



Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 13...20 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)

**product brand name**  
**product designation**  
**design of the product**  
**product type designation**  
**manufacturer's article number**

- of the supplied contactor
- of the supplied circuit-breakers
- of the supplied link module

SIRIUS  
Direct (on-line) starter  
for standard rail or screw mounting  
3RA21

[3RT2027-1BB40](#)  
[3RV2021-4BA10](#)  
[3RA2921-1BA00](#)

### General technical data

|                                                                   |                   |
|-------------------------------------------------------------------|-------------------|
| <b>size of the circuit-breaker</b>                                | S0                |
| <b>size of load feeder</b>                                        | S0                |
| 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>               | 6g / 11 ms        |
| mechanical service life (switching cycles) of contactor typical   | 10 000 000        |
| <b>type of assignment</b>                                         | 2                 |
| <b>type of protection according to ATEX directive 2014/34/EU</b>  | Ex II (2) GD      |
| certificate of suitability according to ATEX directive 2014/34/EU | DMT 02 ATEX F 001 |
| <b>Substance Prohibitance (Date)</b>                              | 10/01/2009        |

### Ambient conditions

|                                    |                |
|------------------------------------|----------------|
| <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 %    |

### Main circuit

|                                                                                            |                   |
|--------------------------------------------------------------------------------------------|-------------------|
| <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> | 13 ... 20 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>                                                                 |                   |

|                                                                                                                                                                                                                                                                                                                                                                                                      |                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at AC-3 at 400 V rated value</li> <li>• at AC-3e at 400 V rated value</li> </ul>                                                                                                                                                                                                                                                                            | 15.5 A                                                       |
| <b>operating power</b>                                                                                                                                                                                                                                                                                                                                                                               | 15.5 A                                                       |
| <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> <li>• at AC-3e <ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul> </li> </ul>                                                                                                                                                                  | 7 500 W                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                      | 7 500 kW                                                     |
| <b>Control circuit/ Control</b>                                                                                                                                                                                                                                                                                                                                                                      |                                                              |
| <b>type of voltage of the control supply voltage</b>                                                                                                                                                                                                                                                                                                                                                 | DC                                                           |
| <b>control supply voltage at DC</b>                                                                                                                                                                                                                                                                                                                                                                  |                                                              |
| <ul style="list-style-type: none"> <li>• rated value</li> <li>• rated value</li> </ul>                                                                                                                                                                                                                                                                                                               | 24 V                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                      | 24 ... 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>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>                                                                                                                                                                                                                                                                                                                                                                              | screw and snap-on mounting onto 35 mm standard mounting rail |
| <b>height</b>                                                                                                                                                                                                                                                                                                                                                                                        | 193 mm                                                       |
| <b>width</b>                                                                                                                                                                                                                                                                                                                                                                                         | 45 mm                                                        |
| <b>depth</b>                                                                                                                                                                                                                                                                                                                                                                                         | 107 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> | 20 mm                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                      | 0 mm                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                      | 50 mm                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                      | 20 mm                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                      | 10 mm                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                      | 20 mm                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                      | 0 mm                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                      | 50 mm                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                      | 10 mm                                                        |
|                                                                                                                                                                                                                                                                                                                                                                                                      | 20 mm                                                        |
| <b>Connections/ Terminals</b>                                                                                                                                                                                                                                                                                                                                                                        |                                                              |
| <b>type of electrical connection</b>                                                                                                                                                                                                                                                                                                                                                                 |                                                              |
| <ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control circuit</li> </ul>                                                                                                                                                                                                                                                                            | screw-type terminals                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                      | screw-type terminals                                         |
| <b>Safety related data</b>                                                                                                                                                                                                                                                                                                                                                                           |                                                              |
| B10 value with high demand rate according to SN 31920                                                                                                                                                                                                                                                                                                                                                | 1 000 000                                                    |
| <b>proportion of dangerous failures</b>                                                                                                                                                                                                                                                                                                                                                              |                                                              |
| <ul style="list-style-type: none"> <li>• with high demand rate according to SN 31920</li> </ul>                                                                                                                                                                                                                                                                                                      | 73 %                                                         |
| <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>                                                                                                                                                                                                                                                                                                                                                                         |                                                              |
| <ul style="list-style-type: none"> <li>• PROFINET IO protocol</li> <li>• PROFIsafe protocol</li> </ul>                                                                                                                                                                                                                                                                                               | No                                                           |
|                                                                                                                                                                                                                                                                                                                                                                                                      | No                                                           |
| protocol is supported AS-Interface protocol                                                                                                                                                                                                                                                                                                                                                          | No                                                           |
| <b>Certificates/ approvals</b>                                                                                                                                                                                                                                                                                                                                                                       |                                                              |
| <b>General Product Approval</b>                                                                                                                                                                                                                                                                                                                                                                      | <b>For use in hazard-ous locations</b>                       |
|                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Declaration of Conformity</b>                             |



[Confirmation](#)



| Declaration of Conformity | Test Certificates | Marine / Shipping |
|---------------------------|-------------------|-------------------|
|---------------------------|-------------------|-------------------|



EG-Konf.

