



Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 4.50...6.30 A 230 V AC screw terminal for 60 mm busbar systems (also fulfills type of coordination 1)
Type of coordination 2, I_q = 150 kA 1 NO+1 NC (contactor)

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| product brand name | SIRIUS |
| product designation | Direct (on-line) starter |
| design of the product | for 60 mm busbars |
| product type designation | 3RA21 |
| manufacturer's article number | |
| <ul style="list-style-type: none"> • of the supplied contactor • of the supplied circuit-breakers • of the supplied busbar adapter • of the supplied link module | 3RT2024-1AP00 3RV2011-1GA10 8US1251-5NT10 3RA2921-1AA00 |
| General technical data | |
| size of the circuit-breaker | S00 |
| size of load feeder | S0 |
| power loss [W] for rated value of the current | |
| <ul style="list-style-type: none"> • at AC in hot operating state per pole • without load current share typical | 2.7 W 7.6 W |
| type of calculation of power loss current-dependent | quadratic |
| insulation voltage with degree of pollution 3 at AC rated value | 690 V |
| surge voltage resistance rated value | 6 kV |
| degree of protection NEMA rating | other |
| shock resistance according to IEC 60068-2-27 | 6 g / 11 ms |
| mechanical service life (operating cycles) of contactor typical | 10 000 000 |
| type of coordination | 2 |
| reference code according to IEC 81346-2:2019 | Q |
| Substance Prohibitance (day/month/year) | 10/01/2009 |
| SVHC substance name | Lead CAS-No. 7439-92-1 |
| Net Weight | 1.28 kg |
| Ambient conditions | |
| ambient temperature | |
| <ul style="list-style-type: none"> • during operation • during storage • during transport | -20 ... +60 °C -50 ... +80 °C -50 ... +80 °C |
| temperature compensation | -20 ... +60 °C |
| relative humidity during operation | 10 ... 95 % |
| Main circuit | |
| 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 | 4.5 ... 6.3 A |
| operating voltage | |

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| <ul style="list-style-type: none"> • rated value | 690 V |
| <ul style="list-style-type: none"> • at AC-3 rated value maximum | 690 V |
| <ul style="list-style-type: none"> • at AC-3e rated value maximum | 690 V |
| operating frequency rated value | 50 ... 60 Hz |
| operational current | |
| <ul style="list-style-type: none"> • at AC-3 at 400 V rated value | 6.3 A |
| <ul style="list-style-type: none"> • at AC-3e at 400 V rated value | 6.3 A |
| operating power | |
| <ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value | 2 200 W |
| <ul style="list-style-type: none"> • at AC-3e <ul style="list-style-type: none"> — at 400 V rated value | 2 200 W |
| Control circuit/ Control | |
| type of voltage of the control supply voltage | AC |
| control supply voltage at AC | |
| <ul style="list-style-type: none"> • at 50 Hz rated value | 230 V |
| apparent holding power of magnet coil at AC | 7.6 VA |
| <ul style="list-style-type: none"> • at 50 Hz | 7.6 VA |
| inductive power factor with the holding power of the coil | 0.25 |
| <ul style="list-style-type: none"> • at 50 Hz | 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 | 82 A |
| UL/CSA ratings | |
| full-load current (FLA) for 3-phase AC motor | |
| <ul style="list-style-type: none"> • at 480 V rated value | 6.3 A |
| <ul style="list-style-type: none"> • at 600 V rated value | 6.3 A |
| yielded mechanical performance [hp] | |
| <ul style="list-style-type: none"> • for single-phase AC motor <ul style="list-style-type: none"> — at 110/120 V rated value | 0.25 hp |
| <ul style="list-style-type: none"> — at 230 V rated value | 0.75 hp |
| <ul style="list-style-type: none"> • for 3-phase AC motor <ul style="list-style-type: none"> — at 200/208 V rated value | 2 hp |
| <ul style="list-style-type: none"> — at 220/230 V rated value | 2 hp |
| <ul style="list-style-type: none"> — at 460/480 V rated value | 5 hp |
| <ul style="list-style-type: none"> — at 575/600 V rated value | 5 hp |
| Short-circuit protection | |
| product function short circuit protection | Yes |
| design of the short-circuit trip | magnetic |
| conditional short-circuit current (I_q) | |
| <ul style="list-style-type: none"> • at 400 V according to IEC 60947-4-1 rated value | 150 000 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"> • for grounded parts <ul style="list-style-type: none"> — forwards | 20 mm |
| <ul style="list-style-type: none"> — backwards | 0 mm |
| <ul style="list-style-type: none"> — upwards | 50 mm |
| <ul style="list-style-type: none"> — at the side | 20 mm |
| <ul style="list-style-type: none"> — downwards | 10 mm |
| <ul style="list-style-type: none"> • for live parts <ul style="list-style-type: none"> — forwards | 20 mm |

