

Power contactor, AC-3 16 A, 7.5 kW, 400 V 2 NO + 2 NC 24 V AC, 50/60 Hz 4-pole Size S00 Screw terminal



| | |
|---|-----------|
| Product brand name | SIRIUS |
| Product designation | contactor |
| Product type designation | 3RT25 |
| General technical data | |
| Size of contactor | S00 |
| Product extension | |
| • function module for communication | No |
| • Auxiliary switch | Yes |
| Insulation voltage | |
| • of main circuit with degree of pollution 3 rated value | 690 V |
| • of auxiliary circuit with degree of pollution 3 rated value | 690 V |
| Surge voltage resistance | |
| • of main circuit rated value | 6 kV |
| • of auxiliary circuit rated value | 6 kV |
| maximum permissible voltage for safe isolation | |
| • between coil and main contacts acc. to EN 60947-1 | 400 V |

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| Protection class IP | |
| • on the front | IP20 |
| • of the terminal | IP20 |
| Shock resistance at rectangular impulse | |
| • at AC | 7,3g / 5 ms, 4,7g / 10 ms |
| Shock resistance with sine pulse | |
| • at AC | 11,4g / 5 ms, 7,3g / 10 ms |
| Mechanical service life (switching cycles) | |
| • of contactor typical | 30 000 000 |
| • of the contactor with added electronics-compatible auxiliary switch block typical | 5 000 000 |
| • of the contactor with added auxiliary switch block typical | 10 000 000 |
| Reference code acc. to DIN EN 81346-2 | Q |

Ambient conditions

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| Installation altitude at height above sea level | |
| • maximum | 2 000 m |
| Ambient temperature | |
| • during operation | -25 ... +60 °C |
| • during storage | -55 ... +80 °C |

Main circuit

| | |
|--|-------------------|
| Number of poles for main current circuit | 4 |
| Number of NO contacts for main contacts | 2 |
| Number of NC contacts for main contacts | 2 |
| Operating current | |
| • at AC-1 | |
| — up to 690 V at ambient temperature 40 °C rated value | 22 A |
| — up to 690 V at ambient temperature 60 °C rated value | 20 A |
| • at AC-2 at AC-3 at 400 V | |
| — per NO contact rated value | 16 A |
| — per NC contact rated value | 9 A |
| Minimum cross-section in main circuit | |
| • at maximum AC-1 rated value | 4 mm ² |
| Operating current | |
| • at 1 current path at DC-1 | |
| — at 24 V rated value | 20 A |
| — at 110 V rated value | 2.1 A |
| — at 220 V rated value | 0.8 A |
| — at 440 V rated value | 0.6 A |
| • with 2 current paths in series at DC-1 | |

| | |
|---|-------------|
| — at 24 V rated value | 20 A |
| — at 110 V rated value | 12 A |
| — at 220 V rated value | 1.6 A |
| — at 440 V rated value | 0.8 A |
| Operating current | |
| • at 1 current path at DC-3 at DC-5 | |
| — at 24 V per NC contact rated value | 20 A |
| — at 24 V per NO contact rated value | 20 A |
| — at 110 V per NC contact rated value | 0.075 A |
| — at 110 V per NO contact rated value | 0.15 A |
| — at 220 V per NC contact rated value | 0.375 A |
| — at 220 V per NO contact rated value | 0.75 A |
| • with 2 current paths in series at DC-3 at DC-5 | |
| — at 24 V per NC contact rated value | 20 A |
| — at 24 V per NO contact rated value | 20 A |
| — at 110 V per NC contact rated value | 0.175 A |
| — at 110 V per NO contact rated value | 0.35 A |
| Operating power | |
| • at AC-1 | |
| — at 230 V rated value | 7.5 kW |
| — at 400 V rated value | 13 kW |
| • at AC-2 at AC-3 | |
| — at 230 V per NC contact rated value | 2.2 kW |
| — at 230 V per NO contact rated value | 4 kW |
| — at 400 V per NC contact rated value | 4 kW |
| — at 400 V per NO contact rated value | 7.5 kW |
| Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor | 2.2 W |
| No-load switching frequency | |
| • at AC | 10 000 1/h |
| • at DC | 10 000 1/h |
| Operating frequency | |
| • at AC-1 maximum | 1 000 1/h |
| Control circuit/ Control | |
| Type of voltage of the control supply voltage | AC |
| Control supply voltage at AC | |
| • at 50 Hz rated value | 24 V |
| • at 60 Hz rated value | 24 V |
| Operating range factor control supply voltage rated value of magnet coil at AC | |
| • at 50 Hz | 0.8 ... 1.1 |

