



Circuit breaker size S0 for motor protection, CLASS 10 A-release 10...16 A  
N-release 208 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                                                         | S0                   |
| 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 Prohibitance (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       |
| • during storage                                                                    | -50 ... +80 °C       |
| • during transport                                                                  | -50 ... +80 °C       |
| temperature compensation                                                            | -20 ... +60 °C       |
| relative humidity during operation                                                  | 10 ... 95 %          |
| <b>Main circuit</b>                                                                 |                      |

|                                                                                                                                                                                                                                                                                                                                                                                                                              |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| <b>number of poles for main current circuit</b>                                                                                                                                                                                                                                                                                                                                                                              | 3                                         |
| <b>adjustable current response value current of the current-dependent overload release</b>                                                                                                                                                                                                                                                                                                                                   | 10 ... 16 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>                                                                                                                                                                                                                                                                                                                                                                                       | 16 A                                      |
| operational current at AC-3 at 400 V rated value                                                                                                                                                                                                                                                                                                                                                                             | 16 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>                                                                                                                                                                                                                             | 4 kW<br>7.5 kW<br>7.5 kW<br>11 kW         |
| operating frequency at AC-3 maximum                                                                                                                                                                                                                                                                                                                                                                                          | 15 1/h                                    |
| <b>Auxiliary circuit</b>                                                                                                                                                                                                                                                                                                                                                                                                     |                                           |
| <b>design of the auxiliary switch</b>                                                                                                                                                                                                                                                                                                                                                                                        | transverse                                |
| <b>number of NC contacts for auxiliary contacts</b>                                                                                                                                                                                                                                                                                                                                                                          | 1                                         |
| <b>number of NO contacts for auxiliary contacts</b>                                                                                                                                                                                                                                                                                                                                                                          | 1                                         |
| number of CO contacts for auxiliary contacts                                                                                                                                                                                                                                                                                                                                                                                 | 0                                         |
| <b>operational current of auxiliary contacts at AC-15</b> <ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 120 V</li> <li>• at 125 V</li> <li>• at 230 V</li> </ul>                                                                                                                                                                                                                                            | 2 A<br>0.5 A<br>0.5 A<br>0.5 A            |
| <b>operational current of auxiliary contacts at DC-13</b> <ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 60 V</li> </ul>                                                                                                                                                                                                                                                                                     | 1 A<br>0.15 A                             |
| <b>Protective and monitoring functions</b>                                                                                                                                                                                                                                                                                                                                                                                   |                                           |
| <b>product function</b> <ul style="list-style-type: none"> <li>• ground fault detection</li> <li>• phase failure detection</li> </ul>                                                                                                                                                                                                                                                                                        | No<br>Yes                                 |
| <b>trip class</b>                                                                                                                                                                                                                                                                                                                                                                                                            | CLASS 10                                  |
| <b>design of the overload release</b>                                                                                                                                                                                                                                                                                                                                                                                        | thermal                                   |
| <b>breaking capacity operating short-circuit current (Ics) at AC</b> <ul style="list-style-type: none"> <li>• at 240 V rated value</li> <li>• at 400 V rated value</li> <li>• at 500 V rated value</li> <li>• at 690 V rated value</li> </ul>                                                                                                                                                                                | 100 kA<br>25 kA<br>5 kA<br>2 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>55 kA<br>10 kA<br>4 kA          |
| response value current of instantaneous short-circuit trip unit                                                                                                                                                                                                                                                                                                                                                              | 208 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>                                                                                                                                                                                                                                                                 | 16 A<br>16 A                              |
| <b>yielded mechanical performance [hp]</b> <ul style="list-style-type: none"> <li>• for single-phase AC motor <ul style="list-style-type: none"> <li>— at 110/120 V rated value</li> <li>— at 230 V rated value</li> </ul> </li> <li>• for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 200/208 V rated value</li> <li>— at 220/230 V rated value</li> <li>— at 460/480 V rated value</li> </ul> </li> </ul> | 1 hp<br>2 hp<br><br>3 hp<br>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 $I_k < 400 \text{ A}$ )                                                                                 |
| <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 component 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 (1 ... 2,5 mm <sup>2</sup> ), 2x (2,5 ... 10 mm <sup>2</sup> )                                                                                                                |

|                                                     |                                                                                         |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------|
| — finely stranded with core end processing          | 2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup> |
| • at AWG cables for main contacts                   | 2x (16 ... 12), 2x (14 ... 8)                                                           |
| <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)                                                          |
| <b>tightening torque</b>                            |                                                                                         |
| • for main contacts with screw-type terminals       | 2 ... 2.5 N·m                                                                           |
| • 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                                 | M4                                                                                      |
| • of the auxiliary and control contacts             | M3                                                                                      |

|                                                                           |                                                  |
|---------------------------------------------------------------------------|--------------------------------------------------|
| <b>Safety related data</b>                                                |                                                  |
| <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                                           |

