



Circuit breaker size S00 for motor protection, CLASS 10 A-release 2.2...3.2 A N release 42 A Spring-type terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC

|                                                                                            |                      |
|--------------------------------------------------------------------------------------------|----------------------|
| <b>product brand name</b>                                                                  | SIRIUS               |
| <b>product designation</b>                                                                 | Circuit breaker      |
| <b>design of the product</b>                                                               | For motor protection |
| <b>product type designation</b>                                                            | 3RV2                 |
| <b>General technical data</b>                                                              |                      |
| <b>size of the circuit-breaker</b>                                                         | S00                  |
| <b>size of contactor can be combined company-specific</b>                                  | S00, S0              |
| product extension auxiliary switch                                                         | Yes                  |
| <b>power loss [W] for rated value of the current</b>                                       |                      |
| • at AC in hot operating state                                                             | 7.25 W               |
| • at AC in hot operating state per pole                                                    | 2.4 W                |
| insulation voltage with degree of pollution 3 at AC rated value                            | 690 V                |
| <b>surge voltage resistance rated value</b>                                                | 6 kV                 |
| <b>maximum permissible voltage for safe isolation in networks with grounded star point</b> |                      |
| • between main and auxiliary circuit                                                       | 400 V                |
| • between main and auxiliary circuit                                                       | 400 V                |
| shock resistance acc. to IEC 60068-2-27                                                    | 25g / 11 ms          |
| <b>mechanical service life (switching cycles)</b>                                          |                      |
| • of the main contacts typical                                                             | 100 000              |
| • of auxiliary contacts typical                                                            | 100 000              |
| electrical endurance (switching cycles) typical                                            | 100 000              |
| <b>type of protection according to ATEX directive 2014/34/EU</b>                           | Ex II (2) GD         |
| certificate of suitability according to ATEX directive 2014/34/EU                          | DMT 02 ATEX F 001    |
| <b>reference code acc. to IEC 81346-2</b>                                                  | Q                    |
| Substance Prohibitance (Date)                                                              | 01.10.2009 00:00:00  |
| <b>Ambient conditions</b>                                                                  |                      |
| installation altitude at height above sea level maximum                                    | 2 000 m              |
| <b>ambient temperature</b>                                                                 |                      |
| • during operation                                                                         | -20 ... +60 °C       |
| • during storage                                                                           | -50 ... +80 °C       |
| • during transport                                                                         | -50 ... +80 °C       |
| <b>temperature compensation</b>                                                            | -20 ... +60 °C       |
| relative humidity during operation                                                         | 10 ... 95 %          |
| <b>Main circuit</b>                                                                        |                      |

