



Circuit breaker size S00 for motor protection, CLASS 10 A-release 4.5...6.3 A N-release 82 A screw terminal Standard switching capacity

|                                                                                            |                      |
|--------------------------------------------------------------------------------------------|----------------------|
| <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>                                                                                                                                                                                                                                                                                                                                                                       | 4.5 ... 6.3 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>                                                                                                                                                                                                                                                                                                                                                                                                                           | 6.3 A                                                   |
| operational current at AC-3 at 400 V rated value                                                                                                                                                                                                                                                                                                                                                                                                                 | 6.3 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>                                                                                                                                                                                                                                                                 | 1.5 kW<br>2.2 kW<br>3 kW<br>4 kW                        |
| operating frequency at AC-3 maximum                                                                                                                                                                                                                                                                                                                                                                                                                              | 15 1/h                                                  |
| <b>Auxiliary circuit</b>                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                         |
| <b>number of NC contacts for auxiliary contacts</b>                                                                                                                                                                                                                                                                                                                                                                                                              | 0                                                       |
| <b>number of NO contacts for auxiliary contacts</b>                                                                                                                                                                                                                                                                                                                                                                                                              | 0                                                       |
| number of CO contacts for auxiliary contacts                                                                                                                                                                                                                                                                                                                                                                                                                     | 0                                                       |
| <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>4 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>6 kA                      |
| response value current of instantaneous short-circuit trip unit                                                                                                                                                                                                                                                                                                                                                                                                  | 82 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>                                                                                                                                                                                                                                                                                                     | 6.3 A<br>6.3 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> <li>— at 575/600 V rated value</li> </ul> </li> </ul> | 0.25 hp<br>0.5 hp<br><br>1 hp<br>1.5 hp<br>3 hp<br>5 hp |
| <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> <ul style="list-style-type: none"> <li>• at 400 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>                                                                                                                                                                                                                                                              | gL/gG 50 A<br>gL/gG 40 A<br>gL/gG 35 A                  |

| Installation/ mounting/ dimensions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 97 mm                                                                                                                                                                            |
| <b>width</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 45 mm                                                                                                                                                                            |
| <b>depth</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 97 mm                                                                                                                                                                            |
| <b>required spacing</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                  |
| <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>30 mm<br>30 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                                                                                                                                                                               |
| <b>type of electrical connection</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• for main current circuit</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | screw-type terminals                                                                                                                                                             |
| <b>arrangement of electrical connectors for main current circuit</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Top and bottom                                                                                                                                                                   |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• at AWG cables for main contacts</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2x (0,75 ... 2,5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup><br>2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )<br>2x (18 ... 14), 2x 12                       |
| <b>tightening torque</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 0,8 ... 1,2 N·m                                                                                                                                                                  |
| <b>design of screwdriver shaft</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Diameter 5 to 6 mm                                                                                                                                                               |
| <b>size of the screwdriver tip</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Pozidriv 2                                                                                                                                                                       |
| <b>design of the thread of the connection screw</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• for main contacts</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | M3                                                                                                                                                                               |
| Safety related data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                  |
| <b>B10 value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• with high demand rate acc. to SN 31920</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5 000                                                                                                                                                                            |
| <b>proportion of dangerous failures</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                  |
| <ul style="list-style-type: none"> <li>• with low demand rate acc. to SN 31920</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 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 |
|--------------------------|--------------------------------|



[KC](#)



|                                |                           |                   |                   |
|--------------------------------|---------------------------|-------------------|-------------------|
| For use in hazardous locations | Declaration of Conformity | Test Certificates | Marine / Shipping |
|--------------------------------|---------------------------|-------------------|-------------------|



[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



#### Marine / Shipping



|       |         |
|-------|---------|
| other | Railway |
|-------|---------|

[Confirmation](#)

[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=3RV2011-1GA10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1GA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1GA10>

