

CIRCUIT BREAKER SIZE S2. FOR MOTOR PROTECTION, CLASS 10, A-RELEASE 54...65A, N-RELEASE 845A, SCREW TERMINAL, STANDARD BREAKING CAPACITY



Figure similar

| | |
|--------------------------|----------------------|
| product brandname | SIRIUS |
| Product designation | Circuit breaker |
| Design of the product | For motor protection |
| Product type designation | 3RV2 |

| 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 | 19 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 | |
| • on the front | IP20 |
| • of the terminal | IP00 |
| Mechanical service life (switching cycles) | |
| • of the main contacts typical | 20 000 |
| • of auxiliary contacts typical | 20 000 |
| Electrical endurance (switching cycles) | |
| • typical | 20 000 |
| 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

| | |
|---------------------------------|----------------|
| Ambient temperature | |
| • during operation | -20 ... +60 °C |
| • during storage | -50 ... +80 °C |
| • during transport | -50 ... +80 °C |
| Temperature compensation | -20 ... +60 °C |

Main circuit

| | |
|---|--------------|
| Number of poles for main current circuit | 3 |
| Adjustable pick-up value current of the current-dependent overload release | 54 ... 65 A |
| Operating voltage | |
| • rated value | 690 V |
| • at AC-3 rated value maximum | 690 V |
| Operating frequency rated value | 50 ... 60 Hz |
| Operating current rated value | 65 A |
| Operating current | |
| • at AC-3 | |
| — at 400 V rated value | 65 A |
| Operating power | |
| • at AC-3 | |
| — at 230 V rated value | 18 500 W |
| — at 400 V rated value | 30 000 W |
| — at 500 V rated value | 45 000 W |
| — at 690 V rated value | 55 000 W |
| Operating frequency | |
| • at AC-3 maximum | 15 1/h |

Protective and monitoring functions

| | |
|---------------------------|----------|
| Product function | |
| • Ground fault detection | No |
| • Phase failure detection | Yes |
| Trip class | CLASS 10 |

| | |
|--|--|
| Design of the overload release | thermal |
| Operational short-circuit current breaking capacity (Ics) at AC | |
| <ul style="list-style-type: none"> • at 240 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value | 100 kA 30 kA 5 kA 2 kA |
| Maximum short-circuit current breaking capacity (Icu) | |
| <ul style="list-style-type: none"> • at AC at 240 V rated value • at AC at 400 V rated value • at AC at 500 V rated value • at AC at 690 V rated value • at 480 AC Y/277 V acc. to UL 489 rated value | 65 kA 65 kA 8 kA 4 kA 30 A |

UL/CSA ratings

| | |
|--|----------------------------------|
| Full-load current (FLA) for three-phase AC motor | |
| <ul style="list-style-type: none"> • at 480 V rated value • at 600 V rated value | 65 A 62 A |
| Yielded mechanical performance [hp] | |
| <ul style="list-style-type: none"> • for three-phase AC motor <ul style="list-style-type: none"> — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value | 20 hp 25 hp 50 hp 60 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 | |
| <ul style="list-style-type: none"> • at 240 V • at 400 V • at 500 V • at 690 V | none required 160 125 100 |

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 | |

| | |
|----------------------|-------|
| — forwards | 0 mm |
| — Backwards | 0 mm |
| — upwards | 50 mm |
| — downwards | 50 mm |
| — at the side | 0 mm |
| • for grounded parts | |
| — forwards | 0 mm |
| — Backwards | 0 mm |
| — upwards | 50 mm |
| — at the side | 10 mm |
| — downwards | 50 mm |
| • for live parts | |
| — forwards | 0 mm |
| — Backwards | 0 mm |
| — upwards | 50 mm |
| — downwards | 50 mm |
| — at the side | 10 mm |

Connections/Terminals

| | |
|--|--|
| Product function | |
| • removable terminal for auxiliary and control circuit | No |
| Type of electrical connection | |
| • for main current circuit | screw-type terminals |
| Arrangement of electrical connectors for main current circuit | Top and bottom |
| Type of connectable conductor cross-sections | |
| • for main contacts | |
| — single or multi-stranded | 2x (1 ... 35 mm ²), 1x (1 ... 50 mm ²) |
| — finely stranded with core end processing | 2x (1 ... 25 mm ²), 1x (1 ... 35 mm ²) |
| • at AWG conductors for main contacts | 2x (18 ... 2), 1x (18 ... 1) |
| Tightening torque | |
| • for main contacts with screw-type terminals | 3 ... 4.5 N·m |
| Design of screwdriver shaft | Diameter 5 to 6 mm |

