

Circuit breaker size S0 for starter combination Rated current 28 A N-release 364 A Spring-type terminal Standard switching capacity



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|--------------------------|--------------------------|
| Product brand name | SIRIUS |
| Product designation | Circuit breaker |
| Design of the product | For starter combinations |
| Product type designation | 3RV2 |

| General technical data | |
|---|---------|
| Size of the circuit-breaker | S0 |
| Size of contactor can be combined company-specific | S00, S0 |
| Product extension | Yes |
| <ul style="list-style-type: none"> Auxiliary switch | Yes |
| Power loss [W] for rated value of the current | |
| <ul style="list-style-type: none"> at AC in hot operating state | 13.25 W |
| <ul style="list-style-type: none"> at AC in hot operating state per pole | 4.4 W |
| Insulation voltage with degree of pollution 3 rated value | 690 V |
| Surge voltage resistance rated value | 6 kV |
| maximum permissible voltage for safe isolation | |
| <ul style="list-style-type: none"> in networks with grounded star point between main and auxiliary circuit | 400 V |

| | |
|---|-------------|
| <ul style="list-style-type: none"> in networks with grounded star point between main and auxiliary circuit | 400 V |
| 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 | 25g / 11 ms |
| Mechanical service life (switching cycles) | |
| <ul style="list-style-type: none"> of the main contacts typical | 100 000 |
| <ul style="list-style-type: none"> of auxiliary contacts typical | 100 000 |
| Electrical endurance (switching cycles) | |
| <ul style="list-style-type: none"> typical | 100 000 |
| Reference code acc. to DIN EN 81346-2 | Q |

Ambient conditions

| | |
|--|----------------|
| Installation altitude at height above sea level | |
| <ul style="list-style-type: none"> maximum | 2 000 m |
| Ambient temperature | |
| <ul style="list-style-type: none"> during operation | -20 ... +60 °C |
| <ul style="list-style-type: none"> during storage | -50 ... +80 °C |
| <ul style="list-style-type: none"> during transport | -50 ... +80 °C |
| Relative humidity during operation | 10 ... 95 % |

Main circuit

| | |
|---|---|
| Number of poles for main current circuit | 3 |
| Operating voltage | |
| <ul style="list-style-type: none"> rated value | 690 V |
| <ul style="list-style-type: none"> at AC-3 rated value maximum | 690 V |
| Operating frequency rated value | 50 ... 60 Hz |
| Operating current rated value | 28 A |
| Operating current | |
| <ul style="list-style-type: none"> at AC-3 <ul style="list-style-type: none"> — at 400 V rated value | 28 A |
| Operating power | |
| <ul style="list-style-type: none"> at AC-3 <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value | 7 500 W 15 000 W 18 500 W 22 000 W |
| Operating frequency | |
| <ul style="list-style-type: none"> at AC-3 maximum | 15 1/h |

Auxiliary circuit

| | |
|---|---|
| Number of NC contacts for auxiliary contacts | 0 |
|---|---|

| | |
|---|---|
| Number of NO contacts for auxiliary contacts | 0 |
| Number of CO contacts | |
| • for auxiliary contacts | 0 |

Protective and monitoring functions

| | |
|--|--------|
| Product function | |
| • Ground fault detection | No |
| • Phase failure detection | No |
| Operational short-circuit current breaking capacity (Ics) at AC | |
| • at 240 V rated value | 100 kA |
| • at 400 V rated value | 25 kA |
| • at 500 V rated value | 5 kA |
| • at 690 V rated value | 2 kA |
| Maximum short-circuit current breaking capacity (Icu) | |
| • at AC at 240 V rated value | 100 kA |
| • at AC at 400 V rated value | 55 kA |
| • at AC at 500 V rated value | 10 kA |
| • at AC at 690 V rated value | 4 kA |
| Response value current | |
| • of instantaneous short-circuit trip unit | 400 A |

UL/CSA ratings

| | |
|---|--------|
| Full-load current (FLA) for three-phase AC motor | |
| • at 480 V rated value | 28 A |
| • at 600 V rated value | 28 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 three-phase AC motor | |
| — at 200/208 V rated value | 7.5 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 |
| Design of the fuse link for IT network for short-circuit protection of the main circuit | |
| • at 400 V | gL/gG 63 A |
| • at 500 V | gL/gG 63 A |
| • at 690 V | gL/gG 63 A |