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|--|--------------|
| • at 60 Hz | 0.85 ... 1.1 |
| Apparent pick-up power of magnet coil at AC | 37 V·A |
| • at 50 Hz | 27 V·A |
| • at 60 Hz | 24.3 V·A |
| Inductive power factor with closing power of the coil | 0.8 |
| • at 50 Hz | 0.8 |
| • at 60 Hz | 0.75 |
| Apparent holding power of magnet coil at AC | 4.2 V·A |
| • at 50 Hz | 4.2 V·A |
| • at 60 Hz | 3.3 V·A |
| Inductive power factor with the holding power of the coil | 0.25 |
| • at 50 Hz | 0.25 |
| • at 60 Hz | 0.25 |
| Closing delay | |
| • at AC | 8 ... 33 ms |
| Opening delay | |
| • at AC | 4 ... 15 ms |
| Arcing time | 10 ... 15 ms |
| Residual current of the electronics for control with signal <0> | |
| • at AC at 230 V maximum permissible | 0.004 A |

Auxiliary circuit

| | |
|---|--------|
| Number of NC contacts for auxiliary contacts | |
| • instantaneous contact | 0 |
| Number of NO contacts for auxiliary contacts | |
| • instantaneous contact | 0 |
| Operating current at AC-12 maximum | 10 A |
| Operating current at AC-15 | |
| • at 230 V rated value | 10 A |
| • at 400 V rated value | 3 A |
| Operating current at DC-12 | |
| • at 48 V rated value | 6 A |
| • at 60 V rated value | 6 A |
| • at 110 V rated value | 3 A |
| • at 125 V rated value | 2 A |
| • at 220 V rated value | 1 A |
| • at 600 V rated value | 0.15 A |
| Operating current at DC-13 | |
| • at 24 V rated value | 10 A |
| • at 48 V rated value | 2 A |
| • at 60 V rated value | 2 A |

| | |
|--|---|
| <ul style="list-style-type: none"> • at 110 V rated value • at 220 V rated value • at 600 V rated value | <p>1 A</p> <p>0.3 A</p> <p>0.1 A</p> |
| Contact reliability of auxiliary contacts | 1 faulty switching per 100 million (17 V, 1 mA) |

UL/CSA ratings

| | |
|---|-------------------------|
| Yielded mechanical performance [hp] | |
| <ul style="list-style-type: none"> • for single-phase AC motor <ul style="list-style-type: none"> — at 110/120 V rated value — at 230 V rated value | <p>1 hp</p> <p>2 hp</p> |
| Contact rating of auxiliary contacts according to UL | A600 / Q600 |

Short-circuit protection

| | |
|---|---|
| Design of the fuse link | |
| <ul style="list-style-type: none"> • for short-circuit protection of the main circuit <ul style="list-style-type: none"> — with type of coordination 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required | <p>gG: 35 A (690 V, 100 kA)</p> <p>gG: 20A (690V, 100kA)</p> <p>fuse gG: 10 A</p> |

