

Fuseless motor starter Direct start 600VAC Size S0 3.5-5A  
 110/120VAC 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 (MSP) 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> </ul>        | <a href="#">3RT2024-1AK60</a> |
| <ul style="list-style-type: none"> <li>• of the supplied circuit-breakers</li> </ul> | <a href="#">3RV2011-1FA15</a> |
| <ul style="list-style-type: none"> <li>• of the supplied busbar adapter</li> </ul>   | <a href="#">8US1251-5NT10</a> |
| <ul style="list-style-type: none"> <li>• of the supplied link module</li> </ul>      | <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       |
| <ul style="list-style-type: none"> <li>• of the terminal</li> </ul>                              | IP00       |
| <b>Shock resistance</b>  |            |
| <ul style="list-style-type: none"> <li>• acc. to IEC 60068-2-27</li> </ul>                       | 6g / 11 ms |
| <b>Mechanical service life (switching cycles)</b>  |            |
| <ul style="list-style-type: none"> <li>• of contactor typical</li> </ul>                         | 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> | 3.5 ... 5 A       |
| <b>Operating voltage</b>  |                   |
| <ul style="list-style-type: none"> <li>• rated value</li> </ul>                   | 690 V             |
| <ul style="list-style-type: none"> <li>• at AC-3 rated value maximum</li> </ul>   | 690 V             |
| <b>Operating frequency rated value</b>  | 50 ... 60 Hz      |

|   |                    |
|---|--------------------|
| <b>Operating current</b>  |                    |
| <ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul> </li> </ul>                                 | 3.6 A              |
| <b>Operating power</b>  |                    |
| <ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> </ul> </li> </ul> | 1 500 W<br>2 200 W |

### Control circuit/ Control

|  |  |
|--|--|
| <b>Control supply voltage at AC</b>  |  |
| <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul> | 110 V<br>88 ... 121 V<br>120 V<br>96 ... 132 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> | 2 |
| <b>Number of NO contacts for auxiliary contacts</b> | 2 |

### Protective and monitoring functions

|  |                      |
|--|----------------------|
| <b>Trip class</b>  | CLASS 10             |
| <b>Design of the overload release</b>  | thermal (bimetallic) |
| <b>Response value current</b>  |                      |
| <ul style="list-style-type: none"> <li>• of instantaneous short-circuit trip unit</li> </ul> | 65 A                 |

### UL/CSA ratings

|   |   |
|---|---|
| <b>Full-load current (FLA) for three-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>  | 4.8 A<br>4.55 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 three-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> | 0.17 hp<br>0.5 hp<br>1 hp<br>1 hp<br>3 hp<br>3 hp |

### 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> |           |
| • at 400 V acc. to IEC 60947-4-1 rated value             | 153 000 A |
| • at 500 V acc. to IEC 60947-4-1 rated value             | 100 000 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>  |  |
| • for grounded parts     |  |
| — forwards               | 10 mm                                  |
| — Backwards              | 0 mm                                   |
| — upwards                | 30 mm                                  |
| — at the side            | 9 mm                                   |
| — downwards              | 10 mm                                  |
| • for live parts         |  |
| — forwards               | 10 mm                                  |
| — Backwards              | 0 mm                                   |
| — upwards                | 30 mm                                  |
| — downwards              | 10 mm                                  |
| — at the side            | 9 mm                                   |

### Connections/ Terminals

|  |  |
|--|--|
| <b>Type of electrical connection</b>                         |  |
| • for main current circuit                                   | screw-type terminals                                       |
| <b>Type of connectable conductor cross-sections</b>          |  |
| • for main contacts  |  |
| — stranded   | 1 ... 10 mm <sup>2</sup> , 2x (2.5 ... 6 mm <sup>2</sup> ) |
| • at AWG conductors for main contacts                        | 2x (16 ... 12), 2x (14 ... 8)                              |
| <b>Connectable conductor cross-section for main contacts</b> |  |
| • finely stranded with core end processing                   | 1 ... 6 mm <sup>2</sup>                                    |

### Safety related data

|  |           |
|--|-----------|
| <b>B10 value</b>                         |           |
| • with high demand rate acc. to SN 31920 | 1 000 000 |
| <b>Proportion of dangerous failures</b>  |           |
| • with high demand rate acc. to SN 31920 | 73 %      |

### Certificates/ approvals

|                          |                                |                           |
|--------------------------|--------------------------------|---------------------------|
| General Product Approval | For use in hazardous locations | Declaration of Conformity |
|--------------------------|--------------------------------|---------------------------|



[Miscellaneous](#)

|                   |                   |
|-------------------|-------------------|
| Test Certificates | Marine / Shipping |
|-------------------|-------------------|

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



|                   |       |         |
|-------------------|-------|---------|
| Marine / Shipping | other | Railway |
|-------------------|-------|---------|



[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=3RA2125-1FD24-0AK6>

### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2125-1FD24-0AK6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2125-1FD24-0AK6>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2125-1FD24-0AK6&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2125-1FD24-0AK6&lang=en)

### Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2125-1FD24-0AK6/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2125-1FD24-0AK6&objecttype=14&gridview=view1>

last modified:

03/05/2020