

CIRCUIT BREAKER SIZE S2. FOR MOTOR PROTECTION, CLASS 10, A-RELEASE 18...25A, N-RELEASE 325A, SCREW TERMINAL, STANDARD BREAKING CAPACITY



Figure similar

| | |
|-----------------------|----------------------|
| product brand name | SIRIUS |
| Product designation | 3RV2 circuit breaker |
| Design of the product | For motor protection |

| General technical data | |
|---|-------|
| Size of the circuit-breaker | S2 |
| Size of contactor can be combined company-specific | S2 |
| Product extension | |
| • Auxiliary switch | Yes |
| Power loss [W] total typical | 12 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 | |
| • in networks with grounded star point between main and auxiliary circuit | 400 V |
| • 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 • of the terminal | <p>IP20</p> <p>IP00</p> |
| Shock resistance <ul style="list-style-type: none"> • acc. to IEC 60068-2-27 | 25g / 11 ms Sinus |
| Mechanical service life (switching cycles) <ul style="list-style-type: none"> • of the main contacts typical • of auxiliary contacts typical | <p>50 000</p> <p>50 000</p> |
| Electrical endurance (switching cycles) <ul style="list-style-type: none"> • typical | 50 000 |
| Protection against electrical shock | finger-safe when touched vertically from front acc. to IEC 60529 |
| Equipment marking acc. to DIN EN 81346-2 | Q |

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

| Main circuit | |
|--|--|
| Number of poles for main current circuit | 3 |
| Adjustable pick-up value current of the current-dependent overload release | 18 ... 25 A |
| Operating voltage <ul style="list-style-type: none"> • rated value • at AC-3 rated value maximum | <p>690 V</p> <p>690 V</p> |
| Operating frequency rated value | 50 ... 60 Hz |
| Operating current rated value | 25 A |
| Operating current <ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value | 25 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 | <p>5 500 W</p> <p>11 000 W</p> <p>15 000 W</p> <p>22 000 W</p> |
| Operating frequency <ul style="list-style-type: none"> • at AC-3 maximum | 15 1/h |

Protective and monitoring functions

| | |
|--|----------|
| Trip class | CLASS 10 |
| Design of the overload release | thermal |
| Operational short-circuit current breaking capacity (Ics) at AC | |
| • at 240 V rated value | 100 A |
| • at 400 V rated value | 30 kA |
| • at 500 V rated value | 6 kA |
| • at 690 V rated value | 3 kA |
| Maximum short-circuit current breaking capacity (Icu) | |
| • at AC at 240 V rated value | 100 kA |
| • at AC at 400 V rated value | 65 kA |
| • at AC at 500 V rated value | 12 kA |
| • at AC at 690 V rated value | 5 kA |

UL/CSA ratings

| | |
|---|--------|
| Full-load current (FLA) for three-phase AC motor | |
| • at 480 V rated value | 25 A |
| • at 600 V rated value | 25 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 |
| — at 575/600 V rated value | 25 hp |

Short-circuit protection

| | |
|--|---------------|
| Design of the short-circuit trip | magnetic |
| Design of the fuse link for IT network for short-circuit protection of the main circuit | |
| • at 240 V | none required |
| • at 400 V | 100 |
| • at 500 V | 80 |
| • at 690 V | 63 |

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 | 140 mm |
| Width | 55 mm |
| Depth | 149 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 10 mm 50 mm 0 mm 0 mm 50 mm 50 mm 10 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 | screw-type 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 • at AWG conductors for main contacts | <ul style="list-style-type: none"> 2x (1 ... 25 mm²), 1x (1 ... 35 mm²) 2x (1 ... 16 mm²), 1x (1 ... 25 mm²) 2x (18 ... 3), 1x (18 ... 2) |
| Tightening torque | |
| <ul style="list-style-type: none"> • for main contacts with screw-type terminals | 3 ... 4.5 N·m |
| Design of screwdriver shaft | Diameter 5 to 6 mm |
| Design of the thread of the connection screw | |
| <ul style="list-style-type: none"> • for main contacts | M6 |

Safety related data

| | |
|--|-------|
| 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 % |
| 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 | Declaration of Conformity | Test Certificates |
|---------------------------------|----------------------------------|--------------------------|



[spezielle Prüfbescheinigung](#)
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| | | | |
|--------------------------|--------------------------|--------------|----------------|
| Test Certificates | Shipping Approval | other | Railway |
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Further information

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

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mfb=3RV2031-4DA10>

Cax online generator

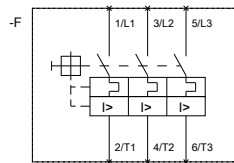
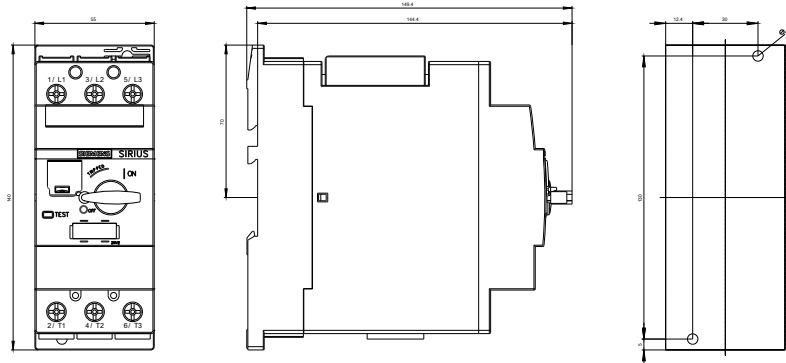
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RV2031-4DA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4DA10>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RV2031-4DA10&lang=en



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