Installation/ mounting/ dimensions

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|--|--|
| Mounting position | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| Mounting type | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 |
| <ul style="list-style-type: none"> • Side-by-side mounting | Yes |
| Height | 70 mm |
| Width | 45 mm |
| Depth | 73 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 | <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>6 mm</p> <p>0 mm</p> |

| | |
|---------------|------|
| — forwards | 0 mm |
| — Backwards | 0 mm |
| — upwards | 0 mm |
| — downwards | 0 mm |
| — at the side | 6 mm |

Connections/ Terminals

| | |
|---|-----------------------------------|
| Type of electrical connection | |
| • for main current circuit | spring-loaded terminals |
| • for auxiliary and control current circuit | spring-loaded terminals |
| Type of connectable conductor cross-sections | |
| • for main contacts | |
| — solid | 2x (0.5 ... 4 mm ²) |
| — single or multi-stranded | 2x (0,5 ... 4 mm ²) |
| — finely stranded with core end processing | 2x (0.5 ... 2.5 mm ²) |
| — finely stranded without core end processing | 2x (0.5 ... 2.5 mm ²) |
| • at AWG conductors for main contacts | 2x (20 ... 12) |
| Type of connectable conductor cross-sections | |
| • for auxiliary contacts | |
| — solid | 2x (0.5 ... 4 mm ²) |
| — single or multi-stranded | 2x (0,5 ... 4 mm ²) |
| — finely stranded with core end processing | 2x (0.5 ... 2.5 mm ²) |
| — finely stranded without core end processing | 2x (0.5 ... 2.5 mm ²) |
| • at AWG conductors for auxiliary contacts | 2x (20 ... 12) |
| AWG number as coded connectable conductor cross section for main contacts | 20 ... 12 |

Safety related data

| | |
|---|-----------------|
| Product function | |
| • Mirror contact acc. to IEC 60947-4-1 | Yes; with 3RH29 |
| • positively driven operation acc. to IEC 60947-5-1 | No |
| T1 value for proof test interval or service life acc. to IEC 61508 | 20 y |
| Protection against electrical shock | finger-safe |

Certificates/ approvals

| | | |
|--------------------------|-----|---------------------------------------|
| General Product Approval | EMC | Functional Safety/Safety of Machinery |
|--------------------------|-----|---------------------------------------|



[Type Examination Certificate](#)

| | | |
|---------------------------|-------------------|-------------------|
| Declaration of Conformity | Test Certificates | Marine / Shipping |
|---------------------------|-------------------|-------------------|



[Miscellaneous](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



| | |
|-------------------|-------|
| Marine / Shipping | other |
|-------------------|-------|



[Confirmation](#)

| |
|-------|
| other |
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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=3RT2518-2AB00>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2518-2AB00>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2518-2AB00>

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

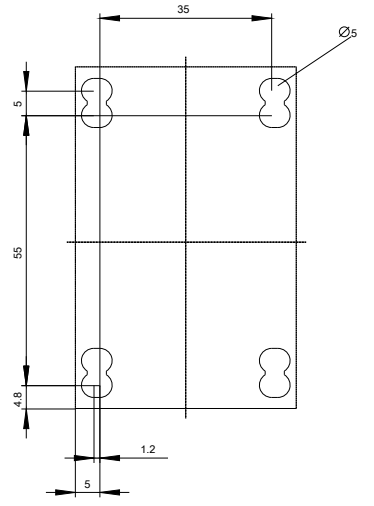
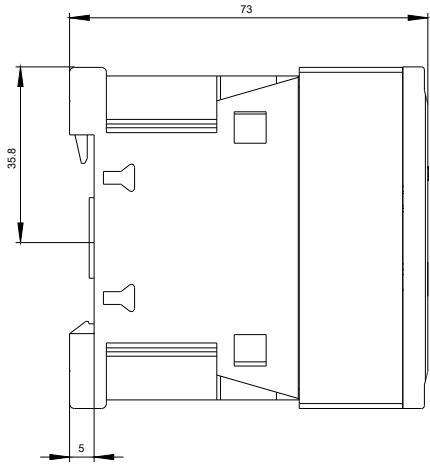
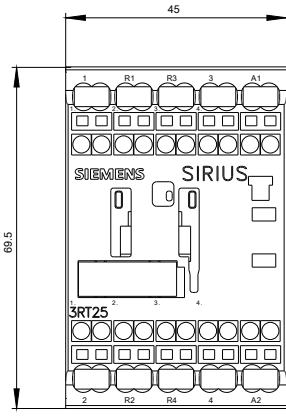
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2518-2AB00&lang=en

