



Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 27.0...32.0 A 24 V DC screw terminal for 60 mm busbar systems (also fulfills type of coordination 1)  
Type of coordination 2, I<sub>q</sub> = 150 kA 1 NO+1 NC (contactor) with diode combination plugged in at the front

|                                                                                     |                               |
|-------------------------------------------------------------------------------------|-------------------------------|
| product brand name                                                                  | SIRIUS                        |
| product designation                                                                 | Direct (on-line) starter      |
| design of the product                                                               | for 60 mm busbars             |
| product type designation                                                            | 3RA21                         |
| manufacturer's article number                                                       |                               |
| • of the supplied contactor                                                         | <a href="#">3RT2027-1FB40</a> |
| • of the supplied circuit-breakers                                                  | <a href="#">3RV2021-4EA10</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                            |
| power loss [W] for rated value of the current                                       |                               |
| • at AC in hot operating state per pole                                             | 6.7 W                         |
| • without load current share typical                                                | 5.9 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                     | 10 000 000                    |
| type of assignment                                                                  | 2                             |
| reference code according to IEC 81346-2:2019                                        | Q                             |
| SVHC substance name                                                                 | Lead - 7439-92-1              |
| Weight                                                                              | 1.492 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 | 27 ... 32 A                   |
| operating voltage                                                                   |                               |
| • 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                                         | 29 A                                   |
| • at AC-3e at 400 V rated value                                        | 29 A                                   |
| <b>operating power</b>                                                 |                                        |
| • at AC-3                                                              |                                        |
| — at 400 V rated value                                                 | 15 000 W                               |
| • at AC-3e                                                             |                                        |
| — at 400 V rated value                                                 | 15 000 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> | 400 A                                  |
| <b>UL/CSA ratings</b>                                                  |                                        |
| <b>full-load current (FLA) for 3-phase AC motor</b>                    |                                        |
| • at 480 V rated value                                                 | 27 A                                   |
| • at 600 V rated value                                                 | 27 A                                   |
| <b>yielded mechanical performance [hp]</b>                             |                                        |
| • for single-phase AC motor                                            |                                        |
| — at 110/120 V rated value                                             | 2 hp                                   |
| — at 230 V rated value                                                 | 5 hp                                   |
| • for 3-phase AC motor                                                 |                                        |
| — at 200/208 V rated value                                             | 10 hp                                  |
| — at 220/230 V rated value                                             | 10 hp                                  |
| — at 460/480 V rated value                                             | 20 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>                                                | 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>                                                |                                        |
| • 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>                                             |                                        |

|                                                      |                                                  |
|------------------------------------------------------|--------------------------------------------------|
| 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                   |



[Confirmation](#)



|                   |                   |
|-------------------|-------------------|
| Test Certificates | Marine / Shipping |
|-------------------|-------------------|

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



|                   |       |         |                 |
|-------------------|-------|---------|-----------------|
| Marine / Shipping | other | Railway | Dangerous goods |
|-------------------|-------|---------|-----------------|



[Confirmation](#)

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[Transport Information](#)

|             |
|-------------|
| Environment |
|-------------|

[Environmental Confirmations](#)

|                     |
|---------------------|
| 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=3RA2120-4ED27-0FB4>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-4ED27-0FB4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4ED27-0FB4>