| | |
|---------------|-------|
| — backwards | 0 mm |
| — upwards | 50 mm |
| — downwards | 10 mm |
| — at the side | 20 mm |

Connections/ Terminals

type of electrical connection

- for main current circuit screw-type terminals
- for auxiliary and control circuit screw-type 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

protocol is supported

- PROFINET IO protocol No
- PROFIsafe protocol No

protocol is supported AS-Interface protocol No

Approvals Certificates

Environment

General Product Approval

[Environmental Confirmations](#)



For use in hazardous locations

Test Certificates

Maritime application



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Maritime application

other



[Confirmation](#)

[Confirmation](#)

other

Railway



[Special Test Certificate](#)

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=3RA2120-1GD24-0AP0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1GD24-0AP0>

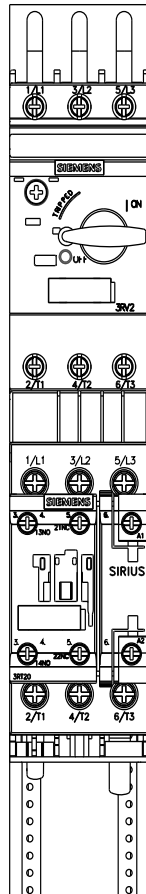
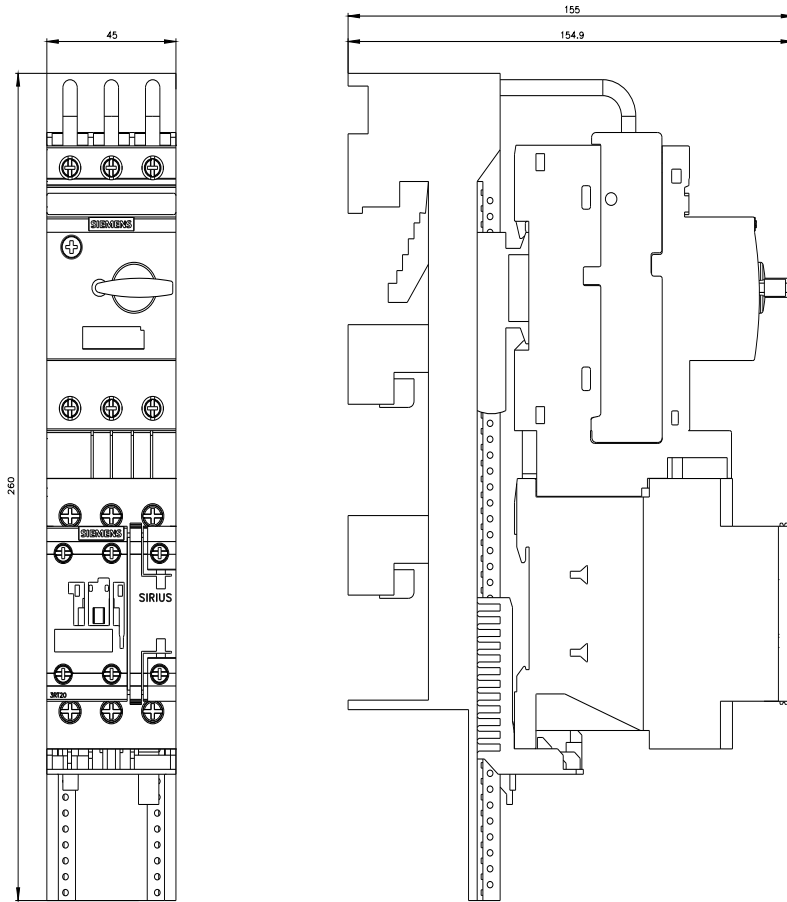
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1GD24-0AP0&lang=en

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1GD24-0AP0>

Characteristic curves





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