



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

|  |                      |
|--|----------------------|
| <b>product brand name</b>  | SIRIUS               |
| <b>product designation</b>   | Circuit breaker      |
| <b>design of the product</b>   | For motor protection |
| <b>product type designation</b>  | 3RV1                 |
| <b>General technical data</b>  |                      |
| <b>size of the circuit-breaker</b>   | S00                  |
| <b>size of contactor can be combined company-specific</b>                                  | S00                  |
| product extension auxiliary switch   | Yes                  |
| <b>power loss [W] for rated value of the current</b>                                       |                      |
| • at AC in hot operating state   | 7.25 W               |
| • at AC in hot operating state per pole  | 2.4 W                |
| insulation voltage with degree of pollution 3 at AC rated value                            | 690 V                |
| <b>surge voltage resistance rated value</b>  | 6 kV                 |
| <b>mechanical service life (operating cycles)</b>  |                      |
| • of the main contacts typical   | 100 000              |
| • of auxiliary contacts typical  | 100 000              |
| electrical endurance (operating cycles) typical  | 100 000              |
| <b>reference code according to IEC 81346-2</b>   | Q                    |
| <b>Substance Prohibitance (Date)</b>   | 01/01/2013           |
| <b>SVHC substance name</b>   | Lead - 7439-92-1     |
| <b>Weight</b>  | 0.294 kg             |
| <b>Ambient conditions</b>  |                      |
| installation altitude at height above sea level maximum                                    | 2 000 m              |
| <b>ambient temperature</b>   |                      |
| • during operation   | -20 ... +60 °C       |
| • during storage   | -50 ... +80 °C       |
| • during transport   | -50 ... +80 °C       |
| relative humidity during operation   | 10 ... 95 %          |
| <b>Main circuit</b>  |                      |
| <b>number of poles for main current circuit</b>  | 3                    |
| <b>adjustable current response value current of the current-dependent overload release</b> | 2.2 ... 3.2 A        |
| <b>type of voltage for main current circuit</b>  | AC                   |
| <b>operating voltage</b>   |                      |
| • rated value  | 20 ... 690 V         |
| • at AC-3 rated value maximum  | 690 V                |
| • at AC-3e rated value maximum   | 690 V                |
| <b>operating frequency rated value</b>   | 50 ... 60 Hz         |
| <b>operational current rated value</b>   | 3.2 A                |
| <b>operational current</b>   |                      |

|   |  |
|---|--|
| <ul style="list-style-type: none"> <li>● at AC-3 at 400 V rated value</li> <li>● at AC-3e at 400 V rated value</li> </ul>   | 3.2 A<br>3.2 A   |
| <b>operating power</b>  |  |
| <ul style="list-style-type: none"> <li>● 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> </li> <li>● at AC-3e <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> </li> </ul> | 0.55 kW<br>1.1 kW<br>1.5 kW<br>2.2 kW<br>0.55 kW<br>1.1 kW<br>1.5 kW<br>2.2 kW |
| <b>operating frequency</b>  |  |
| <ul style="list-style-type: none"> <li>● at AC-3 maximum</li> <li>● at AC-3e maximum</li> </ul>   | 15 1/h<br>15 1/h   |
| <b>Auxiliary circuit</b>  |  |
| <b>design of the auxiliary switch</b>   | transverse   |
| <b>type of voltage for auxiliary and control circuit</b>  | AC/DC  |
| <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 110 V</li> <li>● at 120 V</li> <li>● at 125 V</li> <li>● at 230 V</li> </ul>   | 2 A<br>2 A<br>2 A<br>2 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>maximum short-circuit current breaking capacity (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>3 kA<br>2 kA   |
| <b>operating short-circuit current breaking capacity (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>3 kA<br>2 kA   |
| response value current of instantaneous short-circuit trip unit   | 42 A   |
| <b>UL/CSA ratings</b>   |  |
| <b>full-load current (FLA) for 3-phase AC motor</b>   |  |
| <ul style="list-style-type: none"> <li>● at 480 V rated value</li> <li>● at 600 V rated value</li> </ul>  | 3.2 A<br>3.2 A   |
| <b>yielded mechanical performance [hp]</b>  |  |
| <ul style="list-style-type: none"> <li>● for single-phase AC motor <ul style="list-style-type: none"> <li>— at 110/120 V rated value</li> <li>— at 230 V rated value</li> </ul> </li> <li>● for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 200/208 V rated value</li> <li>— at 220/230 V rated value</li> <li>— at 460/480 V rated value</li> </ul> </li> </ul>   | 0.1 hp<br>0.25 hp<br>0.5 hp<br>0.75 hp<br>2 hp                                 |

