

4NO CONTACTOR,AC1:60A 20-33V AC/DC,VARISTOR, 4-POLE,  
4NO, SIZE S2, SCREW TERMINAL 1NO+1NC INTEGRATED



Figure similar

|                                                     |           |
|-----------------------------------------------------|-----------|
| Product brand name                                  | SIRIUS    |
| Product designation                                 | Contactor |
| Product type designation                            | 3RT23     |
| General technical data                              |           |
| Size of contactor                                   | S2        |
| 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                                                                   | IP00                      |
| <b>Shock resistance at rectangular impulse</b>                                      |                           |
| • at AC                                                                             | 7.7g / 5 ms, 4.5g / 10 ms |
| • at DC                                                                             | 7.7g / 5 ms, 4.5g / 10 ms |
| <b>Shock resistance with sine pulse</b>                                             |                           |
| • at AC                                                                             | 12g / 5 ms, 7g / 10 ms    |
| • at DC                                                                             | 12g / 5 ms, 7g / 10 ms    |
| <b>Mechanical service life (switching cycles)</b>                                   |                           |
| • of 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                |

#### Ambient conditions

|                            |                |
|----------------------------|----------------|
| <b>Ambient temperature</b> |                |
| • during operation         | -40 ... +70 °C |
| • during storage           | -55 ... +80 °C |

#### Main circuit

|                                                                     |        |
|---------------------------------------------------------------------|--------|
| <b>Number of poles for main current circuit</b>                     | 4      |
| <b>Number of NO contacts for main contacts</b>                      | 4      |
| <b>Operating voltage</b>                                            |        |
| • at AC-3 rated value maximum                                       | 690 V  |
| <b>Operating current</b>                                            |        |
| • at AC-1 at 400 V<br>— at ambient temperature 40 °C rated value    | 60 A   |
| • at AC-1<br>— up to 690 V at ambient temperature 40 °C rated value | 60 A   |
| — up to 690 V at ambient temperature 60 °C rated value              | 55 A   |
| <b>Connectable conductor cross-section in main circuit at AC-1</b>  |        |
| • at 60 °C minimum permissible                                      | 16 mm² |
| • at 40 °C minimum permissible                                      | 16 mm² |
| <b>Operating current</b>                                            |        |
| • at 1 current path at DC-1<br>— at 24 V rated value                | 55 A   |
| — at 110 V rated value                                              | 4.5 A  |
| — at 220 V rated value                                              | 1 A    |
| — at 440 V rated value                                              | 0.4 A  |
| • with 2 current paths in series at DC-1<br>— at 24 V rated value   | 55 A   |

|                                                  |           |
|--------------------------------------------------|-----------|
| — at 110 V rated value                           | 45 A      |
| — at 220 V rated value                           | 5 A       |
| — at 440 V rated value                           | 1 A       |
| • with 3 current paths in series at DC-1         |           |
| — at 24 V rated value                            | 55 A      |
| — at 110 V rated value                           | 55 A      |
| — at 220 V rated value                           | 45 A      |
| — at 440 V rated value                           | 2.9 A     |
| <b>Operating current</b>                         |           |
| • at 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                           | 0.1 A     |
| • with 2 current paths in series at DC-3 at DC-5 |           |
| — at 24 V rated value                            | 45 A      |
| — at 110 V rated value                           | 25 A      |
| — at 220 V rated value                           | 5 A       |
| — at 440 V rated value                           | 0.27 A    |
| • with 3 current paths in series at DC-3 at DC-5 |           |
| — at 24 V rated value                            | 45 A      |
| — at 110 V rated value                           | 45 A      |
| — at 220 V rated value                           | 25 A      |
| — at 440 V rated value                           | 0.6 A     |
| <b>Operating power</b>                           |           |
| • at AC-1                                        |           |
| — at 230 V rated value                           | 23 kW     |
| — at 230 V at 60 °C rated value                  | 21 kW     |
| — at 400 V rated value                           | 39 kW     |
| — at 400 V at 60 °C rated value                  | 36 kW     |
| — at 690 V rated value                           | 68 kW     |
| — at 690 V at 60 °C rated value                  | 62 kW     |
| <b>No-load switching frequency</b>               |           |
| • at AC                                          | 1 500 1/h |
| • at DC                                          | 1 500 1/h |
| <b>Operating frequency</b>                       |           |
| • at AC-1 maximum                                | 700 1/h   |
| • at AC-2 maximum                                | 350 1/h   |
| • at AC-3 maximum                                | 500 1/h   |
| • at AC-4 maximum                                | 150 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                                                         | 20 ... 33 V      |
| • at 60 Hz rated value                                                         | 20 ... 33 V      |
| Control supply voltage at DC                                                   |                  |
| • rated value                                                                  | 20 ... 33 V      |
| Operating range factor control supply voltage rated value of magnet coil at DC |                  |
| • initial value                                                                | 0.8              |
| • Full-scale value                                                             | 1.1              |
| Operating range factor control supply voltage rated value of magnet coil at AC |                  |
| • at 50 Hz                                                                     | 0.8 ... 1.1      |
| • at 60 Hz                                                                     | 0.8 ... 1.1      |
| Design of the surge suppressor                                                 | with varistor    |
| Apparent pick-up power of magnet coil at AC                                    |                  |
| • at 50 Hz                                                                     | 40 V·A           |
| • at 60 Hz                                                                     | 40 V·A           |
| Apparent holding power of magnet coil at AC                                    |                  |
| • at 50 Hz                                                                     | 2 V·A            |
| • at 60 Hz                                                                     | 2 V·A            |
| Closing power of magnet coil at DC                                             | 23 W             |
| Holding power of magnet coil at DC                                             | 1 W              |
| Closing delay                                                                  |                  |
| • at AC                                                                        | 45 ... 70 ms     |
| • at DC                                                                        | 45 ... 60 ms     |
| Opening delay                                                                  |                  |
| • at AC                                                                        | 35 ... 55 ms     |
| • at DC                                                                        | 35 ... 55 ms     |
| Arcing time                                                                    | 10 ... 20 ms     |
| Control version of the switch operating mechanism                              | Standard A1 - A2 |
| Residual current of the electronics for control with signal <0>                |                  |
| • at AC at 230 V maximum permissible                                           | 20 mA            |
| • at DC at 24 V maximum permissible                                            | 20 mA            |

