



FUSELESS LOAD FEEDER DIRECT START, AC 400V, SZ. S0, 3.5 ... 5A, AC 110/120V 50/60HZ SCREW TERMINAL FOR BUSBAR SYSTEMS 60MM TYPE OF ASSIGNMENT 2, IQ = 150KA (ALSO FULFILLS TYPE OF ASSIGNMENT 1) 1NO+1NC (CONTACTOR)

|                                                                                                                                                                                                    |                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| product brand name                                                                                                                                                                                 | SIRIUS                                                                                                                           |
| product designation                                                                                                                                                                                | non-fused load feeders 3RA2                                                                                                      |
| design of the product                                                                                                                                                                              | direct starter                                                                                                                   |
| manufacturer's article number                                                                                                                                                                      |                                                                                                                                  |
| <ul style="list-style-type: none"> <li>of the supplied contactor</li> <li>of the supplied circuit-breakers</li> <li>of the supplied busbar adapter</li> <li>of the supplied link module</li> </ul> | <a href="#">3RT2024-1AK60</a><br><a href="#">3RV2021-1FA10</a><br><a href="#">8US1251-5NT10</a><br><a href="#">3RA2921-1AA00</a> |
| <b>General technical data</b>                                                                                                                                                                      |                                                                                                                                  |
| size of the circuit-breaker                                                                                                                                                                        | S0                                                                                                                               |
| size of load feeder                                                                                                                                                                                | S0                                                                                                                               |
| product extension auxiliary switch                                                                                                                                                                 | Yes                                                                                                                              |
| insulation voltage with degree of pollution 3 at AC rated value                                                                                                                                    | 690 V                                                                                                                            |
| degree of pollution                                                                                                                                                                                | 3                                                                                                                                |
| surge voltage resistance rated value                                                                                                                                                               | 6 kV                                                                                                                             |
| 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                                                                                                                                |
| Substance Prohibitance (Date)                                                                                                                                                                      | 10/01/2009                                                                                                                       |
| <b>Ambient conditions</b>                                                                                                                                                                          |                                                                                                                                  |
| ambient temperature                                                                                                                                                                                |                                                                                                                                  |
| <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>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                                                                                                                | 3.5 ... 5 A                                                                                                                      |
| operating voltage                                                                                                                                                                                  |                                                                                                                                  |
| <ul style="list-style-type: none"> <li>rated value</li> <li>at AC-3 rated value maximum</li> </ul>                                                                                                 | 690 V<br>690 V                                                                                                                   |
| operating frequency rated value                                                                                                                                                                    | 50 ... 60 Hz                                                                                                                     |
| operational current at AC-3 at 400 V rated value                                                                                                                                                   | 3.6 A                                                                                                                            |
| operating power at AC-3                                                                                                                                                                            |                                                                                                                                  |
| <ul style="list-style-type: none"> <li>at 400 V rated value</li> <li>at 500 V rated value</li> <li>at 690 V rated value</li> </ul>                                                                 | 1 500 W<br>2 200 W<br>3 000 W                                                                                                    |
| <b>Control circuit/ Control</b>                                                                                                                                                                    |                                                                                                                                  |
| control supply voltage at AC                                                                                                                                                                       |                                                                                                                                  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                        |                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|---------------------------|
| <ul style="list-style-type: none"><li>• at 50 Hz rated value</li><li>• at 60 Hz rated value</li></ul>                                                                                                                                                                                                                                                                                                                                      | 110 V<br>120 V                                                                         |                           |
| apparent holding power of magnet coil at AC                                                                                                                                                                                                                                                                                                                                                                                                | 8.5 VA                                                                                 |                           |
| Protective and monitoring functions                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                        |                           |
| trip class                                                                                                                                                                                                                                                                                                                                                                                                                                 | CLASS 10                                                                               |                           |
| design of the overload release                                                                                                                                                                                                                                                                                                                                                                                                             | thermal (bimetallic)                                                                   |                           |
