

Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 4.50...6.30 A 24 V DC screw terminal for installation on standard mounting rail (also fulfills type of coordination 1) Type of coordination 2, I<sub>q</sub> = 150 kA 1 NO+1 NC (contactor)

|                                                                                            |                                |
|--------------------------------------------------------------------------------------------|--------------------------------|
| <b>product brand name</b>                                                                  | SIRIUS                         |
| <b>product designation</b>                                                                 | Direct (on-line) starter       |
| <b>design of the product</b>                                                               | for DIN-rail or screw mounting |
| <b>product type designation</b>                                                            | 3RA21                          |
| <b>manufacturer's article number</b>                                                       |                                |
| • of the supplied contactor                                                                | <a href="#">3RT2024-1BB40</a>  |
| • of the supplied circuit-breakers                                                         | <a href="#">3RV2011-1GA10</a>  |
| • of the supplied link module                                                              | <a href="#">3RA2921-1BA00</a>  |
| <b>General technical data</b>                                                              |                                |
| <b>size of the circuit-breaker</b>                                                         | S00                            |
| <b>size of load feeder</b>                                                                 | S0                             |
| <b>power loss [W] for rated value of the current</b>                                       |                                |
| • at AC in hot operating state per pole                                                    | 2.7 W                          |
| • without load current share typical                                                       | 5.9 W                          |
| <b>type of calculation of power loss current-dependent</b>                                 | quadratic                      |
| insulation voltage with degree of pollution 3 at AC rated value                            | 690 V                          |
| <b>surge voltage resistance rated value</b>                                                | 6 kV                           |
| <b>degree of protection NEMA rating</b>                                                    | other                          |
| <b>shock resistance according to IEC 60068-2-27</b>                                        | 6 g / 11 ms                    |
| mechanical service life (operating cycles) of contactor typical                            | 10 000 000                     |
| <b>type of coordination</b>                                                                | 2                              |
| <b>reference code according to IEC 81346-2:2019</b>                                        | Q                              |
| <b>Substance Prohibitance (day/month/year)</b>                                             | 10/01/2009                     |
| <b>SVHC substance name</b>                                                                 | Lead CAS-No. 7439-92-1         |
| <b>Net Weight</b>                                                                          | 1.015 kg                       |
| <b>Ambient conditions</b>                                                                  |                                |
| <b>ambient temperature</b>                                                                 |                                |
| • during operation                                                                         | -20 ... +60 °C                 |
| • during storage                                                                           | -50 ... +80 °C                 |
| • during transport                                                                         | -50 ... +80 °C                 |
| <b>temperature compensation</b>                                                            | -20 ... +60 °C                 |
| relative humidity during operation                                                         | 10 ... 95 %                    |
| <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> | 4.5 ... 6.3 A                  |
| <b>operating voltage</b>                                                                   |                                |
| • rated value                                                                              | 690 V                          |
| • at AC-3 rated value maximum                                                              | 690 V                          |
| • at AC-3e rated value maximum                                                             | 690 V                          |
| <b>operating frequency rated value</b>                                                     | 50 ... 60 Hz                   |
| <b>operational current</b>                                                                 |                                |
| • at AC-3 at 400 V rated value                                                             | 6.3 A                          |
| • at AC-3e at 400 V rated value                                                            | 6.3 A                          |
| <b>operating power</b>                                                                     |                                |
| • at AC-3                                                                                  |                                |
| — at 400 V rated value                                                                     | 2 200 W                        |
| • at AC-3e                                                                                 |                                |

|                                                                        |                                                  |
|------------------------------------------------------------------------|--------------------------------------------------|
| — at 400 V rated value                                                 | 2 200 W                                          |
| <b>Control circuit/ Control</b>                                        |                                                  |
| <b>type of voltage of the control supply voltage</b>                   | DC                                               |
| <b>control supply voltage at DC rated value</b>                        | 24 V                                             |
| <b>holding power of magnet coil at DC</b>                              | 5.9 W                                            |
| <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)                             |
| <b>response value current of instantaneous short-circuit trip unit</b> | 82 A                                             |
| <b>UL/CSA ratings</b>                                                  |                                                  |
| <b>full-load current (FLA) for 3-phase AC motor</b>                    |                                                  |
| • at 480 V rated value                                                 | 6.3 A                                            |
| • at 600 V rated value                                                 | 6.3 A                                            |
| <b>yielded mechanical performance [hp]</b>                             |                                                  |
| • for single-phase AC motor                                            |                                                  |
| — at 110/120 V rated value                                             | 0.25 hp                                          |
| — at 230 V rated value                                                 | 0.75 hp                                          |
| • for 3-phase AC motor                                                 |                                                  |
| — at 200/208 V rated value                                             | 2 hp                                             |
| — at 220/230 V rated value                                             | 2 hp                                             |
| — at 460/480 V rated value                                             | 5 hp                                             |
| — at 575/600 V rated value                                             | 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>               |                                                  |
| • at 400 V according to IEC 60947-4-1 rated value                      | 150 000 A                                        |
| <b>Installation/ mounting/ dimensions</b>                              |                                                  |
| <b>mounting position</b>                                               | vertical                                         |
| <b>fastening method</b>                                                | screw and snap-on mounting onto 35 mm DIN rail   |
| <b>height</b>                                                          | 193 mm                                           |
| <b>width</b>                                                           | 45 mm                                            |
| <b>depth</b>                                                           | 107 mm                                           |
| <b>required spacing</b>                                                |                                                  |
| • for grounded parts                                                   |                                                  |
| — forwards                                                             | 20 mm                                            |
| — backwards                                                            | 0 mm                                             |
| — upwards                                                              | 50 mm                                            |
| — at the side                                                          | 20 mm                                            |
| — downwards                                                            | 10 mm                                            |
| • for live parts                                                       |                                                  |
| — forwards                                                             | 20 mm                                            |
| — backwards                                                            | 0 mm                                             |
| — upwards                                                              | 50 mm                                            |
| — downwards                                                            | 10 mm                                            |
| — at the side                                                          | 20 mm                                            |
| <b>Connections/ Terminals</b>                                          |                                                  |
| <b>type of electrical connection</b>                                   |                                                  |
| • for main current circuit                                             | screw-type terminals                             |
| • for auxiliary and control circuit                                    | screw-type terminals                             |
| <b>Safety related data</b>                                             |                                                  |
| <b>product function suitable for safety function</b>                   | Yes                                              |
| <b>Electrical Safety</b>                                               |                                                  |
| <b>touch protection on the front according to IEC 60529</b>            | finger-safe, for vertical contact from the front |
| <b>Communication/ Protocol</b>                                         |                                                  |
| <b>protocol is supported</b>                                           |                                                  |

- PROFINET IO protocol
- PROFIsafe protocol

No

No

protocol is supported AS-Interface protocol

No

## Approvals Certificates

| Environment | General Product Approval | For use in hazardous locations |
|-------------|--------------------------|--------------------------------|
|-------------|--------------------------|--------------------------------|

[Environmental Confirmations](#)



## Test Certificates

## Maritime application

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



## Maritime application

## other



[Confirmation](#)

[Confirmation](#)



## Railway

## Dangerous goods

[Special Test Certificate](#)

[Transport Information](#)

## Further information

### Information on the packaging

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

### Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

### 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=3RA2120-1GA24-0BB4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1GA24-0BB4>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2120-1GA24-0BB4&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1GA24-0BB4&lang=en)

### Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1GA24-0BB4>

### Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>)

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