Installation/ mounting/ dimensions





| | |
|--|--|
| Mounting position | any |
| Mounting type | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715 |
| Height | 119 mm |
| Width | 45 mm |
| Depth | 97 mm |
| Required spacing | |
| <ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side | <ul style="list-style-type: none"> 0 mm 0 mm 50 mm 50 mm 0 mm 0 mm 0 mm 50 mm 30 mm 50 mm 0 mm 0 mm 50 mm 50 mm 30 mm |






| Connections/ Terminals | |
|---|---|
| Product function | |
| <ul style="list-style-type: none"> • removable terminal for auxiliary and control circuit | No |
| Type of electrical connection | |
| <ul style="list-style-type: none"> • for main current circuit | spring-loaded terminals |
| Arrangement of electrical connectors for main current circuit | Top and bottom |
| Type of connectable conductor cross-sections | |
| <ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing — finely stranded without core end processing • at AWG conductors for main contacts | <ul style="list-style-type: none"> 2x (1 ... 10 mm²) 2x (1 ... 6 mm²) 2x (1 ... 6 mm²) 2x (18 ... 8) |
| Design of screwdriver shaft | Diameter 3 mm |
| Size of the screwdriver tip | 3,0 x 0,5 mm |




Safety related data

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|---|--------------|
| B10 value | |
| <ul style="list-style-type: none"> with high demand rate acc. to SN 31920 | 5 000 |
| Proportion of dangerous failures | |
| <ul style="list-style-type: none"> with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920 | 50 % 50 % |
| Failure rate [FIT] | |
| <ul style="list-style-type: none"> with low demand rate acc. to SN 31920 | 50 FIT |
| T1 value for proof test interval or service life acc. to IEC 61508 | 10 y |
| Display version | |
| <ul style="list-style-type: none"> for switching status | Handle |

Certificates/ approvals

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|--|--|
| General Product Approval | Test Certificates |
|  CCC |  CSA |
|  UL |  EAC |
| | KC Type Test Certificates/Test Report |

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

| | | |
|---|---|--|
| Marine / Shipping | other | Railway |
|  RMRS |  DNV-GL DNVGL.COM/AF |  VDE |
| | Confirmation | Vibration and Shock |
| | | Confirmation |

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2321-4NC20>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2321-4NC20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2321-4NC20>