|                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| <b>number of poles for main current circuit</b>                                                                                                                                                                                                                                                                                                                                                                              | 3                                                    |
| <b>adjustable current response value current of the current-dependent overload release</b>                                                                                                                                                                                                                                                                                                                                   | 2.2 ... 3.2 A                                        |
| <b>operating voltage</b> <ul style="list-style-type: none"> <li>• rated value</li> <li>• at AC-3 rated value maximum</li> </ul>                                                                                                                                                                                                                                                                                              | 690 V<br>690 V                                       |
| <b>operating frequency rated value</b>                                                                                                                                                                                                                                                                                                                                                                                       | 50 ... 60 Hz                                         |
| <b>operational current rated value</b>                                                                                                                                                                                                                                                                                                                                                                                       | 3.2 A                                                |
| operational current at AC-3 at 400 V rated value                                                                                                                                                                                                                                                                                                                                                                             | 3.2 A                                                |
| operating power at AC-3 <ul style="list-style-type: none"> <li>• at 230 V rated value</li> <li>• at 400 V rated value</li> <li>• at 500 V rated value</li> <li>• at 690 V rated value</li> </ul>                                                                                                                                                                                                                             | 0.55 kW<br>1.1 kW<br>1.5 kW<br>2.2 kW                |
| operating frequency at AC-3 maximum                                                                                                                                                                                                                                                                                                                                                                                          | 15 1/h                                               |
| <b>Auxiliary circuit</b>                                                                                                                                                                                                                                                                                                                                                                                                     |                                                      |
| <b>design of the auxiliary switch</b>                                                                                                                                                                                                                                                                                                                                                                                        | transverse                                           |
| <b>number of NC contacts for auxiliary contacts</b>                                                                                                                                                                                                                                                                                                                                                                          | 1                                                    |
| <b>number of NO contacts for auxiliary contacts</b>                                                                                                                                                                                                                                                                                                                                                                          | 1                                                    |
| number of CO contacts for auxiliary contacts                                                                                                                                                                                                                                                                                                                                                                                 | 0                                                    |
| <b>operational current of auxiliary contacts at AC-15</b> <ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 120 V</li> <li>• at 125 V</li> <li>• at 230 V</li> </ul>                                                                                                                                                                                                                                            | 2 A<br>0.5 A<br>0.5 A<br>0.5 A                       |
| <b>operational current of auxiliary contacts at DC-13</b> <ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 60 V</li> </ul>                                                                                                                                                                                                                                                                                     | 1 A<br>0.15 A                                        |
| <b>Protective and monitoring functions</b>                                                                                                                                                                                                                                                                                                                                                                                   |                                                      |
| <b>product function</b> <ul style="list-style-type: none"> <li>• ground fault detection</li> <li>• phase failure detection</li> </ul>                                                                                                                                                                                                                                                                                        | No<br>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> <ul style="list-style-type: none"> <li>• at 240 V rated value</li> <li>• at 400 V rated value</li> <li>• at 500 V rated value</li> <li>• at 690 V rated value</li> </ul>                                                                                                                                                                                | 100 kA<br>100 kA<br>100 kA<br>10 kA                  |
| <b>breaking capacity maximum short-circuit current (Icu)</b> <ul style="list-style-type: none"> <li>• at AC at 240 V rated value</li> <li>• at AC at 400 V rated value</li> <li>• at AC at 500 V rated value</li> <li>• at AC at 690 V rated value</li> </ul>                                                                                                                                                                | 100 kA<br>100 kA<br>100 kA<br>10 kA                  |
| response value current of instantaneous short-circuit trip unit                                                                                                                                                                                                                                                                                                                                                              | 42 A                                                 |
| <b>UL/CSA ratings</b>                                                                                                                                                                                                                                                                                                                                                                                                        |                                                      |
| <b>full-load current (FLA) for 3-phase AC motor</b> <ul style="list-style-type: none"> <li>• at 480 V rated value</li> <li>• at 600 V rated value</li> </ul>                                                                                                                                                                                                                                                                 | 3.2 A<br>3.2 A                                       |
| <b>yielded mechanical performance [hp]</b> <ul style="list-style-type: none"> <li>• for single-phase AC motor <ul style="list-style-type: none"> <li>— at 110/120 V rated value</li> <li>— at 230 V rated value</li> </ul> </li> <li>• for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 200/208 V rated value</li> <li>— at 220/230 V rated value</li> <li>— at 460/480 V rated value</li> </ul> </li> </ul> | 0.1 hp<br>0.25 hp<br><br>0.5 hp<br>0.75 hp<br>1.5 hp |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| — at 575/600 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2 hp                                                                                                                                                                             |
| contact rating of auxiliary contacts according to UL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | C300 / R300                                                                                                                                                                      |
| Short-circuit protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                  |
| product function short circuit protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Yes                                                                                                                                                                              |
| design of the short-circuit trip                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | magnetic                                                                                                                                                                         |
| design of the fuse link <ul style="list-style-type: none"><li>• for short-circuit protection of the auxiliary switch required</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current I <sub>k</sub> < 400 A)                                                                                 |
| design of the fuse link for IT network for short-circuit protection of the main circuit <ul style="list-style-type: none"><li>• at 400 V</li><li>• at 500 V</li><li>• at 690 V</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | gL/gG 25 A<br>gL/gG 32 A<br>gL/gG 25 A                                                                                                                                           |
| Installation/ mounting/ dimensions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                  |
| mounting position                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | any                                                                                                                                                                              |
| fastening method                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715                                                                                           |
| height                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 106 mm                                                                                                                                                                           |
| width                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 45 mm                                                                                                                                                                            |
| depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 97 mm                                                                                                                                                                            |
| required spacing <ul style="list-style-type: none"><li>• for grounded 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 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> | 30 mm<br>30 mm<br>9 mm<br><br>30 mm<br>30 mm<br>9 mm<br><br>30 mm<br>30 mm<br>9 mm<br><br>50 mm<br>50 mm<br>0 mm<br>30 mm<br>0 mm<br><br>50 mm<br>50 mm<br>0 mm<br>30 mm<br>0 mm |
| Connections/ Terminals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                  |
| product component removable terminal for auxiliary and control circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | No                                                                                                                                                                               |
| type of electrical connection <ul style="list-style-type: none"><li>• for main current circuit</li><li>• for auxiliary and control circuit</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | spring-loaded terminals<br>spring-loaded terminals                                                                                                                               |
| arrangement of electrical connectors for main current circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Top and bottom                                                                                                                                                                   |
| type of connectable conductor cross-sections <ul style="list-style-type: none"><li>• for main contacts</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                  |

