

Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0
 3.50...5.00 A 24 V DC 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 standard rail or screw mounting |
| Product type designation | 3RA21 |
| Manufacturer's article number | |
| <ul style="list-style-type: none"> • of the supplied contactor | 3RT2024-1BB40 |
| <ul style="list-style-type: none"> • of the supplied circuit-breakers | 3RV2011-1FA10 |
| <ul style="list-style-type: none"> • of the supplied link module | 3RA2921-1BA00 |

| General technical data | |
|--------------------------------------------------------------------------------------------------|------------|
| Size of the circuit-breaker | S00 |
| Size of load feeder | S0 |
| Insulation voltage | |
| <ul style="list-style-type: none"> • with degree of pollution 3 at AC rated value | 690 V |
| Surge voltage resistance rated value | 6 kV |
| Protection class IP | |
| <ul style="list-style-type: none"> • on the front | IP20 |
| <ul style="list-style-type: none"> • of the terminal | IP20 |
| Shock resistance | |
| <ul style="list-style-type: none"> • acc. to IEC 60068-2-27 | 6g / 11 ms |

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|-------------------------------------------------------------------|-------------------|
| 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 |

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| Ambient conditions | |
| Temperature compensation | -20 ... +60 °C |
| Relative humidity during operation | 10 ... 95 % |

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| Main circuit | |
| Number of poles for main current circuit | 3 |
| Design of the switching contact | electromechanical |
| Adjustable pick-up value current of the current-dependent overload release | 3.5 ... 5 A |
| Operating voltage | |
| • rated value | 690 V |
| • at AC-3 rated value maximum | 690 V |
| Operating frequency rated value | 50 ... 60 Hz |
| Operating current | |
| • at AC-3 | |
| — at 400 V rated value | 3.6 A |
| Operating power | |
| • at AC-3 | |
| — at 400 V rated value | 1 500 W |

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| 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 |

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| Auxiliary circuit | |
| Product extension Auxiliary switch | Yes |

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| Protective and monitoring functions | |
| Trip class | CLASS 10 |
| Design of the overload release | thermal (bimetallic) |

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|---------------------------------------------------------|-------|
| UL/CSA ratings | |
| Full-load current (FLA) for three-phase AC motor | |
| • at 480 V rated value | 4.8 A |
| Yielded mechanical performance [hp] | |
| • for three-phase AC motor | |
| — at 200/208 V rated value | 1 hp |

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|----------------------------|------|
| — at 220/230 V rated value | 1 hp |
| — at 460/480 V rated value | 3 hp |
| — at 575/600 V rated value | 3 hp |

Short-circuit protection

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| Product function Short circuit protection | Yes |
| Design of the short-circuit trip | magnetic |
| Conditional short-circuit current (I_q) | |
| • at 400 V acc. to IEC 60947-4-1 rated value | 150 000 A |

Installation/ mounting/ dimensions

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| Mounting position | vertical |
| Mounting type | screw and snap-on mounting onto 35 mm standard mounting rail |
| Height | 193 mm |
| Width | 45 mm |
| Depth | 107 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

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|--------------------------------------------------------------|------------------------------------------------------------|
| Type of electrical connection | |
| • for main current circuit | screw-type terminals |
| Type of connectable conductor cross-sections | |
| • for main contacts | |
| — stranded | 1 ... 10 mm ² , 2x (2.5 ... 6 mm ²) |
| • at AWG conductors for main contacts | 2x (16 ... 12), 2x (14 ... 8) |
| Connectable conductor cross-section for main contacts | |
| • finely stranded with core end processing | 1 ... 6 mm ² |




Safety related data

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| B10 value | |
| • with high demand rate acc. to SN 31920 | 1 000 000 |
| Proportion of dangerous failures | |

Certificates/ approvals

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|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------|
| General Product Approval | | For use in hazardous locations | Declaration of Conformity | | Miscellaneous |
|  CSA |  UL |  |  ATEX |  EG-Konf. | |

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|----------------------------------------------------|------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Test Certificates | | Marine / Shipping | | | |
| Type Test Certificates/Test Report | Special Test Certificate |  ABS |  BUREAU VERITAS |  LRS |  PRS |

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|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| Marine / Shipping | | other | Railway |
|  RINA |  RMRS |  DNV-GL DNVGL.COM/AF | 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=3RA2120-1FA24-0BB4>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1FA24-0BB4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1FA24-0BB4>