| response value current of instantaneous short-circuit trip unit                                                                                                                                                                                                                                                                                                                                                                            | 65 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><li>• at 600 V rated value</li></ul>                                                                                                                                                                                                                                                                                         | 4.8 A<br>4.55 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><li>— at 575/600 V rated value</li></ul></li></ul> | 0.17 hp<br>0.5 hp<br><br>1 hp<br>1 hp<br>3 hp<br>3 hp                                  |                           |
| Short-circuit protection                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                        |                           |
| product function short circuit protection                                                                                                                                                                                                                                                                                                                                                                                                  | Yes                                                                                    |                           |
| design of the short-circuit trip                                                                                                                                                                                                                                                                                                                                                                                                           | magnetic                                                                               |                           |
| conditional short-circuit current (Iq) <ul style="list-style-type: none"><li>• at 690 V according to IEC 60947-4-1 rated value</li><li>• at 400 V according to IEC 60947-4-1 rated value</li><li>• at 500 V according to IEC 60947-4-1 rated value</li></ul>                                                                                                                                                                               | 4 000 A<br>153 000 A<br>100 000 A                                                      |                           |
| Installation/ mounting/ dimensions                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                        |                           |
| mounting position                                                                                                                                                                                                                                                                                                                                                                                                                          | vertical                                                                               |                           |
| fastening method                                                                                                                                                                                                                                                                                                                                                                                                                           | for snapping onto 60 mm busbar systems                                                 |                           |
| height                                                                                                                                                                                                                                                                                                                                                                                                                                     | 260 mm                                                                                 |                           |
| width                                                                                                                                                                                                                                                                                                                                                                                                                                      | 45 mm                                                                                  |                           |
| depth                                                                                                                                                                                                                                                                                                                                                                                                                                      | 155 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>                                         | 10 mm<br>0 mm<br>30 mm<br>9 mm<br>10 mm<br><br>10 mm<br>0 mm<br>30 mm<br>10 mm<br>9 mm |                           |
| Connections/ Terminals                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                        |                           |
| type of electrical connection for main current circuit                                                                                                                                                                                                                                                                                                                                                                                     | screw-type terminals                                                                   |                           |
| type of connectable conductor cross-sections for main contacts stranded                                                                                                                                                                                                                                                                                                                                                                    | 1 ... 10 mm², 2x (2.5 ... 6 mm²)                                                       |                           |
| connectable conductor cross-section for main contacts finely stranded with core end processing                                                                                                                                                                                                                                                                                                                                             | 1 ... 6 mm²                                                                            |                           |
| Safety related data                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                        |                           |
| B10 value with high demand rate according to SN 31920                                                                                                                                                                                                                                                                                                                                                                                      | 1 000 000                                                                              |                           |
| proportion of dangerous failures with high demand rate according to SN 31920                                                                                                                                                                                                                                                                                                                                                               | 73 %                                                                                   |                           |
| protection class IP on the front according to IEC 60529                                                                                                                                                                                                                                                                                                                                                                                    | IP20                                                                                   |                           |
| touch protection on the front according to IEC 60529                                                                                                                                                                                                                                                                                                                                                                                       | finger-safe, for vertical contact from the front                                       |                           |
| Certificates/ approvals                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                        |                           |
| General Product Approval                                                                                                                                                                                                                                                                                                                                                                                                                   | For use in hazard-ous locations                                                        | Declaration of Conformity |

