

Circuit breaker size S00 for starter combination Rated current 10 A N release 130 A Spring-type terminal Standard switching capacity



|                          |                          |
|--------------------------|--------------------------|
| Product brand name       | SIRIUS                   |
| Product designation      | Circuit breaker          |
| Design of the product    | For starter combinations |
| Product type designation | 3RV2                     |

| General technical data                                                    |         |
|---------------------------------------------------------------------------|---------|
| Size of the circuit-breaker                                               | S00     |
| Size of contactor can be combined company-specific                        | S00, S0 |
| Product extension                                                         |         |
| • Auxiliary switch                                                        | Yes     |
| Power loss [W] for rated value of the current                             |         |
| • at AC in hot operating state                                            | 9.25 W  |
| • at AC in hot operating state per pole                                   | 3.1 W   |
| Insulation voltage with degree of pollution 3 at AC rated value           | 690 V   |
| Surge voltage resistance rated value                                      | 6 kV    |
| maximum permissible voltage for safe isolation                            |         |
| • in networks with grounded star point between main and auxiliary circuit | 400 V   |

|                                                                                                                             |             |
|-----------------------------------------------------------------------------------------------------------------------------|-------------|
| <ul style="list-style-type: none"> <li>• in networks with grounded star point between main and auxiliary circuit</li> </ul> | 400 V       |
| <b>Protection class IP</b>                                                                                                  |             |
| <ul style="list-style-type: none"> <li>• on the front</li> </ul>                                                            | IP20        |
| <ul style="list-style-type: none"> <li>• of the terminal</li> </ul>                                                         | IP20        |
| <b>Shock resistance</b>                                                                                                     |             |
| <ul style="list-style-type: none"> <li>• acc. to IEC 60068-2-27</li> </ul>                                                  | 25g / 11 ms |
| <b>Mechanical service life (switching cycles)</b>                                                                           |             |
| <ul style="list-style-type: none"> <li>• of the main contacts typical</li> </ul>                                            | 100 000     |
| <ul style="list-style-type: none"> <li>• of auxiliary contacts typical</li> </ul>                                           | 100 000     |
| <b>Electrical endurance (switching cycles)</b>                                                                              |             |
| <ul style="list-style-type: none"> <li>• typical</li> </ul>                                                                 | 100 000     |
| <b>Reference code acc. to DIN EN 81346-2</b>                                                                                | Q           |

#### Ambient conditions

|                                                                      |                |
|----------------------------------------------------------------------|----------------|
| <b>Installation altitude at height above sea level</b>               |                |
| <ul style="list-style-type: none"> <li>• maximum</li> </ul>          | 2 000 m        |
| <b>Ambient temperature</b>                                           |                |
| <ul style="list-style-type: none"> <li>• during operation</li> </ul> | -20 ... +60 °C |
| <ul style="list-style-type: none"> <li>• during storage</li> </ul>   | -50 ... +80 °C |
| <ul style="list-style-type: none"> <li>• during transport</li> </ul> | -50 ... +80 °C |
| Relative humidity during operation                                   | 10 ... 95 %    |

#### Main circuit

|                                                                                 |              |
|---------------------------------------------------------------------------------|--------------|
| <b>Number of poles for main current circuit</b>                                 | 3            |
| <b>Operating voltage</b>                                                        |              |
| <ul style="list-style-type: none"> <li>• rated value</li> </ul>                 | 690 V        |
| <ul style="list-style-type: none"> <li>• at AC-3 rated value maximum</li> </ul> | 690 V        |
| <b>Operating frequency rated value</b>                                          | 50 ... 60 Hz |
| <b>Operating current rated value</b>                                            | 10 A         |
| <b>Operating current</b>                                                        |              |
| <ul style="list-style-type: none"> <li>• at AC-3</li> </ul>                     |              |
| <ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul>        | 10 A         |
| <b>Operating power</b>                                                          |              |
| <ul style="list-style-type: none"> <li>• at AC-3</li> </ul>                     |              |
| <ul style="list-style-type: none"> <li>— at 230 V rated value</li> </ul>        | 2 200 W      |
| <ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul>        | 4 000 W      |
| <ul style="list-style-type: none"> <li>— at 500 V rated value</li> </ul>        | 5 500 W      |
| <ul style="list-style-type: none"> <li>— at 690 V rated value</li> </ul>        | 7 500 W      |
| <b>Operating frequency</b>                                                      |              |
| <ul style="list-style-type: none"> <li>• at AC-3 maximum</li> </ul>             | 15 1/h       |

