



CONTACTOR, AC-3, 15KW/400V, 1NO+1NC, AC 230V 50HZ, 3-POLE, SZ S0 SCREW TERMINAL

| | |
|--|----------------------------|
| product brand name | SIRIUS |
| Product designation | 3RT2 contactor |
| General technical data: | |
| Size of contactor | S0 |
| Product expansion | |
| • function module for communication | No |
| • Auxiliary switch | Yes |
| Insulation voltage | |
| • Rated value | 690 V |
| maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1 | 400 V |
| Degree of pollution | 3 |
| Shock resistance | |
| • at rectangular impulse | |
| — with AC | 8,3g / 5 ms, 5,3g / 10 ms |
| • with sine pulse | |
| — with AC | 13,5g / 5 ms, 8,3g / 10 ms |
| Surge voltage resistance Rated value | 6 kV |
| 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 |
| Protection class IP | |

| | |
|--|------|
| <ul style="list-style-type: none"> • on the front | IP20 |
| <ul style="list-style-type: none"> • of the terminal | IP20 |
| Equipment marking | |
| <ul style="list-style-type: none"> • acc. to DIN EN 61346-2 | Q |
| <ul style="list-style-type: none"> • acc. to DIN EN 81346-2 | Q |

| Ambient conditions: | |
|--|----------------|
| Installation altitude at height above sea level 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 |

| 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 |
| Connectable conductor cross-section in main circuit at AC-1 | |
| <ul style="list-style-type: none"> • at 60 °C minimum permissible | 10 mm ² |
| <ul style="list-style-type: none"> • at 40 °C minimum permissible | 10 mm ² |
| 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 | 50 A |
| <ul style="list-style-type: none"> • at AC-1 up to 690 V <ul style="list-style-type: none"> — at ambient temperature 40 °C Rated value — at ambient temperature 60 °C Rated value | 50 A 42 A |
| <ul style="list-style-type: none"> • at AC-2 at 400 V Rated value | 32 A |
| <ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V Rated value — at 500 V Rated value — at 690 V Rated value | 32 A 32 A 21 A |
| <ul style="list-style-type: none"> • at AC-4 at 400 V Rated value | 22 A |
| Operating current for ≥ 200000 operating cycles at AC-4 | |
| <ul style="list-style-type: none"> • at 400 V Rated value | 12 A |
| <ul style="list-style-type: none"> • at 690 V Rated value | 12 A |
| Operating current | |
| <ul style="list-style-type: none"> • with 1 current path at DC-1 <ul style="list-style-type: none"> — at 24 V Rated value — at 110 V Rated value | 35 A 4.5 A |

| | |
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| — at 220 V Rated value | 1 A |
| — at 440 V Rated value | 0.4 A |
| — at 600 V Rated value | 0.25 A |
| • with 2 current paths in series at DC-1 | |
| — at 24 V Rated value | 35 A |
| — at 110 V Rated value | 35 A |
| — at 220 V Rated value | 5 A |
| — at 440 V Rated value | 1 A |
| — at 600 V Rated value | 0.8 A |
| • with 3 current paths in series at DC-1 | |
| — at 24 V Rated value | 35 A |
| — at 110 V Rated value | 35 A |
| — at 220 V Rated value | 35 A |
| — at 440 V Rated value | 2.9 A |
| — at 600 V Rated value | 1.4 A |
| Operating current | |
| • with 1 current path at DC-3 at DC-5 | |
| — at 24 V Rated value | 20 A |
| — at 110 V Rated value | 2.5 A |
| — at 220 V Rated value | 1 A |
| — at 440 V Rated value | 0.09 A |
| — at 600 V Rated value | 0.06 A |
| • with 2 current paths in series at DC-3 at DC-5 | |
| — at 110 V Rated value | 15 A |
| — at 220 V Rated value | 3 A |
| — at 24 V Rated value | 35 A |
| — at 440 V Rated value | 0.27 A |
| — at 600 V Rated value | 0.16 A |
| • with 3 current paths in series at DC-3 at DC-5 | |
| — at 110 V Rated value | 35 A |
| — at 220 V Rated value | 10 A |
| — at 24 V Rated value | 35 A |
| — at 440 V Rated value | 0.6 A |
| — at 600 V Rated value | 0.6 A |
| Operating power | |
| • at AC-1 | |
| — at 230 V at 60 °C Rated value | 15.5 kW |
| — at 400 V at 60 °C Rated value | 27.5 kW |
| — at 690 V at 60 °C Rated value | 47.5 kW |
| 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 | <p>6 kW</p> <p>10.3 kW</p> |
| Thermal short-time current restricted to 10 s | 260 A |
| Active power loss at AC-3 at 400 V for rated value of the operating current per conductor | 2.7 W |
| No-load switching frequency | |
| <ul style="list-style-type: none"> • with AC | 5 000 1/h |
| Operating frequency | |
| <ul style="list-style-type: none"> • at AC-1 maximum • at AC-2 maximum • at AC-3 maximum • at AC-4 maximum | <p>1 000 1/h</p> <p>750 1/h</p> <p>750 1/h</p> <p>250 1/h</p> |

