

CONTACTOR, 200KW/400V/AC-3 AC(50...60HZ)/DC OPERATION
 UC 96-127V AUXILIARY CONTACTS 1NO+1NC 3-POLE, SIZE S12
 BAR CONNECTIONS ELECTRONIC OPERATING MECHANISM
 WITH PLC/SIMOCODE INTERFACE AND REMAIN. LIFETIME
 INDICATOR



Figure similar

| | |
|--------------------------|-----------------|
| Product brand name | SIRIUS |
| Product designation | Power contactor |
| Product type designation | 3RT1 |

| General technical data | |
|---|---------|
| Size of contactor | S12 |
| Product extension | |
| • function module for communication | No |
| • Auxiliary switch | Yes |
| Insulation voltage | |
| • rated value | 1 000 V |
| Degree of pollution | 3 |
| Surge voltage resistance rated value | 8 kV |
| maximum permissible voltage for safe isolation | |
| • between coil and main contacts acc. to EN 60947-1 | 690 V |
| Protection class IP | |
| • on the front | IP00 |

| | |
|---|--|
| <ul style="list-style-type: none"> • of the terminal | IP00 |
| Shock resistance at rectangular impulse <ul style="list-style-type: none"> • at AC • at DC | 8,5g / 5 ms, 4,2g / 10 ms 8,5g / 5 ms, 4,2g / 10 ms |
| Shock resistance with sine pulse <ul style="list-style-type: none"> • at AC • at DC | 13,4g / 5 ms, 6,5g / 10 ms 13,4g / 5 ms, 6,5g / 10 ms |
| 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 | 10 000 000 5 000 000 10 000 000 |

Ambient conditions

| | |
|---|----------------------------------|
| Ambient temperature <ul style="list-style-type: none"> • during operation • during storage | -25 ... +60 °C -55 ... +80 °C |
|---|----------------------------------|

Main circuit

| | |
|--|---|
| Number of poles for main current circuit | 3 |
| Number of NO contacts for main contacts | 3 |
| Operating voltage <ul style="list-style-type: none"> • at AC-3 rated value maximum | 1 000 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 — up to 1000 V at ambient temperature 40 °C rated value — up to 1000 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 — at 500 V rated value — at 690 V rated value — at 1000 V rated value | 430 A 430 A 400 A 200 A 200 A 400 A 400 A 400 A 180 A |
| Connectable conductor cross-section in main circuit at AC-1 | |

| | |
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| <ul style="list-style-type: none"> • at 60 °C minimum permissible • at 40 °C minimum permissible | <p>240 mm²</p> <p>300 mm²</p> |
| <p>Operating current for approx. 200000 operating cycles at AC-4</p> <ul style="list-style-type: none"> • at 400 V rated value • at 690 V rated value | <p>150 A</p> <p>135 A</p> |
| <p>Operating current</p> <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 — at 440 V rated value — at 600 V rated value • 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 — at 600 V rated value • 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 — at 600 V rated value | <p>400 A</p> <p>33 A</p> <p>3.8 A</p> <p>0.9 A</p> <p>0.6 A</p> <p>400 A</p> <p>400 A</p> <p>400 A</p> <p>4 A</p> <p>2 A</p> <p>400 A</p> <p>400 A</p> <p>400 A</p> <p>11 A</p> <p>5.2 A</p> |
| <p>Operating current</p> <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 — at 220 V rated value — at 440 V rated value — at 600 V rated value • with 2 current paths in series at DC-3 at DC-5 <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 • with 3 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> — at 24 V rated value — at 110 V rated value | <p>400 A</p> <p>3 A</p> <p>0.6 A</p> <p>0.18 A</p> <p>0.125 A</p> <p>400 A</p> <p>400 A</p> <p>2.5 A</p> <p>0.65 A</p> <p>0.37 A</p> <p>400 A</p> <p>400 A</p> |

