



Circuit breaker size S00 for motor protection, CLASS 10 A-release 9...12 A N-release 163 A screw terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC

|                                                                                     |                      |
|-------------------------------------------------------------------------------------|----------------------|
| product brand name                                                                  | SIRIUS               |
| product designation                                                                 | Circuit breaker      |
| design of the product                                                               | For motor protection |
| product type designation                                                            | 3RV2                 |
| <b>General technical data</b>                                                       |                      |
| 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                |
| • between main and auxiliary circuit                                                | 400 V                |
| shock resistance acc. to IEC 60068-2-27                                             | 25g / 11 ms          |
| mechanical service life (switching cycles)                                          |                      |
| • of the main contacts typical                                                      | 100 000              |
| • of auxiliary contacts typical                                                     | 100 000              |
| electrical endurance (switching cycles) typical                                     | 100 000              |
| type of protection according to ATEX directive 2014/34/EU                           | Ex II (2) GD         |
| certificate of suitability according to ATEX directive 2014/34/EU                   | DMT 02 ATEX F 001    |
| reference code acc. to IEC 81346-2                                                  | Q                    |
| Substance Prohibition (Date)                                                        | 01.10.2009 00:00:00  |
| <b>Ambient conditions</b>                                                           |                      |
| installation altitude at height above sea level maximum                             | 2 000 m              |
| • ambient temperature during operation                                              | -20 ... +60 °C       |
| • ambient temperature during storage                                                | -50 ... +80 °C       |
| • ambient temperature during transport                                              | -50 ... +80 °C       |
| temperature compensation                                                            | -20 ... +60 °C       |
| relative humidity during operation                                                  | 10 ... 95 %          |
| <b>Main circuit</b>                                                                 |                      |
| number of poles for main current circuit                                            | 3                    |

|                                                                                                                                                                                                                                                                                                                                                                                                       |                                                       |
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| <b>adjustable current response value current of the current-dependent overload release</b>                                                                                                                                                                                                                                                                                                            | 9 ... 12.5 A                                          |
| <ul style="list-style-type: none"> <li>operating voltage rated value</li> <li>operating voltage 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>                                                                                                                                                                                                                                                                                                                                                                | 12.5 A                                                |
| operational current at AC-3 at 400 V rated value                                                                                                                                                                                                                                                                                                                                                      | 12.5 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>                                                                                                                                                                                                                                      | 3 000 W<br>5 500 W<br>7 500 W<br>7 500 W              |
| 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>42 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>42 kA<br>6 kA                     |
| response value current of instantaneous short-circuit trip unit                                                                                                                                                                                                                                                                                                                                       | 163 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>                                                                                                                                                                                                                                                                                                  | 12.5 A<br>12.5 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> | 0.5 hp<br>2 hp<br><br>3 hp<br>3 hp<br>7.5 hp<br>10 hp |

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| <b>contact rating of auxiliary contacts according to UL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | C300 / R300                                                                                                                                                                      |
| <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</b> <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 $I_k < 400$ A)                                                                                          |
| <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 63 A<br>gL/gG 50 A<br>gL/gG 40 A                                                                                                                                           |
| <b>Installation/ mounting/ dimensions</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                  |
| <b>mounting position</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | any                                                                                                                                                                              |
| <b>fastening method</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715                                                                                           |
| <b>height</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 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>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 |
| <b>Connections/ Terminals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                  |
| <b>product function removable terminal for auxiliary and control circuit</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | No                                                                                                                                                                               |
| <b>type of electrical connection</b> <ul style="list-style-type: none"> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | screw-type terminals<br>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> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2x (0,75 ... 2,5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>                                                                                                                         |

|                                                                      |                                                                       |
|----------------------------------------------------------------------|-----------------------------------------------------------------------|
| — finely stranded with core end processing                           | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) |
| • at AWG cables for main contacts                                    | 2x (18 ... 14), 2x 12                                                 |
| <b>type of connectable conductor cross-sections</b>                  |                                                                       |
| • for auxiliary contacts                                             |                                                                       |
| — solid or stranded                                                  | 2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> ) |
| — finely stranded with core end processing                           | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) |
| • at AWG cables for auxiliary contacts                               | 2x (20 ... 16), 2x (18 ... 14)                                        |
| • tightening torque for main contacts with screw-type terminals      | 0.8 ... 1.2 N·m                                                       |
| • tightening torque for auxiliary contacts with screw-type terminals | 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>                  |                                                                       |
| • for main contacts                                                  | M3                                                                    |
| • of the auxiliary and control contacts                              | M3                                                                    |