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

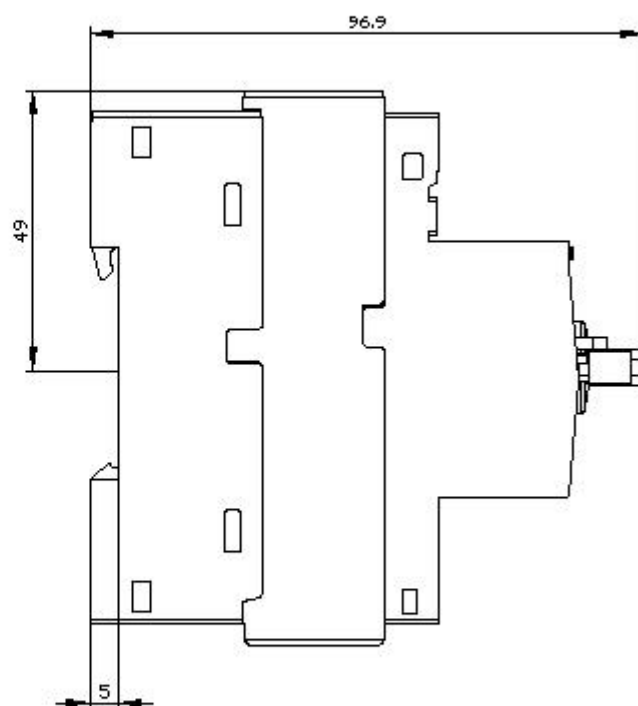
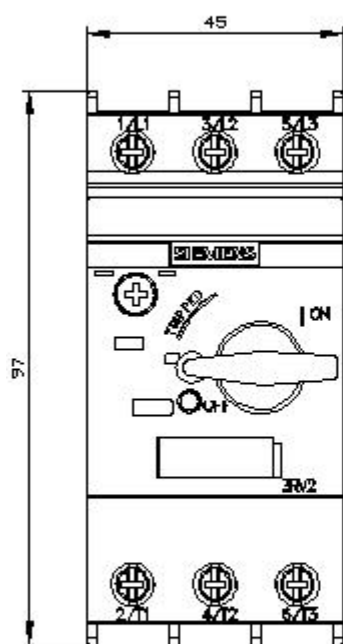
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2011-1GA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1GA10&lang=en)

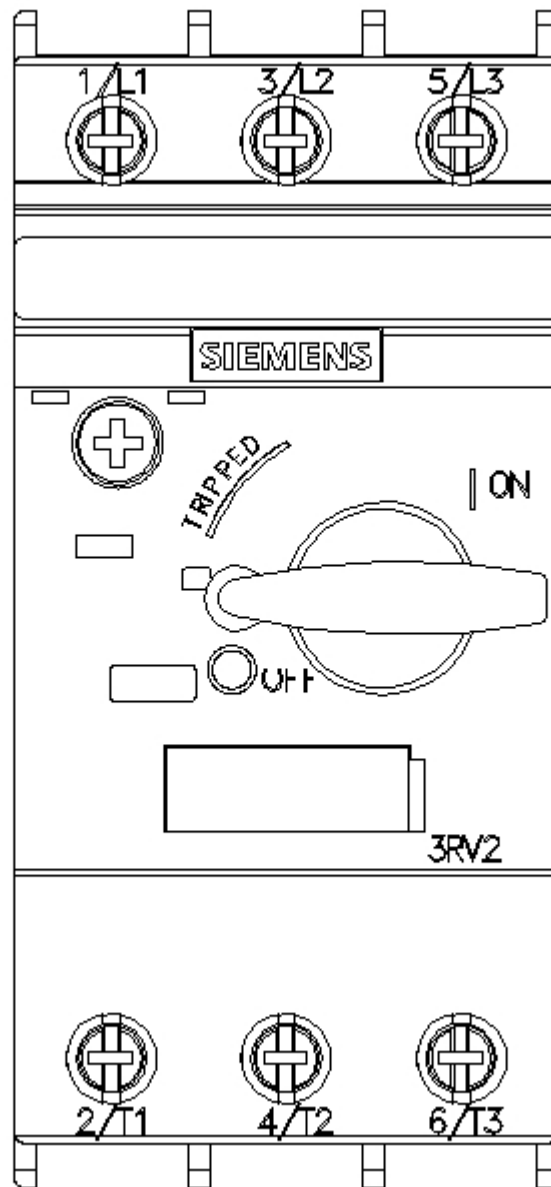
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