#### Auxiliary circuit

|                                                     |   |
|-----------------------------------------------------|---|
| <b>Number of NC contacts for auxiliary contacts</b> | 0 |
|-----------------------------------------------------|---|

|                                              |   |
|----------------------------------------------|---|
| Number of NO contacts for auxiliary contacts | 0 |
| Number of CO contacts                        |   |
| • for auxiliary contacts                     | 0 |

#### Protective and monitoring functions

|                                                                        |        |
|------------------------------------------------------------------------|--------|
| <b>Product function</b>                                                |        |
| • Ground fault detection                                               | No     |
| • Phase failure detection                                              | No     |
| <b>Operational short-circuit current breaking capacity (Ics) at AC</b> |        |
| • at 240 V rated value                                                 | 100 kA |
| • at 400 V rated value                                                 | 100 kA |
| • at 500 V rated value                                                 | 42 kA  |
| • at 690 V rated value                                                 | 4 kA   |
| <b>Maximum short-circuit current breaking capacity (Icu)</b>           |        |
| • at AC at 240 V rated value                                           | 100 kA |
| • at AC at 400 V rated value                                           | 100 kA |
| • at AC at 500 V rated value                                           | 42 kA  |
| • at AC at 690 V rated value                                           | 6 kA   |
| <b>Response value current</b>                                          |        |
| • of instantaneous short-circuit trip unit                             | 130 A  |

#### UL/CSA ratings

|                                                         |        |
|---------------------------------------------------------|--------|
| <b>Full-load current (FLA) for three-phase AC motor</b> |        |
| • at 480 V rated value                                  | 10 A   |
| • at 600 V rated value                                  | 10 A   |
| <b>Yielded mechanical performance [hp]</b>              |        |
| • for single-phase AC motor                             |        |
| — at 110/120 V rated value                              | 0.5 hp |
| — at 230 V rated value                                  | 1.5 hp |
| • for three-phase AC motor                              |        |
| — at 200/208 V rated value                              | 2 hp   |
| — at 220/230 V rated value                              | 3 hp   |
| — at 460/480 V rated value                              | 5 hp   |
| — at 575/600 V rated value                              | 7.5 hp |

#### Short-circuit protection

|                                                                                                |            |
|------------------------------------------------------------------------------------------------|------------|
| <b>Product function Short circuit protection</b>                                               | Yes        |
| <b>Design of the short-circuit trip</b>                                                        | magnetic   |
| <b>Design of the fuse link for IT network for short-circuit protection of the main circuit</b> |            |
| • at 400 V                                                                                     | gL/gG 50 A |
| • at 500 V                                                                                     | gL/gG 40 A |
| • at 690 V                                                                                     | gL/gG 40 A |

## Installation/ mounting/ dimensions

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>Mounting position</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | any                                                                                    |
| <b>Mounting type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 |
| <b>Height</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 106 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 30 mm</li> <li>— upwards 30 mm</li> <li>— Backwards 0 mm</li> <li>— at the side 9 mm</li> <li>— forwards 0 mm</li> </ul> </li> <li>• for live parts at 400 V <ul style="list-style-type: none"> <li>— downwards 30 mm</li> <li>— upwards 30 mm</li> <li>— Backwards 0 mm</li> <li>— at the side 9 mm</li> <li>— forwards 0 mm</li> </ul> </li> <li>• for grounded parts at 500 V <ul style="list-style-type: none"> <li>— downwards 30 mm</li> <li>— upwards 30 mm</li> <li>— Backwards 0 mm</li> <li>— at the side 9 mm</li> <li>— forwards 0 mm</li> </ul> </li> <li>• for live parts at 500 V <ul style="list-style-type: none"> <li>— downwards 30 mm</li> <li>— upwards 30 mm</li> <li>— Backwards 0 mm</li> <li>— at the side 9 mm</li> <li>— forwards 0 mm</li> </ul> </li> <li>• for grounded parts at 690 V <ul style="list-style-type: none"> <li>— downwards 50 mm</li> <li>— upwards 50 mm</li> <li>— Backwards 0 mm</li> <li>— at the side 30 mm</li> <li>— forwards 0 mm</li> </ul> </li> <li>• for live parts at 690 V <ul style="list-style-type: none"> <li>— downwards 50 mm</li> <li>— upwards 50 mm</li> </ul> </li> </ul> |                                                                                        |

