



Circuit breaker size S0 for motor protection, CLASS 10 A-release 18...25 A N-release 325 A Spring-type terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC

|  |                      |
|--|----------------------|
| <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   | 10.5 W               |
| • at AC in hot operating state per pole  | 3.5 W                |
| insulation voltage with degree of pollution 3 at AC rated value                            | 690 V                |
| <b>surge voltage resistance rated value</b>  | 6 kV                 |
| <b>maximum permissible voltage for safe isolation in networks with grounded star point</b> |                      |
| • 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          |
| <b>mechanical service life (switching cycles)</b>  |                      |
| • of the main contacts typical   | 100 000              |
| • of auxiliary contacts typical  | 100 000              |
| electrical endurance (switching 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 acc. to IEC 81346-2</b>  | 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       |
| • ambient temperature during storage   | -50 ... +80 °C       |
| • ambient temperature during transport   | -50 ... +80 °C       |
| <b>temperature compensation</b>  | -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>   | 18 ... 25 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>   | 25 A  |
| operational current at AC-3 at 400 V rated value   | 25 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>   | 5 500 W<br>11 000 W<br>15 000 W<br>22 000 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>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  | 325 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>   | 25 A<br>25 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> | 2 hp<br>3 hp<br>5 hp<br>7.5 hp<br>15 hp     |
| <b>contact rating of auxiliary contacts according to UL</b>  | C300 / R300                                 |

| Short-circuit protection  |  |
|---|--|
| product function short circuit protection   | Yes  |
| design of the short-circuit trip  | magnetic   |
| design of the fuse link <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)  |
| design of the fuse link for IT network for short-circuit protection of the main circuit <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 50 A   |
| Installation/ mounting/ dimensions  |  |
| mounting position   | any  |
| fastening method  | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715   |
| height  | 119 mm   |
| width   | 45 mm  |
| depth   | 97 mm  |
| required spacing <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>30 mm<br>30 mm<br>9 mm<br>30 mm<br>30 mm<br>9 mm<br>30 mm<br>30 mm<br>9 mm<br>50 mm<br>50 mm<br>0 mm<br>30 mm<br>0 mm<br>50 mm<br>50 mm<br>0 mm<br>30 mm<br>0 mm |
| Connections/ Terminals  |  |
| product function removable terminal for auxiliary and control circuit   | No   |
| type of electrical connection <ul style="list-style-type: none"> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> </ul>   | spring-loaded terminals<br>spring-loaded terminals   |
| arrangement of electrical connectors for main current circuit   | Top and bottom   |
| type of connectable conductor cross-sections <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>   | 2x (1 ... 10 mm <sup>2</sup> )<br>2x (1 ... 6 mm <sup>2</sup> )  |

|   |                                   |
|---|-----------------------------------|
| — finely stranded without core end processing       | 2x (1 ... 6 mm <sup>2</sup> )     |
| • at AWG cables for main contacts                   | 2x (18 ... 8)                     |
| <b>type of connectable conductor cross-sections</b> |                                   |
| • for auxiliary contacts                            |                                   |
| — solid or stranded                                 | 2x (0.5 ... 2.5 mm <sup>2</sup> ) |
| — finely stranded with core end processing          | 2x (0.5 ... 1.5 mm <sup>2</sup> ) |
| — finely stranded without core end processing       | 2x (0.5 ... 1.5 mm <sup>2</sup> ) |
| • at AWG cables for auxiliary contacts              | 2x (20 ... 14)                    |
| <b>design of screwdriver shaft</b>                  | Diameter 3 mm                     |
| <b>size of the screwdriver tip</b>                  | 3,0 x 0,5 mm                      |

**Safety related data**

|   |  |
|---|--|
| <b>B10 value</b>  |  |
| • 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**

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



[KC](#)



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



[Miscellaneous](#)



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



**Marine / Shipping**



**other**      **Railway**

[Confirmation](#)



[Confirmation](#)

[Vibration and Shock](#)

## 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=3RV2021-4DA25>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2021-4DA25>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4DA25>