|                                                     |                                   |
|-----------------------------------------------------|-----------------------------------|
| — solid or stranded                                 | 2x (0,5 ... 4 mm <sup>2</sup> )   |
| — finely stranded with core end processing          | 2x (0.5 ... 2.5 mm <sup>2</sup> ) |
| — finely stranded without core end processing       | 2x (0.5 ... 2.5 mm <sup>2</sup> ) |
| • at AWG cables for main contacts                   | 2x (20 ... 12)                    |
| <b>type of connectable conductor cross-sections</b> |                                   |
| • for auxiliary contacts                            |                                   |
| — solid or stranded                                 | 2x (0.5 ... 2.5 mm <sup>2</sup> ) |
| — finely stranded with core end processing          | 2x (0.5 ... 1.5 mm <sup>2</sup> ) |
| — finely stranded without core end processing       | 2x (0.5 ... 1.5 mm <sup>2</sup> ) |
| • at AWG cables for auxiliary contacts              | 2x (20 ... 14)                    |
| <b>design of screwdriver shaft</b>                  | Diameter 3 mm                     |
| <b>size of the screwdriver tip</b>                  | 3,0 x 0,5 mm                      |

| 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>T1 value for proof test interval or service life acc. to IEC 61508</b> | 10 y                                             |
| <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                                      | Handle                                           |

| Certificates/ approvals  |                                |
|--------------------------|--------------------------------|
| General Product Approval | For use in hazardous locations |



| Declaration of Conformity | Test Certificates | Marine / Shipping |
|---------------------------|-------------------|-------------------|
|---------------------------|-------------------|-------------------|

[UK Declaration of Conformity](#)



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



| Marine / Shipping | other |
|-------------------|-------|
|-------------------|-------|



[Confirmation](#)

| other | Railway |
|-------|---------|
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[Vibration and Shock](#)

[Confirmation](#)

| 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=3RV2011-1DA25>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1DA25>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1DA25>