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



[KC](#)



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



[UK Declaration of Conformity](#)



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



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



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



### 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=3RV2021-4AA15>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-4AA15>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4AA15>

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

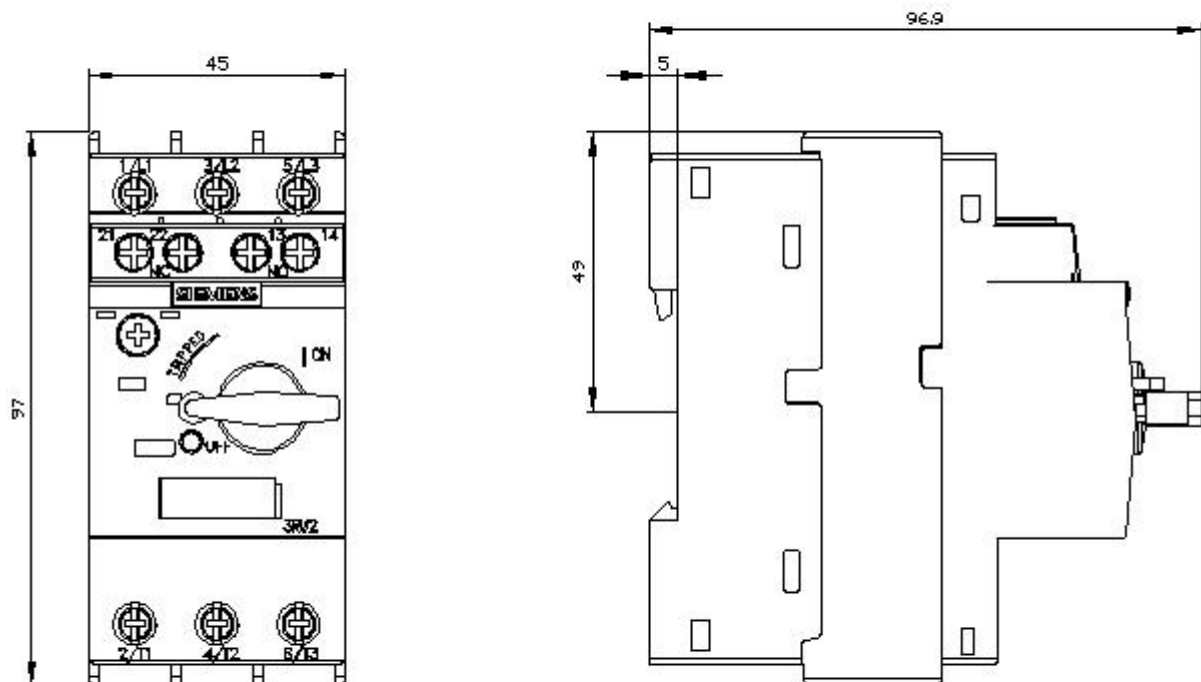
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2021-4AA15&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-4AA15&lang=en)

