

Contactor, AC-1, 400 A/690 V/40 °C, S10, 3-pole, 240-277 V AC/DC, with varistor, 2 NO+2 NC, Connection rail/ screw terminal



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|--|---|
| product brand name | SIRIUS |
| Product designation | Contactor |
| Product type designation | 3RT14 |
| General technical data | |
| Size of contactor | S10 |
| Product extension | |
| <ul style="list-style-type: none"> function module for communication | No |
| <ul style="list-style-type: none"> Auxiliary switch | Yes |
| <ul style="list-style-type: none"> Insulation voltage of main circuit with degree of pollution 3 rated value | 1 000 V |
| <ul style="list-style-type: none"> Insulation voltage of auxiliary circuit with degree of pollution 3 rated value | 690 V |
| Surge voltage resistance | |
| <ul style="list-style-type: none"> of main circuit rated value | 8 kV |
| <ul style="list-style-type: none"> of auxiliary circuit rated value | 6 kV |
| <ul style="list-style-type: none"> protection class IP on the front | IP00; IP20 on the front with cover / box terminal |
| <ul style="list-style-type: none"> Protection class IP of the terminal | IP00 |
| Shock resistance at rectangular impulse | |
| <ul style="list-style-type: none"> at AC | 8,5g / 5 ms, 4,2g / 10 ms |

| | |
|---|----------------------------|
| <ul style="list-style-type: none"> • at DC | 8,5g / 5 ms, 4,2g / 10 ms |
| Shock resistance with sine pulse | |
| <ul style="list-style-type: none"> • at AC | 13,4g / 5 ms, 6,5g / 10 ms |
| <ul style="list-style-type: none"> • at DC | 13,4g / 5 ms, 6,5g / 10 ms |
| Mechanical service life (switching cycles) | |
| <ul style="list-style-type: none"> • of contactor typical | 10 000 000 |
| <ul style="list-style-type: none"> • of the contactor with added electronics-compatible auxiliary switch block typical | 5 000 000 |
| <ul style="list-style-type: none"> • 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 | |
| <ul style="list-style-type: none"> • maximum | 2 000 m |
| Ambient temperature | |
| <ul style="list-style-type: none"> • during operation | -25 ... +60 °C |
| <ul style="list-style-type: none"> • during storage | -55 ... +80 °C |
| Relative humidity during operation | 0 ... 95 % |

Main circuit

| | |
|---|----------------------------------|
| Number of poles for main current circuit | 3 |
| Number of NO contacts for main contacts | 3 |
| Type of voltage for main current circuit | AC |
| Operating voltage | |
| <ul style="list-style-type: none"> • at AC <ul style="list-style-type: none"> — at 50 Hz rated value — at 60 Hz rated value | 277 V 277 V |
| Operating current | |
| <ul style="list-style-type: none"> • at AC-1 <ul style="list-style-type: none"> — up to 690 V at ambient temperature 40 °C rated value — up to 690 V at ambient temperature 55 °C rated value — up to 690 V at ambient temperature 60 °C rated value • at AC-3 at 400 V rated value | 400 A 380 A 380 A 138 A |
| Minimum cross-section in main circuit | |
| <ul style="list-style-type: none"> • at maximum AC-1 rated value | 240 mm ² |
| No-load switching frequency | |
| <ul style="list-style-type: none"> • at AC • at DC | 2 000 1/h 2 000 1/h |
| Operating frequency | |
| <ul style="list-style-type: none"> • at AC-1 maximum | 600 1/h |

| Control circuit/ Control | |
|---|------------------|
| type of voltage | AC/DC |
| Type of voltage of the control supply voltage | AC/DC |
| Control supply voltage at AC | |
| • at 50 Hz rated value | 240 ... 277 V |
| • at 60 Hz rated value | 240 ... 277 V |
| Control supply voltage at DC | |
| • rated value | 240 ... 277 V |
| Operating range factor control supply voltage rated value of magnet coil at DC | |
| • initial value | 0.8 |
| • Full-scale value | 1.1 |
| Operating range factor control supply voltage rated value of magnet coil at AC | |
| • at 50 Hz | 0.8 ... 1.1 |
| • at 60 Hz | 0.8 ... 1.1 |
| Design of the surge suppressor | with varistor |
| Apparent pick-up power of magnet coil at AC | |
| • at 50 Hz | 590 V·A |
| Inductive power factor with closing power of the coil | |
| • at 50 Hz | 0.9 |
| Apparent holding power of magnet coil at AC | |
| • at 50 Hz | 6.7 V·A |
| Inductive power factor with the holding power of the coil | |
| • at 50 Hz | 0.9 |
| Closing power of magnet coil at DC | 650 W |
| Holding power of magnet coil at DC | 7.4 W |
| Closing delay | |
| • at AC | 30 ... 95 ms |
| • at DC | 30 ... 95 ms |
| Opening delay | |
| • at AC | 40 ... 80 ms |
| • at DC | 40 ... 80 ms |
| Arcing time | 10 ... 15 ms |
| Control version of the switch operating mechanism | Standard A1 - A2 |
| Auxiliary circuit | |
| Number of NC contacts for auxiliary contacts | 2 |
| • attachable | 4 |
| • instantaneous contact | 2 |
| Number of NO contacts for auxiliary contacts | 2 |
| • attachable | 4 |

