

Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0  
18...25 A 24 V DC Spring-type 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                 | SIRIUS                              |
| Product designation                | Direct (on-line) starter            |
| Design of the product              | for standard rail or screw mounting |
| Product type designation           | 3RA21                               |
| Manufacturer's article number      |                                     |
| • of the supplied contactor        | <a href="#">3RT2027-2BB40</a>       |
| • of the supplied circuit-breakers | <a href="#">3RV2021-4DA20</a>       |
| • of the supplied link module      | <a href="#">3RA2921-2AA00</a>       |

| General technical data                         |            |
|------------------------------------------------|------------|
| Size of the circuit-breaker                    | S0         |
| Size of load feeder                            | S0         |
| Insulation voltage                             |            |
| • with degree of pollution 3 at AC rated value | 690 V      |
| Surge voltage resistance rated value           | 6 kV       |
| Protection class IP                            |            |
| • on the front                                 | IP20       |
| • of the terminal                              | IP20       |
| Shock resistance                               |            |
| • acc. to IEC 60068-2-27                       | 6g / 11 ms |

|                                                                   |                   |
|-------------------------------------------------------------------|-------------------|
| <b>Mechanical service life (switching cycles)</b>                 |                   |
| • 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 |

#### Ambient conditions

|                                    |                |
|------------------------------------|----------------|
| <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 pick-up value current of the current-dependent overload release</b> | 18 ... 25 A       |
| <b>Operating voltage</b>                                                          |                   |
| • rated value                                                                     | 690 V             |
| • at AC-3 rated value maximum                                                     | 690 V             |
| <b>Operating frequency rated value</b>                                            | 50 ... 60 Hz      |
| <b>Operating current</b>                                                          |                   |
| • at AC-3                                                                         |                   |
| — at 400 V rated value                                                            | 22 A              |
| <b>Operating power</b>                                                            |                   |
| • at AC-3                                                                         |                   |
| — at 400 V rated value                                                            | 11 000 W          |

#### Control circuit/ Control

|                                                      |       |
|------------------------------------------------------|-------|
| <b>Type of voltage of the control supply voltage</b> | DC    |
| <b>Control supply voltage at DC</b>                  |       |
| • rated value                                        | 24 V  |
| <b>Holding power of magnet coil at DC</b>            | 5.9 W |

#### Auxiliary circuit

|                                           |     |
|-------------------------------------------|-----|
| <b>Product extension Auxiliary switch</b> | Yes |
|-------------------------------------------|-----|

#### Protective and monitoring functions

|                                       |                      |
|---------------------------------------|----------------------|
| <b>Trip class</b>                     | CLASS 10             |
| <b>Design of the overload release</b> | thermal (bimetallic) |

#### Short-circuit protection

|                                                          |           |
|----------------------------------------------------------|-----------|
| <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 acc. to IEC 60947-4-1 rated value             | 150 000 A |

| Installation/ mounting/ dimensions                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| <b>Mounting position</b>                                                                                                                                                                                                                                                                                                                                                                                                                                       | vertical                                                     |
| <b>Mounting type</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           | screw and snap-on mounting onto 35 mm standard mounting rail |
| <b>Height</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 243 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 20 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 50 mm</li> <li>— at the side 20 mm</li> <li>— downwards 10 mm</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards 20 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 50 mm</li> <li>— downwards 10 mm</li> <li>— at the side 20 mm</li> </ul> </li> </ul> |                                                              |
| Connections/ Terminals                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                              |
| <b>Type of electrical connection</b>                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                              |
| <ul style="list-style-type: none"> <li>• for main current circuit</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                   | spring-loaded terminals                                      |
| Safety related data                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                              |
| <b>B10 value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                              |
| <ul style="list-style-type: none"> <li>• with high demand rate acc. to SN 31920</li> </ul>                                                                                                                                                                                                                                                                                                                                                                     | 1 000 000                                                    |
| <b>Proportion of dangerous failures</b>                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                              |
| <ul style="list-style-type: none"> <li>• with high demand rate acc. to SN 31920</li> </ul>                                                                                                                                                                                                                                                                                                                                                                     | 73 %                                                         |
| Certificates/ approvals                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                              |

| General Product Approval | For use in hazardous locations | Declaration of Conformity |
|--------------------------|--------------------------------|---------------------------|
|--------------------------|--------------------------------|---------------------------|



CSA



UL



ATEX



EG-Konf.