|               |       |
|---------------|-------|
| — Backwards   | 0 mm  |
| — at the side | 30 mm |

## Connections/ Terminals

|                                                                                                                                                                                                                                                                                                     |                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Product function</b>                                                                                                                                                                                                                                                                             |                                                                                                                                 |
| <ul style="list-style-type: none"> <li>removable terminal for auxiliary and control circuit</li> </ul>                                                                                                                                                                                              | No                                                                                                                              |
| <b>Type of electrical connection</b>                                                                                                                                                                                                                                                                |                                                                                                                                 |
| <ul style="list-style-type: none"> <li>for main current circuit</li> </ul>                                                                                                                                                                                                                          | spring-loaded 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>single or multi-stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> </ul> </li> <li>at AWG conductors for main contacts</li> </ul> | 2x (0,5 ... 4 mm <sup>2</sup> )<br>2x (0.5 ... 2.5 mm <sup>2</sup> )<br>2x (0.5 ... 2.5 mm <sup>2</sup> )<br><br>2x (20 ... 12) |
| <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>                                                                                                                        |              |
| <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> <li>with high demand rate acc. to SN 31920</li> </ul> | 50 %<br>50 % |
| <b>Failure rate [FIT]</b>                                                                                                               |              |
| <ul style="list-style-type: none"> <li>with low demand rate acc. to SN 31920</li> </ul>                                                 | 50 FIT       |
| <b>T1 value for proof test interval or service life acc. to IEC 61508</b>                                                               | 10 y         |
| <b>Display version</b>                                                                                                                  |              |
| <ul style="list-style-type: none"> <li>for switching status</li> </ul>                                                                  | Handle       |

## Certificates/ approvals

| General Product Approval | Declaration of Conformity |
|--------------------------|---------------------------|
|--------------------------|---------------------------|



[KC](#)



EG-Konf.

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

[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



ABS



BUREAU VERITAS



LRS

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



PRS



RINA



RMRS



DNV-GL

[Confirmation](#)



VDE

| Railway |
|---------|
|---------|

[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=3RV2311-1JC20>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2311-1JC20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2311-1JC20>