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|---|---|
| • instantaneous contact | 2 |
| Operating current at AC-12 maximum | 10 A |
| Operating current at AC-15 | |
| • at 230 V rated value | 6 A |
| • at 400 V rated value | 3 A |
| • at 500 V rated value | 2 A |
| • at 690 V rated value | 1 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 |
| • at 110 V rated value | 1 A |
| • at 125 V rated value | 0.9 A |
| • at 220 V rated value | 0.3 A |
| • at 600 V rated value | 0.1 A |
| Design of the miniature circuit breaker | |
| • for short-circuit protection of the auxiliary switch required | gG: 10 A (230 V, 400 A) |
| contact reliability of auxiliary contacts | 1 faulty switching per 100 million (17 V, 1 mA) |

Short-circuit protection

| | |
|---|---------------------------|
| Product function Short circuit protection | No |
| Design of the fuse link | |
| • for short-circuit protection of the main circuit | |
| — with type of coordination 1 required | gG: 500 A (690 V, 100 kA) |
| — with type of assignment 2 required | gR: 500 A (690 V, 100 kA) |
| • for short-circuit protection of the auxiliary switch required | gG: 10 A (500 V, 1 kA) |

Installation/ mounting/ dimensions

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|------------------------------|--|
| • mounting position | with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back |
| Mounting type | screw fixing |
| • Side-by-side mounting | Yes |
| Height | 210 mm |
| Width | 145 mm |
| Depth | 202 mm |
| Required spacing | |
| • with side-by-side mounting | |
| — forwards | 20 mm |
| — upwards | 10 mm |
| — downwards | 10 mm |
| — at the side | 0 mm |
| • for grounded parts | |

| | |
|------------------|-------|
| — forwards | 20 mm |
| — upwards | 10 mm |
| — at the side | 10 mm |
| — downwards | 10 mm |
| • for live parts | |
| — forwards | 20 mm |
| — upwards | 10 mm |
| — downwards | 10 mm |
| — at the side | 10 mm |

Connections/ Terminals




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|--|---|
| Width of connection bar | 25 mm |
| Thickness of connection bar | 6 mm |
| Diameter of holes | 11 mm |
| Number of holes | 1 |
| <ul style="list-style-type: none"> • Type of electrical connection for main current circuit • Type of electrical connection for auxiliary and control current circuit • Type of electrical connection at contactor for auxiliary contacts • Type of electrical connection of magnet coil | <p>Connection bar</p> <p>screw-type terminals</p> <p>Screw-type terminals</p> <p>Screw-type terminals</p> |
| Type of connectable conductor cross-sections | |
| <ul style="list-style-type: none"> • at AWG conductors for main contacts | 2/0 ... 500 kcmil |
| Connectable conductor cross-section for main contacts | |
| <ul style="list-style-type: none"> • single or multi-stranded • stranded | <p>70 ... 240 mm²</p> <p>70 ... 240 mm²</p> |
| Connectable conductor cross-section for auxiliary contacts | |
| <ul style="list-style-type: none"> • single or multi-stranded • finely stranded with core end processing | <p>0.5 ... 4 mm²</p> <p>0.5 ... 2.5 mm²</p> |
| Type of connectable conductor cross-sections | |
| <ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — solid — single or multi-stranded — finely stranded with core end processing • at AWG conductors for auxiliary contacts | <p>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), max. 2x (0.75 ... 4 mm²)</p> <p>2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), max. 2x (0,75 ... 4 mm²)</p> <p>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)</p> <p>2x (20 ... 16), 2x (18 ... 14), 1x 12</p> |


Safety related data

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|---|----------------------|
| Product function | |
| <ul style="list-style-type: none"> • Mirror contact acc. to IEC 60947-4-1 • positively driven operation acc. to IEC 60947-5-1 | <p>Yes</p> <p>No</p> |

