



contactor AC-1, 18 A, 400 V / 40 °C, 4-pole, 48 V DC, screw terminal, size: S00

| | |
|---|----------------------------|
| product brand name | SIRIUS |
| product designation | Contacteur |
| product type designation | 3RT23 |
| General technical data | |
| size of contactor | S00 |
| 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 | 4.4 W |
| • at AC in hot operating state per pole | 1.1 W |
| • without load current share typical | 4 W |
| insulation voltage | |
| • of main circuit with degree of pollution 3 rated value | 690 V |
| • of the auxiliary and control 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 |
| shock resistance at rectangular impulse | |
| • at DC | 6,7g / 5 ms, 4,2g / 10 ms |
| shock resistance with sine pulse | |
| • at DC | 10,5g / 5 ms, 6,6g / 10 ms |
| mechanical service life (operating cycles) | |
| • of contactor typical | 30 000 000 |
| • of the contactor with added auxiliary switch block typical | 10 000 000 |
| reference code according to IEC 81346-2 | Q |
| Substance Prohibitance (Date) | 10/01/2009 |
| Ambient conditions | |
| installation altitude at height above sea level maximum | 2 000 m |
| ambient temperature | |
| • during operation | -25 ... +60 °C |
| • during storage | -55 ... +80 °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 |
| operational current | |
| • at AC-1 at 400 V at ambient temperature 40 °C rated | 18 A |

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|---|--|
| value | |
| <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 60 °C rated value at AC-3 <ul style="list-style-type: none"> at 400 V rated value at AC-4 at 400 V rated value | 18 A 16 A 9 A 8.5 A |
| minimum cross-section in main circuit at maximum AC-1 rated value | 2.5 mm ² |
| operating power <ul style="list-style-type: none"> at AC-3 at 400 V rated value at AC-4 at 400 V rated value | 4 kW 4 kW |
| short-time withstand current in cold operating state up to 40 °C <ul style="list-style-type: none"> limited to 1 s switching at zero current maximum limited to 5 s switching at zero current maximum limited to 10 s switching at zero current maximum limited to 30 s switching at zero current maximum limited to 60 s switching at zero current maximum | Use minimum cross-section acc. to AC-1 rated value Use minimum cross-section acc. to AC-1 rated value Use minimum cross-section acc. to AC-1 rated value Use minimum cross-section acc. to AC-1 rated value Use minimum cross-section acc. to AC-1 rated value |
| no-load switching frequency <ul style="list-style-type: none"> at DC | 10 000 1/h |
| operating frequency at AC-1 maximum | 1 000 1/h |
| Control circuit/ Control | |
| type of voltage | DC |
| type of voltage of the control supply voltage | DC |
| control supply voltage at DC <ul style="list-style-type: none"> rated value | 48 V |
| operating range factor control supply voltage rated value of magnet coil at DC <ul style="list-style-type: none"> initial value full-scale value | 0.8 1.1 |
| closing power of magnet coil at DC | 4 W |
| holding power of magnet coil at DC | 4 W |
| closing delay <ul style="list-style-type: none"> at DC | 30 ... 100 ms |
| opening delay <ul style="list-style-type: none"> at DC | 7 ... 13 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 <ul style="list-style-type: none"> attachable | 2 |
| number of NO contacts for auxiliary contacts <ul style="list-style-type: none"> attachable | 2 |
| Short-circuit protection | |
| product function short circuit protection | No |
| 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 | gG: 35 A (690 V, 100 kA) gG: 20 A (690 V, 100 kA) gG: 10 A (690 V, 1 kA) |
| Installation/ mounting/ dimensions | |
| mounting position | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| fastening method <ul style="list-style-type: none"> side-by-side mounting | screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 Yes |
| height | 58 mm |
| width | 45 mm |
| depth | 73 mm |
| required spacing | |

- with side-by-side mounting
 - forwards 10 mm
 - upwards 10 mm
 - downwards 10 mm
 - at the side 0 mm
- for grounded parts
 - forwards 10 mm
 - upwards 10 mm
 - at the side 6 mm
 - downwards 10 mm
- for live parts
 - forwards 10 mm
 - upwards 10 mm
 - downwards 10 mm
 - at the side 6 mm

