



Circuit breaker size S0 for motor protection, CLASS 10 A-release 5.5...8 A N-release 104 A screw terminal Standard switching capacity

|  |                      |
|--|----------------------|
| <b>product brand name</b>  | SIRIUS               |
| <b>product designation</b>   | Circuit breaker      |
| <b>design of the product</b>   | For motor protection |
| <b>product type designation</b>  | 3RV2                 |
| <b>General technical data</b>  |                      |
| <b>size of the circuit-breaker</b>   | S0                   |
| <b>size of contactor can be combined company-specific</b>                                  | S00, S0              |
| product extension auxiliary switch   | Yes                  |
| <b>power loss [W] for rated value of the current</b>                                       |                      |
| • at AC in hot operating state   | 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                |
| <b>surge voltage resistance rated value</b>  | 6 kV                 |
| <b>shock resistance according to IEC 60068-2-27</b>  | 25g / 11 ms          |
| <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>type of protection according to ATEX directive 2014/34/EU</b>                           | Ex II (2) GD         |
| certificate of suitability according to ATEX directive 2014/34/EU                          | DMT 02 ATEX F 001    |
| <b>reference code according to IEC 81346-2</b>   | Q                    |
| <b>Substance Prohibitance (Date)</b>   | 10/01/2009           |
| <b>SVHC substance name</b>   | Blei - 7439-92-1     |
| <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> | 5.5 ... 8 A          |
| <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>   | 8 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>   | 8 A<br>8 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> | 1.5 kW<br>3 kW<br>4 kW<br>5.5 kW<br>1.5 kW<br>3 kW<br>4 kW<br>5.5 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>number of NC contacts for auxiliary contacts</b>   |  |
| <ul style="list-style-type: none"> <li></li> </ul>  | 0  |
| <b>number of NO contacts for auxiliary contacts</b>   |  |
| <ul style="list-style-type: none"> <li></li> </ul>  | 0  |
| <b>number of CO contacts for auxiliary contacts</b>   |  |
|   | 0  |
| <b>Protective and monitoring functions</b>  |  |
| <b>product function</b>   |  |
| <ul style="list-style-type: none"> <li>ground fault detection</li> <li>phase failure detection</li> </ul>   | No<br>Yes  |
| <b>trip class</b>   | CLASS 10   |
| <b>design of the overload release</b>   | thermal  |
| <b>maximum short-circuit current breaking capacity (I<sub>cu</sub>)</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  |
| <b>operating short-circuit current breaking capacity (I<sub>cs</sub>) 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>response value current of instantaneous short-circuit trip unit</b>  | 104 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>  | 8 A<br>8 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>           | 0.33 hp<br>1 hp<br>2 hp<br>2 hp<br>5 hp<br>5 hp                          |
| <b>Short-circuit protection</b>   |  |
| <b>product function short circuit protection</b>  | Yes  |
| <b>design of the short-circuit trip</b>   | magnetic   |
| <b>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>   | 97 mm  |

|  |   |
|--|---|
| <b>width</b>   | 45 mm   |
| <b>depth</b>   | 97 mm   |
| <b>required spacing</b>  |   |
| <ul style="list-style-type: none"> <li>● with side-by-side mounting at the side</li> </ul>   | 0 mm  |
| <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>   | 30 mm<br>30 mm<br>9 mm  |
| <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>   | 30 mm<br>30 mm<br>9 mm  |
| <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>   | 30 mm<br>30 mm<br>9 mm  |
| <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>   | 30 mm<br>30 mm<br>9 mm  |
| <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>            | 50 mm<br>50 mm<br>0 mm<br>30 mm<br>0 mm   |
| <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>                | 50 mm<br>50 mm<br>0 mm<br>30 mm<br>0 mm   |
| <b>Connections/ Terminals</b>  |   |
| <b>type of electrical connection</b>   |   |
| <ul style="list-style-type: none"> <li>● for main current circuit</li> </ul>   | screw-type terminals  |
| <b>arrangement of electrical connectors for main current circuit</b>   | Top and bottom  |
| <b>type of connectable conductor cross-sections</b>  |   |
| <ul style="list-style-type: none"> <li>● for main contacts <ul style="list-style-type: none"> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>● for AWG cables for main contacts</li> </ul> | 2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )<br>2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup><br>2x (16 ... 12), 2x (14 ... 8) |
| <b>tightening torque</b>   |   |
| <ul style="list-style-type: none"> <li>● for main contacts with screw-type terminals</li> </ul>  | 2 ... 2.5 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> </ul>  | M4  |
| <b>Safety related data</b>   |   |
| <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>  | 50 %<br>50 %  |
| <b>failure rate [FIT] with low demand rate according to SN 31920</b>   | 50 FIT  |
| <b>B10 value with high demand rate according to SN 31920</b>   | 5 000   |
| IEC 61508  |   |
| <b>T1 value for proof test interval or service life according to IEC 61508</b>   | 10 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  |

## Approvals Certificates

## General Product Approval

[Confirmation](#)[KC](#)

## General Product Approval

## For use in hazardous locations

## Test Certificates

## Marine / Shipping

[Type Test Certificates/Test Report](#)[Special Test Certificate](#)

## Marine / Shipping

## other

[Miscellaneous](#)

## other

## Railway

## Environment

[Confirmation](#)[Confirmation](#)[EPD Typ II/III \(with life cycle assessment\)](#)

## Further information

## Information on the packaging

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

## 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=3RV2021-1HA10>

## Cax online generator

<http://support.automation.siemens.com/WWW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-1HA10>

## Service&amp;Support (Manuals, Certificates, Characteristics, FAQs,...)

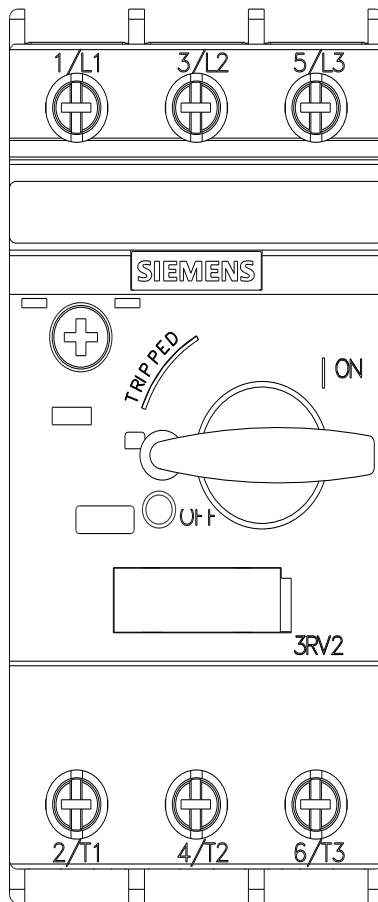
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1HA10>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2021-1HA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-1HA10&lang=en)Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-1HA10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-1HA10&objecttype=14&gridview=view1>





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