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

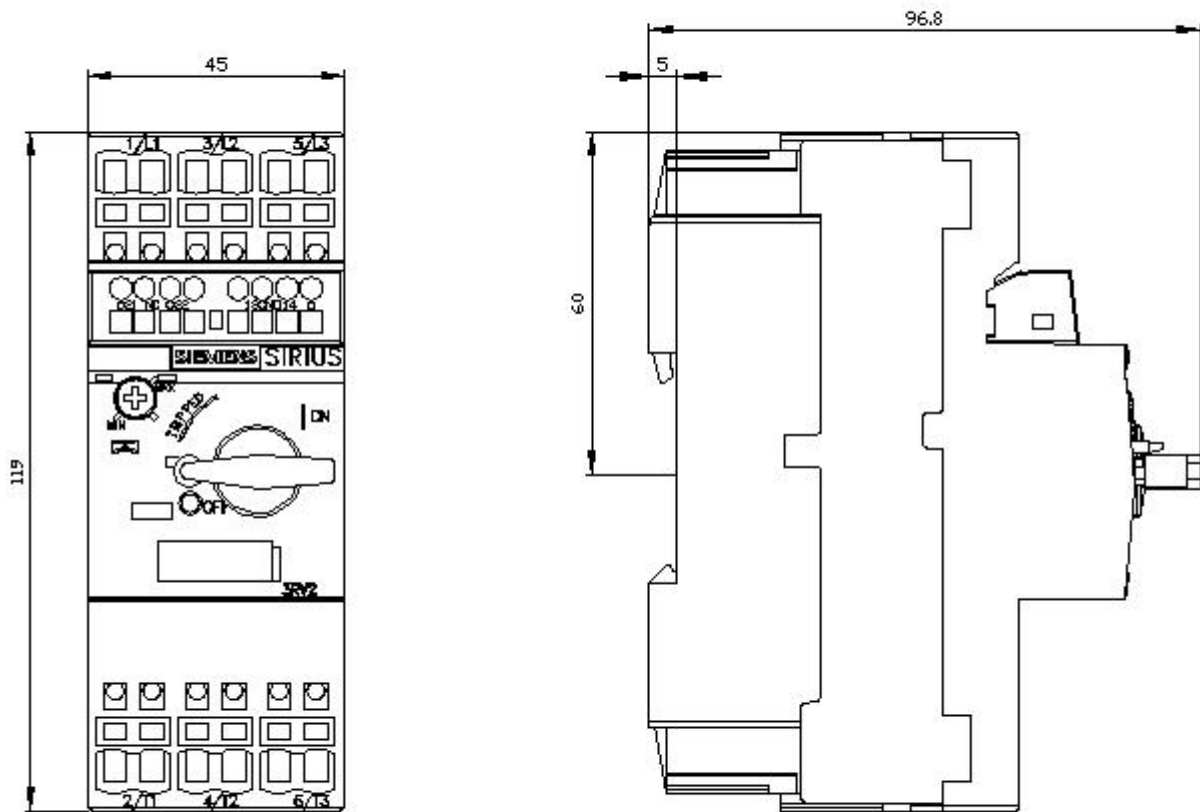
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2021-4DA25&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2021-4DA25&lang=en)

