SIEMENS

Data sheet

3RA2120-1JD24-0BB4



Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 7.00...10.0 A 24 V DC screw terminal for 60 mm busbar systems (also fulfills type of coordination 1) Type of coordination 2, Iq = 150 kA 1 NO+1 NC (contactor)

| 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 | |
| of the supplied contactor | 3RT2024-1BB40 |
| of the supplied circuit-breakers | 3RV2011-1JA10 |
| of the supplied busbar adapter | 8US1251-5NT10 |
| of the supplied link module | 3RA2921-1BA00 |
| General technical data | |
| size of the circuit-breaker | S00 |
| size of load feeder | S0 |
| insulation voltage with degree of pollution 3 at AC rated value | 690 V |
| surge voltage resistance rated value | 6 kV |
| shock resistance acc. to IEC 60068-2-27 | 6g / 11 ms |
| mechanical service life (switching cycles) of contactor typical | 10 000 000 |
| type of assignment | 2 |
| type of protection according to ATEX directive 2014/34/EU | Ex II (2) GD |
| certificate of suitability according to ATEX directive 2014/34/EU | DMT 02 ATEX F 001 |
| Substance Prohibitance (Date) | 01.10.2009 00:00:00 |
| Ambient conditions | |
| ambient temperature during operation | -20 +60 °C |
| ambient temperature during storage | -50 +80 °C |
| ambient temperature during transport | -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 | 7 10 A |
| operating voltage rated value | 690 V |
| operating voltage at AC-3 rated value maximum | 690 V |
| operating frequency rated value | 50 60 Hz |

| operational current at AC-3 at 400 V rated value | 8.5 A |
|--|--|
| operating power at AC-3 | |
| at 400 V rated value | 4 000 W |
| Control circuit/ Control | |
| type of voltage of the control supply voltage | DC |
| control supply voltage at DC | |
| • rated value | 24 V |
| holding power of magnet coil at DC | 5.9 W |
| Auxiliary circuit | V |
| product extension auxiliary switch | Yes |
| Protective and monitoring functions | CLASS 10 |
| trip class design of the overload release | |
| UL/CSA ratings | thermal (bimetallic) |
| | |
| full-load current (FLA) for 3-phase AC motor • at 480 V rated value | 7.6 A |
| yielded mechanical performance [hp] | 7.0 A |
| • for 3-phase AC motor | |
| — at 200/208 V rated value | 2 hp |
| — at 220/230 V rated value | 3 hp |
| — at 460/480 V rated value | 5 hp |
| — at 575/600 V rated value | 7.5 hp |
| Short-circuit protection | 7.0 115 |
| product function short circuit protection | Yes |
| design of the short-circuit trip | magnetic |
| conditional short-circuit current (Iq) | magnosio |
| • at 400 V acc. 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 | 165 mm |
| depth required spacing | 165 mm |
| | 165 mm |
| required spacing | 165 mm 20 mm |
| required spacing • for grounded parts | |
| required spacing • for grounded parts — forwards | 20 mm |
| required spacing • for grounded parts — forwards — backwards | 20 mm 0 mm |
| required spacing • for grounded parts — forwards — backwards — upwards | 20 mm 0 mm 50 mm |
| required spacing • for grounded parts — forwards — backwards — upwards — at the side | 20 mm 0 mm 50 mm 20 mm |
| required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards | 20 mm 0 mm 50 mm 20 mm |
| required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts | 20 mm 0 mm 50 mm 20 mm 10 mm |
| required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — upwards | 20 mm 0 mm 50 mm 20 mm 10 mm 0 mm 50 mm |
| required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — backwards — upwards — downwards | 20 mm 0 mm 50 mm 20 mm 10 mm 0 mm 50 mm 0 mm |
| required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — backwards — upwards — at the side | 20 mm 0 mm 50 mm 20 mm 10 mm 0 mm 50 mm |
| required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — backwards — upwards — the side — downwards — forwards — forwards — backwards — upwards — at the side Connections/ Terminals | 20 mm 0 mm 50 mm 20 mm 10 mm 0 mm 50 mm 0 mm |
| required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — backwards — upwards — at the side Connections/ Terminals type of electrical connection | 20 mm 0 mm 50 mm 10 mm 20 mm 0 mm 0 mm 50 mm 10 mm 20 mm |
| required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — upwards — the side — downwards — torwards — torwards — at the side Connections/ Terminals type of electrical connection • for main current circuit | 20 mm 0 mm 50 mm 20 mm 10 mm 0 mm 50 mm 0 mm |
| required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — upwards — downwards — the side Connections/ Terminals type of electrical connection • for main current circuit type of connectable conductor cross-sections | 20 mm 0 mm 50 mm 10 mm 20 mm 0 mm 0 mm 50 mm 10 mm 20 mm |
| required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — backwards — upwards — downwards — at the side Connections/ Terminals type of electrical connection • for main current circuit type of connectable conductor cross-sections • for main contacts | 20 mm 0 mm 50 mm 10 mm 10 mm 0 mm 0 mm 0 mm 50 mm 10 mm screw-type terminals |
| required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — upwards — downwards — at the side Connections/ Terminals type of electrical connection • for main current circuit type of connectable conductor cross-sections • for main contacts — stranded | 20 mm 0 mm 50 mm 10 mm 20 mm 0 mm 0 mm 0 mm 0 mm 50 mm 10 mm 20 mm 10 mm 20 mm |
| required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — upwards — downwards — at the side Connections/ Terminals type of electrical connection • for main current circuit type of connectable conductor cross-sections • for main contacts — stranded • at AWG cables for main contacts | 20 mm 0 mm 50 mm 20 mm 10 mm 20 mm 0 mm 50 mm 0 mm 50 mm 10 mm 20 mm 120 mm 10 |
| required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — upwards — downwards — at the side Connections/ Terminals type of electrical connection • for main current circuit type of connectable conductor cross-sections • for main contacts — stranded • at AWG cables for main contacts • connectable conductor cross-section for main contacts finely stranded with core end processing | 20 mm 0 mm 50 mm 10 mm 20 mm 0 mm 0 mm 0 mm 0 mm 50 mm 10 mm 20 mm 10 mm 20 mm |
| required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — upwards — downwards — at the side Connections/ Terminals type of electrical connection • for main current circuit type of connectable conductor cross-sections • for main contacts — stranded • at AWG cables for main contacts • connectable conductor cross-section for main | 20 mm 0 mm 50 mm 20 mm 10 mm 20 mm 0 mm 50 mm 0 mm 50 mm 10 mm 20 mm 120 mm 10 |

