



Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 16...22 A  
230 V AC 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)

|  |   |
|--|---|
| <b>product brand name</b>  | SIRIUS  |
| <b>product designation</b>   | Direct (on-line) starter  |
| <b>design of the product</b>   | for standard rail or screw mounting   |
| <b>product type designation</b>  | 3RA21   |
| <b>manufacturer's article number</b>   |   |
| <ul style="list-style-type: none"> <li>• of the supplied contactor</li> <li>• of the supplied circuit-breakers</li> <li>• of the supplied link module</li> </ul> | <a href="#">3RT2027-2AP00</a><br><a href="#">3RV2021-4CA20</a><br><a href="#">3RA2921-2AA00</a> |
| <b>General technical data</b>  |   |
| <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   |
| shock resistance according to IEC 60068-2-27   | 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 Prohibitation (Date)</b>  | 10/01/2009  |
| <b>Ambient conditions</b>  |   |
| <b>ambient temperature</b>   |   |
| <ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul>                                       | -20 ... +60 °C<br>-50 ... +80 °C<br>-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>   | 16 ... 22 A   |
| <b>operating voltage</b>   |   |
| <ul style="list-style-type: none"> <li>• rated value</li> <li>• at AC-3 rated value maximum</li> </ul>   | 690 V<br>690 V  |
| <b>operating frequency rated value</b>   | 50 ... 60 Hz  |

|   |  |  |                                  |
|---|--|--|----------------------------------|
| operational current at AC-3 at 400 V rated value            | 22 A   |  |                                  |
| operating power at AC-3                                     |  |  |                                  |
| • at 400 V rated value                                      | 11 000 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  |  |                                  |
| • at 50 Hz rated value                                      | 230 ... 230 V  |  |                                  |
| <b>apparent holding power of magnet coil at AC</b>          | 9.8 VA   |  |                                  |
| <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>    |  |  |                                  |
| • 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 standard mounting rail |  |                                  |
| <b>height</b>   | 243 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                                  | spring-loaded terminals                                      |  |                                  |
| • for auxiliary and control circuit                         | spring-loaded 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>                     |  |  |                                  |
| • with high demand rate according to SN 31920               | 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>                                |  |  |                                  |
| • PROFINET IO protocol                                      | No   |  |                                  |
| • PROFIsafe protocol  | 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 |
|-------------------|-------|
|-------------------|-------|



PRS



RINA



RMRS



DNV-GL

[Environmental Conformations](#)

[Confirmation](#)

| Railway |
|---------|
|---------|

[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=3RA2120-4CE27-0AP0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-4CE27-0AP0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4CE27-0AP0>

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

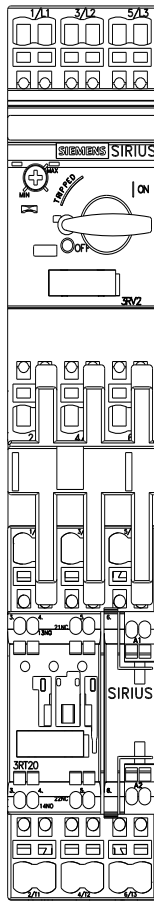
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2120-4CE27-0AP0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-4CE27-0AP0&lang=en)

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4CE27-0AP0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-4CE27-0AP0&objectype=14&gridview=view1>



last modified:

2/16/2022 