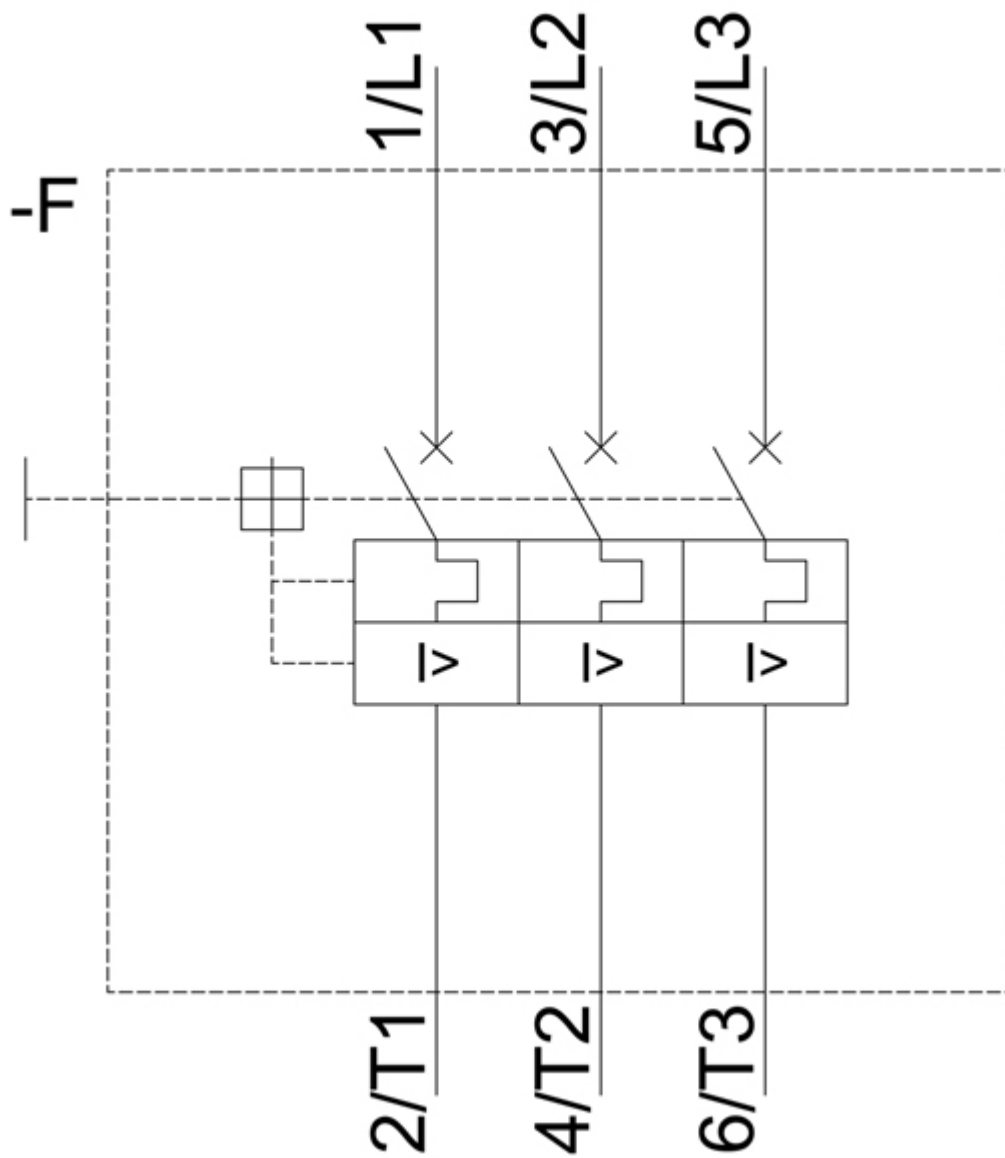
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1GA10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1GA10&objecttype=14&gridview=view1>







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