



Contactor, AC-1, 500 A/400 V/40 °C, S12, 4-pole, 24-60 V AC, 20-60 V DC, 2 NO+2 NC, Connection rail/ screw terminal

| | |
|-------------------------------------------------------------------------------|----------------|
| product brand name | SIRIUS |
| product designation | Contactor |
| product type designation | 3RT13 |
| General technical data | |
| size of contactor | S12 |
| product extension | |
| • function module for communication | No |
| • auxiliary switch | Yes |
| power loss [W] for rated value of the current | |
| • at AC in hot operating state | 200 W |
| • at AC in hot operating state per pole | 50 W |
| • without load current share typical | 3.5 W |
| type of calculation of power loss depending on pole | quadratic |
| insulation voltage | |
| • of main circuit with degree of pollution 3 rated value | 1 000 V |
| • of the auxiliary and control circuit with degree of pollution 3 rated value | 690 V |
| surge voltage resistance | |
| • of main circuit rated value | 8 kV |
| • of auxiliary circuit rated value | 6 kV |
| reference code according to IEC 81346-2 | Q |
| Substance Prohibition (Date) | 03/27/2017 |
| Weight | 6.805 kg |
| Ambient conditions | |
| installation altitude at height above sea level maximum | 2 000 m |
| ambient temperature | |
| • during operation | -40 ... +60 °C |
| • during storage | -40 ... +70 °C |
| relative humidity minimum | 10 % |
| relative humidity at 55 °C according to IEC 60068-2-30 maximum | 95 % |
| Main circuit | |
| number of poles for main current circuit | 4 |
| number of NO contacts for main contacts | 4 |
| type of voltage for main current circuit | AC |
| operational current | |
| • at AC-1 at 400 V at ambient temperature 40 °C rated value | 500 A |
| • at AC-1 — up to 690 V at ambient temperature 40 °C rated value | 500 A |

| | |
|---------------------------------------------------------------------------------------|---------------------|
| — up to 690 V at ambient temperature 60 °C rated value | 400 A |
| — up to 1000 V at ambient temperature 40 °C rated value | 375 A |
| — up to 1000 V at ambient temperature 60 °C rated value | 325 A |
| ● at AC-3 | |
| — at 400 V rated value | 305 A |
| minimum cross-section in main circuit at maximum AC-1 rated value | 300 mm ² |
| operating power | |
| ● at AC-3 at 400 V rated value | 160 kW |
| no-load switching frequency | |
| ● at AC | 300 1/h |
| ● at DC | 300 1/h |
| Control circuit/ Control | |
| type of voltage | AC |
| type of voltage of the control supply voltage | AC/DC |
| control supply voltage at AC | |
| ● at 50 Hz rated value | 24 ... 60 V |
| ● at 60 Hz rated value | 24 ... 60 V |
| control supply voltage at DC rated value | 20 ... 60 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 | 0.85 ... 1.1 |
| ● at 60 Hz | 0.85 ... 1.1 |
| design of the surge suppressor | with varistor |
| apparent pick-up power of magnet coil at AC | |
| ● at 50 Hz | 475 VA |
| ● at 60 Hz | 475 VA |
| apparent holding power of magnet coil at AC | |
| ● at 50 Hz | 8.5 VA |
| ● at 60 Hz | 8.5 VA |
| closing power of magnet coil at DC | 400 W |
| holding power of magnet coil at DC | 3.5 W |
| closing delay | |
| ● at AC | 30 ... 60 ms |
| ● at DC | 30 ... 60 ms |
| opening delay | |
| ● at AC | 45 ... 80 ms |
| ● at DC | 45 ... 80 ms |
| control version of the switch operating mechanism | Standard A1 - A2 |
| Auxiliary circuit | |
| number of NC contacts for auxiliary contacts | 2 |
| ● attachable | 2 |
| ● instantaneous contact | 2 |
| number of NO contacts for auxiliary contacts | 2 |
| ● attachable | 2 |
| ● instantaneous contact | 2 |
| operational current at AC-15 | |
| ● at 230 V rated value | 4 A |
| ● at 400 V rated value | 3 A |
| ● at 500 V rated value | 2 A |
| ● at 690 V rated value | 2 A |
| operational current at DC-13 | |
| ● at 24 V rated value | 3 A |
| ● at 48 V rated value | 1.5 A |
| ● at 110 V rated value | 0.55 A |

| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • at 125 V rated value • at 220 V rated value | <p>0.55 A</p> <p>0.3 A</p> |
| UL/CSA ratings | |
| contact rating of auxiliary contacts according to UL | A600 / Q300 |
| 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 2 required • for short-circuit protection of the auxiliary switch required | <p>gG: 630 A (500 V, 100 kA)</p> <p>gG: 10 A (690 V, 1 kA)</p> |
| Installation/ mounting/ dimensions | |
| mounting position | For vertical mounting surface can be rotated +/-180°, and with 0° rotation can be tilted forward or backward +/- 30°, or standing |
| fastening method side-by-side mounting | Yes |
| fastening method | screw fixing |
| height | 225 mm |
| width | 184 mm |
| depth | 180 mm |
| required spacing | |
| <ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — upwards — downwards — at the side | <p>20 mm</p> <p>10 mm</p> <p>10 mm</p> <p>0 mm</p> <p>20 mm</p> <p>10 mm</p> <p>10 mm</p> <p>10 mm</p> <p>20 mm</p> <p>10 mm</p> <p>10 mm</p> <p>10 mm</p> |
| net weight | 6.5 kg |
| Connections/ Terminals | |
| type of electrical connection | |
| <ul style="list-style-type: none"> • for main current circuit • for auxiliary and control circuit • at contactor for auxiliary contacts • of magnet coil | <p>Connection bar, broadened > 450A required</p> <p>screw-type terminals</p> <p>Screw-type terminals</p> <p>Screw-type terminals</p> |
| connectable conductor cross-section for auxiliary contacts | |
| <ul style="list-style-type: none"> • solid or stranded • finely stranded with core end processing | <p>1 ... 4 mm²</p> <p>0.75 ... 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 — solid or stranded — finely stranded with core end processing • for AWG cables for auxiliary contacts | <p>1x (1 ... 4mm²), 2x (1 ... 4mm²)</p> <p>1x (1 ... 4mm²), 2x (1 ... 4mm²)</p> <p>1x (0.75 ... 2.5 mm²), 2x (0.75 ... 2.5 mm²)</p> <p>1x (AWG 18 ... 14), 2x (AWG 18 ... 14)</p> |
| AWG number as coded connectable conductor cross section for auxiliary contacts | 18 ... 14 |
| Safety related data | |
| product function | |
| <ul style="list-style-type: none"> • mirror contact according to IEC 60947-4-1 • positively driven operation according to IEC 60947-5-1 | <p>Yes</p> <p>No</p> |
| Electrical Safety | |
| protection class IP on the front according to IEC 60529 | IP00; IP20 with box terminal/cover |
| touch protection on the front according to IEC 60529 | finger-safe, for vertical contact from the front with box terminal/cover |
| Communication/ Protocol | |
| product function bus communication | No |
| Approvals Certificates | |



Test Certificates

other

Railway

Environment

[Special Test Certificate](#)



[Confirmation](#)

[Miscellaneous](#)

[Special Test Certificate](#)

[Environmental Confirmations](#)

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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=3RT1374-6AE36>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1374-6AE36>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1374-6AE36>

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

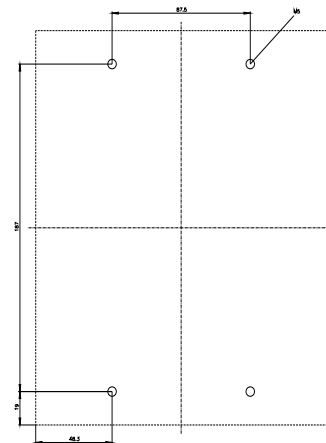
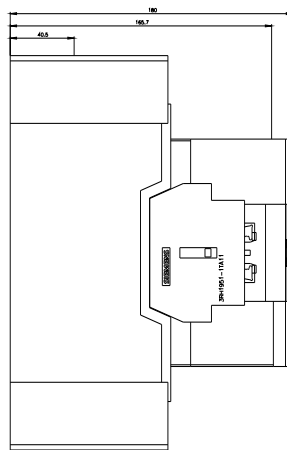
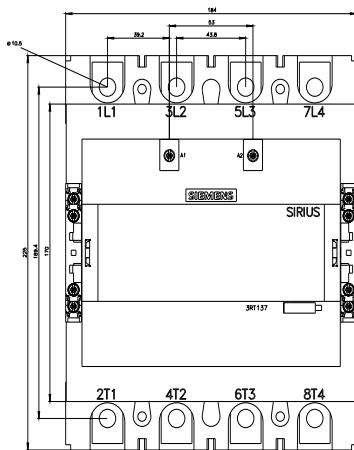
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1374-6AE36&lang=en

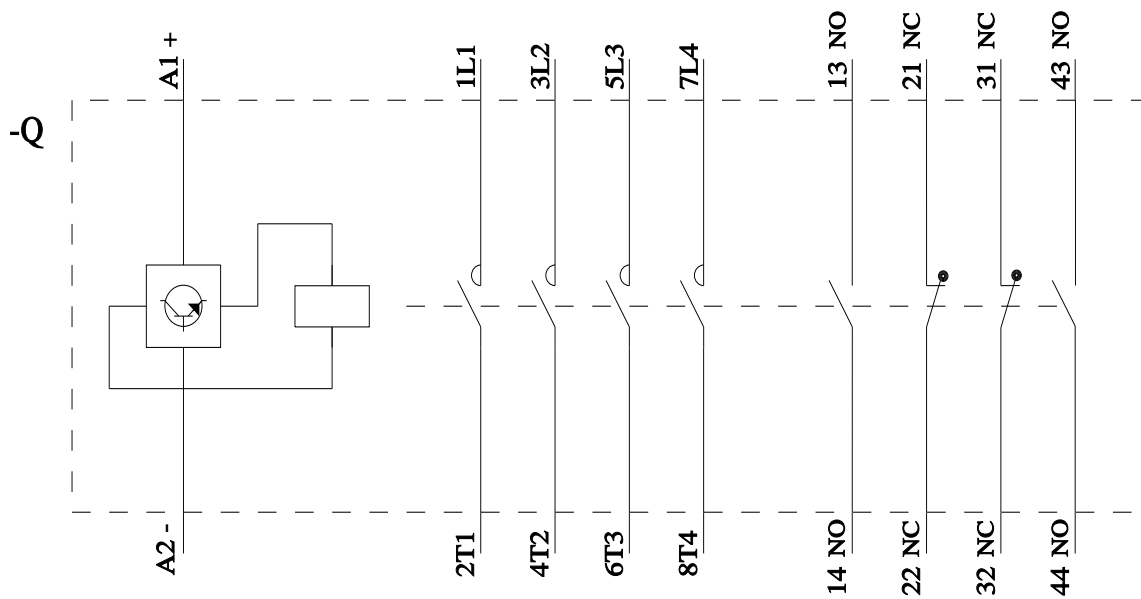
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1374-6AE36/char>

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

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1374-6AE36&objecttype=14&gridview=view1>





last modified:

11/11/2025 