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

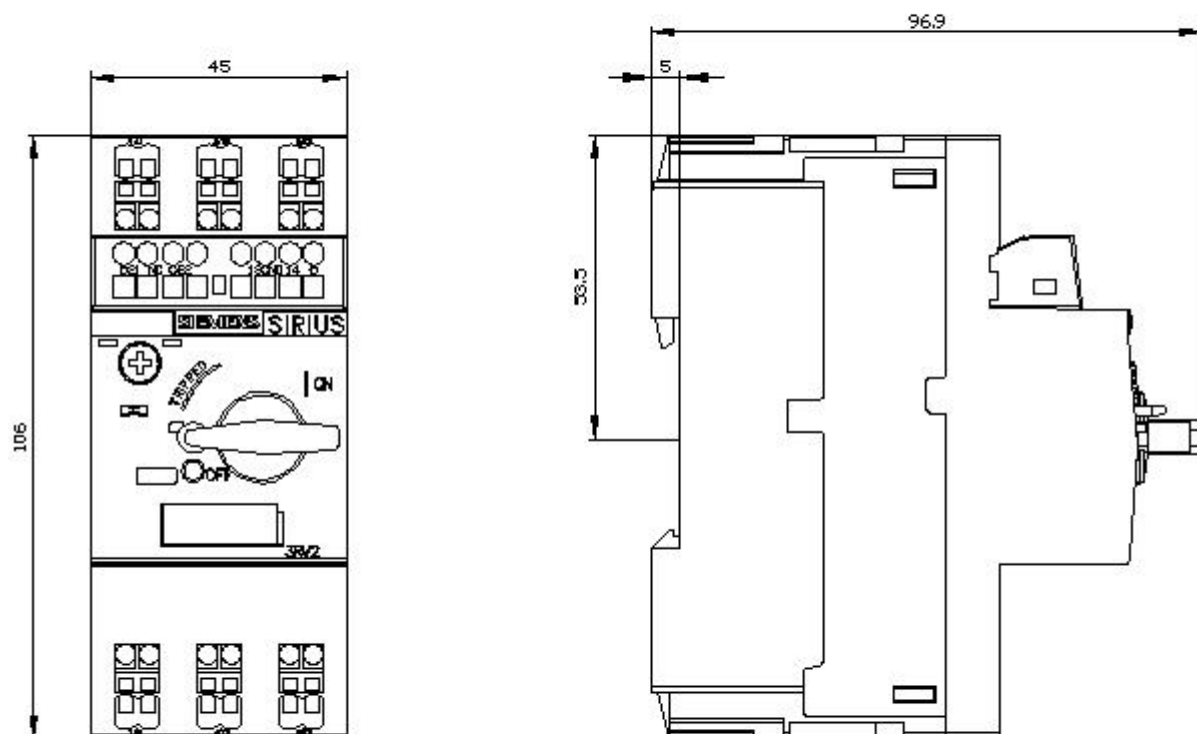
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2011-1DA25&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1DA25&lang=en)

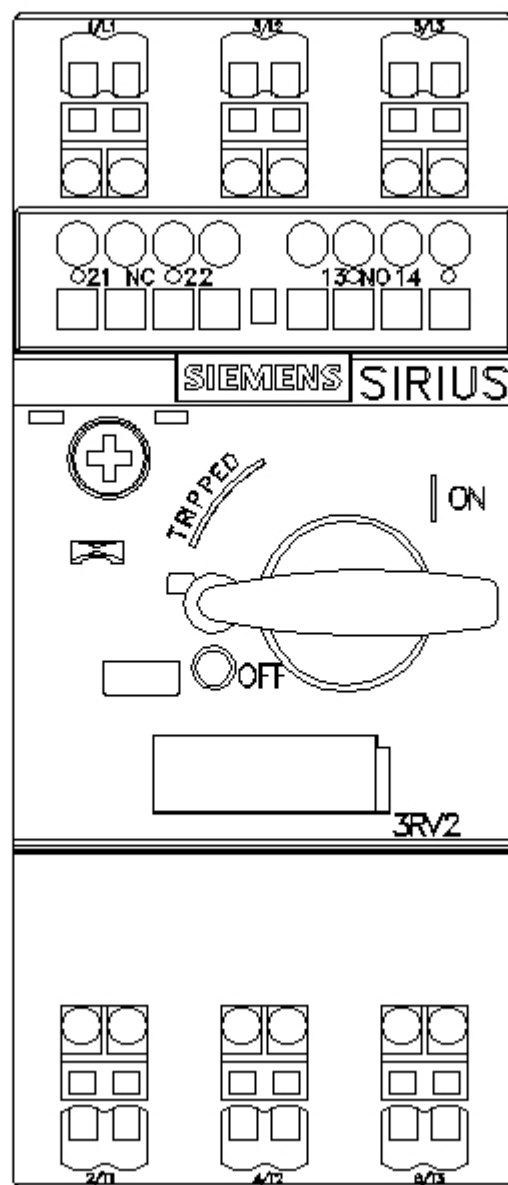
Characteristic: Tripping characteristics,  $I^2t$ , Let-through current

