



Fuseless motor starter Direct start 600VAC Size S0 5.5-8Amp 110/120VAC 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 (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> <li>• of the supplied circuit-breakers</li> <li>• of the supplied link module</li> </ul> | <a href="#">3RT2024-1AK60</a><br><a href="#">3RV2011-1HA15</a><br><a href="#">3RA2921-1AA00</a> |
| <b>General technical data</b>  |   |
| <b>size of the circuit-breaker</b>   | S00   |
| <b>size of load feeder</b>   | S0  |
| product extension auxiliary switch   | Yes   |
| insulation voltage with degree of pollution 3 at AC rated value  | 690 V   |
| <b>degree of pollution</b>   | 3   |
| <b>surge voltage resistance rated value</b>  | 6 kV  |
| shock resistance according to IEC 60068-2-27   | 6g / 11 ms  |
| mechanical service life (switching cycles) of contactor typical  | 10 000 000  |
| <b>type of assignment</b>  | 2   |
| <b>Ambient conditions</b>  |   |
| <b>ambient temperature</b>   |   |
| <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul>                                       | -20 ... +60 °C<br>-50 ... +80 °C<br>-55 ... +80 °C  |
| <b>Main circuit</b>  |   |
| <b>number of poles for main current circuit</b>  | 3   |
| <b>design of the switching contact</b>   | electromechanical   |
| <b>adjustable current response value current of the current-dependent overload release</b>   | 5.5 ... 8 A   |
| <b>operating voltage</b>   |   |
| <ul style="list-style-type: none"> <li>• rated value</li> <li>• at AC-3 rated value maximum</li> </ul>   | 690 V<br>690 V  |
| <b>operating frequency rated value</b>   | 50 ... 60 Hz  |
| operational current at AC-3 at 400 V rated value   | 6.5 A   |
| operating power at AC-3  |   |
| <ul style="list-style-type: none"> <li>• at 400 V rated value</li> <li>• at 500 V rated value</li> </ul>   | 3 000 W<br>4 000 W  |
| <b>Control circuit/ Control</b>  |   |
| <b>control supply voltage at AC</b>  |   |
| <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> </ul>   | 110 V   |

|   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul>  | 88 ... 121 V<br>120 V<br>96 ... 132 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>   | 2   |
| <b>number of NO contacts for auxiliary contacts</b>   | 2   |
| <b>Protective and monitoring functions</b>  |   |
| <b>trip class</b>   | CLASS 10  |
| <b>design of the overload release</b>   | thermal (bimetallic)  |
| response value current of instantaneous short-circuit trip unit   | 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>  | 7.92 A<br>6.33 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>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> <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>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</b>   |   |
| <ul style="list-style-type: none"> <li>• for main contacts stranded</li> <li>• at AWG cables 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) |
| connectable conductor cross-section for main contacts finely stranded with core end processing  | 1 ... 6 mm <sup>2</sup>   |
| <b>Safety related data</b>  |   |
| B10 value with high demand rate according to SN 31920   | 1 000 000   |

|  |  |
|--|--|
| proportion of dangerous failures with high demand rate according to SN 31920 | 73 %   |
| protection class IP on the front according to IEC 60529                      | IP20   |
| touch protection on the front according to IEC 60529                         | finger-safe, for vertical contact from the front |

#### Certificates/ approvals

|   |                                |   |
|---|--------------------------------|---|
| General Product Approval  | For use in hazardous locations | Declaration of Conformity   |
|  | <a href="#">Confirmation</a>   |    |
|   |                                |    |
|   |                                |  |
|   |                                |  |

|   |  |   |
|---|--|---|
| Declaration of Conformity   | Test Certificates                                  | Marine / Shipping   |
|  | <a href="#">Special Test Certificate</a>           |    |
|   | <a href="#">Type Test Certificates/Test Report</a> |  |
|   |  |  |

|  |  |                                     |
|--|--|-------------------------------------|
| Marine / Shipping  | other  | Railway                             |
|  |  | <a href="#">Confirmation</a>        |
|  |  | <a href="#">Vibration and Shock</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=3RA2125-1HA24-0AK6>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2125-1HA24-0AK6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2125-1HA24-0AK6>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2125-1HA24-0AK6&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2125-1HA24-0AK6&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2125-1HA24-0AK6/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2125-1HA24-0AK6&objecttype=14&gridview=view1>

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