

Fuseless motor starter Direct start 600VAC Size S0 0.55-0.8A  
 220/240VAC 50/60HZ screw connection For snapping onto 60 mm  
 busbar systems Type of coordination 2 IQ = 150 KA Also full fills type  
 Of coordination 1 1NO+1NC (contactor)



|  |  |
|--|--|
| <b>Product brand name</b>  | SIRIUS   |
| <b>Product designation</b>   | non-fused motor starter 3RA2   |
| <b>Design of the product</b>   | direct starter   |
| <b>Manufacturer's article number</b>   |  |
| <ul style="list-style-type: none"> <li>• of the supplied contactor</li> <li>• of the supplied circuit-breakers</li> <li>• of the supplied busbar adapter</li> <li>• of the supplied link module</li> </ul> | <a href="#">3RT2023-1AP60</a><br><a href="#">3RV2011-0HA10</a><br><a href="#">8US1251-5NT10</a><br><a href="#">3RA2921-1AA00</a> |

| General technical data   |       |
|--|-------|
| <b>Size of the circuit-breaker</b>   | S00   |
| <b>Size of load feeder</b>   | S0    |
| <b>Product extension</b>   |       |
| <ul style="list-style-type: none"> <li>• Auxiliary switch</li> </ul>                             | Yes   |
| <b>Insulation voltage</b>  |       |
| <ul style="list-style-type: none"> <li>• with degree of pollution 3 at AC rated value</li> </ul> | 690 V |
| <b>Degree of pollution</b>   | 3     |
| <b>Surge voltage resistance rated value</b>  | 6 kV  |
| <b>Protection class IP</b>   |       |
| <ul style="list-style-type: none"> <li>• on the front</li> </ul>                                 | IP20  |

|   |            |
|---|------------|
| • of the terminal                                 | IP00       |
| <b>Shock resistance</b>                           |            |
| • acc. to IEC 60068-2-27                          | 6g / 11 ms |
| <b>Mechanical service life (switching cycles)</b> |            |
| • of contactor typical                            | 10 000 000 |
| <b>Type of assignment</b>                         | 2          |

#### Main circuit

|   |                   |
|---|-------------------|
| <b>Number of poles for main current circuit</b>                                   | 3                 |
| <b>Design of the switching contact</b>  | electromechanical |
| <b>Adjustable pick-up value current of the current-dependent overload release</b> | 0.55 ... 0.8 A    |
| <b>Operating voltage</b>  |                   |
| • rated value   | 690 V             |
| • at AC-3 rated value maximum   | 690 V             |
| <b>Operating frequency rated value</b>  | 50 ... 60 Hz      |
| <b>Operating current</b>  |                   |
| • at AC-3   |                   |
| — at 400 V rated value  | 0.6 A             |
| <b>Operating power</b>  |                   |
| • at AC-3   |                   |
| — at 400 V rated value  | 180 W             |
| — at 500 V rated value  | 250 W             |
| — at 690 V rated value  | 370 W             |

#### Control circuit/ Control

|  |               |
|--|---------------|
| <b>Control supply voltage at AC</b>                              |               |
| • at 50 Hz rated value   | 220 V         |
| • at 50 Hz rated value   | 176 ... 242 V |
| • at 60 Hz rated value   | 240 V         |
| • at 60 Hz rated value   | 192 ... 264 V |
| <b>Apparent holding power of magnet coil at AC</b>               | 7.2 V·A       |
| <b>Inductive power factor with the holding power of the coil</b> | 0.28          |

#### Auxiliary circuit

|   |   |
|---|---|
| <b>Number of NC contacts for auxiliary contacts</b> | 1 |
| <b>Number of NO contacts for auxiliary contacts</b> | 1 |

#### Protective and monitoring functions

|  |                      |
|--|----------------------|
| <b>Trip class</b>                          | CLASS 10             |
| <b>Design of the overload release</b>      | thermal (bimetallic) |
| <b>Response value current</b>              |                      |
| • of instantaneous short-circuit trip unit | 10.4 A               |

#### Short-circuit protection

|  |           |
|--|-----------|
| <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 acc. to IEC 60947-4-1 rated value</li> </ul> | 153 000 A |

### Installation/ mounting/ dimensions

|  |  |
|--|--|
| <b>Mounting position</b>   | vertical   |
| <b>Mounting type</b>   | for snapping onto 60 mm busbar systems   |
| <b>Height</b>  | 260 mm   |
| <b>Width</b>   | 45 mm  |
| <b>Depth</b>   | 155 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> <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>9 mm<br>10 mm<br><br>10 mm<br>0 mm<br>30 mm<br>10 mm<br>9 mm |




### Connections/ Terminals

|  |   |
|--|---|
| <b>Type of electrical connection</b>   |   |
| <ul style="list-style-type: none"> <li>• for main current circuit</li> </ul>   | screw-type terminals  |
| <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>— stranded</li> </ul> </li> <li>• at AWG conductors for main contacts</li> </ul> | 1 ... 10 mm <sup>2</sup> , 2x (2.5 ... 6 mm <sup>2</sup> )<br>2x (16 ... 12), 2x (14 ... 8) |
| <b>Connectable conductor cross-section for main contacts</b>   |   |
| <ul style="list-style-type: none"> <li>• finely stranded with core end processing</li> </ul>   | 1 ... 6 mm <sup>2</sup>   |

### Safety related data

|  |           |
|--|-----------|
| <b>B10 value</b>   |           |
| <ul style="list-style-type: none"> <li>• with high demand rate acc. to SN 31920</li> </ul> | 1 000 000 |
| <b>Proportion of dangerous failures</b>  |           |
| <ul style="list-style-type: none"> <li>• with high demand rate acc. to SN 31920</li> </ul> | 73 %      |

### Certificates/ approvals

| General Product Approval  | For use in hazardous locations  | Declaration of Conformity   | other                        |
|---|---|---|------------------------------|
|  | <br>ATEX | <br>EG-Konf. | <a href="#">Confirmation</a> |

#### 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=3RA2120-0HD23-0AP6>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-0HD23-0AP6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-0HD23-0AP6>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2120-0HD23-0AP6&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-0HD23-0AP6&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-0HD23-0AP6/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-0HD23-0AP6&objecttype=14&gridview=view1>







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