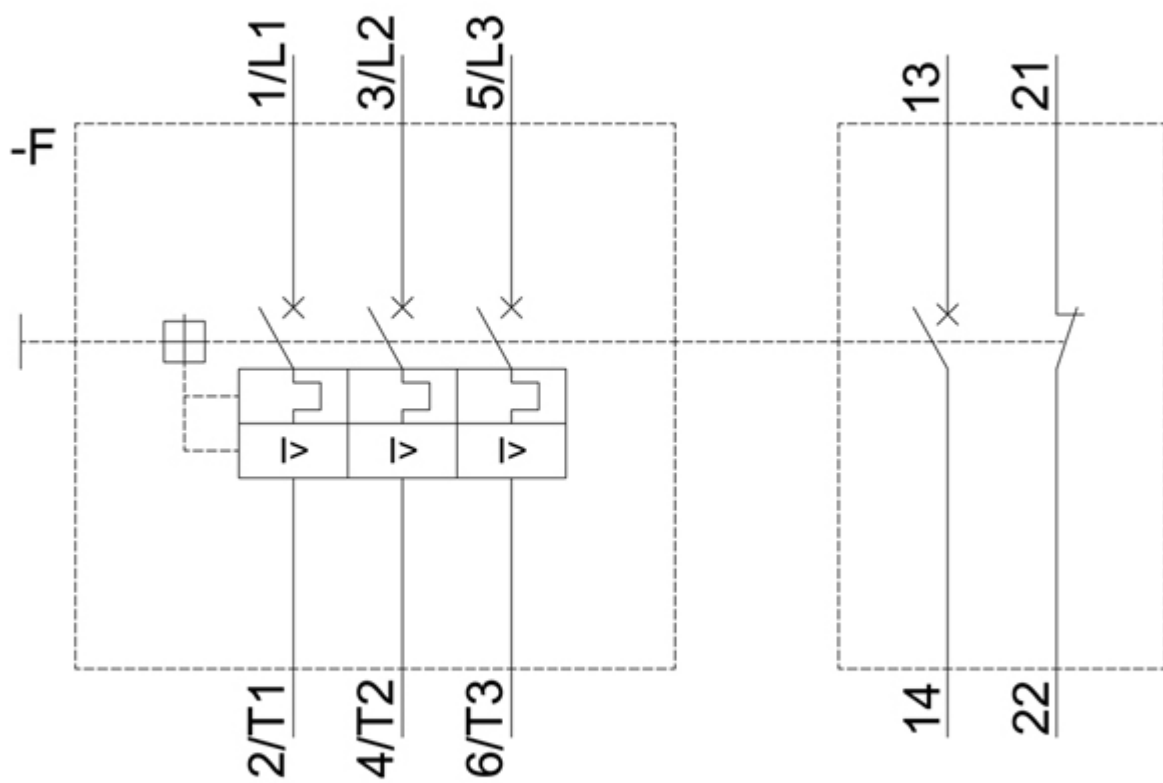
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1DA25/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1DA25&objecttype=14&gridview=view1>







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