



CONTACTOR,AC3:18.5KW/400V, 1NO+1NC, 20-33V AC/DC, WITH VARISTOR 3-POLE, SIZE S2, SCREW TERMINAL UPRIGHT MOUNTING POSITION

Figure similar

| | |
|---------------------|----------------|
| product brand name | SIRIUS |
| Product designation | 3RT2 contactor |

General technical data:

| | | |
|---|----|------------|
| Insulation voltage | | |
| • Rated value | V | 690 |
| Degree of pollution | | 3 |
| Surge voltage resistance Rated value | kV | 6 |
| Mechanical service life (switching cycles) | | |
| • of the contactor typical | | 10 000 000 |
| • 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 |
| Thermal short-time current restricted to 10 s | A | 400 |
| Protection class IP | | |
| • on the front | | IP20 |
| • of the terminal | | IP00 |
| Equipment marking | | |
| • acc. to DIN EN 61346-2 | | Q |
| • acc. to DIN EN 81346-2 | | Q |

Main circuit:

| | | |
|---|--|---|
| Number of poles for main current circuit | | 3 |
| Number of NC contacts for main contacts | | 0 |
| Number of NO contacts for main contacts | | 3 |
| Operating voltage | | |

| | | |
|---|---|------|
| • at AC-3 Rated value maximum | V | 690 |
| Operating current | | |
| • at AC-1 | | |
| — at 400 V at ambient temperature 40 °C Rated value | A | 60 |
| — up to 690 V at ambient temperature 40 °C Rated value | A | 60 |
| — up to 690 V at ambient temperature 60 °C Rated value | A | 55 |
| • at AC-2 at 400 V Rated value | A | 40 |
| • at AC-3 | | |
| — at 400 V Rated value | A | 40 |
| — at 500 V Rated value | A | 40 |
| — at 690 V Rated value | A | 24 |
| • at AC-4 at 400 V Rated value | A | 35 |
| Operating current with 1 current path | | |
| • at DC-1 | | |
| — at 24 V Rated value | A | 55 |
| — at 110 V Rated value | A | 4.5 |
| — at 220 V Rated value | A | 2 |
| — at 440 V Rated value | A | 0.4 |
| — at 600 V Rated value | A | 0.25 |
| • at DC-3 at DC-5 | | |
| — at 24 V Rated value | A | 35 |
| — at 110 V Rated value | A | 2.5 |
| — at 220 V Rated value | A | 2 |
| — at 440 V Rated value | A | 0.1 |
| — at 600 V Rated value | A | 0.06 |
| Operating current with 2 current paths in series | | |
| • at DC-1 | | |
| — at 24 V Rated value | A | 55 |
| — at 110 V Rated value | A | 45 |
| — at 220 V Rated value | A | 5 |
| — at 440 V Rated value | A | 1 |
| — at 600 V Rated value | A | 0.8 |
| • at DC-3 at DC-5 | | |
| — at 110 V Rated value | A | 25 |
| — at 220 V Rated value | A | 5 |
| — at 24 V Rated value | A | 55 |
| — at 440 V Rated value | A | 0.27 |
| — at 600 V Rated value | A | 0.16 |
| Operating current with 3 current paths in series | | |