| Safety related data                                                       |                                                  |
|---------------------------------------------------------------------------|--------------------------------------------------|
| <b>B10 value</b>                                                          |                                                  |
| • with high demand rate acc. to SN 31920                                  | 5 000                                            |
| <b>proportion of dangerous failures</b>                                   |                                                  |
| • with low demand rate acc. to SN 31920                                   | 50 %                                             |
| • with high demand rate acc. to SN 31920                                  | 50 %                                             |
| <b>failure rate [FIT]</b>                                                 |                                                  |
| • with low demand rate acc. to SN 31920                                   | 50 FIT                                           |
| <b>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](#)



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



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



| other | Railway |
|-------|---------|
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### 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=3RV2011-1KA15>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1KA15>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1KA15>

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

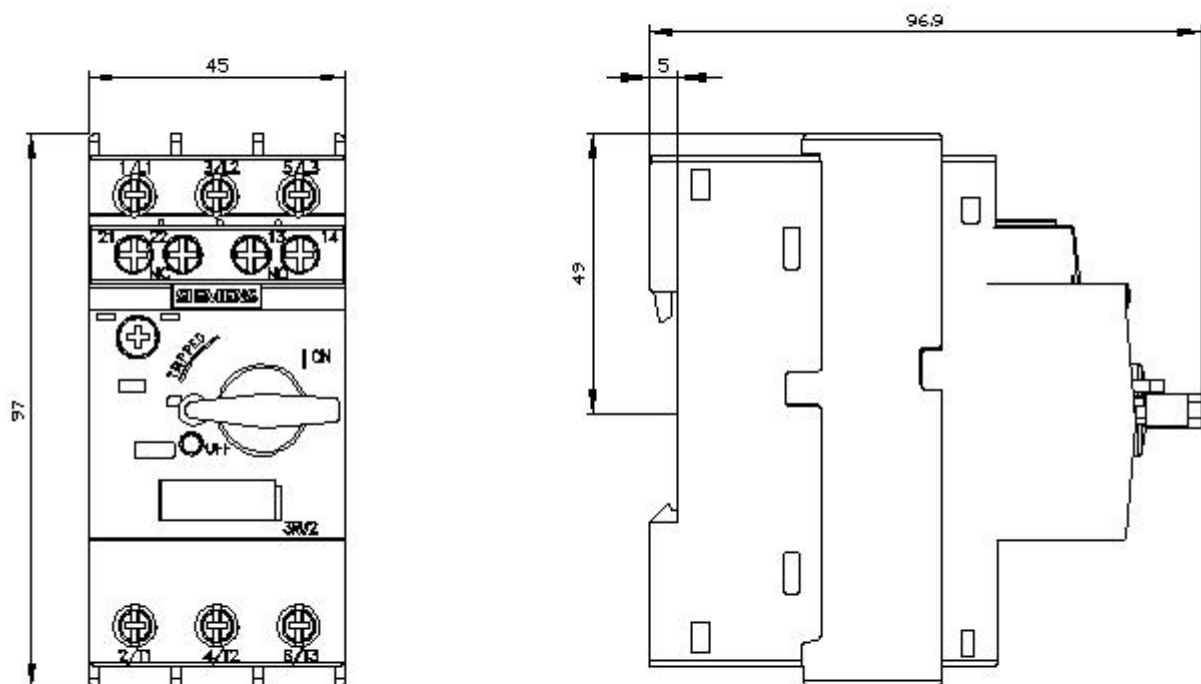
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2011-1KA15&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1KA15&lang=en)

