

Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 27.0...32.0 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 DIN-rail or screw mounting |
| <b>product type designation</b>  | 3RA21                          |
| <b>manufacturer's article number</b>   |                                |
| • of the supplied contactor  | <a href="#">3RT2027-2AP00</a>  |
| • of the supplied circuit-breakers   | <a href="#">3RV2021-4EA20</a>  |
| • of the supplied link module  | <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                             |
| <b>power loss [W] for rated value of the current</b>                                       |                                |
| • at AC in hot operating state per pole  | 6.7 W                          |
| • without load current share typical   | 9.8 W                          |
| <b>type of calculation of power loss current-dependent</b>                                 | quadratic                      |
| 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>  | 6 g / 11 ms                    |
| mechanical service life (operating cycles) of contactor typical                            | 10 000 000                     |
| <b>type of coordination</b>  | 2                              |
| <b>reference code according to IEC 81346-2:2019</b>  | Q                              |
| <b>Substance Prohibitance (day/month/year)</b>   | 10/01/2009                     |
| <b>Net Weight</b>  | 0.998 g                        |
| <b>Ambient conditions</b>  |                                |
| <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 %                    |
| <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> | 27 ... 32 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   | 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                       |

| Control circuit/ Control   |  |
|--|--|
| type of voltage of the control supply voltage  | AC   |
| control supply voltage at AC   |  |
| <ul style="list-style-type: none"> <li>at 50 Hz rated value</li> </ul>   | 230 V  |
| apparent holding power of magnet coil at AC  | 9.8 VA   |
| <ul style="list-style-type: none"> <li>at 50 Hz</li> </ul>   | 9.8 VA   |
| inductive power factor with the holding power of the coil  | 0.25   |
| <ul style="list-style-type: none"> <li>at 50 Hz</li> </ul>   | 0.25   |
| Auxiliary circuit  |  |
| product extension auxiliary switch   | Yes  |
| Protective and monitoring functions  |  |
| trip class   | CLASS 10   |
| design of the overload release   | thermal (bimetallic)   |
| response value current of instantaneous short-circuit trip unit  | 400 A  |
| UL/CSA ratings   |  |
| full-load current (FLA) for 3-phase AC motor   |  |
| <ul style="list-style-type: none"> <li>at 480 V rated value</li> </ul>   | 27 A   |
| <ul style="list-style-type: none"> <li>at 600 V rated value</li> </ul>   | 27 A   |
| yielded mechanical performance [hp]  |  |
| <ul style="list-style-type: none"> <li>for single-phase AC motor <ul style="list-style-type: none"> <li>at 110/120 V rated value</li> <li>at 230 V rated value</li> </ul> </li> <li>for 3-phase AC motor <ul style="list-style-type: none"> <li>at 200/208 V rated value</li> <li>at 220/230 V rated value</li> <li>at 460/480 V rated value</li> </ul> </li> </ul>          | 2 hp<br>5 hp<br>10 hp<br>10 hp<br>20 hp  |
| Short-circuit protection   |  |
| product function short circuit protection  | Yes  |
| design of the short-circuit trip   | magnetic   |
| conditional short-circuit current (I <sub>q</sub> )  |  |
| <ul style="list-style-type: none"> <li>at 400 V according to IEC 60947-4-1 rated value</li> </ul>  | 150 000 A  |
| Installation/ mounting/ dimensions   |  |
| mounting position  | vertical   |
| fastening method   | screw and snap-on mounting onto 35 mm DIN rail                                       |
| height   | 243 mm   |
| width  | 45 mm  |
| depth  | 107 mm   |
| required spacing   |  |
| <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<br>0 mm<br>50 mm<br>20 mm<br>10 mm<br>20 mm<br>0 mm<br>50 mm<br>10 mm<br>20 mm |
| Connections/ Terminals   |  |
| type of electrical connection  |  |
| <ul style="list-style-type: none"> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> </ul>  | spring-loaded terminals<br>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

|   |    |
|---|----|
| <b>protocol is supported</b>                |    |
| • PROFINET IO protocol                      | No |
| • PROFIsafe protocol                        | No |
| protocol is supported AS-Interface protocol | No |

## Approvals Certificates

| Environment | General Product Approval |
|-------------|--------------------------|
|-------------|--------------------------|

[Environmental Con-  
firmations](#)



| For use in hazard-<br>ous locations | Test Certificates | Maritime application |
|-------------------------------------|-------------------|----------------------|
|-------------------------------------|-------------------|----------------------|



[Type Test Certi-  
ficates/Test Report](#)

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cate](#)



| Maritime application | other |
|----------------------|-------|
|----------------------|-------|



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| other | Railway |
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cate](#)

## 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=3RA2120-4EE27-0AP0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4EE27-0AP0>

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

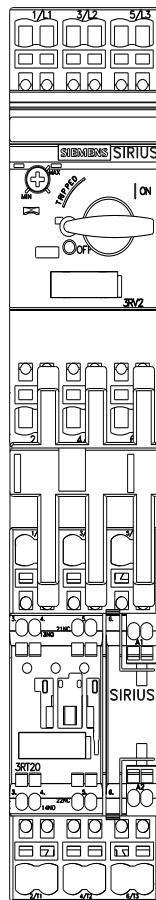
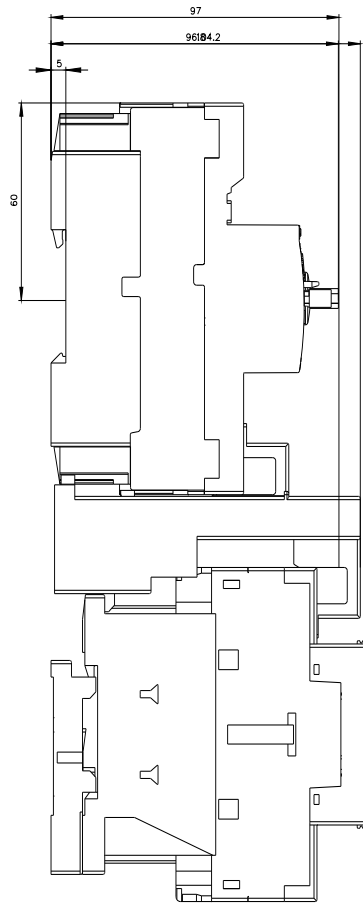
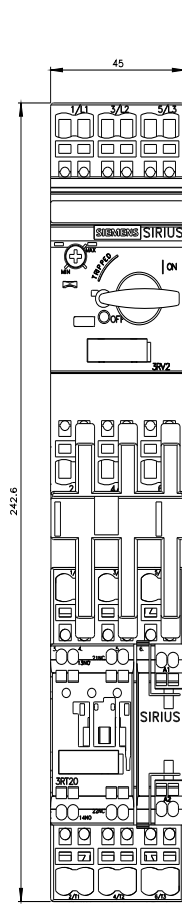
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Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-4EE27-0AP0>

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)



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