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

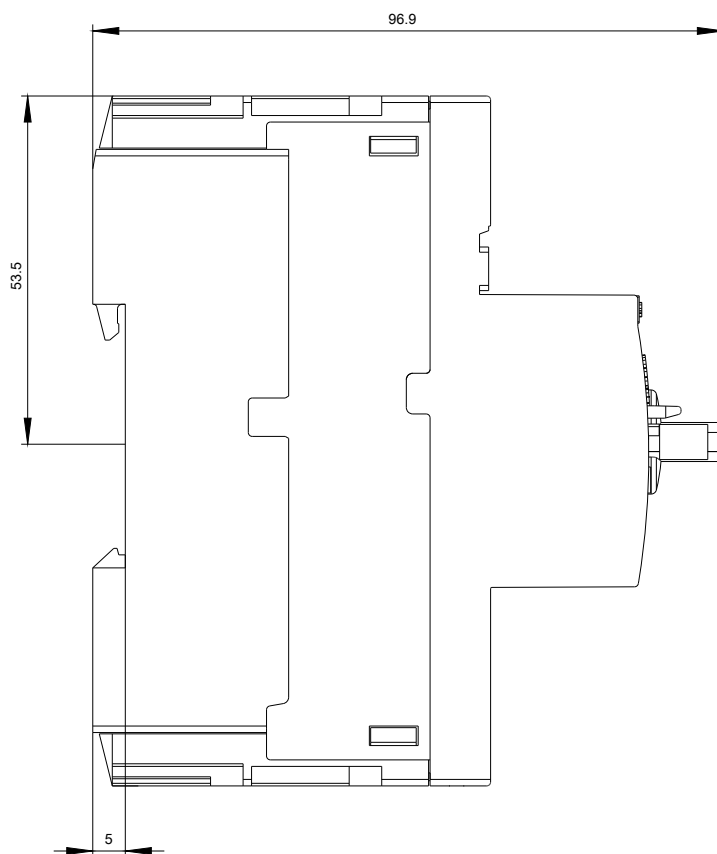
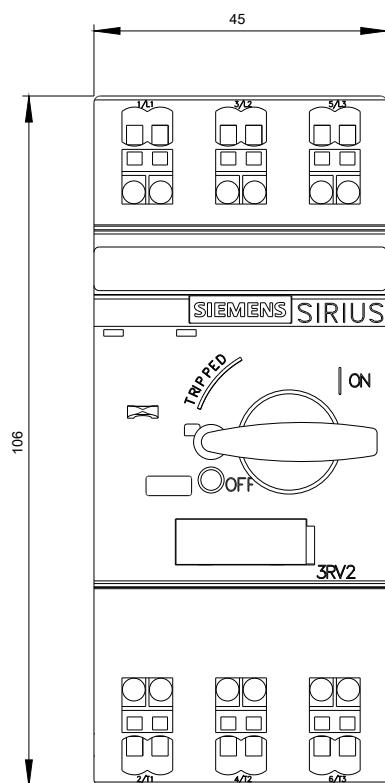
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2311-1JC20&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2311-1JC20&lang=en)

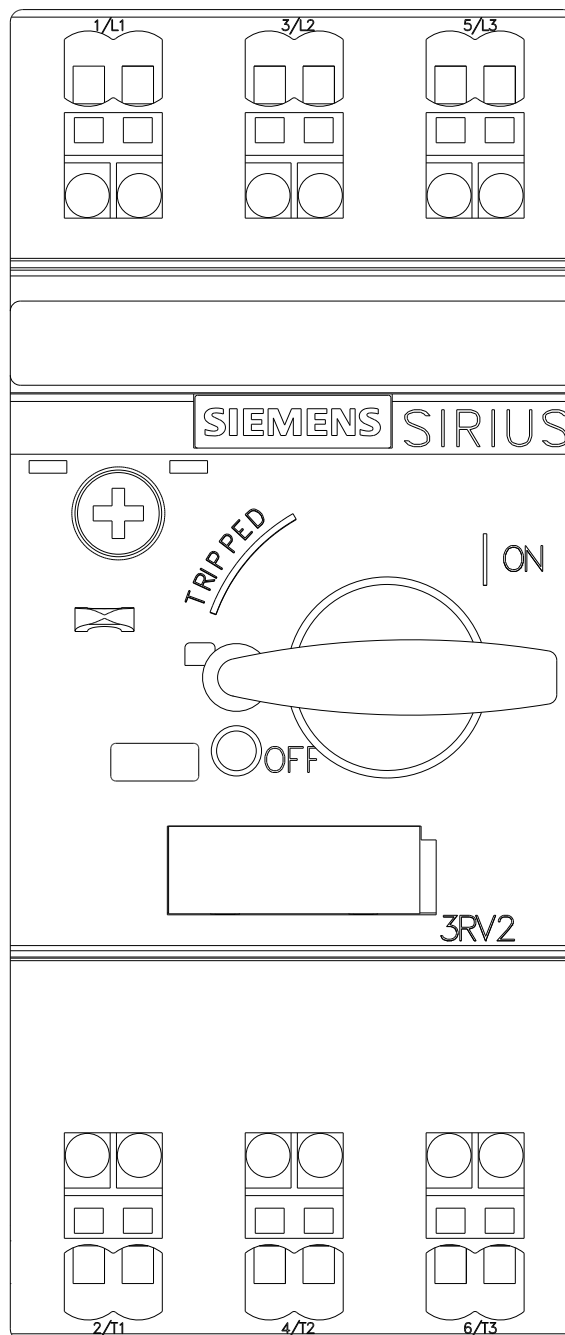
**Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current**