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

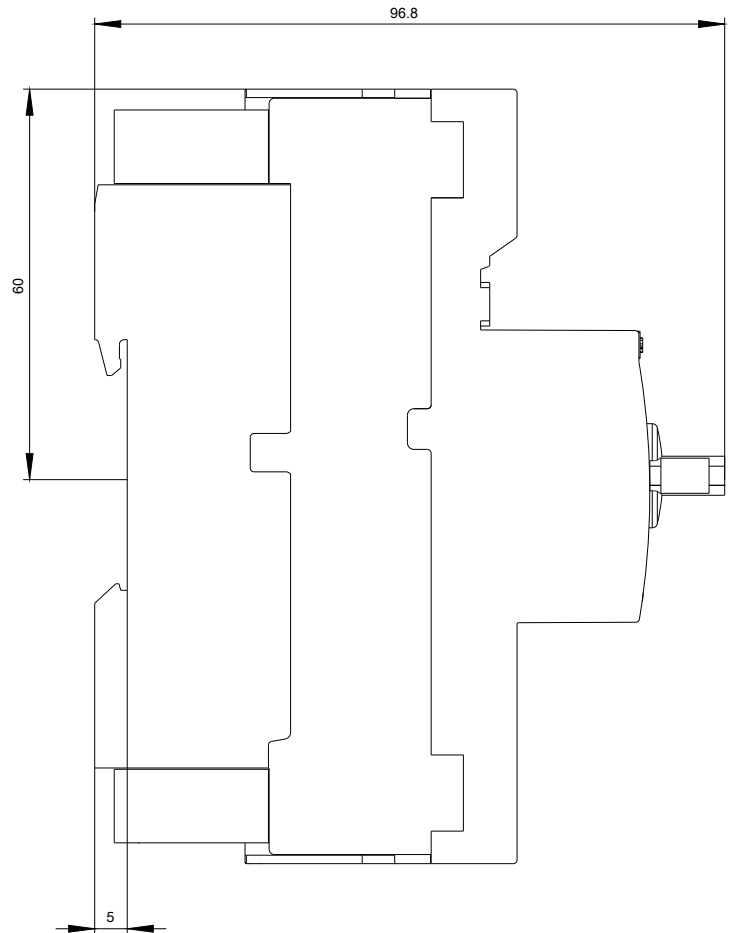
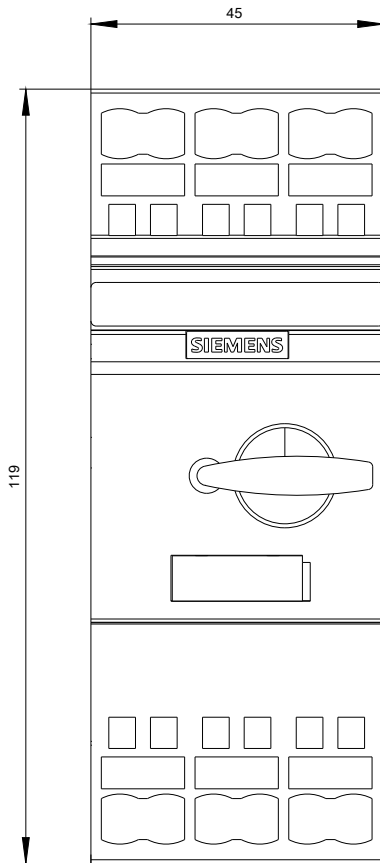
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2321-4NC20&lang=en

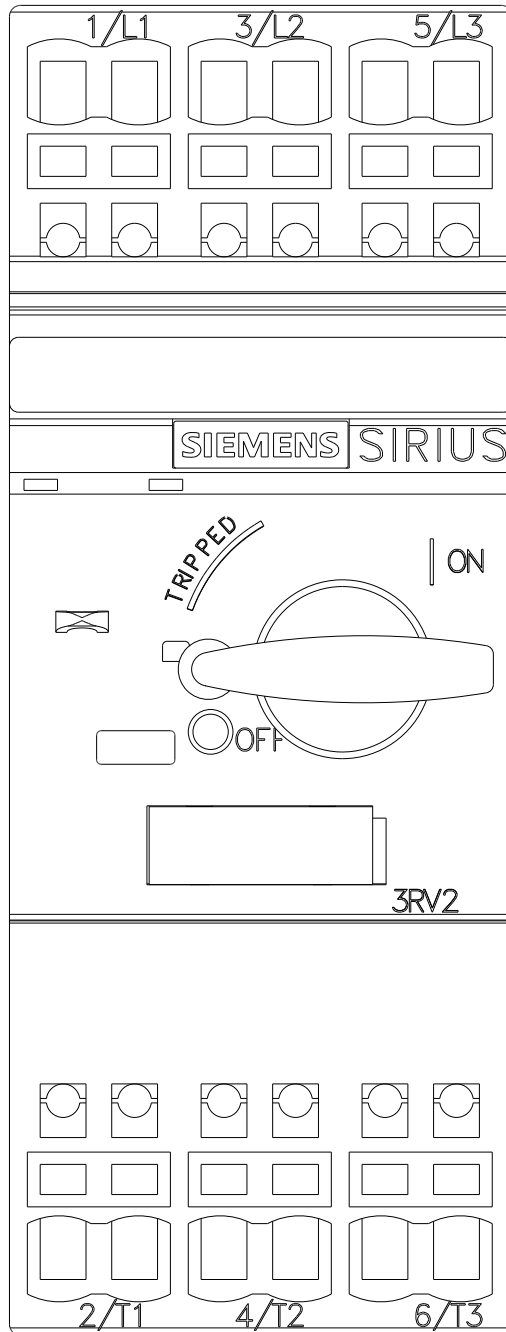
Characteristic: Tripping characteristics, I²t, Let-through current