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

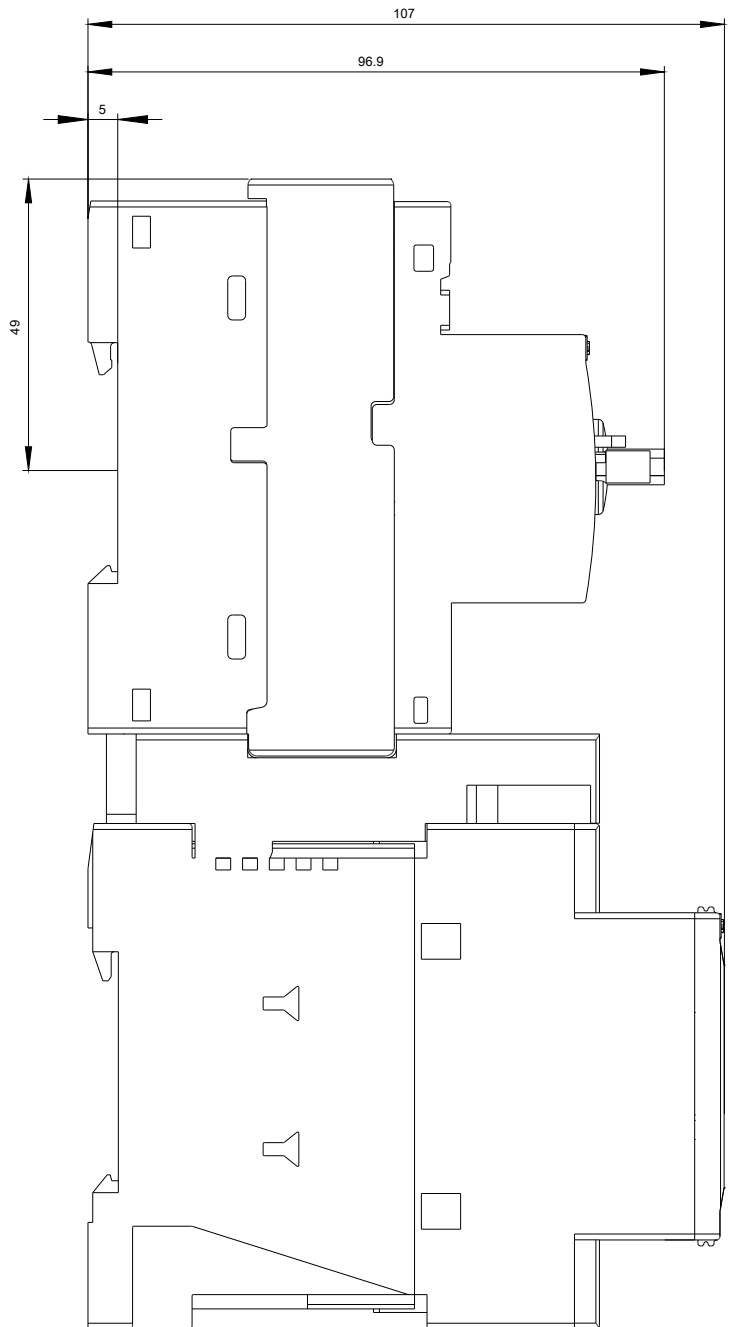
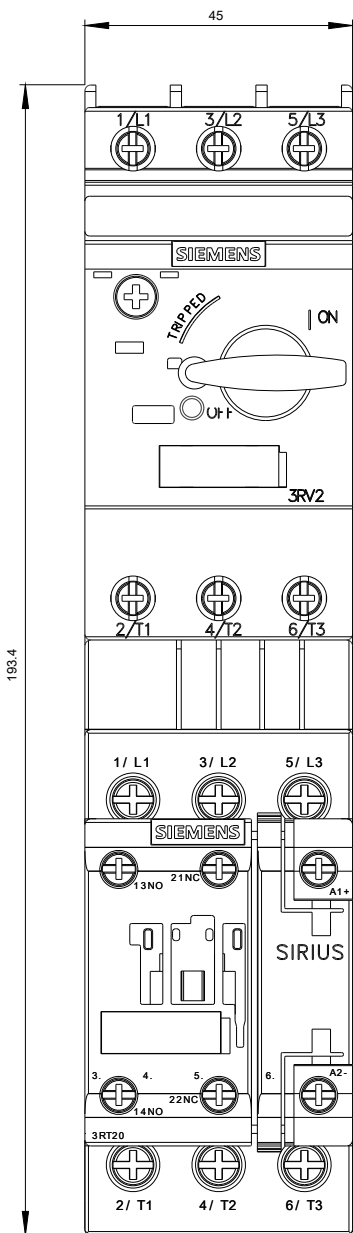
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1FA24-0BB4&lang=en