| | | |
|--|-----|-----------|
| <ul style="list-style-type: none"> • 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 — at 600 V Rated value • 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 — at 600 V Rated value | A | 55 |
| | A | 45 |
| | A | 45 |
| | A | 2.9 |
| | A | 1.4 |
| | A | 45 |
| | A | 25 |
| | A | 55 |
| | A | 0.6 |
| | A | 0.6 |
| Operating power | | |
| <ul style="list-style-type: none"> • at AC-1 at 400 V Rated value • at AC-2 at 400 V Rated value • at AC-4 at 400 V Rated value | kW | 39 |
| | kW | 18.5 |
| | kW | 18.5 |
| Operating power | | |
| <ul style="list-style-type: none"> • at AC-1 <ul style="list-style-type: none"> — at 230 V at 60 °C Rated value — at 230 V Rated value — at 400 V at 60 °C Rated value — at 690 V at 60 °C Rated value — at 690 V Rated value • at AC-3 <ul style="list-style-type: none"> — at 230 V Rated value — at 400 V Rated value — at 500 V Rated value — at 690 V Rated value | kW | 21 |
| | kW | 23 |
| | kW | 36 |
| | kW | 62 |
| | kW | 68 |
| | kW | 11 |
| | kW | 18.5 |
| | kW | 22 |
| | kW | 22 |
| Operating power for ≥ 200000 operating cycles at AC-4 | | |
| <ul style="list-style-type: none"> • at 400 V Rated value • at 690 V Rated value | kW | 11.6 |
| | kW | 16.8 |
| Operating frequency | | |
| <ul style="list-style-type: none"> • at AC-3 maximum | 1/h | 1 000 |
| Control circuit/ Control: | | |
| Type of voltage of the control supply voltage | | AC/DC |
| Control supply voltage with AC | | |
| <ul style="list-style-type: none"> • at 50 Hz Rated value • at 60 Hz Rated value | V | 20 ... 33 |
| | V | 20 ... 33 |
| Control supply voltage for DC | | |
| <ul style="list-style-type: none"> • Rated value | V | 20 ... 33 |

| | | |
|---|---|---------------|
| Operating range factor control supply voltage rated value of the magnet coil with AC | | |
| • at 50 Hz | | 0.8 ... 1.1 |
| • at 60 Hz | | 0.8 ... 1.1 |
| Operating range factor control supply voltage rated value of the magnet coil for DC | | 0.8 ... 1.1 |
| Design of the surge suppressor | | with varistor |
| Closing power of the magnet coil for DC | W | 23 |
| Holding power of the magnet coil for DC | W | 1 |

Auxiliary circuit:

| | | |
|--|---|---|
| Number of NC contacts | | |
| • for auxiliary contacts | | |
| — instantaneous contact | | 1 |
| Number of NO contacts | | |
| • for auxiliary contacts | | |
| — instantaneous contact | | 1 |
| Product expansion Auxiliary switch | | Yes |
| Operating current at AC-15 | | |
| • at 230 V Rated value | A | 10 |
| • at 400 V Rated value | A | 3 |
| • at 690 V Rated value | A | 1 |
| Operating current | | |
| • at DC-12 at 125 V Rated value | A | 2 |
| • at DC-12 at 220 V Rated value | A | 1 |
| • at DC-12 at 600 V Rated value | A | 0.15 |
| • at DC-13 at 125 V Rated value | A | 0.9 |
| • at DC-13 at 220 V Rated value | A | 0.3 |
| • at DC-13 at 600 V Rated value | A | 0.1 |
| Operating current | | |
| • at DC-12 | | |
| — at 60 V Rated value | A | 6 |
| — at 110 V Rated value | A | 3 |
| • at DC-13 | | |
| — at 24 V Rated value | A | 10 |
| — at 60 V Rated value | A | 2 |
| — at 110 V Rated value | A | 1 |
| Contact reliability of the 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 | A | 40 |
| • at 600 V Rated value | A | 41 |

| | | |
|--|-----------|-------------|
| yielded mechanical performance [hp] | | |
| <ul style="list-style-type: none"> • for single-phase AC motor at 110/120 V Rated value | metric hp | 3 |
| <ul style="list-style-type: none"> • for single-phase AC motor at 230 V Rated value | metric hp | 7.5 |
| <ul style="list-style-type: none"> • for three-phase AC motor at 200/208 V Rated value | metric hp | 10 |
| <ul style="list-style-type: none"> • for three-phase AC motor at 220/230 V Rated value | metric hp | 15 |
| <ul style="list-style-type: none"> • for three-phase AC motor at 460/480 V Rated value | metric hp | 30 |
| <ul style="list-style-type: none"> • for three-phase AC motor at 575/600 V Rated value | metric hp | 40 |
| Contact rating of the auxiliary contacts acc. to UL | | A600 / P600 |

Short-circuit:

| | | |
|---|--|---|
| 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 assignment 1 required — with type of assignment 2 required • for short-circuit protection of the auxiliary switch required | | gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 80 A fuse gL/gG: 10 A |