Connections/ Terminals

| | |
|---|---|
| type of electrical connection | |
| • for main current circuit | screw-type terminals |
| • for auxiliary and control circuit | screw-type terminals |
| • at contactor for auxiliary contacts | Screw-type terminals |
| • of magnet coil | Screw-type terminals |
| type of connectable conductor cross-sections for main contacts | |
| • solid | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), 2x 4 mm ² |
| • solid or stranded | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), 2x 4 mm ² |
| • finely stranded with core end processing | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) |
| connectable conductor cross-section for main contacts | |
| • solid | 0.5 ... 4 mm ² |
| • solid or stranded | 0.5 ... 4 mm ² |
| • stranded | 0.5 ... 4 mm ² |
| • finely stranded with core end processing | 0.5 ... 2.5 mm ² |
| connectable conductor cross-section for auxiliary contacts | |
| • solid or stranded | 0.5 ... 4 mm ² |
| • finely stranded with core end processing | 0.5 ... 2.5 mm ² |
| type of connectable conductor cross-sections | |
| • for auxiliary contacts <ul style="list-style-type: none"> — solid — solid or stranded — finely stranded with core end processing | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), 2x 4 mm ² 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) |
| • for AWG cables for auxiliary contacts | 2x (20 ... 16), 2x (18 ... 14), 2x 12 |
| AWG number as coded connectable conductor cross section | |
| • for main contacts | 20 ... 12 |
| • for auxiliary contacts | 20 ... 12 |

Safety related data

| | |
|---|--|
| product function | |
| • mirror contact according to IEC 60947-4-1 | Yes; with 3RH29 |
| T1 value for proof test interval or service life according to IEC 61508 | 20 a |
| protection class IP on the front according to IEC 60529 | IP20 |
| touch protection on the front according to IEC 60529 | finger-safe, for vertical contact from the front |

Communication/ Protocol

| | |
|---|----|
| product function bus communication | No |
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Certificates/ approvals

| | |
|---------------------------------|-----|
| General Product Approval | EMC |
|---------------------------------|-----|



[Confirmation](#)



| | | | |
|----------------------------|--|--|--|
| Safety/Safety of Machinery | | | |
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[Type Examination Certificate](#)



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping



| | | | |
|-------|---------|----------------|-------------|
| other | Railway | Dangerous Good | Environment |
|-------|---------|----------------|-------------|

[Confirmation](#)



[Vibration and Shock](#)

[Transport Information](#)

[Environmental Confirmations](#)

Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

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

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=3RT2316-1BW40>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2316-1BW40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2316-1BW40>

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

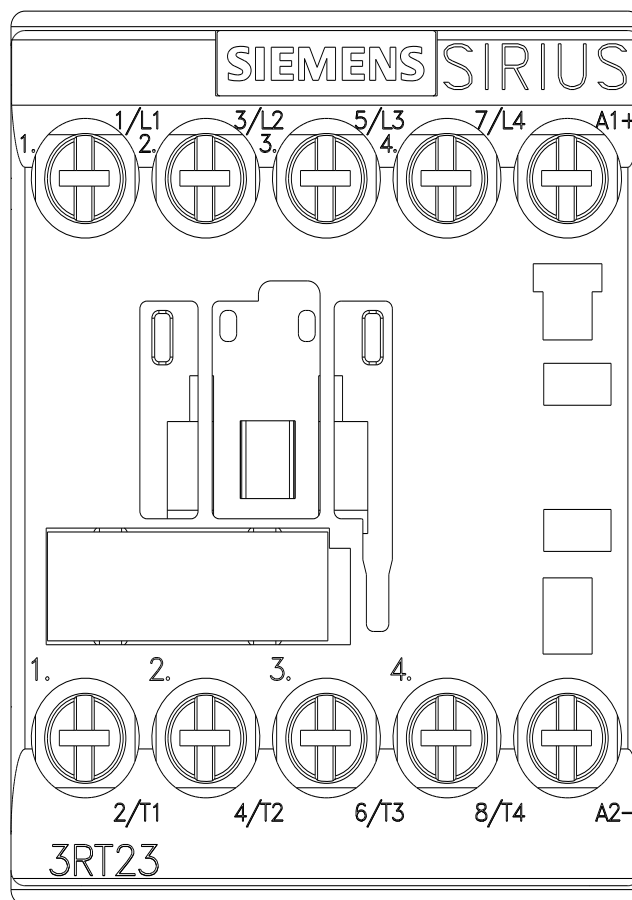
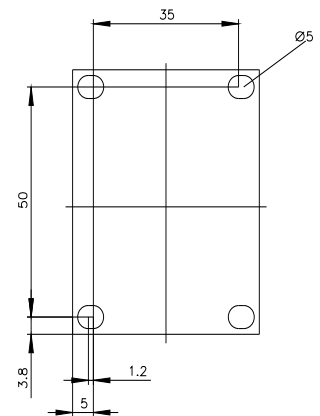
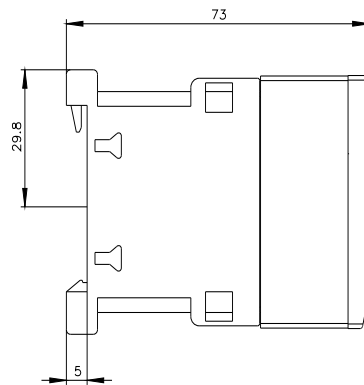
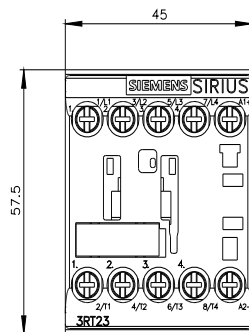
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2316-1BW40&lang=en

