

4NO CONTACTOR, AC1: 18A AC 110V 50/60HZ 4-POLE, 4NO, SZ: S00, SCREW TERMINAL



| | |
|---|------------|
| product brandname | 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 |
| Insulation voltage | |
| • rated value | 690 V |
| Degree of pollution | 3 |
| Surge voltage resistance rated value | 6 kV |
| maximum permissible voltage for safe isolation | |
| • between coil and main contacts acc. to EN 60947-1 | 400 V |
| Protection class IP | |
| • on the front | IP20 |
| • of the terminal | IP20 |
| Shock resistance | |

| | |
|---|--|
| <ul style="list-style-type: none"> • at rectangular impulse <ul style="list-style-type: none"> — at AC • with sine pulse <ul style="list-style-type: none"> — at AC | <p>6,7g / 5 ms, 4,2g / 10 ms</p> <p>10,5g / 5 ms, 6,6g / 10 ms</p> |
| Mechanical service life (switching cycles) <ul style="list-style-type: none"> • of contactor typical • of the contactor with added electronics-compatible auxiliary switch block typical • of the contactor with added auxiliary switch block typical | <p>30 000 000</p> <p>5 000 000</p> <p>10 000 000</p> |

Ambient conditions

| | |
|--|---|
| Installation altitude at height above sea level maximum | 2 000 m |
| Ambient temperature | |
| <ul style="list-style-type: none"> • during operation • during storage | <p>-25 ... +60 °C</p> <p>-55 ... +80 °C</p> |

Main circuit

| | |
|--|---|
| Number of poles for main current circuit | 4 |
| Number of NO contacts for main contacts | 4 |
| Number of NC contacts for main contacts | 0 |
| Operating voltage | |
| <ul style="list-style-type: none"> • at AC-3 rated value maximum | 690 V |
| Operating current | |
| <ul style="list-style-type: none"> • at AC-1 at 400 V <ul style="list-style-type: none"> — at ambient temperature 40 °C rated value • 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-2 at 400 V rated value • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value | <p>18 A</p> <p>18 A</p> <p>16 A</p> <p>9 A</p> <p>9 A</p> |
| Connectable conductor cross-section in main circuit at AC-1 | |
| <ul style="list-style-type: none"> • at 60 °C minimum permissible • at 40 °C minimum permissible | <p>2.5 mm²</p> <p>2.5 mm²</p> |
| Operating current | |
| <ul style="list-style-type: none"> • at 1 current path at DC-1 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value — at 220 V rated value | <p>20 A</p> <p>2.1 A</p> <p>0.8 A</p> |

| | |
|--|---|
| <ul style="list-style-type: none"> — at 440 V rated value | 0.6 A |
| <ul style="list-style-type: none"> • with 2 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value | 20 A 12 A 1.6 A 0.8 A |
| <ul style="list-style-type: none"> • with 3 current paths in series at DC-1 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value — at 220 V rated value — at 440 V rated value | 20 A 20 A 16 A 1.3 A |
| Operating current | |
| <ul style="list-style-type: none"> • at 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value • with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 110 V rated value — at 24 V rated value • with 3 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 110 V rated value — at 220 V rated value — at 24 V rated value — at 440 V rated value | 20 A 0.1 A 0.35 A 20 A 20 A 1.5 A 20 A 0.2 A |
| Operating power | |
| <ul style="list-style-type: none"> • at AC-1 <ul style="list-style-type: none"> — at 230 V rated value — at 230 V at 60 °C rated value — at 400 V rated value — at 400 V at 60 °C rated value — at 690 V at 60 °C rated value • at AC-2 at 400 V rated value • at AC-3 <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value | 6.5 kW 6 kW 11 kW 10.5 kW 18 kW 4 kW 2.2 kW 4 kW |
| Thermal short-time current limited to 10 s | 72 A |
| Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor | 0.7 W |
| No-load switching frequency | |
| <ul style="list-style-type: none"> • at AC | 10 000 1/h |
| Operating frequency | |
| <ul style="list-style-type: none"> • at AC-1 maximum • at AC-2 maximum | 1 000 1/h 750 1/h |