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



ABS



BUREAU  
VERITAS



LRS

| Marine / Shipping | other | Railway |
|-------------------|-------|---------|
|-------------------|-------|---------|



PRS



RINA



RMRS



DNV-GL

[Confirmation](#)

[Vibration and Shock](#)

## Dangerous Good

[Transport Information](#)

## Further information

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=3RA2120-4BA27-0BB4>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-4BA27-0BB4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4BA27-0BB4>

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

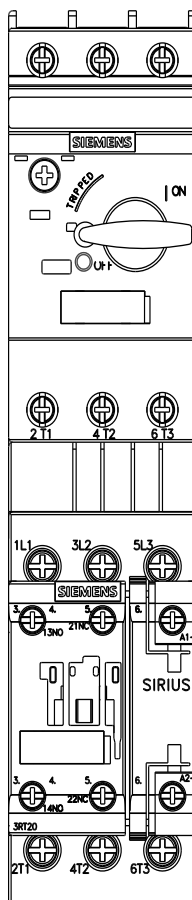
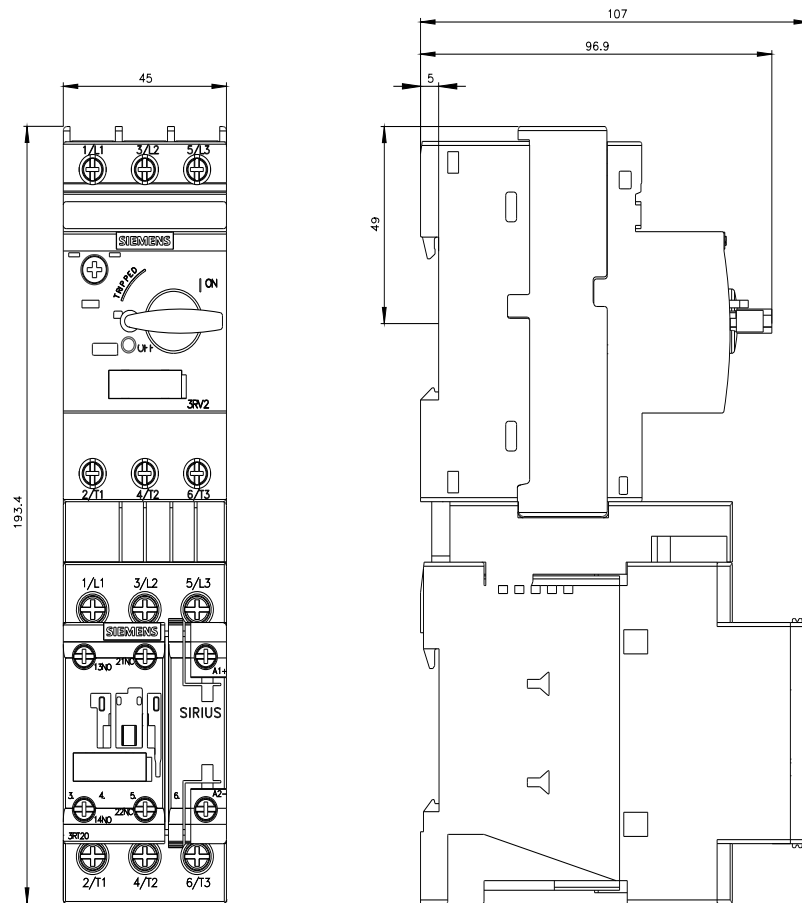
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2120-4BA27-0BB4&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-4BA27-0BB4&lang=en)

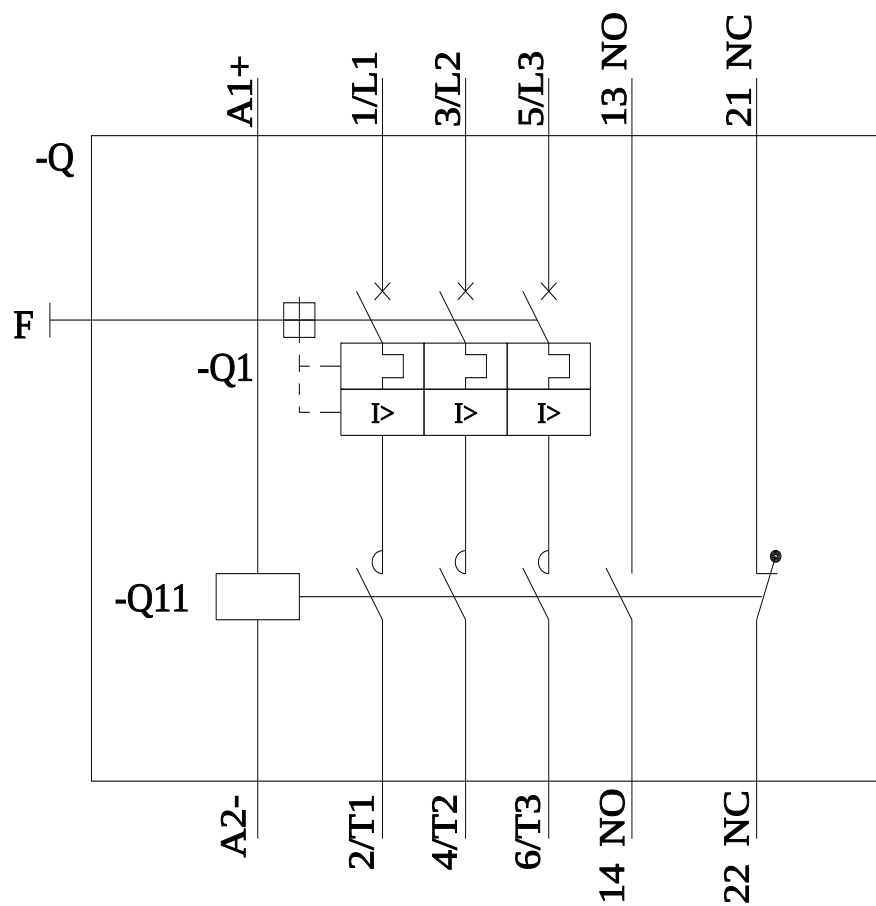
Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4BA27-0BB4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-4BA27-0BB4&objecttype=14&gridview=view1>





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