Control circuit/ Control:

| | |
|--|--------------------------|
| Type of voltage of the control supply voltage | AC |
| Control supply voltage with AC | |
| <ul style="list-style-type: none"> • at 50 Hz Rated value | 230 V |
| Operating range factor control supply voltage rated value of the magnet coil with AC | |
| <ul style="list-style-type: none"> • at 50 Hz | 0.8 ... 1.1 |
| Apparent pick-up power of the magnet coil with AC | |
| <ul style="list-style-type: none"> • at 50 Hz | 77 V·A |
| Inductive power factor with closing power of the coil | |
| <ul style="list-style-type: none"> • at 50 Hz | 0.82 |
| Apparent holding power of the magnet coil with AC | |
| <ul style="list-style-type: none"> • at 50 Hz | 9.8 V·A |
| Inductive power factor with the holding power of the coil | |
| <ul style="list-style-type: none"> • at 50 Hz | 0.25 |
| Closing delay | |
| <ul style="list-style-type: none"> • with AC | 8 ... 40 ms |
| Arcing time | 10 ... 10 ms |
| Residual current of the electronics for control with signal <0> | |
| <ul style="list-style-type: none"> • with AC at 230 V maximum permissible • for DC at 24 V maximum permissible | <p>7 mA</p> <p>16 mA</p> |

Auxiliary circuit:

| | |
|---|---|
| Number of NC contacts | |
| <ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — instantaneous contact | 1 |
| Number of NO contacts | |
| <ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — instantaneous contact | 1 |

| | |
|--|---|
| Operating current at AC-12 maximum | 10 A |
| Operating current at AC-15 | |
| • at 230 V Rated value | 10 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-12 | |
| • at 24 V Rated value | 10 A |
| • at 48 V Rated value | 6 A |
| • at 60 V Rated value | 6 A |
| • at 110 V Rated value | 3 A |
| • at 125 V Rated value | 2 A |
| • at 220 V Rated value | 1 A |
| • at 600 V Rated value | 0.15 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 |
| 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 | 27 A |
| • at 600 V Rated value | 27 A |
| yielded mechanical performance [hp] | |
| • for single-phase AC motor | |
| — at 110/120 V Rated value | 2 hp |
| — at 230 V Rated value | 5 hp |
| • for three-phase AC motor | |
| — at 200/208 V Rated value | 10 hp |
| — at 220/230 V Rated value | 10 hp |
| — at 460/480 V Rated value | 20 hp |
| — at 575/600 V Rated value | 25 hp |
| Contact rating of the auxiliary contacts acc. to UL | A600 / Q600 |

Short-circuit:

| | |
|--|---|
| Design of the fuse link | |
| • for short-circuit protection of the main circuit | |
| — with type of assignment 1 required | gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 100 A |

- with type of assignment 2 required
- for short-circuit protection of the auxiliary switch required

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A
fuse gL/gG: 10 A

Installation/ mounting/ dimensions:

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|--|--|
| 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 | 85 mm |
| Width | 45 mm |
| Depth | 97 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 — Backwards — upwards — downwards — at the side | 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 6 mm 0 mm 0 mm 0 mm 0 mm 0 mm 6 mm |

Connections/ Terminals:

| | |
|---|---|
| Type of electrical connection | |
| <ul style="list-style-type: none"> • for main current circuit • for auxiliary and control current circuit | screw-type terminals screw-type terminals |
| Type of connectable conductor cross-section | |
| <ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — single or multi-stranded — finely stranded with core end processing • for AWG conductors for main contacts | 2x (1 ... 2,5 mm ²), 2x (2,5 ... 10 mm ²) 2x (1 ... 2.5 mm ²), 2x (2.5 ... 6 mm ²), 1x 10 mm ² 2x (16 ... 12), 2x (14 ... 8) |
| Type of connectable conductor cross-section | |