Safety related data

| | |
|--|--------|
| B10 value | |
| • with high demand rate acc. to SN 31920 | 5 000 |
| Proportion of dangerous failures | |
| • with low demand rate acc. to SN 31920 | 50 % |
| • with high demand rate acc. to SN 31920 | 50 % |
| Failure rate [FIT] | |
| • 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 | Handle |
| <ul style="list-style-type: none"> for switching status | |

Certificates/approvals

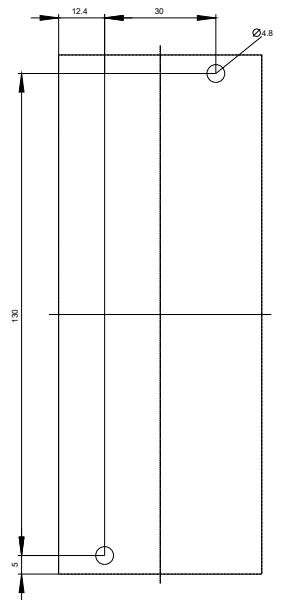
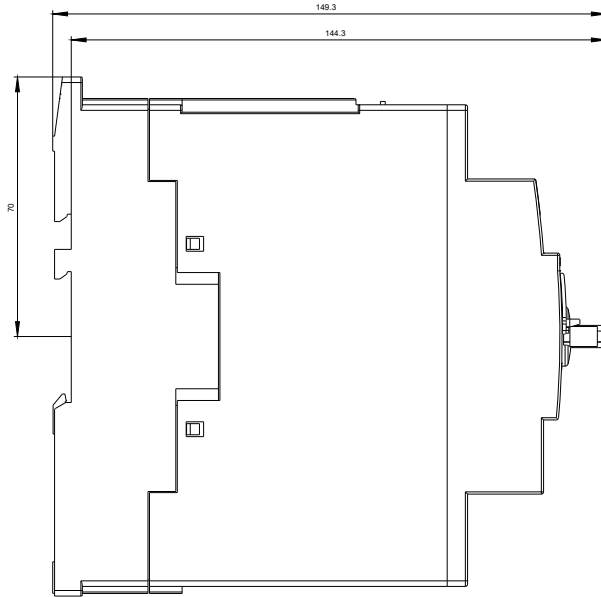
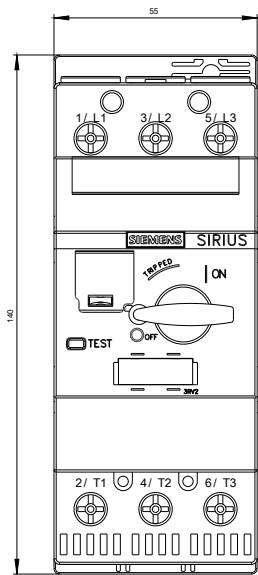
| | | |
|--|--|---|
| General Product Approval | Declaration of Conformity | Test Certificates |
|  CCC |  EAC |  EG-Konf. |
|  CSA |  UL | Special Test Certificate |

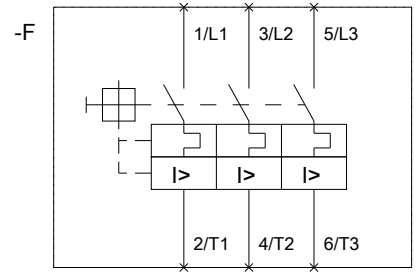
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|--|--|--|--|---|---|
| Test Certificates | Shipping Approval | | | | |
| Type Test Certificates/Test Report |  ABS |  LRS |  PRS |  RINA |  RMRS |

| | | |
|------------------------------|-------------------------------|-------------------------------------|
| other | Railway | |
| Confirmation | Miscellaneous | Vibration and Shock |

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=3RV2031-4JA10>
- Cax online generator**
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RV2031-4JA10>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4JA10>
- Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RV2031-4JA10&lang=en





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