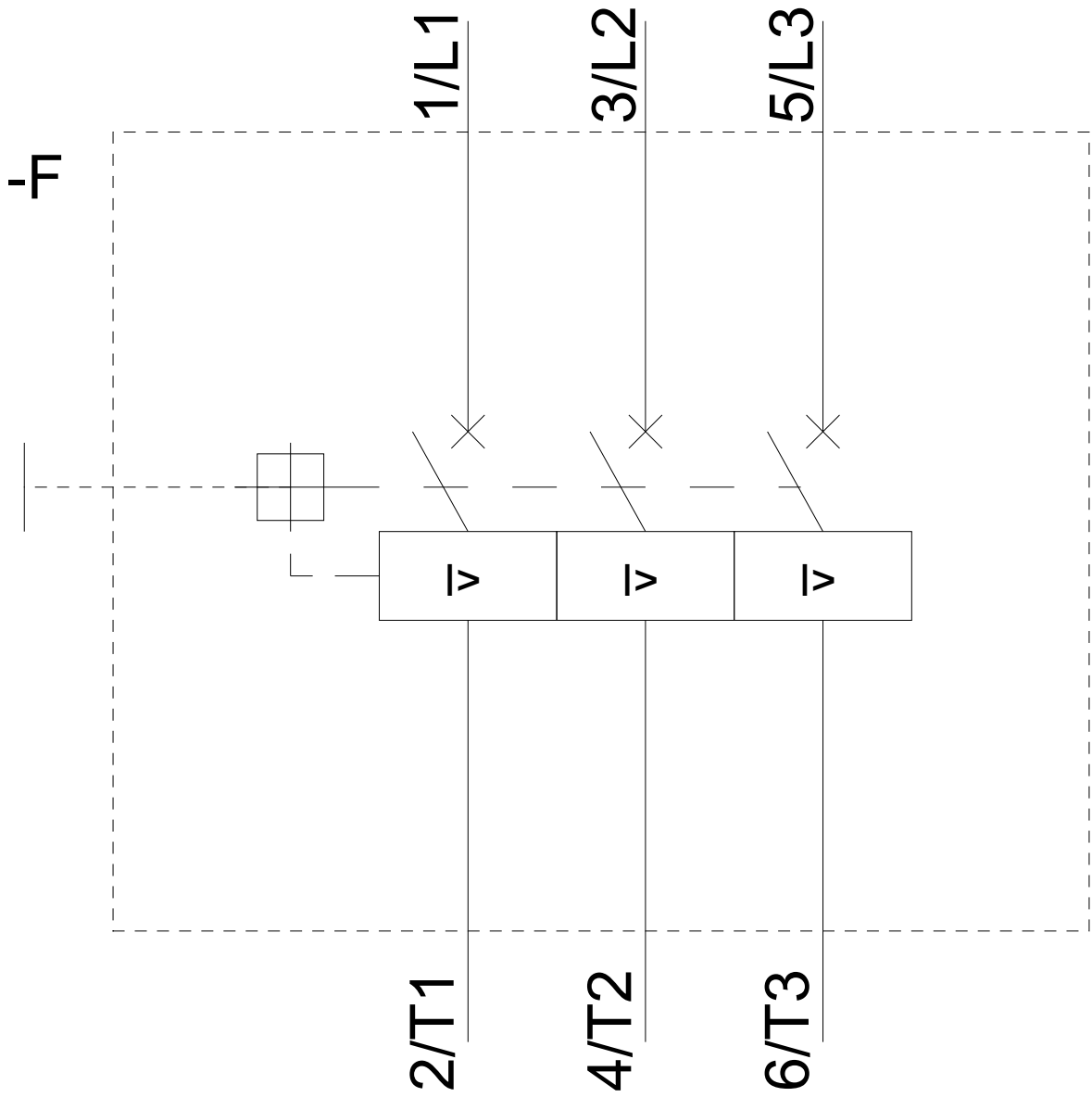
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2321-4NC20/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2321-4NC20&objecttype=14&gridview=view1>







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