- for auxiliary contacts
 - single or multi-stranded
 - finely stranded with core end processing
- for AWG conductors for auxiliary contacts





2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²)
 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)
 2x (20 ... 16), 2x (18 ... 14)


Safety related data:


| | |
|---|-----------|
| B10 value with high demand rate acc. to SN 31920 | 1 000 000 |
| 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 |
| T1 value for proof test interval or service life acc. to IEC 61508 | 20 y |

Certificates/ approvals:

| | | |
|--|------------|--|
| General Product Approval | EMC | Functional Safety/Safety of Machinery |
|  CCC  CSA  EAC  UL  C-TICK | | Type Examination |

| | | |
|--|--|--|
| Declaration of Conformity | Test Certificates | Shipping Approval |
|  EG-Konf. | Special Test Certificate Type Test Certificates/Test Report |  ABS  BUREAU VERITAS  DNV |

| | |
|--|------------------------------|
| Shipping Approval | other |
|  GL  LRS  PRS  RINA  RMRS | Confirmation |

| |
|--|
| other |
| Environmental Confirmations  VDE |

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

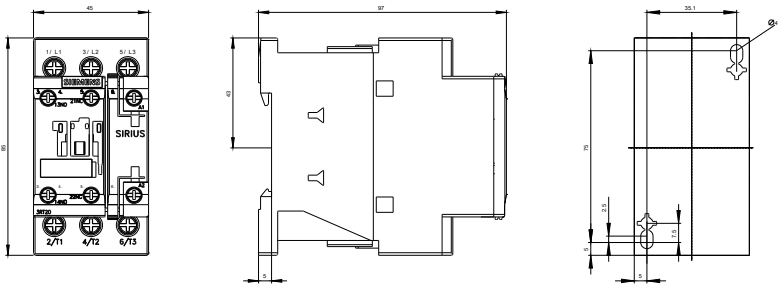
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RT20271AP00>

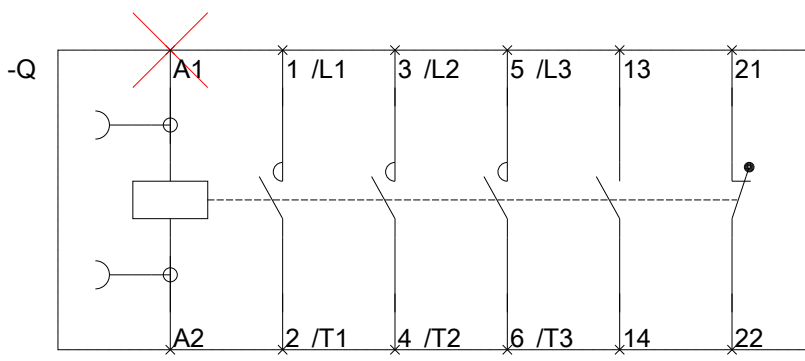
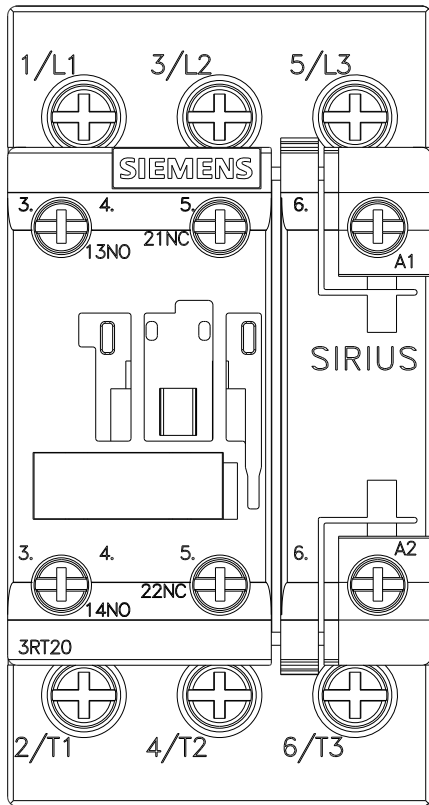
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RT20271AP00>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RT20271AP00&lang=en





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