| | |
|---|--------------|
| — at 220 V rated value | 400 A |
| — at 440 V rated value | 1.4 A |
| — at 600 V rated value | 0.75 A |
| Operating power | |
| • at AC-1 | |
| — at 230 V at 60 °C rated value | 151 kW |
| — at 400 V rated value | 263 kW |
| — at 400 V at 60 °C rated value | 263 kW |
| — at 690 V rated value | 454 kW |
| — at 690 V at 60 °C rated value | 454 kW |
| — at 1000 V at 60 °C rated value | 329 kW |
| • at AC-2 at 400 V rated value | 200 kW |
| • at AC-3 | |
| — at 230 V rated value | 132 kW |
| — at 400 V rated value | 200 kW |
| — at 500 V rated value | 250 kW |
| — at 690 V rated value | 400 kW |
| — at 1000 V rated value | 250 kW |
| Operating power for approx. 200000 operating cycles at AC-4 | |
| • at 400 V rated value | 85 kW |
| • at 690 V rated value | 133 kW |
| Thermal short-time current limited to 10 s | 3 200 A |
| Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor | 35 W |
| No-load switching frequency | |
| • at AC | 2 000 1/h |
| • at DC | 2 000 1/h |
| Operating frequency | |
| • at AC-1 maximum | 700 1/h |
| • at AC-2 maximum | 200 1/h |
| • at AC-3 maximum | 500 1/h |
| • at AC-4 maximum | 130 1/h |
| Control circuit/ Control | |
| Type of voltage of the control supply voltage | AC/DC |
| Control supply voltage at AC | |
| • at 50 Hz rated value | 96 ... 127 V |
| • at 60 Hz rated value | 96 ... 127 V |
| Control supply voltage at DC | |
| • rated value | 96 ... 127 V |
| Operating range factor control supply voltage rated value of magnet coil at AC | |

| | |
|--|---------------|
| <ul style="list-style-type: none"> • at 50 Hz | 0.8 ... 1.1 |
| <ul style="list-style-type: none"> • at 60 Hz | 0.8 ... 1.1 |
| Design of the surge suppressor | with varistor |
| Apparent pick-up power of magnet coil at AC | |
| <ul style="list-style-type: none"> • at 50 Hz | 750 V·A |
| Inductive power factor with closing power of the coil | |
| <ul style="list-style-type: none"> • at 50 Hz | 0.8 |
| Apparent holding power of magnet coil at AC | |
| <ul style="list-style-type: none"> • at 50 Hz | 7 V·A |
| Inductive power factor with the holding power of the coil | |
| <ul style="list-style-type: none"> • at 50 Hz | 0.8 |
| Closing power of magnet coil at DC | 800 W |
| Holding power of magnet coil at DC | 3.6 W |
| Closing delay | |
| <ul style="list-style-type: none"> • at AC | 60 ... 90 ms |
| <ul style="list-style-type: none"> • at DC | 60 ... 90 ms |
| Opening delay | |
| <ul style="list-style-type: none"> • at AC | 80 ... 100 ms |
| <ul style="list-style-type: none"> • at DC | 80 ... 100 ms |
| Arcing time | 10 ... 15 ms |

Auxiliary circuit

| | |
|---|---|
| Number of NC contacts | |
| <ul style="list-style-type: none"> • for auxiliary contacts — instantaneous contact | 1 |
| Number of NO contacts | |
| <ul style="list-style-type: none"> • for auxiliary contacts — instantaneous contact | 1 |
| Operating current at AC-12 maximum | 10 A |
| Operating current at AC-15 | |
| <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 | 6 A 3 A 2 A 1 A |
| Operating current at DC-12 | |
| <ul style="list-style-type: none"> • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value | 10 A 6 A 6 A 3 A 2 A 1 A 0.15 A |

| | |
|---|---|
| Operating current at DC-13 | |
| <ul style="list-style-type: none"> • at 24 V rated value • at 48 V rated value • at 60 V rated value • at 110 V rated value • at 125 V rated value • at 220 V rated value • at 600 V rated value | <p>10 A</p> <p>2 A</p> <p>2 A</p> <p>1 A</p> <p>0.9 A</p> <p>0.3 A</p> <p>0.1 A</p> |
| 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 | |
| <ul style="list-style-type: none"> • at 480 V rated value • at 600 V rated value | <p>361 A</p> <p>382 A</p> |
| Yielded mechanical performance [hp] | |
| <ul style="list-style-type: none"> • 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>125 hp</p> <p>150 hp</p> <p>300 hp</p> <p>400 hp</p> |
| Contact rating of auxiliary contacts according to UL | A600 / Q600 |