[Miscellaneous](#)

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

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



ABS



BUREAU  
VERITAS



LRS



PRS

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



RINA



RMRS



DNVGL.COM/AF

[Confirmation](#)

[Vibration and Shock](#)

## 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=3RA2120-4DE27-0BB4>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-4DE27-0BB4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4DE27-0BB4>

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

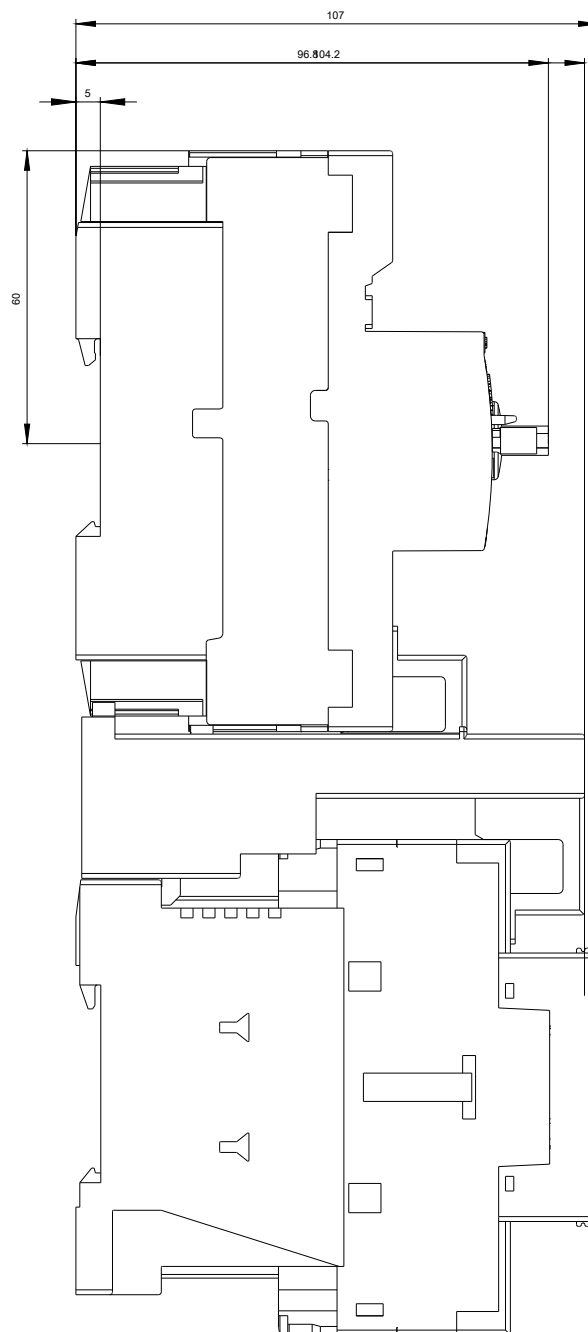
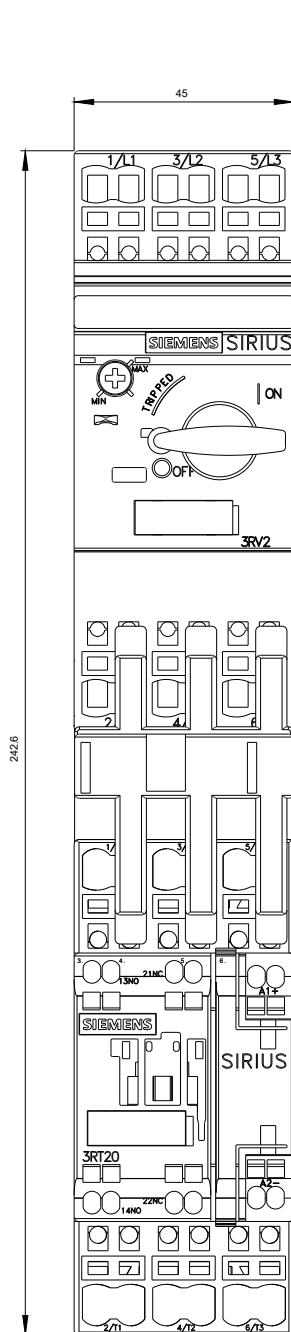
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2120-4DE27-0BB4&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-4DE27-0BB4&lang=en)

