



Load feeder fuseless, Reversing duty 400 V AC, Size S0 3.50...5.00 A 230 V AC  
Spring-type terminal for installation on standard mounting rail with standard  
mounting rail adapter (also fulfills type of coordination 1) Type of coordination 2, I<sub>q</sub>  
= 150 kA 1 NO+1 NC (contactor)

|                                                                                     |                                |
|-------------------------------------------------------------------------------------|--------------------------------|
| product brand name                                                                  | SIRIUS                         |
| product designation                                                                 | Reversing starter              |
| design of the product                                                               | for DIN-rail or screw mounting |
| product type designation                                                            | 3RA22                          |
| manufacturer's article number                                                       |                                |
| • of the supplied contactor                                                         | <a href="#">3RT2024-2AP00</a>  |
| • of the supplied circuit-breakers                                                  | <a href="#">3RV2021-1FA20</a>  |
| • of the supplied RH assembly kit                                                   | <a href="#">3RA2923-1BB2</a>   |
| • of the supplied link module                                                       | <a href="#">3RA2921-2AA00</a>  |
| • of the supplied DIN-rail adapter                                                  | <a href="#">3RA2922-1AA00</a>  |
| <b>General technical data</b>                                                       |                                |
| size of the circuit-breaker                                                         | S0                             |
| size of load feeder                                                                 | S0                             |
| power loss [W] for rated value of the current                                       |                                |
| • at AC in hot operating state per pole                                             | 2.7 W                          |
| • without load current share typical                                                | 7.6 W                          |
| type of calculation of power loss current-dependent                                 | quadratic                      |
| 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                                        | 6 g / 11 ms                    |
| mechanical service life (operating cycles) of contactor typical                     | 10 000 000                     |
| type of coordination                                                                | 2                              |
| reference code according to IEC 81346-2:2019                                        | Q                              |
| Substance Prohibitance (day/month/year)                                             | 03/01/2017                     |
| SVHC substance name                                                                 | Lead CAS-No. 7439-92-1         |
| Net Weight                                                                          | 2.066 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 | 3.5 ... 5 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                                   | 5 A                                                         |
| • at AC-3e at 400 V rated value                                  | 5 A                                                         |
| <b>operating power</b>                                           |                                                             |
| • at AC-3                                                        |                                                             |
| — at 400 V rated value                                           | 1 500 W                                                     |
| • at AC-3e                                                       |                                                             |
| — at 400 V rated value                                           | 1 500 W                                                     |
| <b>Control circuit/ Control</b>                                  |                                                             |
| <b>type of voltage of the control supply voltage</b>             | AC                                                          |
| <b>control supply voltage at AC</b>                              |                                                             |
| • at 50 Hz rated value                                           | 230 V                                                       |
| <b>apparent holding power of magnet coil at AC</b>               | 7.6 VA                                                      |
| • at 50 Hz                                                       | 7.6 VA                                                      |
| <b>inductive power factor with the holding power of the coil</b> | 0.25                                                        |
| • at 50 Hz                                                       | 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  | 65 A                                                        |
| <b>UL/CSA ratings</b>                                            |                                                             |
| <b>full-load current (FLA) for 3-phase AC motor</b>              |                                                             |
| • at 480 V rated value                                           | 5 A                                                         |
| • at 600 V rated value                                           | 5 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                                           | 0.5 hp                                                      |
| • for 3-phase AC motor                                           |                                                             |
| — at 200/208 V rated value                                       | 1.5 hp                                                      |
| — at 220/230 V rated value                                       | 1.5 hp                                                      |
| — at 460/480 V rated value                                       | 3 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>                                          | On adapter for screw and snap-on mounting on 35 mm DIN rail |
| <b>height</b>                                                    | 269 mm                                                      |
| <b>width</b>                                                     | 90 mm                                                       |
| <b>depth</b>                                                     | 130 mm                                                      |
| <b>required spacing</b>                                          |                                                             |
| • for grounded parts                                             |                                                             |
| — forwards                                                       | 32 mm                                                       |
| — backwards                                                      | 0 mm                                                        |
| — upwards                                                        | 50 mm                                                       |
| — at the side                                                    | 10 mm                                                       |
| — downwards                                                      | 10 mm                                                       |
| • for live parts                                                 |                                                             |

|               |       |
|---------------|-------|
| — forwards    | 32 mm |
| — backwards   | 0 mm  |
| — upwards     | 50 mm |
| — downwards   | 10 mm |
| — at the side | 10 mm |

#### Connections/ Terminals

##### type of electrical connection

- |                                     |                         |
|-------------------------------------|-------------------------|
| • for main current circuit          | spring-loaded terminals |
| • for auxiliary and control circuit | spring-loaded 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

##### 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

[Special Test Certificate](#)