- at AC-3 maximum
- at AC-4 maximum

750 1/h

250 1/h

Control circuit/ Control

| | |
|---|---------------|
| Type of voltage of the control supply voltage | AC |
| Control supply voltage at AC | |
| • at 50 Hz rated value | 110 V |
| • at 60 Hz rated value | 110 V |
| Operating range factor control supply voltage rated value of magnet coil at AC | |
| • at 50 Hz | 0.8 ... 1.1 |
| • at 60 Hz | 0.85 ... 1.1 |
| Apparent pick-up power of magnet coil at AC | |
| • at 50 Hz | 27 V·A |
| • at 60 Hz | 31.7 V·A |
| Inductive power factor with closing power of the coil | |
| • at 50 Hz | 0.8 |
| • at 60 Hz | 0.81 |
| Apparent holding power of magnet coil at AC | |
| • at 50 Hz | 4.2 V·A |
| • at 60 Hz | 4.8 V·A |
| Inductive power factor with the holding power of the coil | |
| • at 50 Hz | 0.25 |
| • at 60 Hz | 0.25 |
| Closing delay | |
| • at AC | 9 ... 35 ms |
| Opening delay | |
| • at AC | 3.5 ... 14 ms |
| Arcing time | 10 ... 15 ms |

Auxiliary circuit

| | |
|--|---|
| Number of NC contacts | |
| • for auxiliary contacts | |
| — instantaneous contact | 0 |
| Number of NO contacts | |
| • for auxiliary contacts | |
| — instantaneous contact | 0 |
| Contact reliability of auxiliary contacts | 1 faulty switching per 100 million (17 V, 1 mA) |

UL/CSA ratings

| | |
|---|-------|
| Full-load current (FLA) for three-phase AC motor | |
| • at 480 V rated value | 7.6 A |
| • at 600 V rated value | 9 A |

| 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 • 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 | <p>0.33 hp</p> <p>1 hp</p> <p>2 hp</p> <p>3 hp</p> <p>5 hp</p> <p>7.5 hp</p> |

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 NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A</p> <p>gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A</p> <p>fuse gG: 10 A</p> |

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 |
| 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 | 58 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 <ul style="list-style-type: none"> — forwards | <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> <p>0 mm</p> |

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

Connections/Terminals

| | |
|---|---|
| Type of electrical connection | |
| <ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit | <p>screw-type terminals</p> <p>screw-type terminals</p> |
| Type of connectable conductor cross-sections | |
| <ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — solid — single or multi-stranded — finely stranded with core end processing • at AWG conductors for main contacts | <p>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 4 mm²</p> <p>2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x 4 mm²</p> <p>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)</p> <p>2x (20 ... 16), 2x (18 ... 14), 2x 12</p> |
| Type of connectable conductor cross-sections | |
| <ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — 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), 2x 4 mm²</p> <p>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)</p> <p>2x (20 ... 16), 2x (18 ... 14), 2x 12</p> |

Safety related data

| | |
|---|-------------------------|
| B10 value | |
| <ul style="list-style-type: none"> • with high demand rate acc. to SN 31920 | 1 000 000 |
| Proportion of dangerous failures | |
| <ul style="list-style-type: none"> • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 | <p>40 %</p> <p>73 %</p> |
| Failure rate [FIT] | |
| <ul style="list-style-type: none"> • with low demand rate acc. to SN 31920 | 100 FIT |
| Product function | |
| <ul style="list-style-type: none"> • Mirror contact acc. to IEC 60947-4-1 | Yes; with 3RH29 |
| 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 | Functional Safety/Safety of Machinery | Declaration of Conformity |
|--------------------------|---------------------------------------|---------------------------|