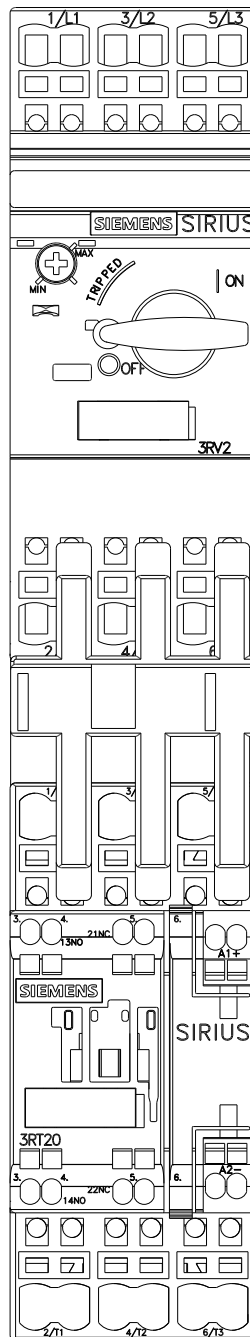
**Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current**

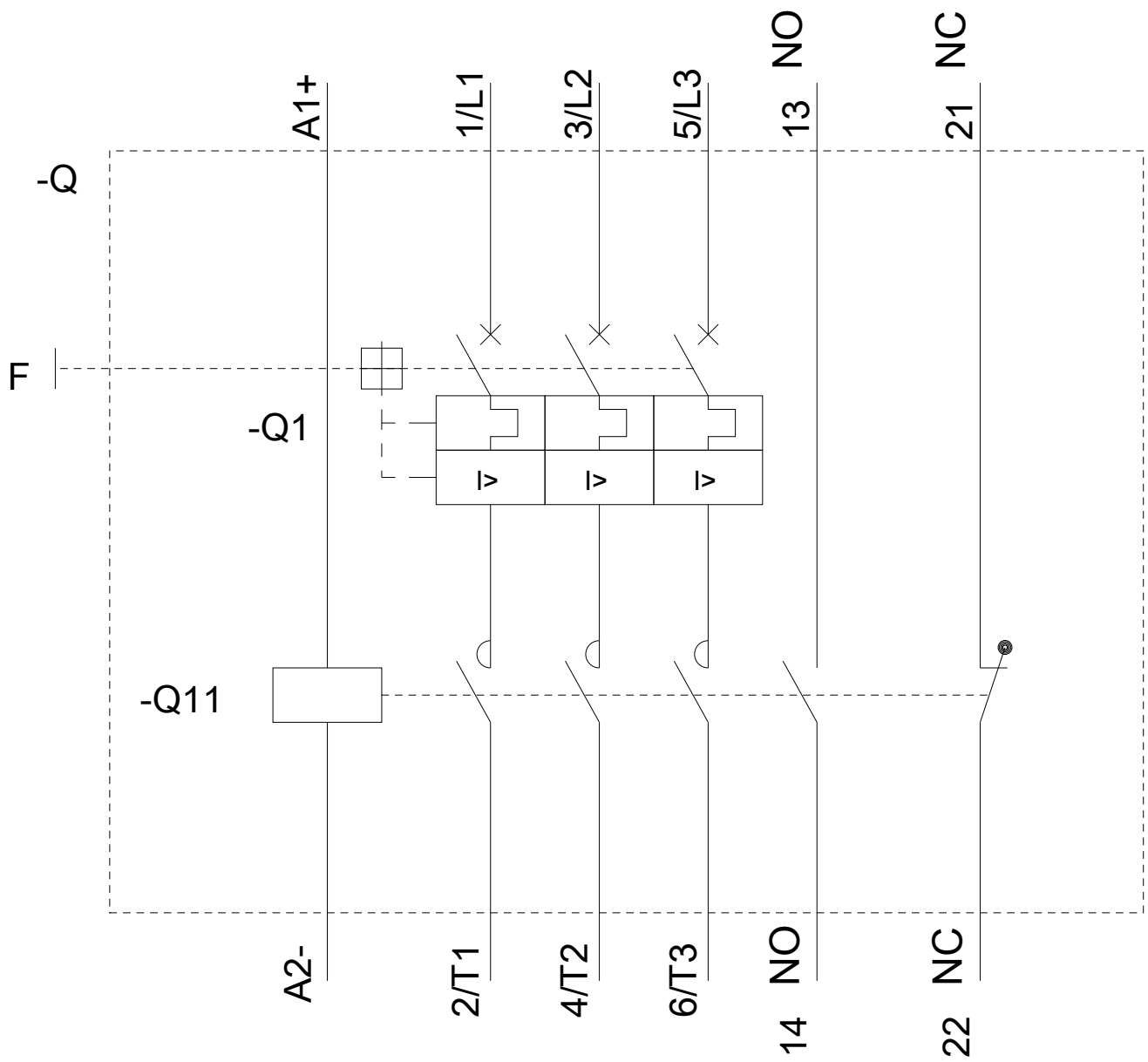
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4DE27-0BB4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-4DE27-0BB4&objecttype=14&gridview=view1>







last modified:

04/07/2020