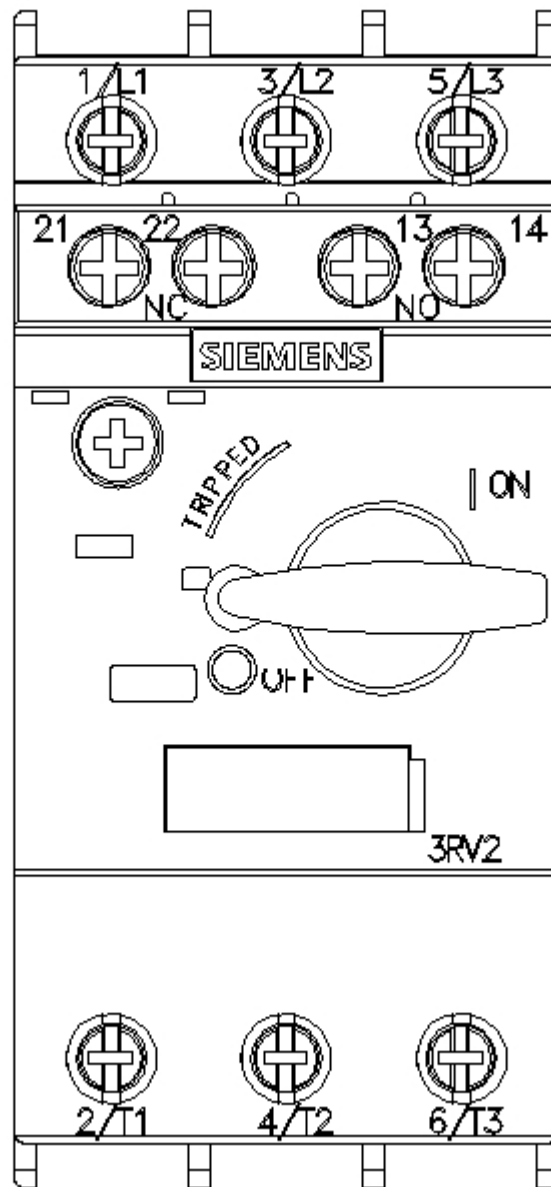
Characteristic: Tripping characteristics,  $I^2t$ , Let-through current

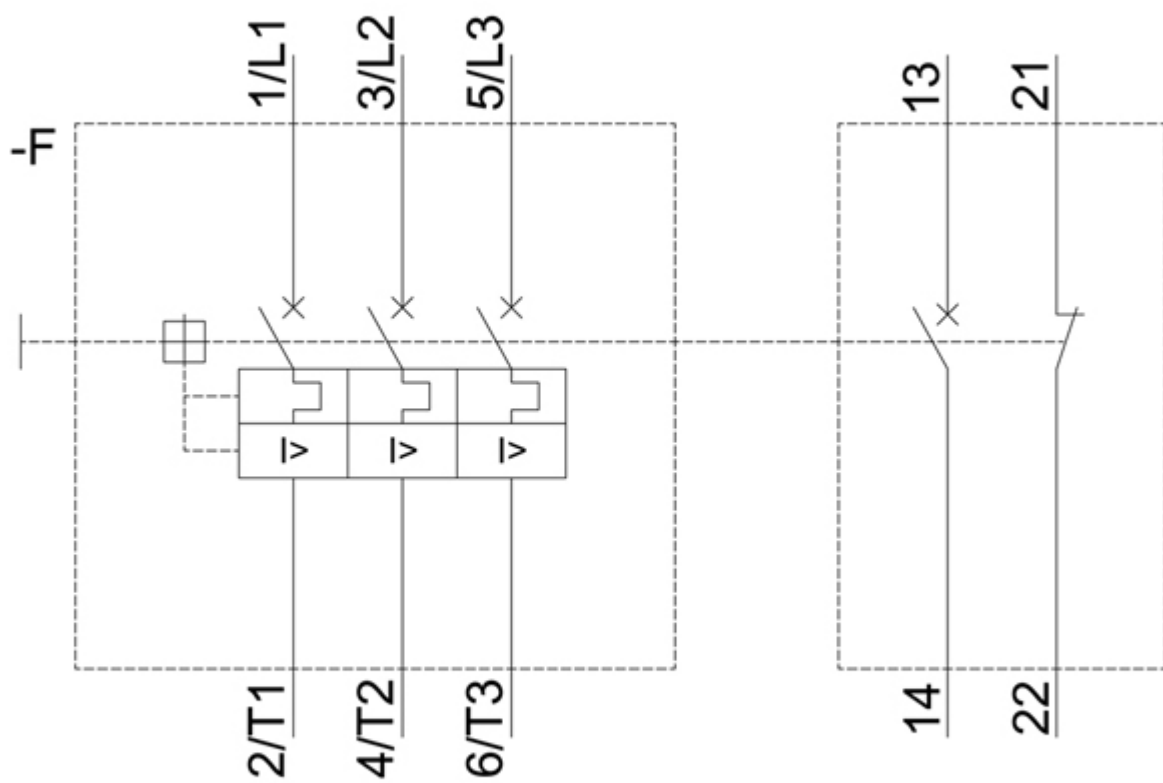
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1KA15/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1KA15&objecttype=14&gridview=view1>







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