



Fuseless motor starter Direct start 600VAC Size S0 1.1-1.6A 220/240VAC 50/60HZ screw connection For screw mounting Or 35 mm rail-mounting Type of coordination 2 IQ = 150 KA Also full fills type Of coordination 1 1NO+1NC (contactor)

|                                                                                     |                               |
|-------------------------------------------------------------------------------------|-------------------------------|
| product brand name                                                                  | SIRIUS                        |
| product designation                                                                 | non-fused motor starter 3RA2  |
| design of the product                                                               | direct starter                |
| manufacturer's article number                                                       |                               |
| • of the supplied contactor                                                         | <a href="#">3RT2023-1AP60</a> |
| • of the supplied circuit-breakers                                                  | <a href="#">3RV2011-1AA10</a> |
| • of the supplied link module                                                       | <a href="#">3RA2921-1AA00</a> |
| <b>General technical data</b>                                                       |                               |
| size of the circuit-breaker                                                         | S00                           |
| size of load feeder                                                                 | S0                            |
| product extension auxiliary switch                                                  | Yes                           |
| insulation voltage with degree of pollution 3 at AC rated value                     | 690 V                         |
| degree of pollution                                                                 | 3                             |
| surge voltage resistance rated value                                                | 6 kV                          |
| shock resistance according to IEC 60068-2-27                                        | 6g / 11 ms                    |
| mechanical service life (operating cycles) of contactor typical                     | 10 000 000                    |
| type of coordination                                                                | 2                             |
| Net Weight                                                                          | 0.76 kg                       |
| <b>Ambient conditions</b>                                                           |                               |
| ambient temperature                                                                 |                               |
| • during operation                                                                  | -20 ... +60 °C                |
| • during storage                                                                    | -50 ... +80 °C                |
| • during transport                                                                  | -55 ... +80 °C                |
| <b>Main circuit</b>                                                                 |                               |
| number of poles for main current circuit                                            | 3                             |
| design of the switching contact                                                     | electromechanical             |
| adjustable current response value current of the current-dependent overload release | 1.1 ... 1.6 A                 |
| operating voltage                                                                   |                               |
| • rated value                                                                       | 690 V                         |
| • at AC-3 rated value maximum                                                       | 690 V                         |
| operating frequency rated value                                                     | 50 ... 60 Hz                  |
| operational current at AC-3 at 400 V rated value                                    | 1.5 A                         |
| operating power at AC-3                                                             |                               |
| • at 400 V rated value                                                              | 550 W                         |
| • at 500 V rated value                                                              | 550 W                         |
| • at 690 V rated value                                                              | 1 100 W                       |
| <b>Control circuit/ Control</b>                                                     |                               |
| control supply voltage at AC                                                        |                               |

