



Load feeder fuseless, Reversing duty 400 V AC, Size S00 10.0...16.0 A 230 V AC screw terminal for 60 mm busbar systems Type of coordination 1, I<sub>q</sub> = 150 kA 1 NC (contactor)

|                                                                                     |                               |
|-------------------------------------------------------------------------------------|-------------------------------|
| product brand name                                                                  | SIRIUS                        |
| product designation                                                                 | Reversing starter             |
| design of the product                                                               | for 60 mm busbars             |
| product type designation                                                            | 3RA22                         |
| manufacturer's article number                                                       |                               |
| • of the supplied contactor                                                         | <a href="#">3RT2018-1AP02</a> |
| • of the supplied circuit-breakers                                                  | <a href="#">3RV2011-4AA10</a> |
| • of the supplied RS assembly kit                                                   | <a href="#">3RA2913-1DB1</a>  |
| • of the supplied link module                                                       | <a href="#">3RA1921-1DA00</a> |
| <b>General technical data</b>                                                       |                               |
| size of the circuit-breaker                                                         | S00                           |
| size of load feeder                                                                 | S00                           |
| power loss [W] for rated value of the current                                       |                               |
| • at AC in hot operating state per pole                                             | 4.1 W                         |
| • without load current share typical                                                | 5.7 W                         |
| insulation voltage with degree of pollution 3 at AC rated value                     | 690 V                         |
| surge voltage resistance rated value                                                | 6 kV                          |
| degree of protection NEMA rating                                                    | other                         |
| shock resistance according to IEC 60068-2-27                                        | 6g / 11 ms                    |
| mechanical service life (operating cycles) of contactor typical                     | 30 000 000                    |
| type of assignment                                                                  | 1                             |
| reference code according to IEC 81346-2:2019                                        | Q                             |
| Substance Prohibitance (Date)                                                       | 10/01/2009                    |
| SVHC substance name                                                                 | Lead - 7439-92-1              |
| Weight                                                                              | 1.74 kg                       |
| <b>Ambient conditions</b>                                                           |                               |
| ambient temperature                                                                 |                               |
| • during operation                                                                  | -20 ... +60 °C                |
| • during storage                                                                    | -50 ... +80 °C                |
| • during transport                                                                  | -50 ... +80 °C                |
| temperature compensation                                                            | -20 ... +60 °C                |
| relative humidity during operation                                                  | 10 ... 95 %                   |
| <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 | 10 ... 16 A                   |
| operating voltage                                                                   |                               |
| • rated value                                                                       | 690 V                         |
| • at AC-3 rated value maximum                                                       | 690 V                         |

|                                                                                                                                                             |                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <ul style="list-style-type: none"> <li>• at AC-3e rated value maximum</li> </ul>                                                                            | 690 V                                  |
| <b>operating frequency rated value</b>                                                                                                                      | 50 ... 60 Hz                           |
| <b>operational current</b>                                                                                                                                  |                                        |
| <ul style="list-style-type: none"> <li>• at AC-3 at 400 V rated value</li> </ul>                                                                            | 16 A                                   |
| <ul style="list-style-type: none"> <li>• at AC-3e at 400 V rated value</li> </ul>                                                                           | 16 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> </ul> </li> </ul>                       | 7 500 W                                |
| <ul style="list-style-type: none"> <li>• at AC-3e <ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul> </li> </ul>                      | 7 500 W                                |
| <b>Control circuit/ Control</b>                                                                                                                             |                                        |
| <b>type of voltage of the control supply voltage</b>                                                                                                        | AC                                     |
| <b>control supply voltage at AC</b>                                                                                                                         |                                        |
| <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> </ul>                                                                                    | 230 V                                  |
| <ul style="list-style-type: none"> <li>• at 60 Hz rated value</li> </ul>                                                                                    | 230 V                                  |
| <b>apparent holding power of magnet coil at AC</b>                                                                                                          | 5.7 VA                                 |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>                                                                                                | 5.7 VA                                 |
| <ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>                                                                                                | 4.4 VA                                 |
| <b>inductive power factor with the holding power of the coil</b>                                                                                            | 0.25                                   |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>                                                                                                | 0.25                                   |
| <ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>                                                                                                | 0.25                                   |
| <b>Auxiliary circuit</b>                                                                                                                                    |                                        |
| <b>product extension auxiliary switch</b>                                                                                                                   | Yes                                    |
| <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                                                                                             | 208 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>                                                                                    | 14 A                                   |
| <ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>                                                                                    | 11 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> </ul> </li> </ul> | 1 hp                                   |
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— at 230 V rated value</li> </ul> </li> </ul>                                | 2 hp                                   |
| <ul style="list-style-type: none"> <li>• for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 200/208 V rated value</li> </ul> </li> </ul>      | 3 hp                                   |
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— at 220/230 V rated value</li> </ul> </li> </ul>                            | 5 hp                                   |
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— at 460/480 V rated value</li> </ul> </li> </ul>                            | 10 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>                                                         | 150 000 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>                                                                                                                                               | 204 mm                                 |
| <b>width</b>                                                                                                                                                | 90 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> </ul> </li> </ul>                        | 32 mm                                  |
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— backwards</li> </ul> </li> </ul>                                           | 0 mm                                   |
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— upwards</li> </ul> </li> </ul>                                             | 50 mm                                  |
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— at the side</li> </ul> </li> </ul>                                         | 10 mm                                  |
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— downwards</li> </ul> </li> </ul>                                           | 10 mm                                  |
| <ul style="list-style-type: none"> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards</li> </ul> </li> </ul>                            | 32 mm                                  |
| <ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>— backwards</li> </ul> </li> </ul>                                           | 0 mm                                   |

|               |       |
|---------------|-------|
| — upwards     | 50 mm |
| — downwards   | 10 mm |
| — at the side | 10 mm |

#### Connections/ Terminals

##### type of electrical connection

|                                     |                      |
|-------------------------------------|----------------------|
| • for main current circuit          | screw-type terminals |
| • for auxiliary and control circuit | screw-type terminals |

#### Safety related data

|                                               |     |
|-----------------------------------------------|-----|
| product function suitable for safety function | Yes |
|-----------------------------------------------|-----|

##### Electrical Safety

|                                                      |                                                  |
|------------------------------------------------------|--------------------------------------------------|
| touch protection on the front according to IEC 60529 | finger-safe, for vertical contact from the front |
|------------------------------------------------------|--------------------------------------------------|

#### Communication/ Protocol

##### protocol is supported

|                        |    |
|------------------------|----|
| • PROFINET IO protocol | No |
| • PROFIsafe protocol   | No |

|                                             |    |
|---------------------------------------------|----|
| protocol is supported AS-Interface protocol | No |
|---------------------------------------------|----|

#### Approvals Certificates

| 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                        | Maritime application                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <a href="#">Special Test Certificate</a> | <br>ABS <br>BUREAU VERITAS <br>DNV <br>LRS <br>PRS |

| Maritime application                                                                                                                                                                    | other                        | Railway                                  | Environment                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------------------|---------------------------------------------|
| <br>RINA <br>RMRS | <a href="#">Confirmation</a> | <a href="#">Special Test Certificate</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=3RA2210-4AD18-2AP0>

##### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2210-4AD18-2AP0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2210-4AD18-2AP0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2210-4AD18-2AP0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2210-4AD18-2AP0&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2210-4AD18-2AP0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2210-4AD18-2AP0&objecttype=14&gridview=view1>





