



Circuit breaker size S00 for motor protection, CLASS 10 A-release  
0.22...0.32 A N-release 4.2 A screw terminal Standard switching capacity  
Multi-unit packaging Pack = 12 units

|                                                                                     |                      |
|-------------------------------------------------------------------------------------|----------------------|
| 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 Prohibitance (Date)                                                       | 01.01.2013           |
| <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                    |
| adjustable current response value current of the current-dependent overload release | 0.22 ... 0.32 A      |

|                                                                                                |                                                                                        |
|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>operating voltage</b>                                                                       |                                                                                        |
| • rated value                                                                                  | 690 V                                                                                  |
| • rated value                                                                                  | 20 ... 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>                                                         | 0.32 A                                                                                 |
| operational current at AC-3 at 400 V rated value                                               | 0.32 A                                                                                 |
| operating power at AC-3                                                                        |                                                                                        |
| • at 400 V rated value                                                                         | 0.1 kW                                                                                 |
| • at 500 V rated value                                                                         | 0.1 kW                                                                                 |
| • at 690 V rated value                                                                         | 0.1 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                                | 4.2 A                                                                                  |
| <b>UL/CSA ratings</b>                                                                          |                                                                                        |
| <b>full-load current (FLA) for 3-phase AC motor</b>                                            |                                                                                        |
| • at 480 V rated value                                                                         | 0.32 A                                                                                 |
| • at 600 V rated value                                                                         | 0.32 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                                                                                     | None required                                                                          |
| • at 690 V                                                                                     | None required                                                                          |
| <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                                                                                  |
| — at the side                                                                                  | 9 mm                                                                                   |
| • for live parts at 400 V                                                                      |                                                                                        |
| — downwards                                                                                    | 20 mm                                                                                  |

|                               |       |
|-------------------------------|-------|
| — upwards                     | 20 mm |
| — at the side                 | 9 mm  |
| • for grounded parts at 500 V |       |
| — downwards                   | 20 mm |
| — upwards                     | 20 mm |
| — at the side                 | 9 mm  |
| • for live parts at 500 V     |       |
| — downwards                   | 20 mm |
| — upwards                     | 20 mm |
| — at the side                 | 9 mm  |
| • for grounded parts at 690 V |       |
| — downwards                   | 20 mm |
| — upwards                     | 20 mm |
| — backwards                   | 0 mm  |
| — at the side                 | 9 mm  |
| — forwards                    | 0 mm  |
| • for live parts at 690 V     |       |
| — downwards                   | 20 mm |
| — upwards                     | 20 mm |
| — backwards                   | 0 mm  |
| — at the side                 | 9 mm  |
| — forwards                    | 0 mm  |

#### Connections/ Terminals

|                                                                               |                                                                                                      |
|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>product component removable terminal for auxiliary and control circuit</b> | 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                                                           |                                                                                                      |
| — solid or stranded                                                           | 2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> ), 2x (1 ... 4 mm <sup>2</sup> ) |
| — finely stranded with core end processing                                    | 2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )                                |
| <b>type of connectable conductor cross-sections</b>                           |                                                                                                      |
| • for auxiliary contacts                                                      |                                                                                                      |
| — solid or stranded                                                           | 2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )                                |
| <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 size 2                                                                                      |
| <b>design of the thread of the connection screw</b>                           |                                                                                                      |
| • for main contacts                                                           | M3                                                                                                   |

#### Safety related data

|                                                           |                                                  |
|-----------------------------------------------------------|--------------------------------------------------|
| <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                                    |

#### Certificates/ approvals

#### 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=3RV1011-0DA10-Z W98>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-0DA10-Z W98>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-0DA10-Z W98>