|   |   |
|---|---|
| — at 575/600 V rated value  | 2 hp  |
| <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>  | fuse gG: 10 A, miniature circuit breaker C 6 A (short-circuit current I <sub>k</sub> < 400 A)   |
| <ul style="list-style-type: none"> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>   |   |
| <b>design of the fuse link for IT network for short-circuit protection of the main circuit</b>  | none required<br>gG 40 A<br>gG 35 A<br>gG 25 A  |
| <ul style="list-style-type: none"> <li>• at 240 V</li> </ul>  |   |
| <ul style="list-style-type: none"> <li>• at 400 V</li> </ul>  |   |
| <ul style="list-style-type: none"> <li>• at 500 V</li> <li>• at 690 V</li> </ul>  |   |
| <b>Installation/ mounting/ dimensions</b>   |   |
| <b>mounting position</b>  | any   |
| <b>fastening method</b>   | screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715  |
| <b>height</b>   | 90 mm   |
| <b>width</b>  | 45 mm   |
| <b>depth</b>  | 75 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> </ul>  |   |
| <ul style="list-style-type: none"> <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> </ul>  |   |
| <ul style="list-style-type: none"> <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> </ul>  |   |
| <ul style="list-style-type: none"> <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> </ul>  |   |
| <ul style="list-style-type: none"> <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> </ul> |   |
| <ul style="list-style-type: none"> <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>     |   |
| <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> </ul>  |   |
| <ul style="list-style-type: none"> <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> </ul>  |   |
| <ul style="list-style-type: none"> <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> </ul>  |   |
| <ul style="list-style-type: none"> <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> </ul>  |   |
| <ul style="list-style-type: none"> <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> </ul> |   |
| <ul style="list-style-type: none"> <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>     |   |
| <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> </ul>  |   |
| <ul style="list-style-type: none"> <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> </ul>  |   |
| <ul style="list-style-type: none"> <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> </ul>  |   |
| <ul style="list-style-type: none"> <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> </ul>  |   |
| <ul style="list-style-type: none"> <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> </ul> |   |
| <ul style="list-style-type: none"> <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>     |   |
| <b>Connections/ Terminals</b>   |   |
| <b>type of electrical connection</b>  | screw-type terminals  |
| <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control circuit</li> </ul>   |   |
| <b>arrangement of electrical connectors for main current circuit</b>  | Top and bottom  |
| <b>type of connectable conductor cross-sections</b>   | 2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> ), 2x (1 ... 4 mm <sup>2</sup> )<br>2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> ) |
| <ul style="list-style-type: none"> <li>• for main contacts               <ul style="list-style-type: none"> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> </ul>                                  |   |
| <b>type of connectable conductor cross-sections</b>   | 2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )   |
| <ul style="list-style-type: none"> <li>• for auxiliary contacts               <ul style="list-style-type: none"> <li>— solid or stranded</li> </ul> </li> </ul>   |   |

|   |                                    |
|---|------------------------------------|
| <b>tightening torque</b>  |                                    |
| <ul style="list-style-type: none"> <li>for main contacts with screw-type terminals</li> <li>for auxiliary contacts with screw-type terminals</li> </ul> | 0.8 ... 1.2 N·m<br>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 size 2                    |
| <b>design of the thread of the connection screw</b>   |                                    |
| <ul style="list-style-type: none"> <li>for main contacts</li> <li>of the auxiliary and control contacts</li> </ul>                                      | M3<br>M3                           |

