

FUSELESS MOTOR STARTER DIRECT START 600V AC SZ S0 27-32A 24V DC  
SCREW CONNECTION FOR SNAPPING ONTO 60 MM BUSBAR SYSTEMS  
TYPE OF COORDINATION 2 IQ = 150 KA ALSO FULFILLS TYPE OF  
COORDINATION 1 1NO+1NC (MSP) 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="#">3RT2027-1BB40</a> |
| • of the supplied circuit-breakers                                                  | <a href="#">3RV2021-4EA15</a> |
| • of the supplied busbar adapter                                                    | <a href="#">8US1251-5NT10</a> |
| • of the supplied link module                                                       | <a href="#">3RA2921-1BA00</a> |
| <b>General technical data</b>                                                       |                               |
| size of the circuit-breaker                                                         | S0                            |
| 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 assignment                                                                  | 2                             |
| Weight                                                                              | 1.25 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 | 27 ... 32 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                                    | 29 A                          |
| operating power at AC-3                                                             |                               |
| • at 400 V rated value                                                              | 15 000 W                      |
| • at 500 V rated value                                                              | 18 500 W                      |
| <b>Control circuit/ Control</b>                                                     |                               |
| control supply voltage at DC rated value                                            | 24 V                          |
| holding power of magnet coil at DC                                                  | 5.9 W                         |
| <b>Auxiliary circuit</b>                                                            |                               |
| number of NC contacts for auxiliary contacts                                        | 2                             |
| number of NO contacts for auxiliary contacts                                        | 2                             |
| <b>Protective and monitoring functions</b>                                          |                               |
| trip class                                                                          | CLASS 10                      |
| design of the overload release                                                      | thermal (bimetallic)          |
| response value current of instantaneous short-circuit trip unit                     | 416 A                         |
| <b>UL/CSA ratings</b>                                                               |                               |
| full-load current (FLA) for 3-phase AC motor                                        |                               |

|                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                        |                                                                                           |                                                                                     |                                                                                               |                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------------|
| <ul style="list-style-type: none"><li>• at 480 V rated value</li><li>• at 600 V rated value</li></ul>                                                                                                                                                                                                                                                                                                          | 27 A<br>27 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><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> | 5 hp<br><br>10 hp<br>10 hp<br>20 hp<br>25 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><li>• at 500 V according to IEC 60947-4-1 rated value</li></ul>                                                                                                                                                                                           | 153 000 A<br>100 000 A                                                                 |                                                                                           |                                                                                     |                                                                                               |                                                    |
| <b>Installation/ mounting/ dimensions</b>                                                                                                                                                                                                                                                                                                                                                                      |                                                                                        |                                                                                           |                                                                                     |                                                                                               |                                                    |
| <b>mounting position</b>                                                                                                                                                                                                                                                                                                                                                                                       | vertical                                                                               |                                                                                           |                                                                                     |                                                                                               |                                                    |
| <b>fastening method</b>                                                                                                                                                                                                                                                                                                                                                                                        | for snapping onto 60 mm busbar systems                                                 |                                                                                           |                                                                                     |                                                                                               |                                                    |
| <b>height</b>                                                                                                                                                                                                                                                                                                                                                                                                  | 260 mm                                                                                 |                                                                                           |                                                                                     |                                                                                               |                                                    |
| <b>width</b>                                                                                                                                                                                                                                                                                                                                                                                                   | 45 mm                                                                                  |                                                                                           |                                                                                     |                                                                                               |                                                    |
| <b>depth</b>                                                                                                                                                                                                                                                                                                                                                                                                   | 165 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 |                                                                                           |                                                                                     |                                                                                               |                                                    |
| <b>Connections/ Terminals</b>                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                        |                                                                                           |                                                                                     |                                                                                               |                                                    |
| type of electrical connection for main current circuit                                                                                                                                                                                                                                                                                                                                                         | screw-type terminals                                                                   |                                                                                           |                                                                                     |                                                                                               |                                                    |
| type of connectable conductor cross-sections for main contacts stranded                                                                                                                                                                                                                                                                                                                                        | 1 ... 10 mm², 2x (2.5 ... 6 mm²)                                                       |                                                                                           |                                                                                     |                                                                                               |                                                    |
| connectable conductor cross-section for main contacts finely stranded with core end processing                                                                                                                                                                                                                                                                                                                 | 1 ... 6 mm²                                                                            |                                                                                           |                                                                                     |                                                                                               |                                                    |
| <b>Safety related data</b>                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                        |                                                                                           |                                                                                     |                                                                                               |                                                    |
| proportion of dangerous failures with high demand rate according to SN 31920                                                                                                                                                                                                                                                                                                                                   | 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                                                                                   |                                                                                           |                                                                                     |                                                                                               |                                                    |
| <b>touch protection on the front according to IEC 60529</b>                                                                                                                                                                                                                                                                                                                                                    | finger-safe, for vertical contact from the front                                       |                                                                                           |                                                                                     |                                                                                               |                                                    |
| <b>Approvals Certificates</b>                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                        |                                                                                           |                                                                                     |                                                                                               |                                                    |
| General Product Approval                                                                                                                                                                                                                                                                                                                                                                                       | For use in hazardous locations                                                         | Test Certificates                                                                         |                                                                                     |                                                                                               |                                                    |
| <br>EG-Konf.                                                                                                                                                                                                                                                                                                                |     | <br>UL |  | <br>ATEX | <a href="#">Type Test Certificates/Test Report</a> |
| Test Certificates                                                                                                                                                                                                                                                                                                                                                                                              | Marine / Shipping                                                                      |                                                                                           |                                                                                     |                                                                                               |                                                    |

[Special Test Certificate](#)



| Marine / Shipping                                                                 |                                                                                   | other                        | Railway                                  | Dangerous goods                       | Environment                                 |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------|------------------------------------------|---------------------------------------|---------------------------------------------|
|  |  | <a href="#">Confirmation</a> | <a href="#">Special Test Certificate</a> | <a href="#">Transport Information</a> | <a href="#">Environmental Confirmations</a> |

#### Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

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=3RA2125-4ED27-0BB4>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2125-4ED27-0BB4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2125-4ED27-0BB4>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2125-4ED27-0BB4&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2125-4ED27-0BB4&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2125-4ED27-0BB4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2125-4ED27-0BB4&objecttype=14&gridview=view1>

last modified:

12/15/2020

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