Installation/ mounting/ dimensions:

| | | |
|--|----|--|
| mounting position | | standing, on horizontal 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 | mm | 113.4 |
| Width | mm | 55 |
| Depth | mm | 130 |
| 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 | mm | 0 0 0 0 0 0 0 50 6 50 |

| | | |
|------------------|----|----|
| • for live parts | | |
| — forwards | mm | 0 |
| — Backwards | mm | 0 |
| — upwards | mm | 50 |
| — downwards | mm | 50 |
| — at the side | mm | 6 |

Connections/ Terminals:

| | | |
|--|-----|---|
| Type of electrical connection | | |
| • for main current circuit | | screw-type terminals |
| • for auxiliary and control current circuit | | screw-type terminals |
| Type of connectable conductor cross-section | | |
| • for main contacts | | |
| — single or multi-stranded | | 2x (1 ... 35 mm ²), 1x (1 ... 50 mm ²) |
| — finely stranded with core end processing | | 2x (1 ... 25 mm ²), 1x (1 ... 35 mm ²) |
| • for AWG conductors for main contacts | | 2x (18 ... 2), 1x (18 ... 1) |
| • for auxiliary contacts | | |
| — single or multi-stranded | | 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²) |
| — finely stranded with core end processing | | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) |
| • for AWG conductors for auxiliary contacts | | 2x (20 ... 16), 2x (18 ... 14) |
| Apparent pick-up power of the magnet coil with AC | | |
| • at 50 Hz | V·A | 40 |
| • at 60 Hz | V·A | 40 |

Safety related data:

| | | |
|--|---|--|
| Proportion of dangerous failures | | |
| • with low demand rate acc. to SN 31920 | % | 40 |
| • with high demand rate acc. to SN 31920 | % | 73 |
| Product function Mirror contact acc. to IEC 60947-4-1 | | Yes |
| Protection against electrical shock | | finger-safe when touched vertically from front acc. to IEC 60529 |

Mechanical data:

| | | |
|--------------------------|--|----|
| Size of contactor | | S2 |
|--------------------------|--|----|

Ambient conditions:

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

Certificates/ approvals:



[Environmental
Confirmations](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<http://www.siemens.com/industrymall>

Cax online generator

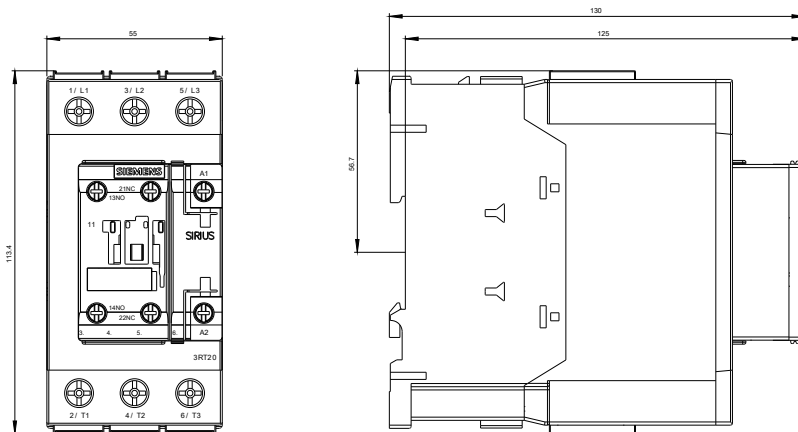
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mf=3RT20351NB301AA0>

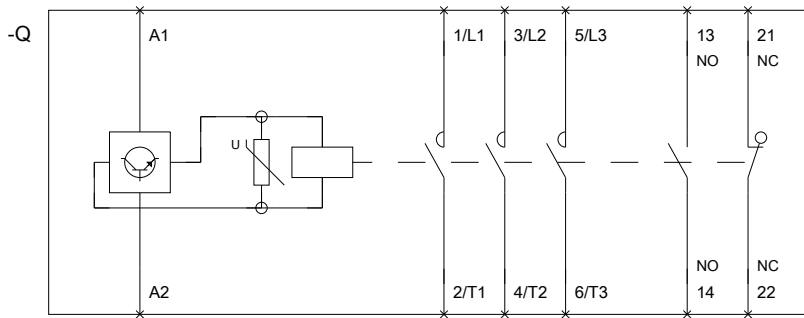
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT20351NB301AA0/all>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mf=3RT20351NB301AA0&lang=en





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