proportion of dangerous failures

• with high demand rate acc. to SN 31920 touch protection on the front acc. to IEC 60529

73 %

finger-safe, for vertical contact from the front

Certificates/ approvals

General Product Approval

For use in hazardous locations

Declaration of Conformity









Miscellaneous



Test Certificates

Marine / Shipping

Special Test Certificate Type Test Certificates/Test Report









Marine / Shipping

other

Railway







Confirmation

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=3RA2120-1JD24-0BB4

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1JD24-0BB4

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1JD24-0BB4

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

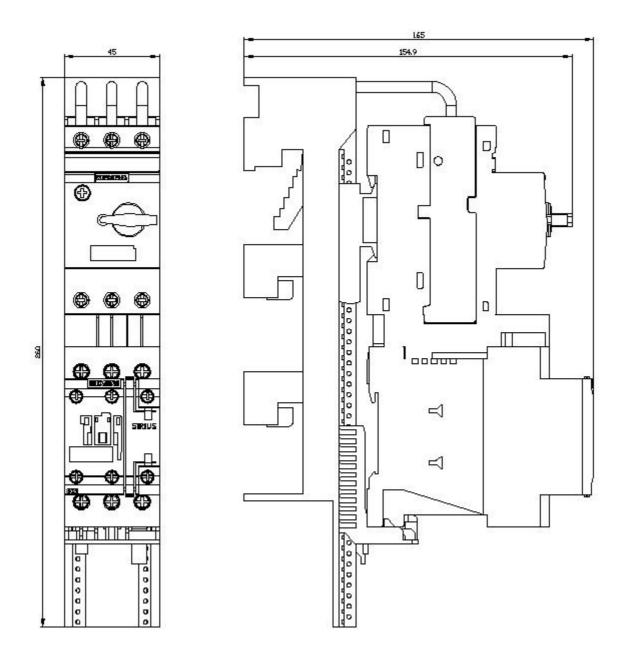
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1JD24-0BB4\&lang=en}}$

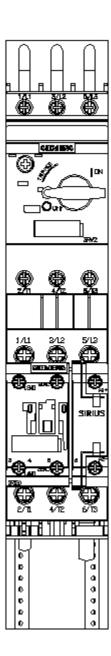
Characteristic: Tripping characteristics, I2t, Let-through current

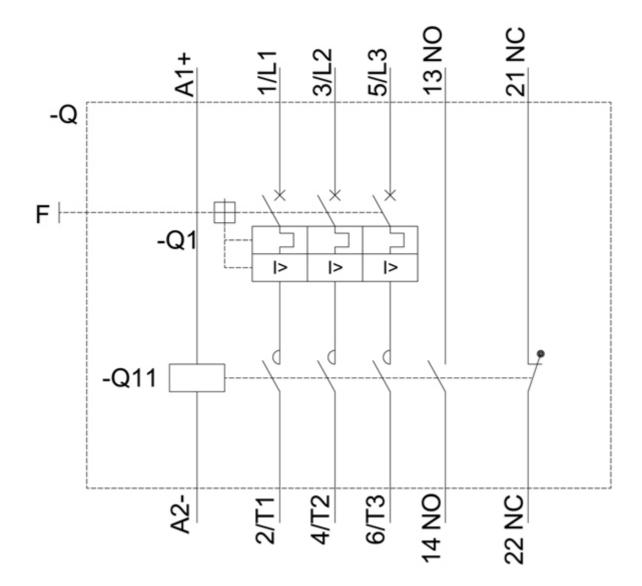
https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1JD24-0BB4/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-1JD24-0BB4&objecttype=14&gridview=view1







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