**Safety related data**

|   |              |
|---|--------------|
| product function suitable for safety function   | Yes          |
| <b>suitability for use</b>  |              |
| <ul style="list-style-type: none"> <li>safety-related switching on</li> <li>safety-related switching OFF</li> </ul>                               | No<br>Yes    |
| <b>service life maximum</b>   | 10 a         |
| <b>test wear-related service life necessary</b>   | Yes          |
| <b>proportion of dangerous failures</b>   |              |
| <ul style="list-style-type: none"> <li>with low demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> </ul> | 40 %<br>50 % |
| <b>B10 value with high demand rate according to SN 31920</b>  | 5 000        |
| <b>failure rate [FIT] with low demand rate according to SN 31920</b>  | 50 FIT       |

**ISO 13849**

|  |     |
|--|-----|
| <b>device type according to ISO 13849-1</b>                | 3   |
| <b>overdimensioning according to ISO 13849-2 necessary</b> | Yes |

**IEC 61508**

|  |        |
|--|--------|
| <b>safety device type according to IEC 61508-2</b> | Type A |
|--|--------|

**Electrical Safety**

|  |  |
|--|--|
| <b>protection class IP on the front according to IEC 60529</b> | IP20   |
| <b>touch protection on the front according to IEC 60529</b>    | finger-safe, for vertical contact from the front |

**Display**

|                                      |               |
|--------------------------------------|---------------|
| display version for switching status | Rocker switch |
|--------------------------------------|---------------|

**Approvals Certificates**

**General Product Approval**



[KC](#)



|                                 |                                       |                          |                             |
|---------------------------------|---------------------------------------|--------------------------|-----------------------------|
| <b>General Product Approval</b> | <b>For use in hazardous locations</b> | <b>Test Certificates</b> | <b>Maritime application</b> |
|---------------------------------|---------------------------------------|--------------------------|-----------------------------|



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



**Maritime application**



|              |                |                    |
|--------------|----------------|--------------------|
| <b>other</b> | <b>Railway</b> | <b>Environment</b> |
|--------------|----------------|--------------------|



[Confirmation](#)

[Miscellaneous](#)



[Special Test Certificate](#)

[Environmental Confirmations](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3RV1011-1DA15>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-1DA15>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1DA15>

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

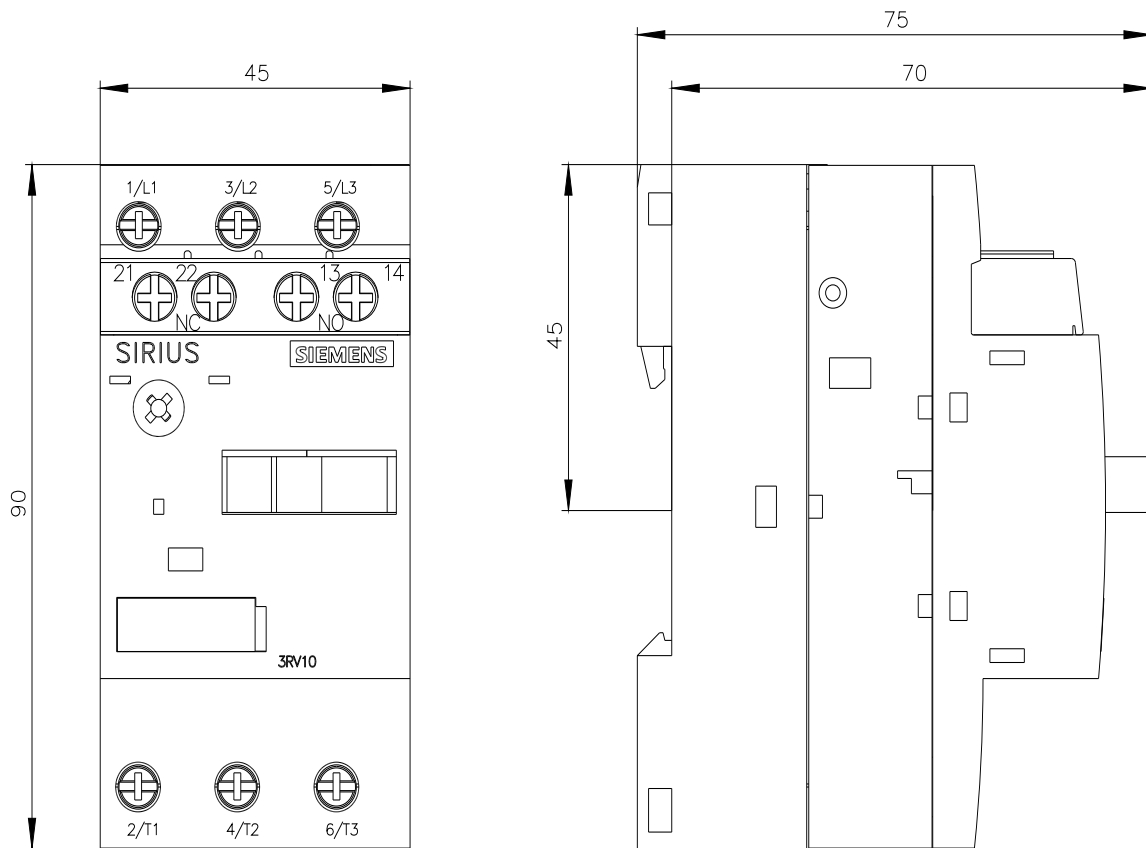
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV1011-1DA15&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-1DA15&lang=en)