Short-circuit protection

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|---|--|
| 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>Fuse gG: 630 A</p> <p>Fuse gG: 500 A</p> <p>fuse gG: 10 A</p> |

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 fixing |
| <ul style="list-style-type: none"> • Side-by-side mounting | Yes |
| Height | 214 mm |
| Width | 180 mm |
| Depth | 225 mm |
| Required spacing | |
| <ul style="list-style-type: none"> • for grounded parts <ul style="list-style-type: none"> — at the side | 10 mm |

Connections/Terminals

| | |
|--------------------------------------|--|
| Type of electrical connection | |
|--------------------------------------|--|





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|---|--|
| <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-sections <ul style="list-style-type: none"> • at AWG conductors for main contacts | 2/0 ... 500 kcmil |
| Type of connectable conductor cross-sections <ul style="list-style-type: none"> • for auxiliary contacts <ul style="list-style-type: none"> — solid — single or multi-stranded — finely stranded with core end processing • at AWG conductors for auxiliary contacts | 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²), max. 2x (0.75 ... 4 mm ²) 2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²), max. 2x (0,75 ... 4 mm ²) 2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), 2x (18 ... 14), 1x 12 |

Safety related data

| | |
|---|--|
| Product function <ul style="list-style-type: none"> • Mirror contact acc. to IEC 60947-4-1 • positively driven operation acc. to IEC 60947-5-1 | Yes No |
| Protection against electrical shock | finger-safe when touched vertically from front acc. to IEC 60529 |

Certificates/approvals

| General Product Approval | | | Functional Safety/Safety of Machinery | Declaration of Conformity |
|---|---|---|---|---|
|  |  |  |  |  |
| CCC | CSA | UL | Type Examination Certificate | EG-Konf. |

| Test Certificates | Marine / Shipping | | | |
|--|--|---|---|---|
| Type Test Certificates/Test Report | Special Test Certificate |  |  |  |
| | | ABS | RMRS | DNV |
| | | | |  |
| | | | | DNV-GL DNVGL.COM/AF |

| other | | |
|------------------------------|---|-------------------------------|
| Confirmation | Environmental Confirmations | Miscellaneous |

