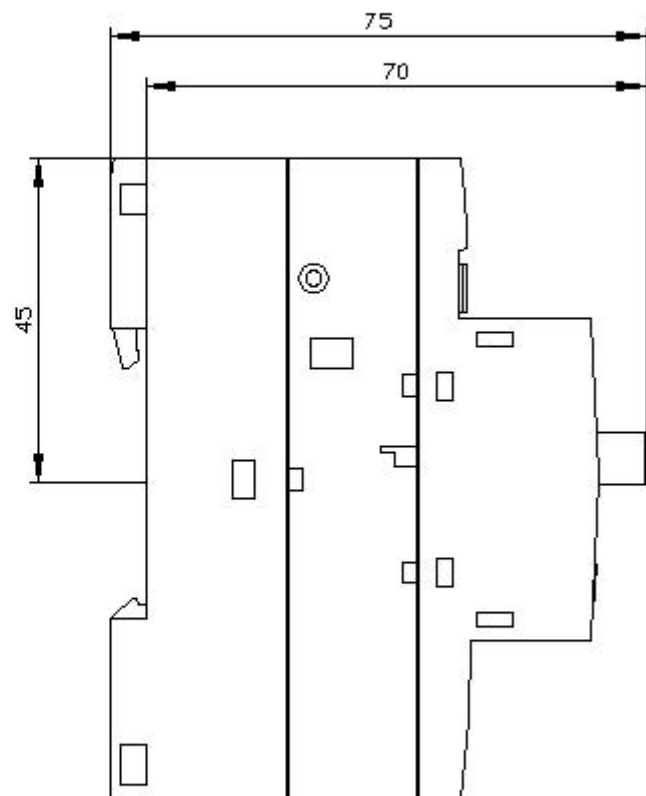
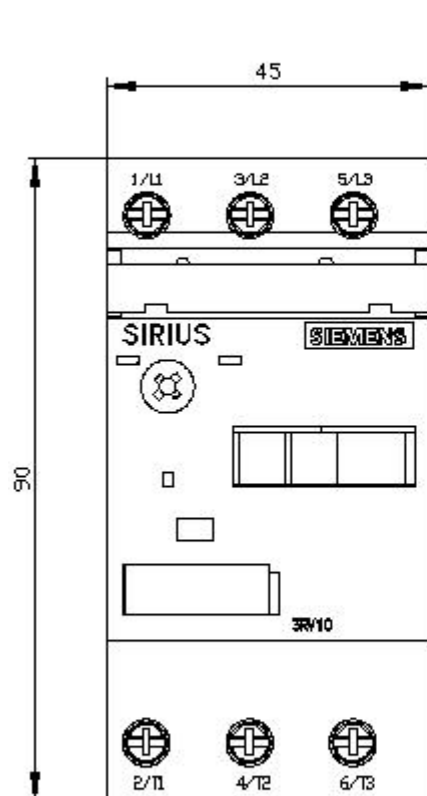
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV1011-0GA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-0GA10&lang=en)

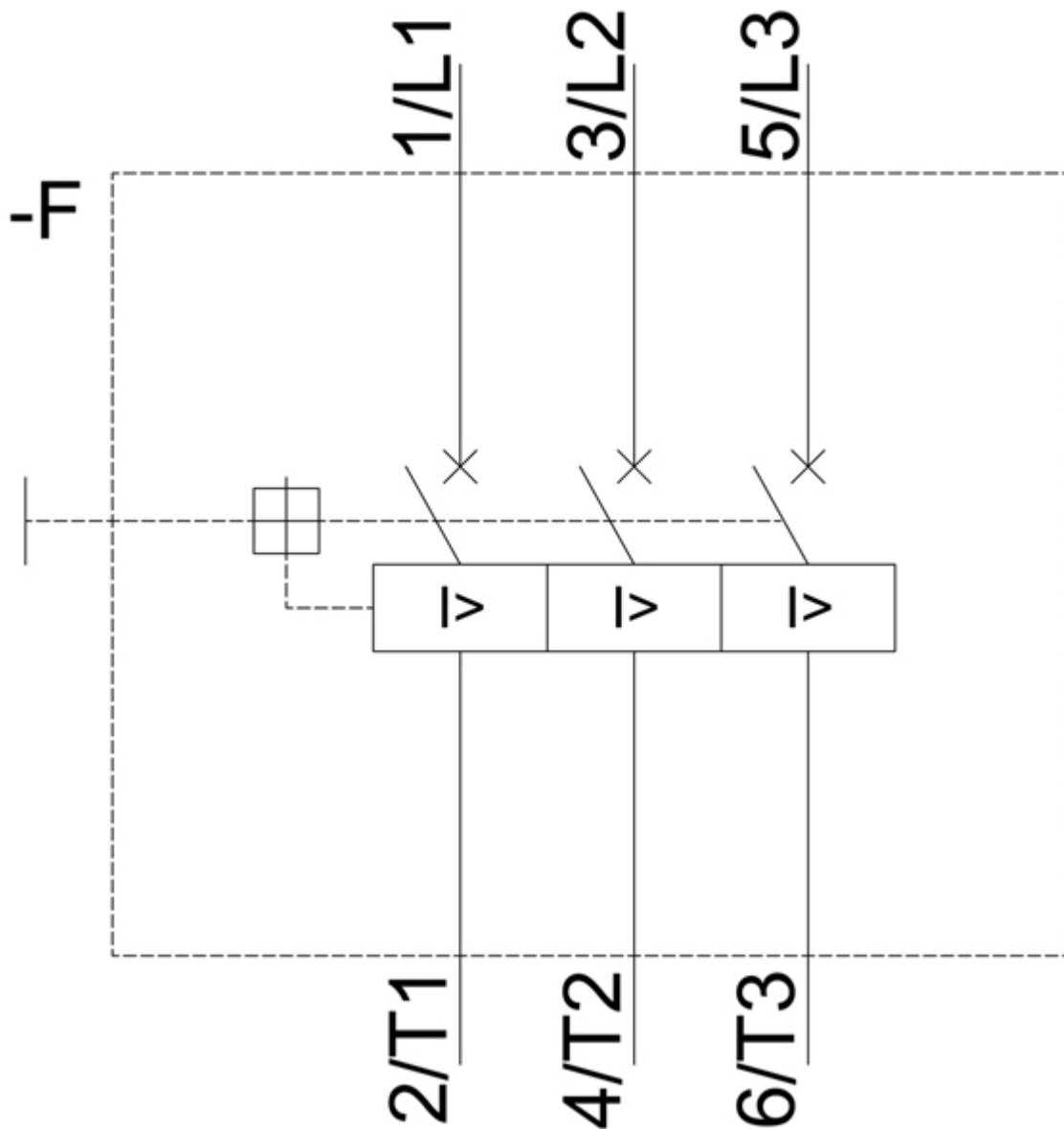
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-0GA10/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV1011-0GA10&objecttype=14&gridview=view1>





last modified:

2/5/2021 