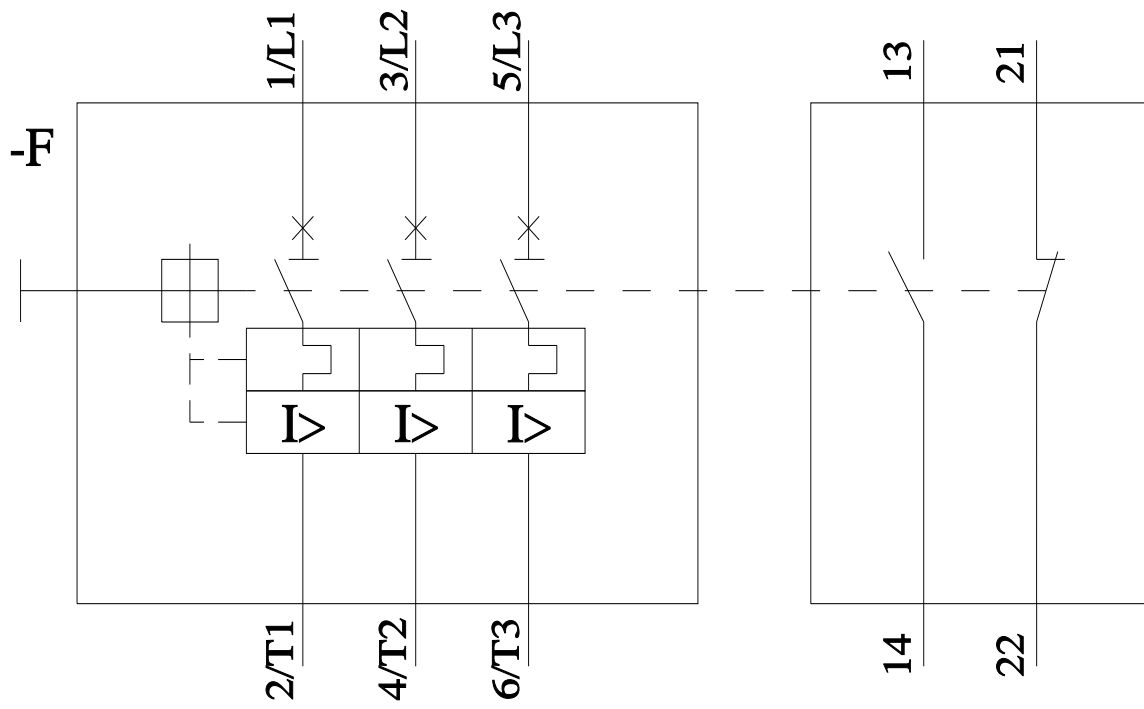
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1DA15/char>

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

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV1011-1DA15&objecttype=14&gridview=view1>





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