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=3RT1075-6PF35>

Cax online generator

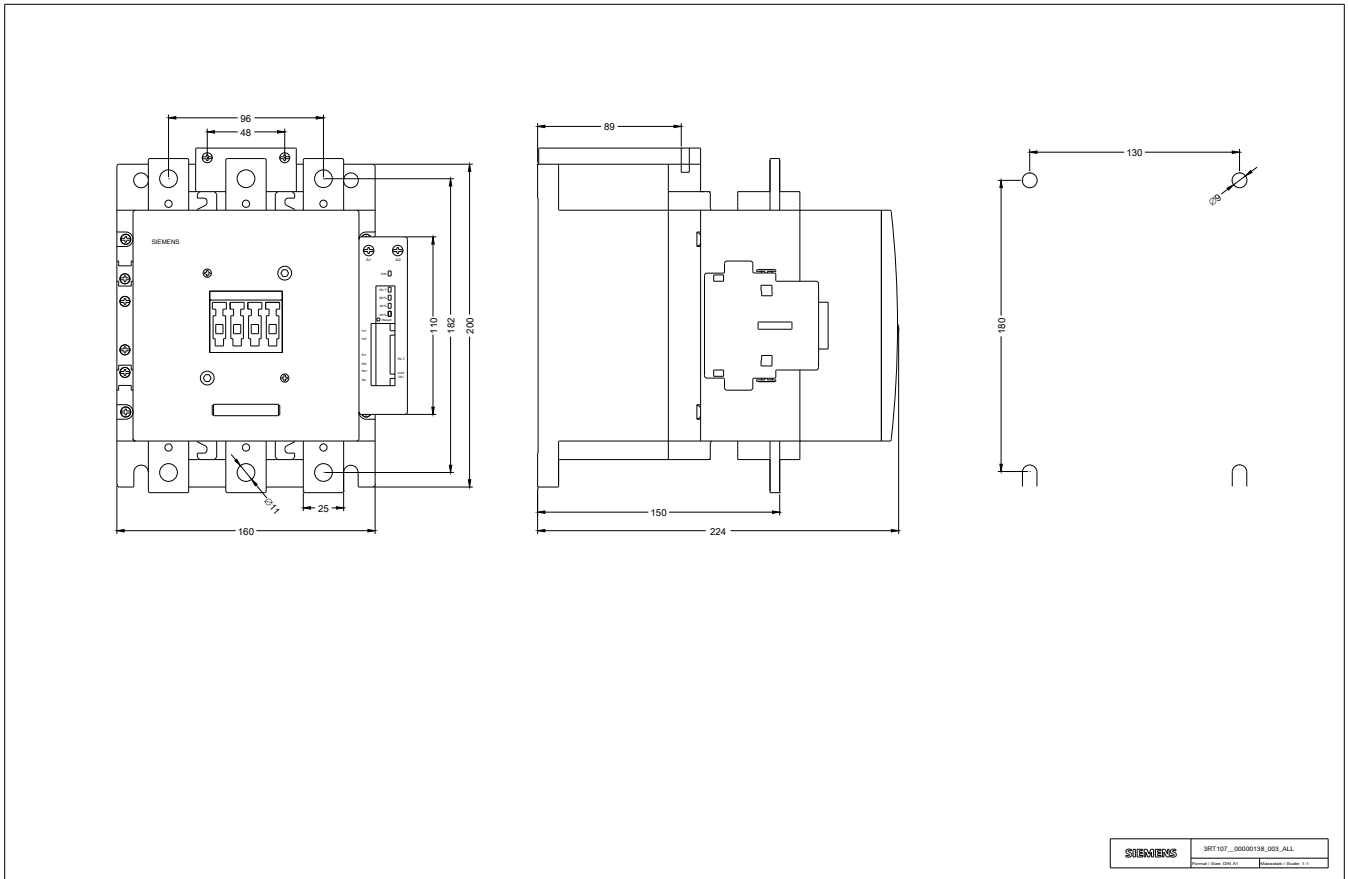
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1075-6PF35>

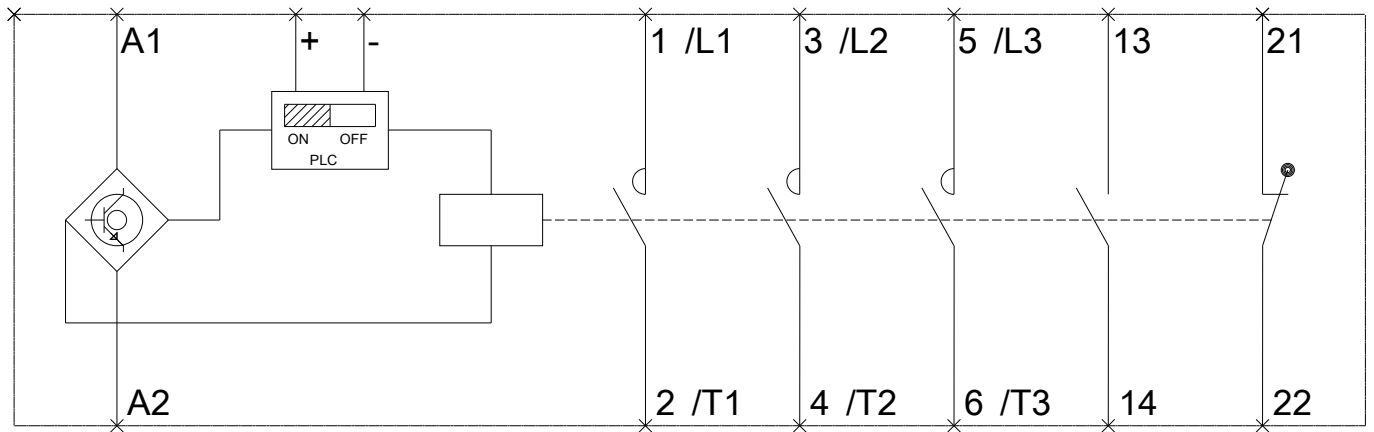
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1075-6PF35>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1075-6PF35&lang=en





last modified:

07/14/2017