Certificates/ approvals

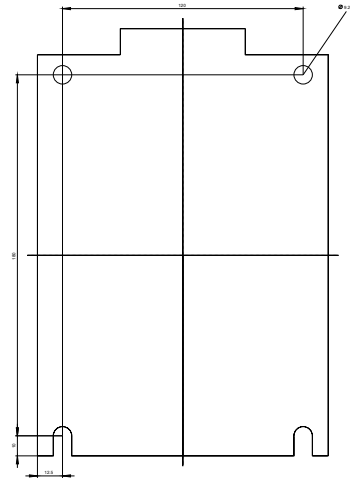
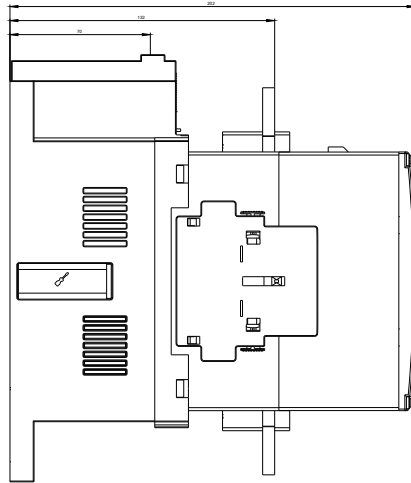
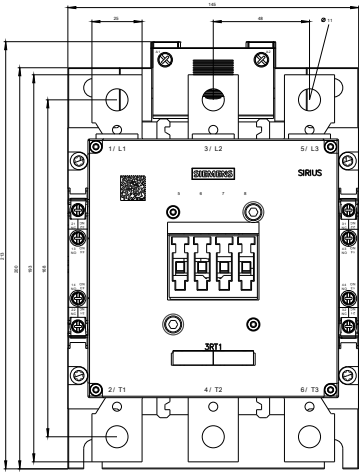
| General Product Approval | | | | EMC | Functional Safety/Safety of Machinery |
|--|--|---|---|--|--|
|  CCC |  CSA |  UL |  |  RCM | Type Examination Certificate |

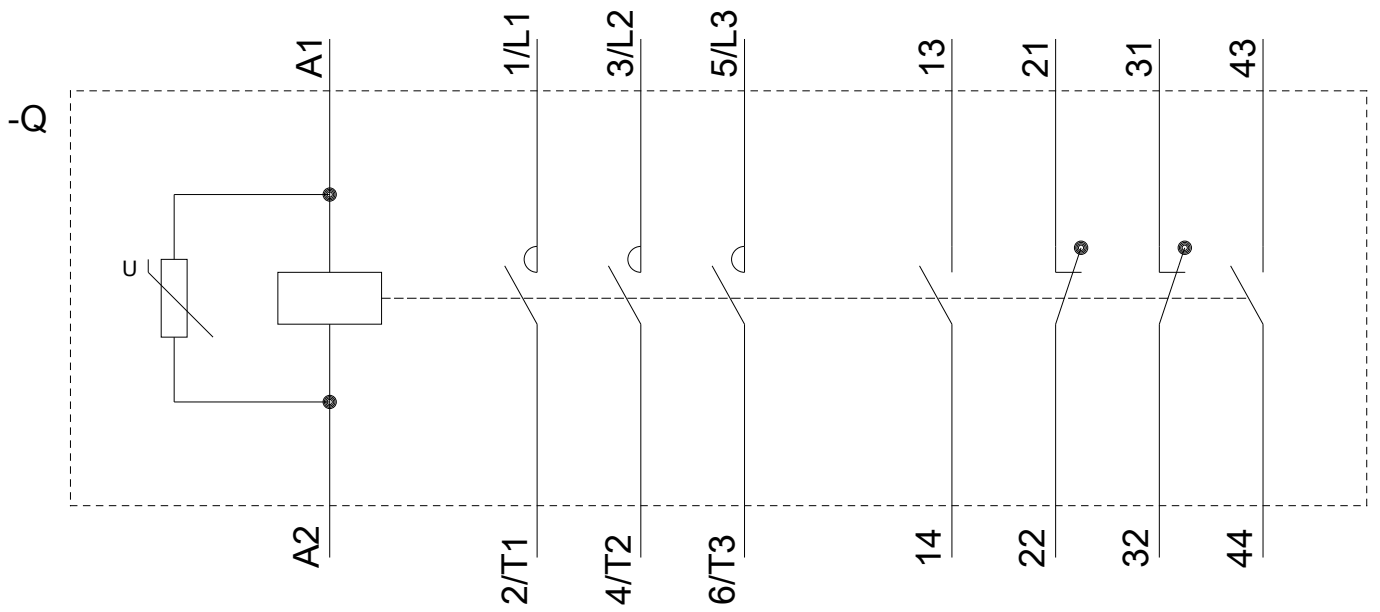
| Declaration of Conformity | Test Certificates | | Marine / Shipping | | |
|---|-------------------------------|--|--|--|---|
|  EG-Konf. | Miscellaneous | Special Test Certificate | Type Test Certificates/Test Report |  ABS |  RMRS |

| Marine / Shipping | other | Railway | |
|--|------------------------------|-------------------------------|--|
|  DNV-GL DNVGL.COM/AF | Confirmation | Miscellaneous | Special Test Certificate |

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=3RT1466-6AU36>**Cax online generator**<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1466-6AU36>**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**<https://support.industry.siemens.com/cs/ww/en/ps/3RT1466-6AU36>**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1466-6AU36&lang=en**Characteristic: Tripping characteristics, I_t, Let-through current**<https://support.industry.siemens.com/cs/ww/en/ps/3RT1466-6AU36/char>**Further characteristics (e.g. electrical endurance, switching frequency)**<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1466-6AU36&objecttype=14&gridview=view1>





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