



Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 27.0...32.0 A 230 V AC screw terminal for installation on standard mounting rail (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 DIN-rail or screw mounting |
| product type designation | 3RA21 |
| manufacturer's article number | |
| • of the supplied contactor | 3RT2027-1AP00 |
| • of the supplied circuit-breakers | 3RV2021-4EA10 |
| • of the supplied link module | 3RA2921-1AA00 |
| General technical data | |
| size of the circuit-breaker | S0 |
| size of load feeder | S0 |
| power loss [W] for rated value of the current | |
| • at AC in hot operating state per pole | 6.7 W |
| • without load current share typical | 9.8 W |
| 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 | 6g / 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 (Date) | 10/01/2009 |
| SVHC substance name | Lead titanium zirconium oxide - 12626-81-2 |
| Weight | 0.86 kg |
| Ambient conditions | |
| ambient temperature | |
| • during operation | -20 ... +60 °C |
| • during storage | -50 ... +80 °C |
| • during transport | -50 ... +80 °C |
| temperature compensation | -20 ... +60 °C |
| relative humidity during operation | 10 ... 95 % |
| Environmental footprint | |
| Environmental Product Declaration (EPD) | Yes |
| global warming potential [CO ₂ eq] total | 92.1 kg |
| global warming potential [CO ₂ eq] during manufacturing | 5.27 kg |
| global warming potential [CO ₂ eq] during operation | 87.6 kg |
| global warming potential [CO ₂ eq] after end of life | -0.84 kg |
| Main circuit | |
| number of poles for main current circuit | 3 |
| design of the switching contact | electromechanical |

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| adjustable current response value current of the current-dependent overload release | 27 ... 32 A |
| operating voltage | |
| • rated value | 690 V |
| • at AC-3 rated value maximum | 690 V |
| • at AC-3e rated value maximum | 690 V |
| operating frequency rated value | 50 ... 60 Hz |
| operational current | |
| • at AC-3 at 400 V rated value | 29 A |
| • at AC-3e at 400 V rated value | 29 A |
| operating power | |
| • 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 | |
| • at 50 Hz rated value | 230 V |
| apparent holding power of magnet coil at AC | 9.8 VA |
| • at 50 Hz | 9.8 VA |
| inductive power factor with the holding power of the coil | 0.25 |
| • 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 | 400 A |
| UL/CSA ratings | |
| full-load current (FLA) for 3-phase AC motor | |
| • at 480 V rated value | 27 A |
| • at 600 V rated value | 27 A |
| yielded mechanical performance [hp] | |
| • for single-phase AC motor | |
| — at 110/120 V rated value | 2 hp |
| — at 230 V rated value | 5 hp |
| • for 3-phase AC motor | |
| — at 200/208 V rated value | 10 hp |
| — at 220/230 V rated value | 10 hp |
| — at 460/480 V rated value | 20 hp |
| Short-circuit protection | |
| product function short circuit protection | Yes |
| design of the short-circuit trip | magnetic |
| conditional short-circuit current (I_q) | |
| • at 400 V according to IEC 60947-4-1 rated value | 150 000 A |
| Installation/ mounting/ dimensions | |
| mounting position | vertical |
| fastening method | screw and snap-on mounting onto 35 mm DIN rail |
| height | 193 mm |
| width | 45 mm |
| depth | 97 mm |
| required spacing | |
| • 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 |

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

General Product Approval

For use in hazardous locations

Test Certificates



[Special Test Certificate](#)

Test Certificates

Maritime application

[Type Test Certificates/Test Report](#)



Maritime application

other

Railway

Environment



[Confirmation](#)

[Special Test Certificate](#)



Environment

[Environmental Confirmations](#)

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=3RA2120-4EA27-0AP0>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-4EA27-0AP0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4EA27-0AP0>

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

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-4EA27-0AP0&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4EA27-0AP0/char>

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

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-4EA27-0AP0&objecttype=14&gridview=view1>