#### Auxiliary circuit

|                          |   |
|--------------------------|---|
| Number of NC contacts    |   |
| • for auxiliary contacts |   |
| — instantaneous contact  | 1 |
| Number of NO contacts    |   |
| • for auxiliary contacts |   |
| — instantaneous contact  | 1 |

|                                                  |                                                 |
|--------------------------------------------------|-------------------------------------------------|
| Operating current at AC-12 maximum               | 10 A                                            |
| <b>Operating current at AC-15</b>                |                                                 |
| • 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                                             |
| <b>Operating current at DC-12</b>                |                                                 |
| • 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                                          |
| <b>Operating current at DC-13</b>                |                                                 |
| • 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                                           |
| <b>Contact reliability of auxiliary contacts</b> | 1 faulty switching per 100 million (17 V, 1 mA) |

#### UL/CSA ratings

|                                                             |             |
|-------------------------------------------------------------|-------------|
| <b>Full-load current (FLA) for three-phase AC motor</b>     |             |
| • at 600 V rated value                                      | 17 A        |
| <b>Yielded mechanical performance [hp]</b>                  |             |
| • for three-phase AC motor                                  |             |
| — at 200/208 V rated value                                  | 5 hp        |
| — at 220/230 V rated value                                  | 7.5 hp      |
| — at 575/600 V rated value                                  | 15 hp       |
| <b>Contact rating of auxiliary contacts according to UL</b> | A600 / P600 |

#### Short-circuit protection

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

#### Installation/ mounting/ dimensions

|                              |                                                                                                                                      |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mounting position</b>     | +/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface |
| <b>Mounting type</b>         | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715                                               |
| • Side-by-side mounting      | Yes                                                                                                                                  |
| <b>Height</b>                | 114 mm                                                                                                                               |
| <b>Width</b>                 | 75 mm                                                                                                                                |
| <b>Depth</b>                 | 130 mm                                                                                                                               |
| <b>Required spacing</b>      |                                                                                                                                      |
| • with side-by-side mounting |                                                                                                                                      |
| — forwards                   | 0 mm                                                                                                                                 |
| — Backwards                  | 0 mm                                                                                                                                 |
| — upwards                    | 0 mm                                                                                                                                 |
| — downwards                  | 0 mm                                                                                                                                 |
| — at the side                | 0 mm                                                                                                                                 |
| • for grounded parts         |                                                                                                                                      |
| — forwards                   | 10 mm                                                                                                                                |
| — Backwards                  | 0 mm                                                                                                                                 |
| — upwards                    | 50 mm                                                                                                                                |
| — at the side                | 6 mm                                                                                                                                 |
| — downwards                  | 50 mm                                                                                                                                |
| • for live parts             |                                                                                                                                      |
| — forwards                   | 10 mm                                                                                                                                |
| — Backwards                  | 0 mm                                                                                                                                 |
| — upwards                    | 50 mm                                                                                                                                |
| — downwards                  | 50 mm                                                                                                                                |
| — at the side                | 6 mm                                                                                                                                 |