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

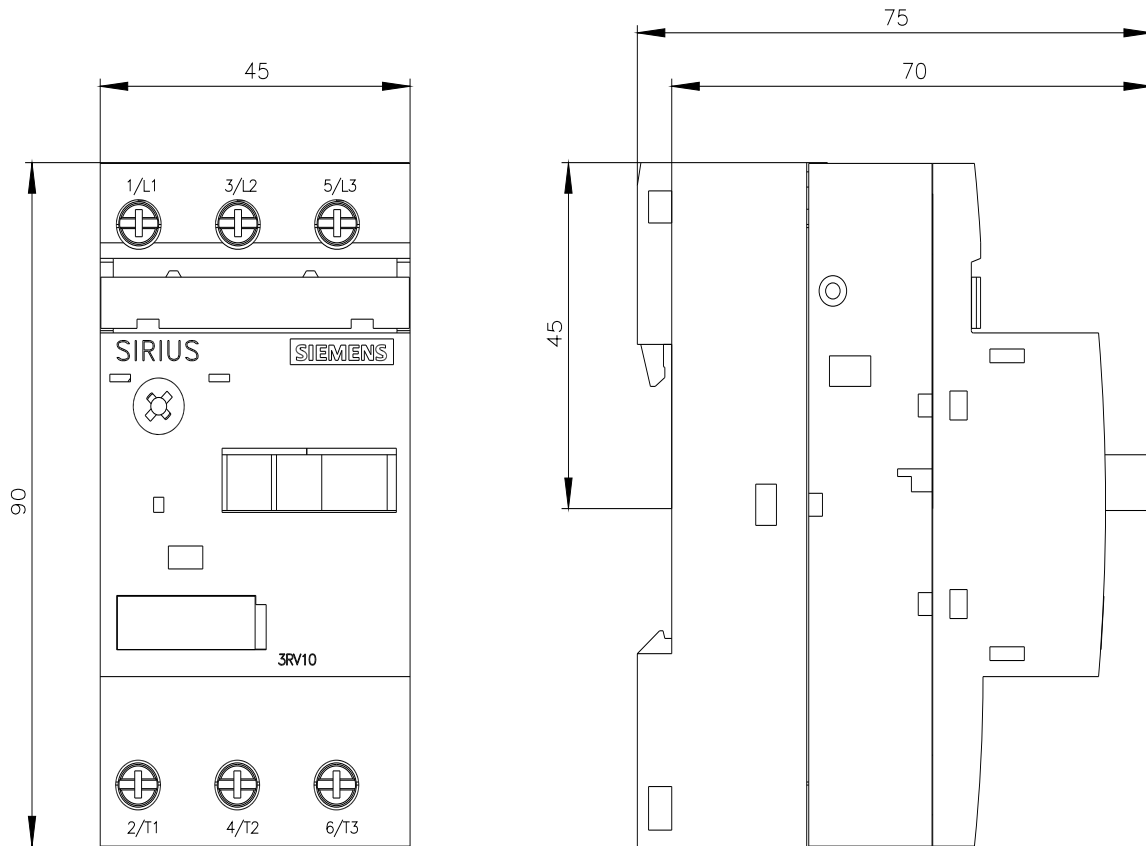
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV1011-0DA10-Z W98&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-0DA10-Z W98&lang=en)

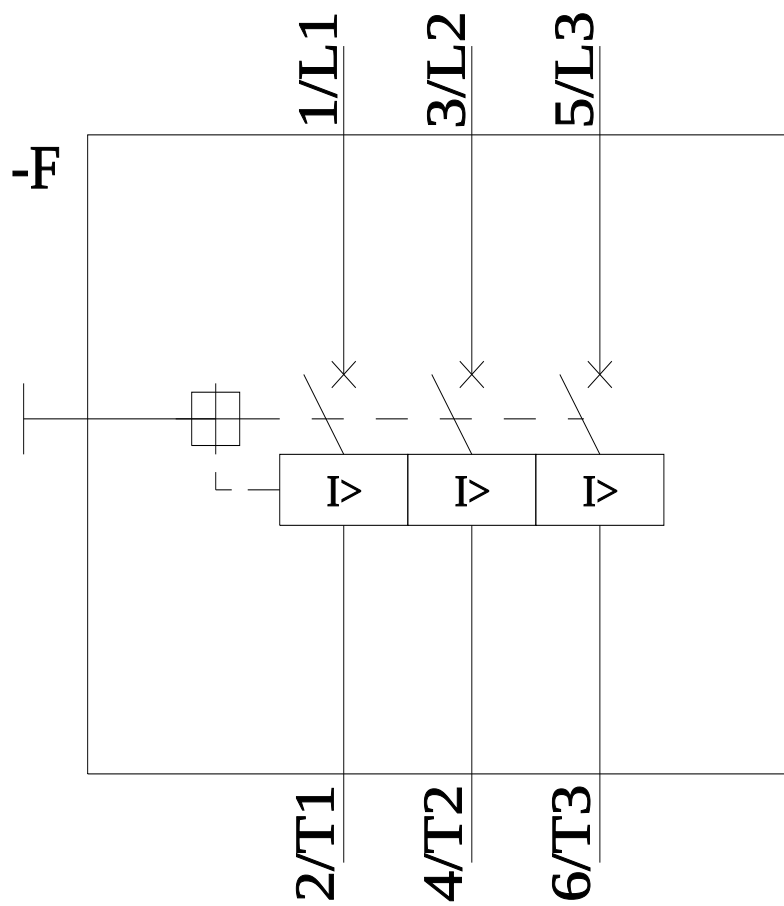
Characteristic: Tripping characteristics,  $I^2t$ , Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-0DA10-Z W98/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV1011-0DA10-Z W98&objecttype=14&gridview=view1>





last modified:

1/27/2022 [↗](#)