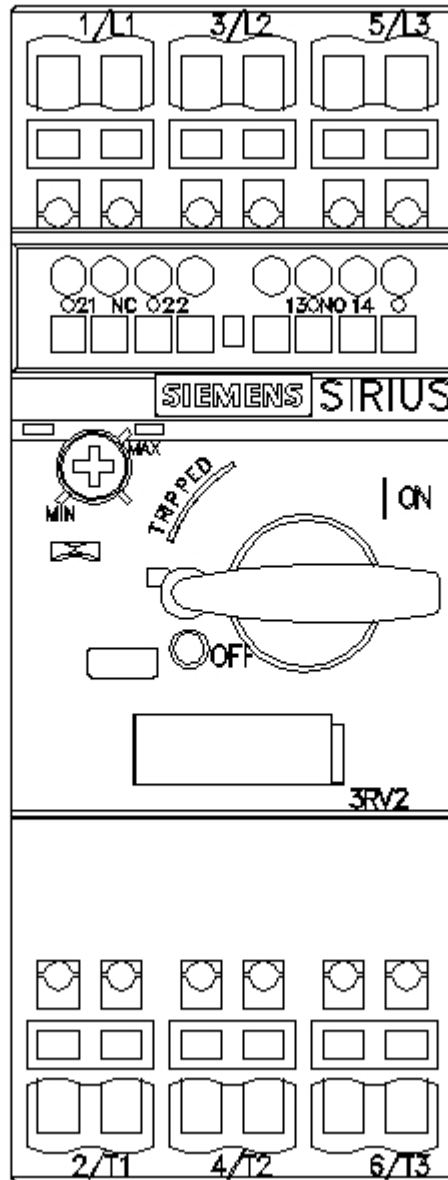
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

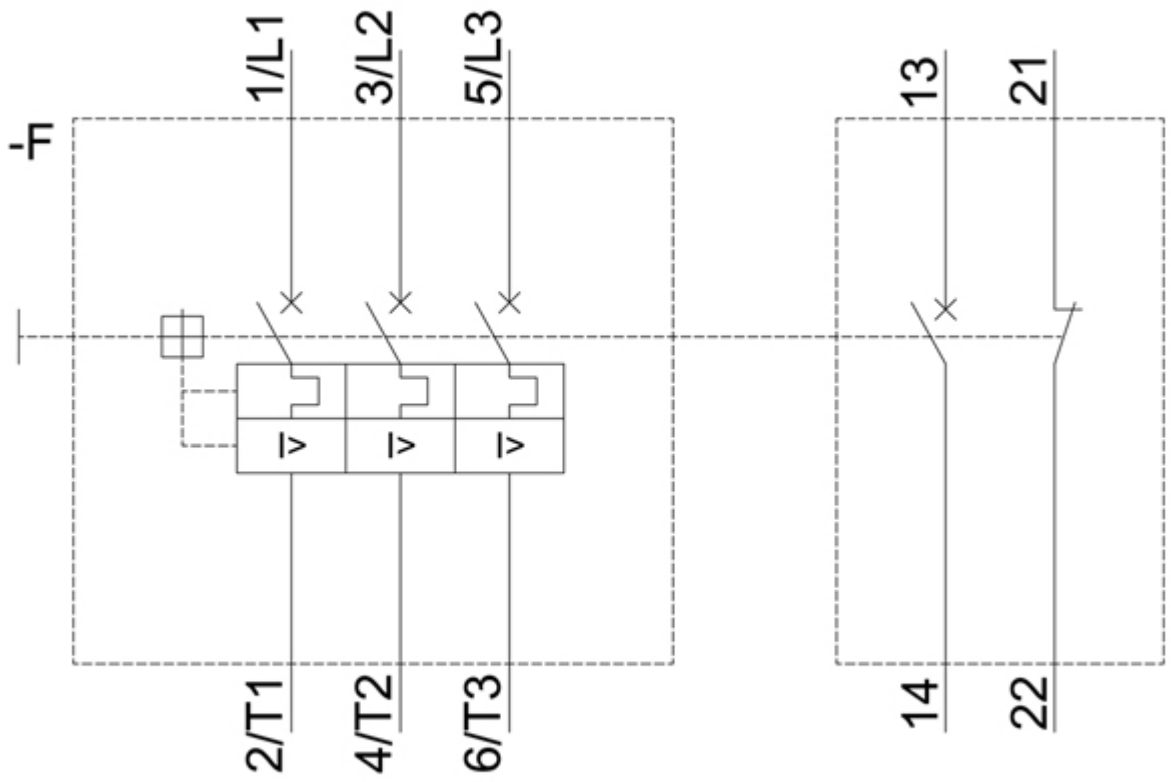
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2021-4DA25/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2021-4DA25&objecttype=14&gridview=view1>







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