#### 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=3RA2220-1FF24-0AP0>

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

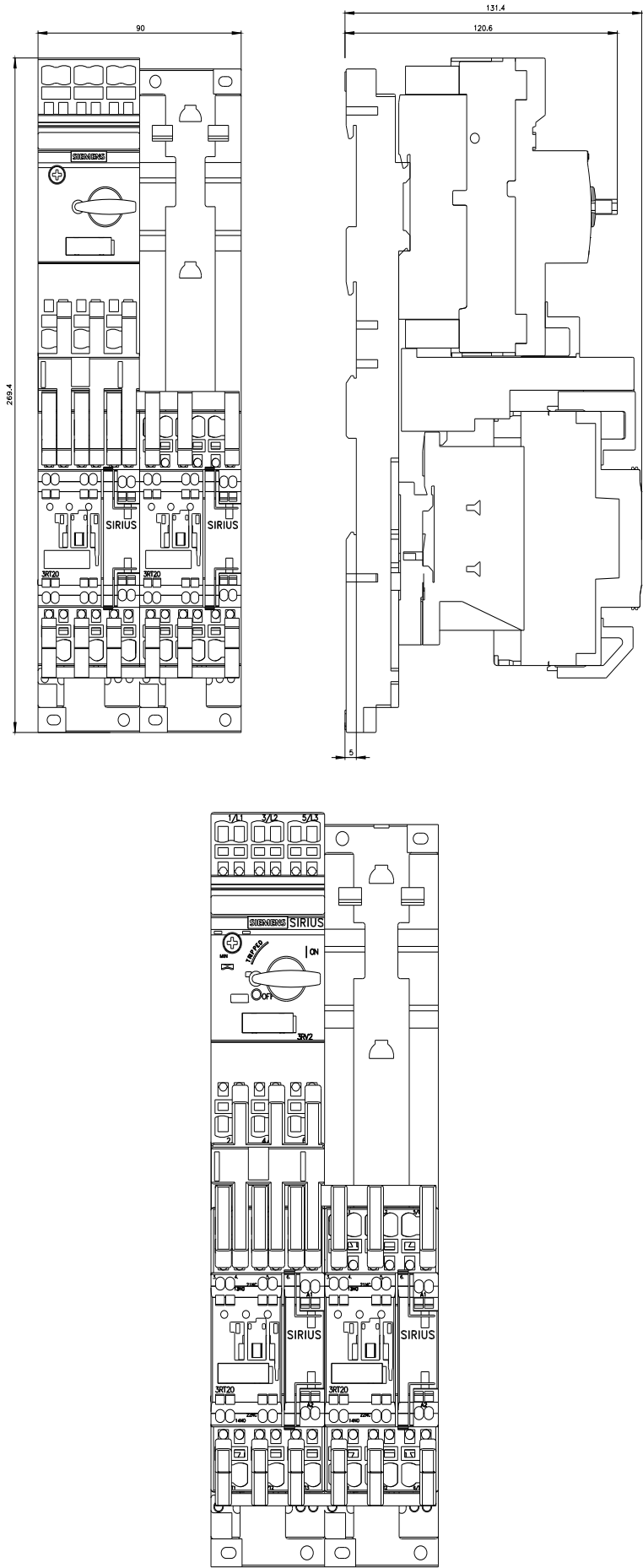
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-1FF24-0AP0>

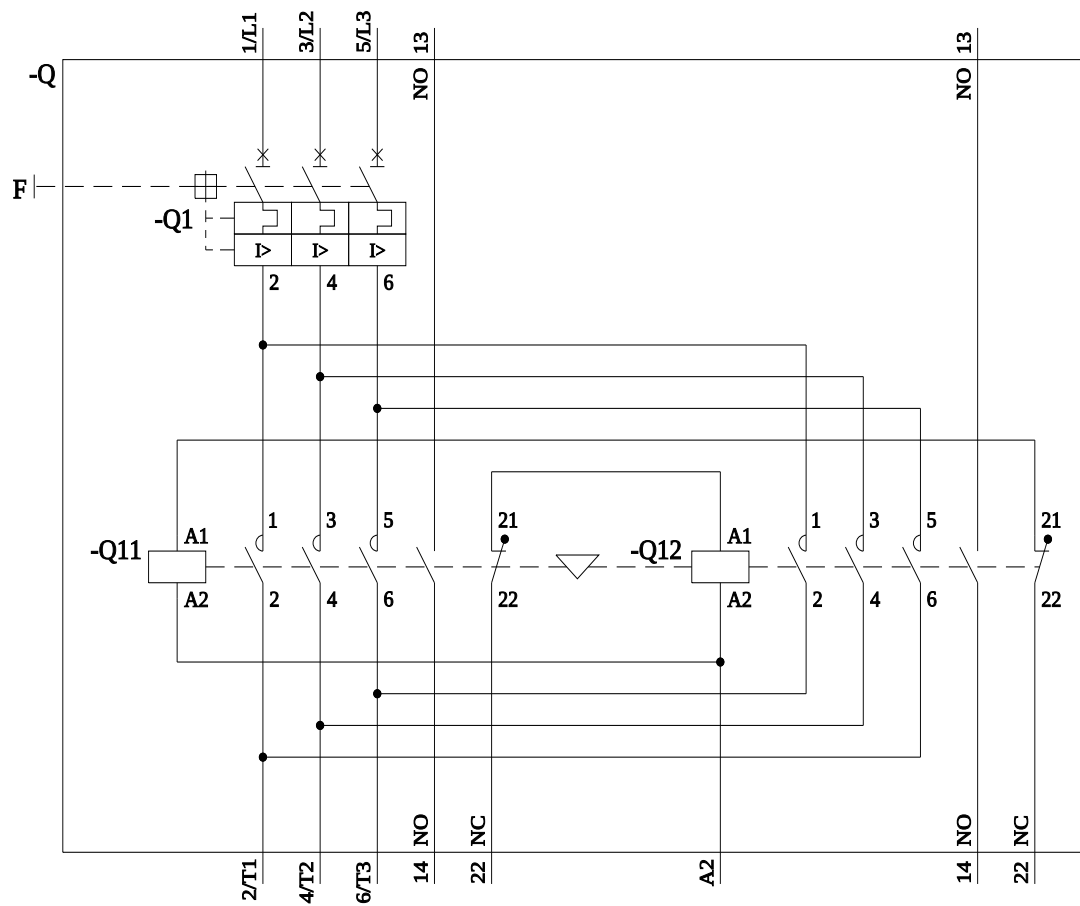
##### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2220-1FF24-0AP0&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2220-1FF24-0AP0&lang=en)

##### Cax online generator

Characteristic curves





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