|                                                                                                                                                                                                                          |                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> </ul>                                                                                                                                                 | 220 V                                                                 |
| <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> </ul>                                                                                                                                                 | 176 ... 242 V                                                         |
| <ul style="list-style-type: none"> <li>• at 60 Hz rated value</li> </ul>                                                                                                                                                 | 240 V                                                                 |
| <ul style="list-style-type: none"> <li>• at 60 Hz rated value</li> </ul>                                                                                                                                                 | 192 ... 264 V                                                         |
| <b>apparent holding power of magnet coil at AC</b>                                                                                                                                                                       | 7.2 VA                                                                |
| <b>inductive power factor with the holding power of the coil</b>                                                                                                                                                         | 0.28                                                                  |
| <b>Auxiliary circuit</b>                                                                                                                                                                                                 |                                                                       |
| <b>number of NC contacts for auxiliary contacts</b>                                                                                                                                                                      | 1                                                                     |
| <b>number of NO contacts for auxiliary contacts</b>                                                                                                                                                                      | 1                                                                     |
| <b>Protective and monitoring functions</b>                                                                                                                                                                               |                                                                       |
| <b>trip class</b>                                                                                                                                                                                                        | CLASS 10                                                              |
| <b>design of the overload release</b>                                                                                                                                                                                    | thermal (bimetallic)                                                  |
| <b>response value current of instantaneous short-circuit trip unit</b>                                                                                                                                                   | 20.8 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> </ul>                                                                                                                                                 | 1.6 A                                                                 |
| <ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>                                                                                                                                                 | 1.3 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 230 V rated value</li> </ul> </li> </ul>                                                                  | 0.1 hp                                                                |
| <ul style="list-style-type: none"> <li>• for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 460/480 V rated value</li> </ul> </li> </ul>                                                                   | 0.75 hp                                                               |
| <ul style="list-style-type: none"> <li>— at 575/600 V rated value</li> </ul>                                                                                                                                             | 0.75 hp                                                               |
| <b>Short-circuit protection</b>                                                                                                                                                                                          |                                                                       |
| <b>product function short circuit protection</b>                                                                                                                                                                         | Yes                                                                   |
| <b>design of the short-circuit trip</b>                                                                                                                                                                                  | magnetic                                                              |
| <b>conditional short-circuit current (I<sub>q</sub>)</b>                                                                                                                                                                 |                                                                       |
| <ul style="list-style-type: none"> <li>• at 400 V according to IEC 60947-4-1 rated value</li> </ul>                                                                                                                      | 153 000 A                                                             |
| <b>Installation/ mounting/ dimensions</b>                                                                                                                                                                                |                                                                       |
| <b>mounting position</b>                                                                                                                                                                                                 | vertical                                                              |
| <b>fastening method</b>                                                                                                                                                                                                  | Snap-mounted to DIN rail or screw-mounted with additional push-in lug |
| <b>height</b>                                                                                                                                                                                                            | 193.1 mm                                                              |
| <b>width</b>                                                                                                                                                                                                             | 45 mm                                                                 |
| <b>depth</b>                                                                                                                                                                                                             | 97.1 mm                                                               |
| <b>required spacing</b>                                                                                                                                                                                                  |                                                                       |
| <ul style="list-style-type: none"> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> </ul> </li> </ul> | 10 mm<br>0 mm<br>30 mm<br>9 mm<br>10 mm                               |
| <ul style="list-style-type: none"> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul>     | 10 mm<br>0 mm<br>30 mm<br>10 mm<br>9 mm                               |
| <b>Connections/ Terminals</b>                                                                                                                                                                                            |                                                                       |
| <b>type of electrical connection for main current circuit</b>                                                                                                                                                            | screw-type terminals                                                  |
| <b>type of connectable conductor cross-sections for main contacts stranded</b>                                                                                                                                           | 1 ... 10 mm <sup>2</sup> , 2x (2.5 ... 6 mm <sup>2</sup> )            |
| <b>connectable conductor cross-section for main contacts finely stranded with core end processing</b>                                                                                                                    | 1 ... 6 mm <sup>2</sup>                                               |
| <b>Safety related data</b>                                                                                                                                                                                               |                                                                       |
| <b>proportion of dangerous failures with high demand rate according to SN 31920</b>                                                                                                                                      | 73 %                                                                  |
| <b>B10 value with high demand rate according to SN 31920</b>                                                                                                                                                             | 1 000 000                                                             |
| <b>Electrical Safety</b>                                                                                                                                                                                                 |                                                                       |
| <b>protection class IP on the front according to IEC 60529</b>                                                                                                                                                           | IP20                                                                  |

touch protection on the front according to IEC 60529

finger-safe, for vertical contact from the front

## Approvals Certificates

General Product Approval

For use in hazard-  
ous locations

other



[Confirmation](#)

## Environment

[Environmental Con-  
firmations](#)

## 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=3RA2120-1AA23-0AP6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1AA23-0AP6>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2120-1AA23-0AP6&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1AA23-0AP6&lang=en)

### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1AA23-0AP6>

### Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>)