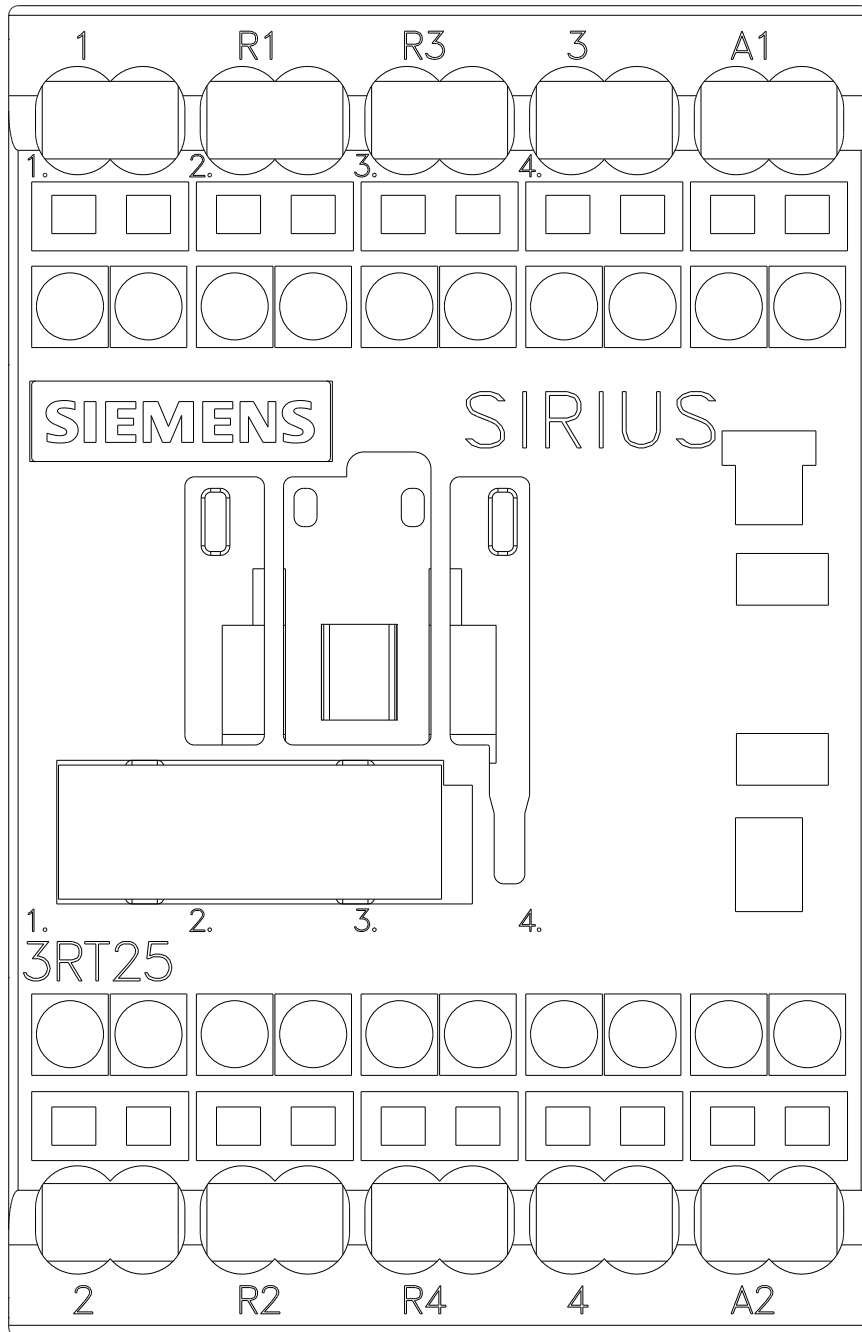
Characteristic: Tripping characteristics, I^t, Let-through current