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2311-1JC20/char>

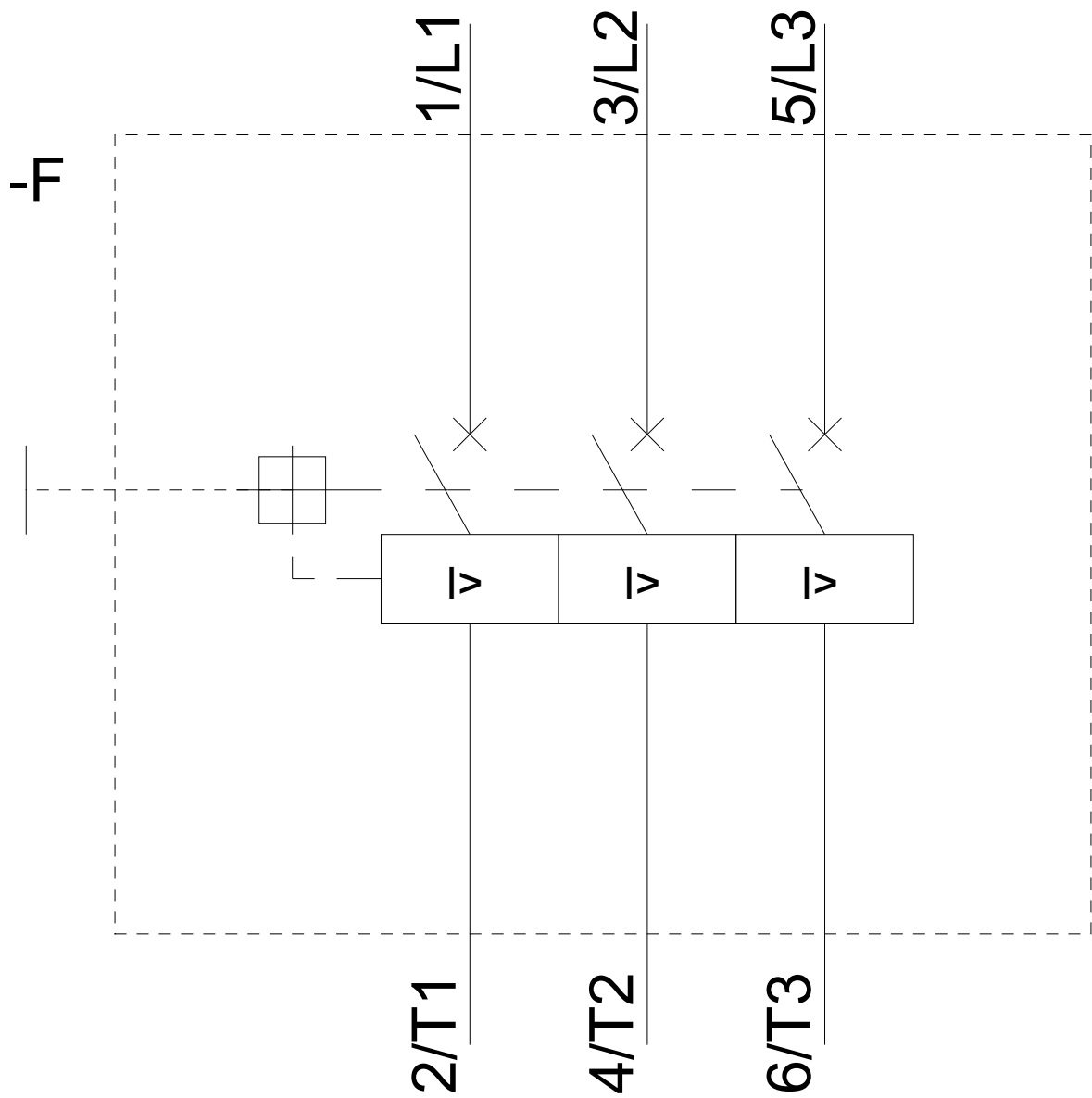
**Further characteristics (e.g. electrical endurance, switching frequency)**

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2311-1JC20&objecttype=14&gridview=view1>









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