[Baumusterbescheinigung](#)



| | |
|-------------------|-------------------|
| Test Certificates | Shipping Approval |
|-------------------|-------------------|

[spezielle Prüfbescheinigung](#)

[Typprüfbescheinigung/Werkszeugnis](#)



| | |
|-------------------|-------|
| Shipping Approval | other |
|-------------------|-------|



[Bestätigungen](#)

[Umweltbestätigung](#)



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?mlfb=3RT2316-1AF00>

Cax online generator

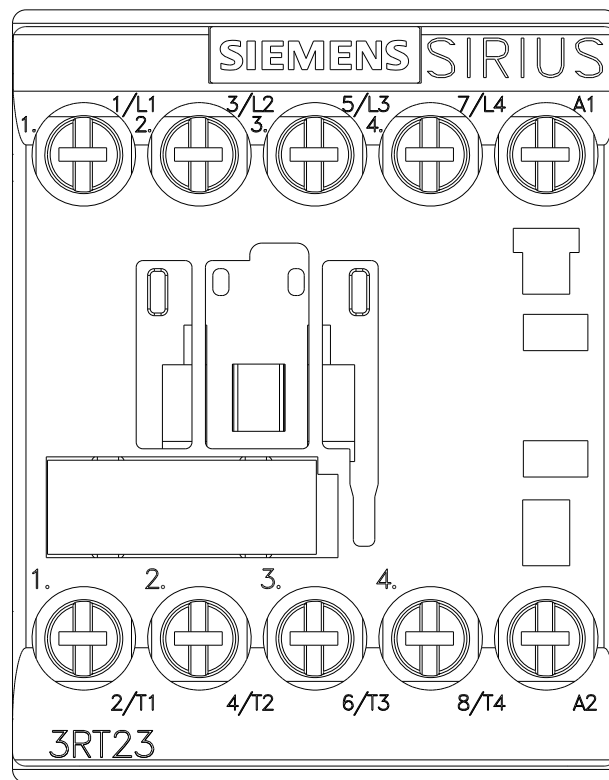
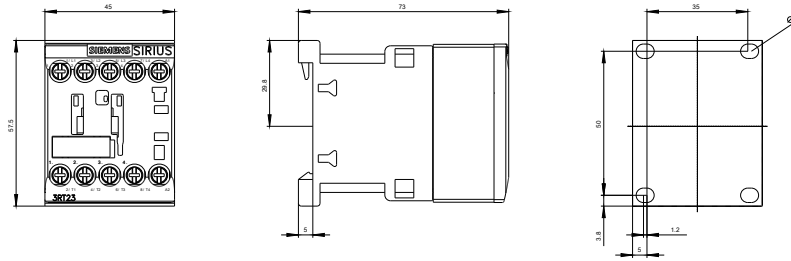
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2316-1AF00>

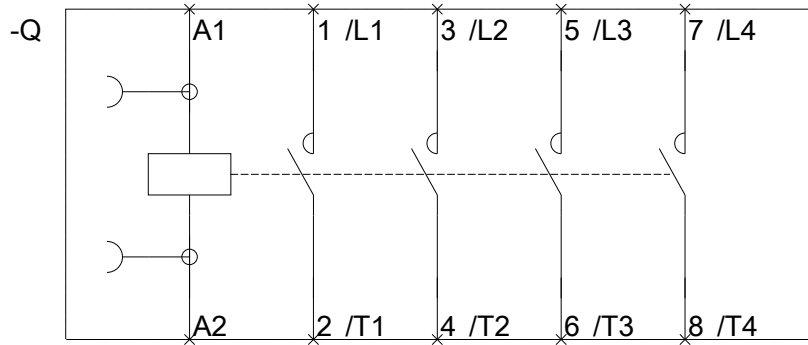
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RT2316-1AF00>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2316-1AF00&lang=en





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