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

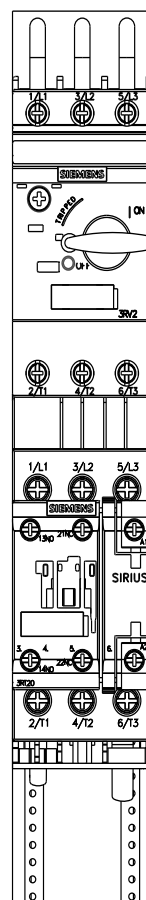
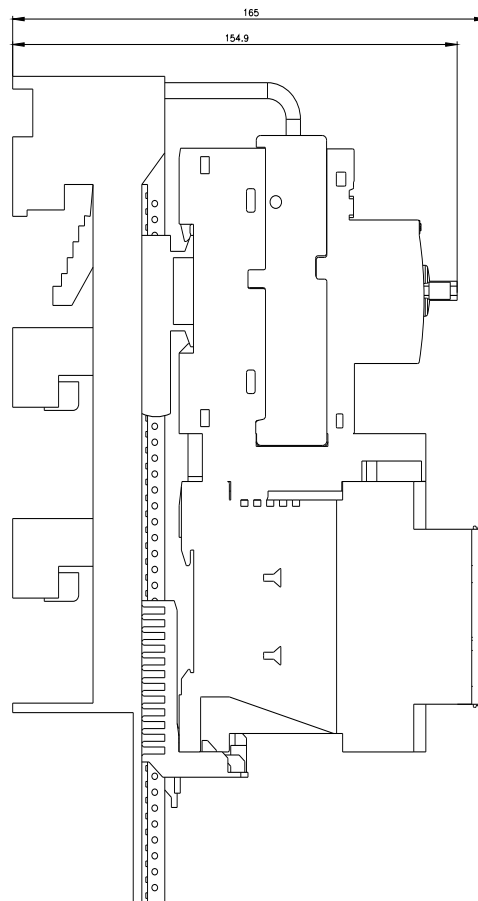
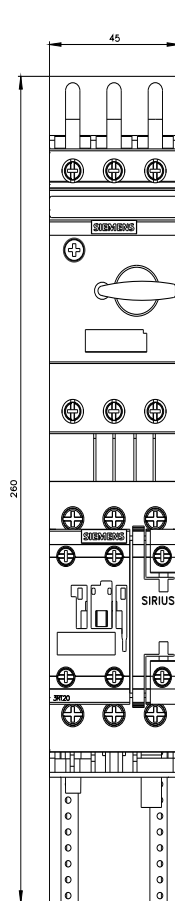
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2120-4ED27-0FB4&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-4ED27-0FB4&lang=en)

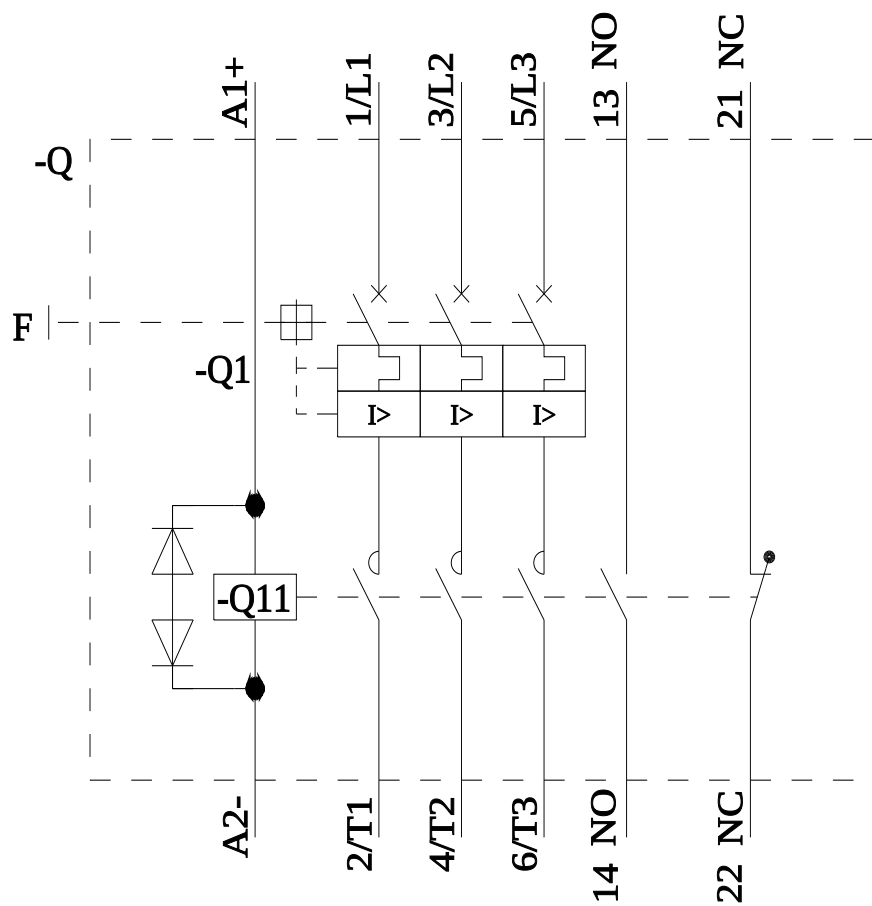
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4ED27-0FB4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-4ED27-0FB4&objecttype=14&gridview=view1>





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