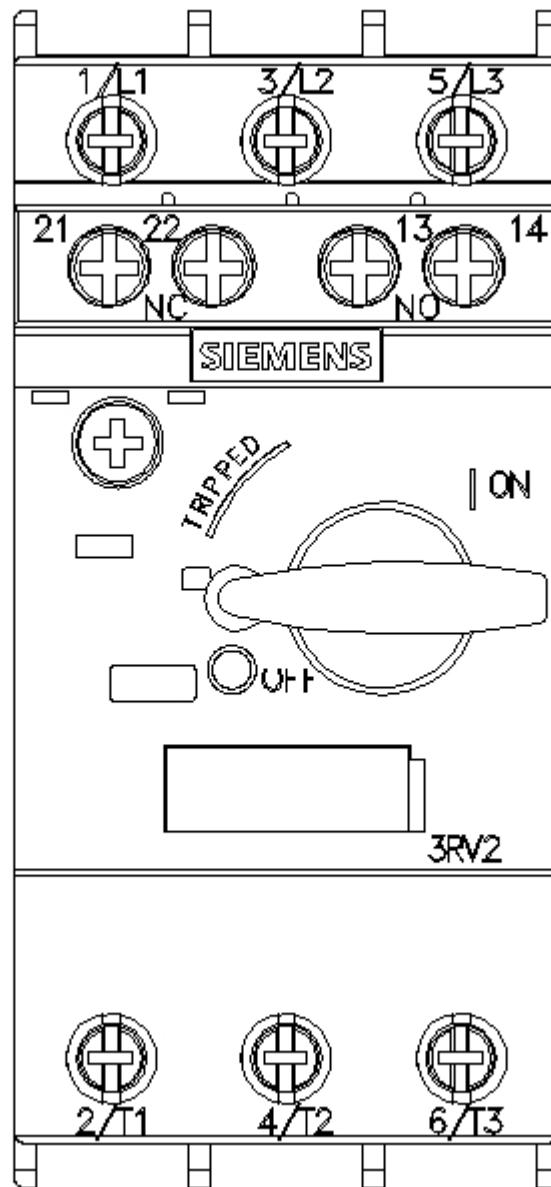
Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current

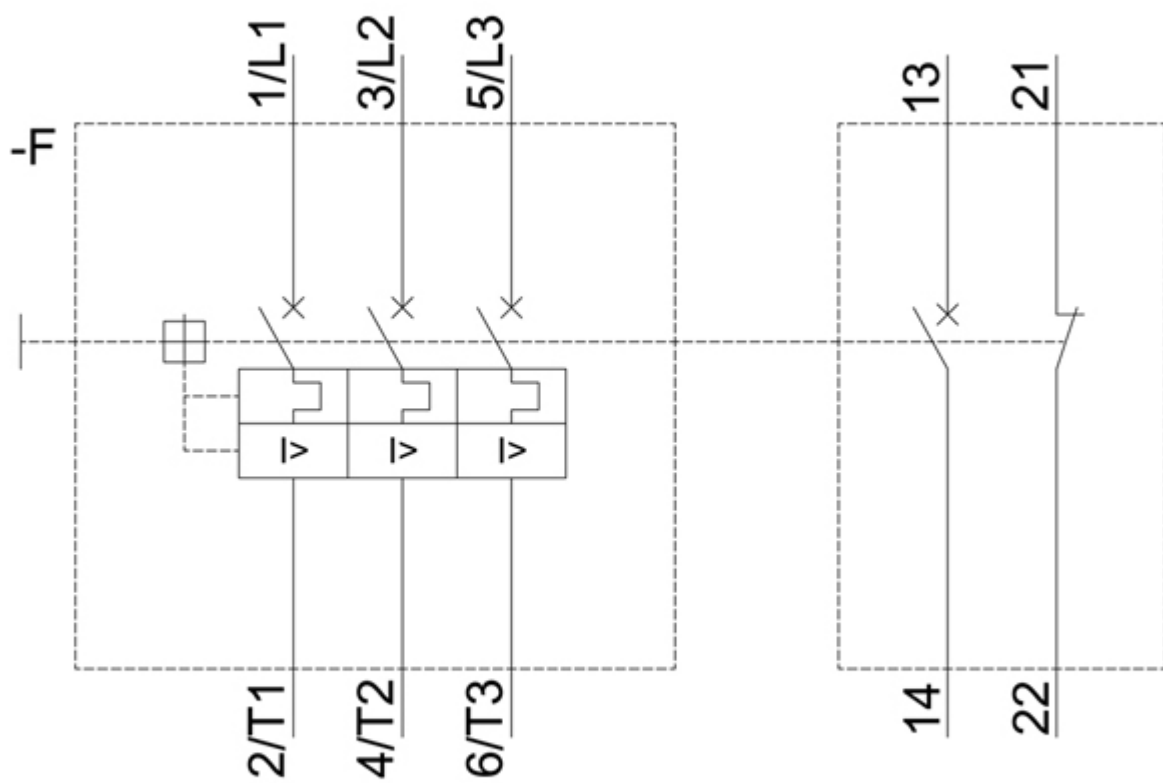
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4AA15/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-4AA15&objecttype=14&gridview=view1>







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