[Confirmation](#)



#### Test Certificates

#### Marine / Shipping

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



#### Marine / Shipping

#### other

#### Railway



[Confirmation](#)

[Vibration and Shock](#)

#### Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RA2120-1FD24-0AK6>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1FD24-0AK6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1FD24-0AK6>

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

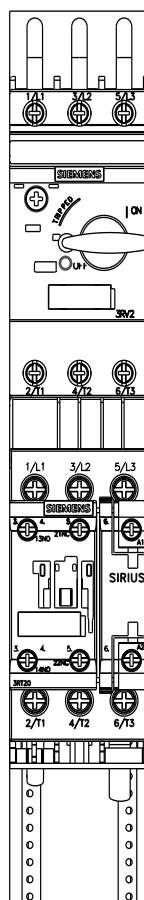
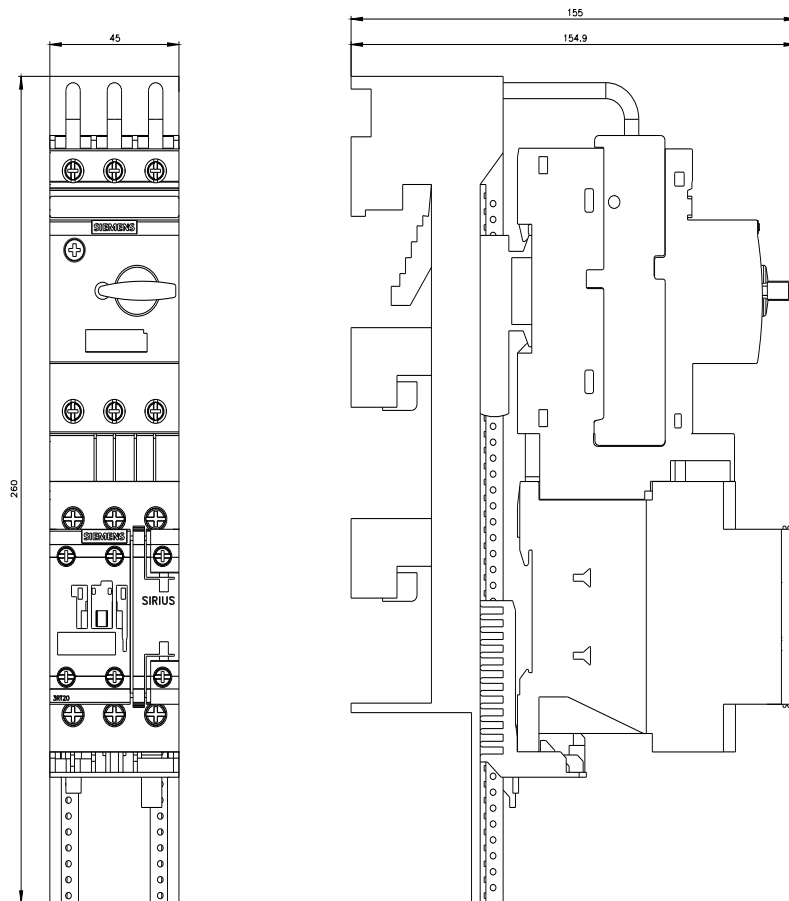
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2120-1FD24-0AK6&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1FD24-0AK6&lang=en)

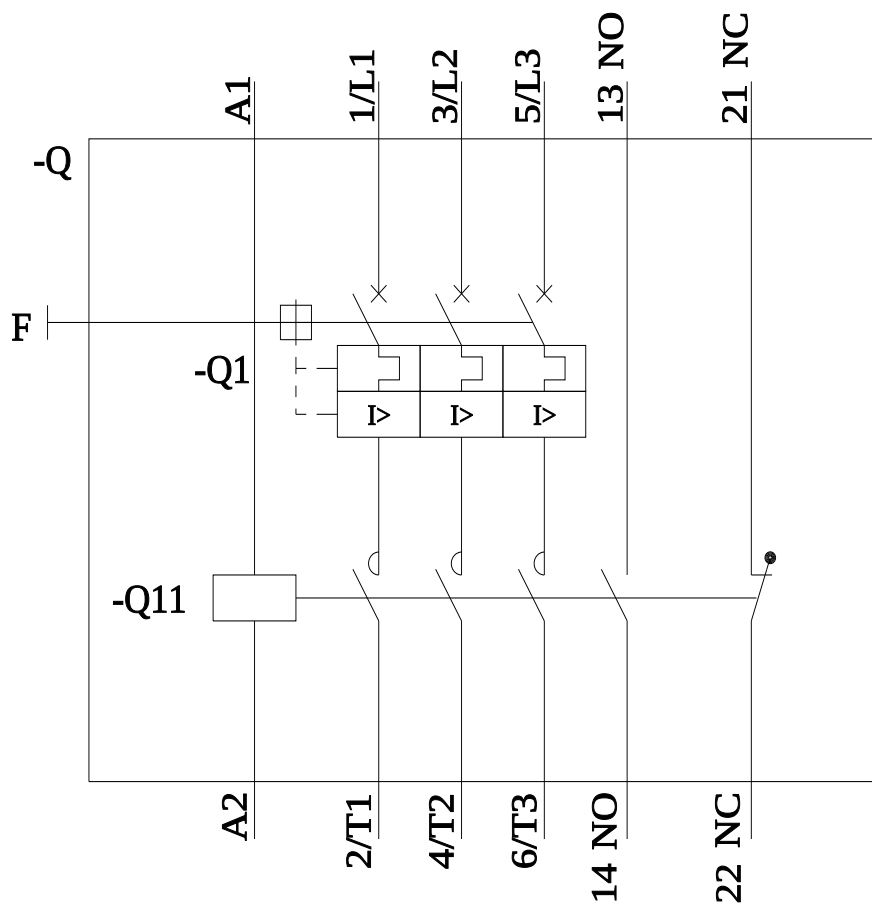
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1FD24-0AK6/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-1FD24-0AK6&objecttype=14&gridview=view1>





last modified:

12/15/2020