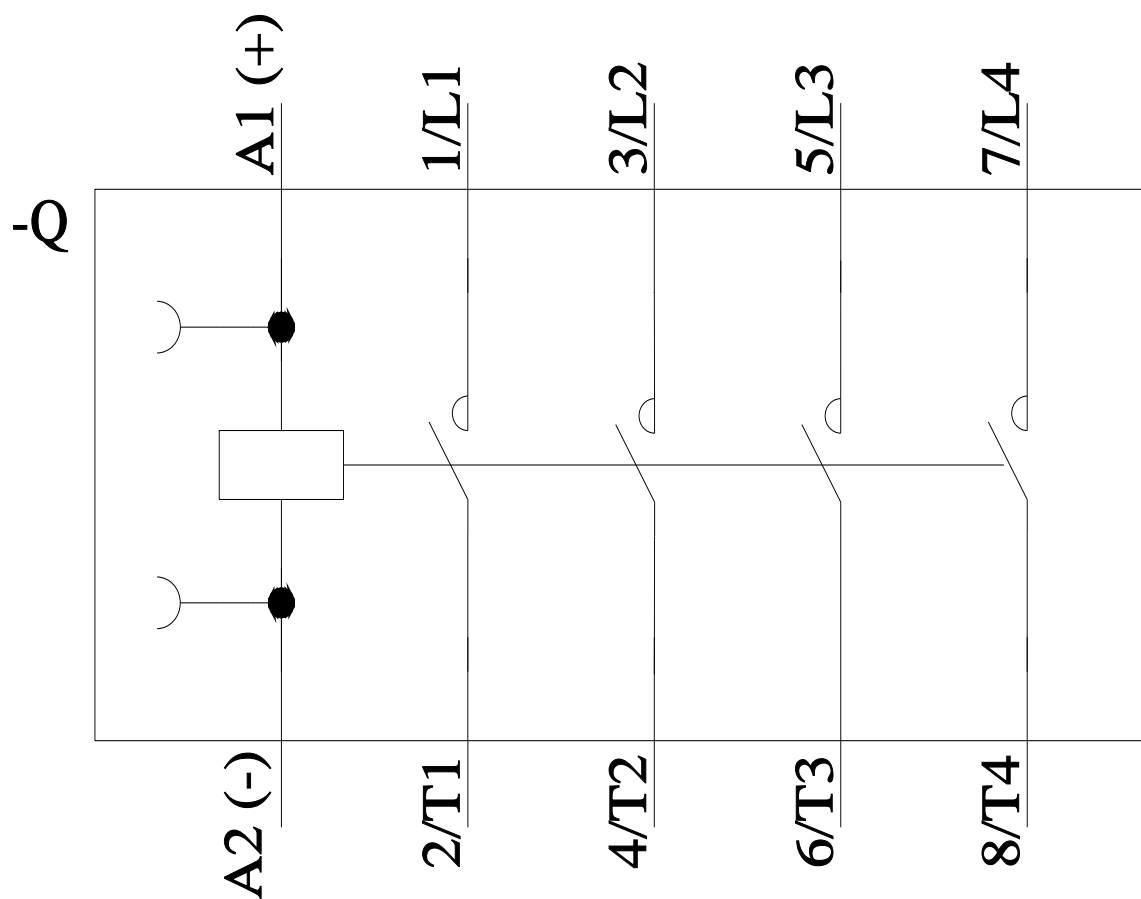
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2316-1BW40/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT2316-1BW40&objecttype=14&gridview=view1>





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