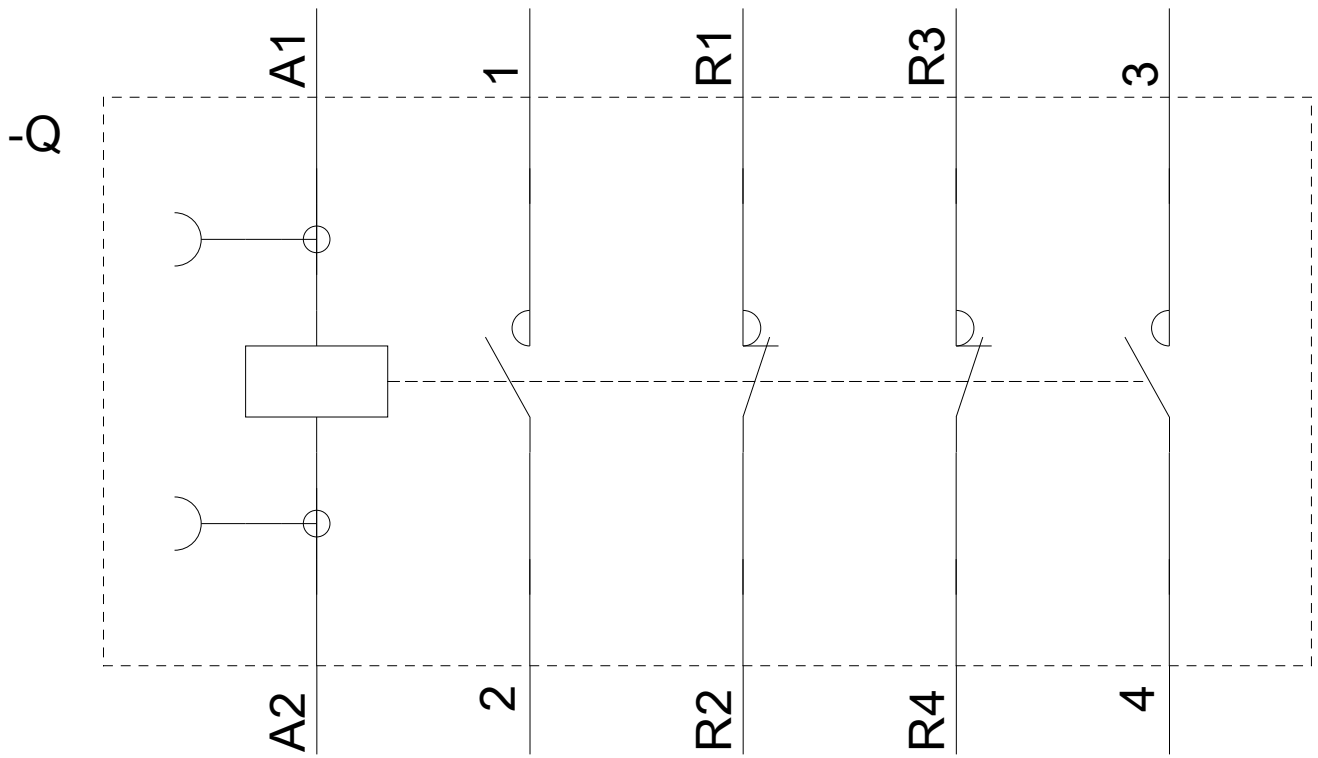
<https://support.industry.siemens.com/cs/ww/en/ps/3RT2518-2AB00/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2518-2AB00&objecttype=14&gridview=view1>







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