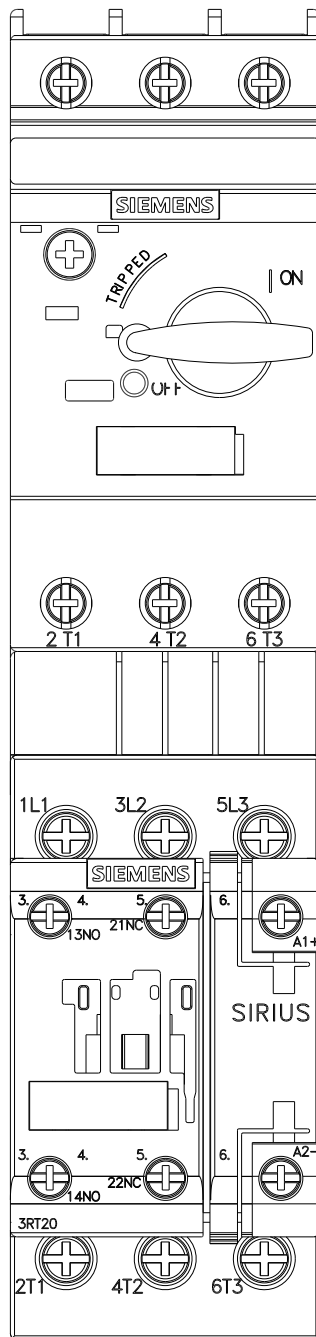
Characteristic: Tripping characteristics, I^t, Let-through current

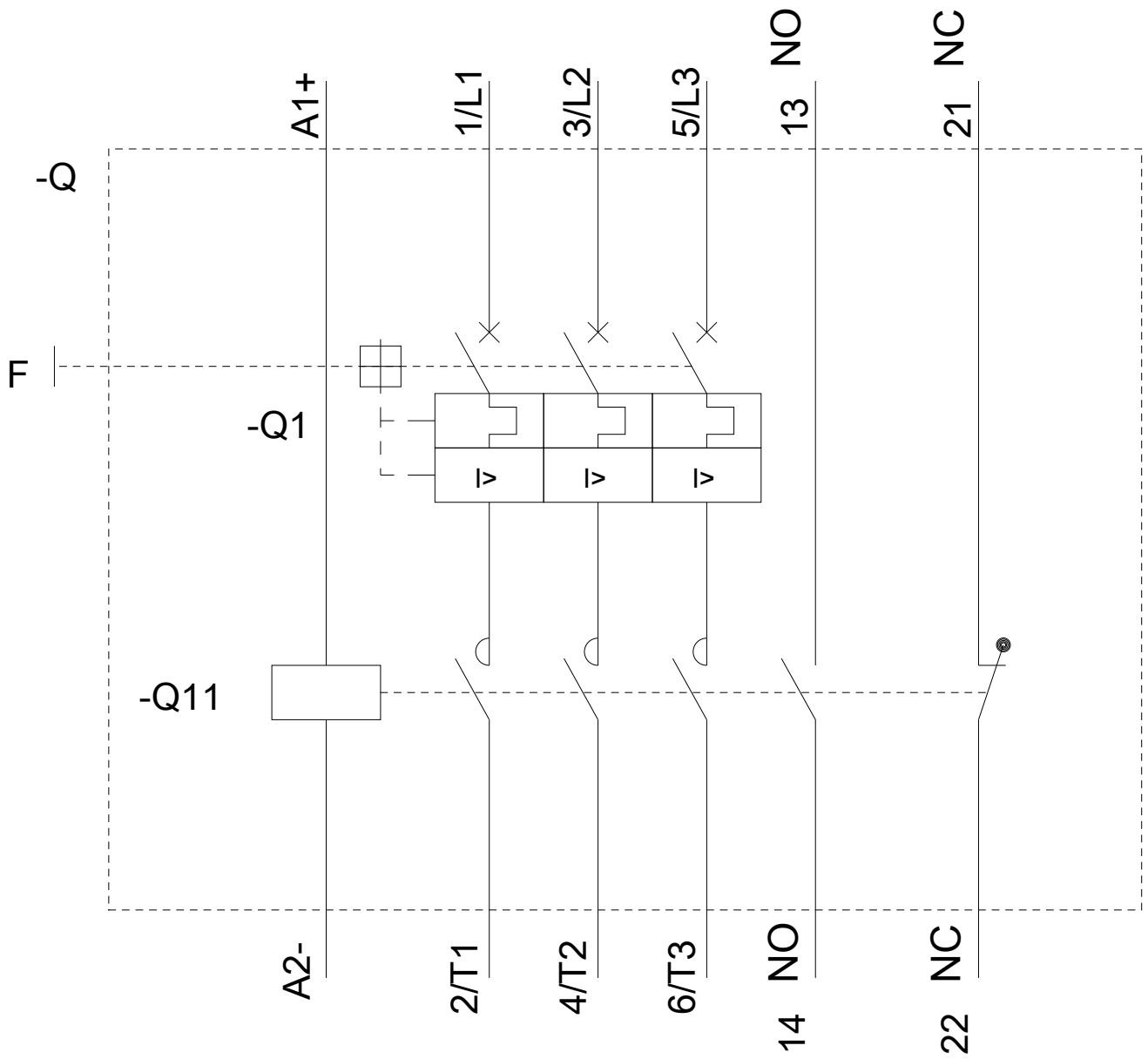
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1FA24-0BB4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-1FA24-0BB4&objecttype=14&gridview=view1>







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