## Connections/Terminals

|                                                     |                                             |
|-----------------------------------------------------|---------------------------------------------|
| <b>Type of electrical connection</b>                |                                             |
| • for main current circuit                          | screw-type terminals                        |
| • for auxiliary and control current circuit         | screw-type terminals                        |
| <b>Type of connectable conductor cross-sections</b> |                                             |
| • for main contacts                                 |                                             |
| — single or multi-stranded                          | 2x (1 ... 35 mm²), 1x (1 ... 50 mm²)        |
| — finely stranded with core end processing          | 2x (1 ... 25 mm²), 1x (1 ... 35 mm²)        |
| • at AWG conductors for main contacts               | 2x (18 ... 2), 1x (18 ... 1)                |
| <b>Type of connectable conductor cross-sections</b> |                                             |
| • for auxiliary contacts                            |                                             |
| — single or multi-stranded                          | 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²) |
| — finely stranded with core end processing          | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) |
| • at AWG conductors for auxiliary contacts          | 2x (20 ... 16), 2x (18 ... 14)              |

## Safety related data

|                                                                           |                                                                  |
|---------------------------------------------------------------------------|------------------------------------------------------------------|
| <b>Proportion of dangerous failures</b>                                   |                                                                  |
| • with low demand rate acc. to SN 31920                                   | 40 %                                                             |
| • with high demand rate acc. to SN 31920                                  | 73 %                                                             |
| <b>Product function</b>                                                   |                                                                  |
| • Mirror contact acc. to IEC 60947-4-1                                    | Yes                                                              |
| • positively driven operation acc. to IEC 60947-5-1                       | No                                                               |
| <b>T1 value for proof test interval or service life acc. to IEC 61508</b> | 20 y                                                             |
| <b>Protection against electrical shock</b>                                | finger-safe when touched vertically from front acc. to IEC 60529 |

## Certificates/approvals

| General Product Approval                                                                 | Functional Safety/Safety of Machinery                                                    | Declaration of Conformity                                                                       |
|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <br>CCC | <br>EAC | <br>EG-Konf. |
| <br>CSA | <br>UL  | <a href="#">Type Examination Certificate</a>                                                    |

| Test Certificates                                  | Marine / Shipping                                                                                     |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <a href="#">Type Test Certificates/Test Report</a> | <br>ABS            |
| <a href="#">Special Test Certificate</a>           | <br>BUREAU VERITAS |
|                                                    | <br>GL           |
|                                                    | <br>LRS          |

| Marine / Shipping                                                                                             | other                                       |
|---------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| <br>PRS                    | <a href="#">Environmental Confirmations</a> |
| <br>RINA                   | <a href="#">Confirmation</a>                |
| <br>RMRS                   |                                             |
| <br>DNV-GL<br>DNVGL.COM/AF |                                             |

## 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=3RT2336-1NB30>

**Cax online generator**

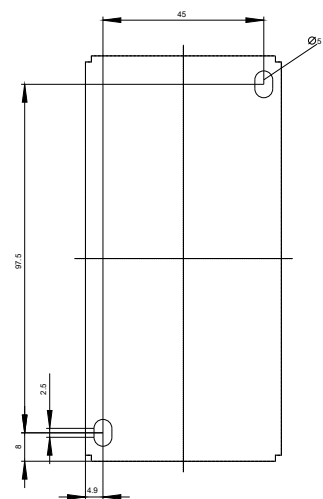
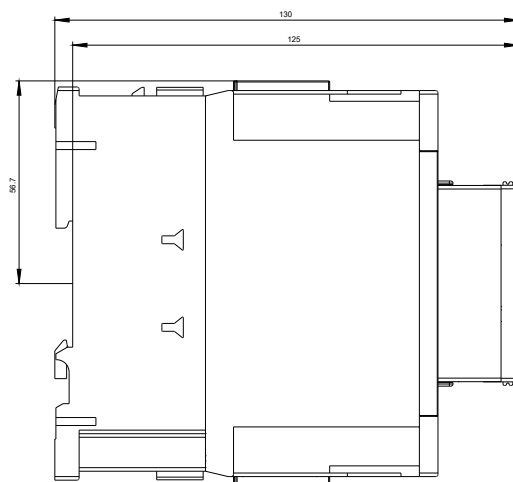
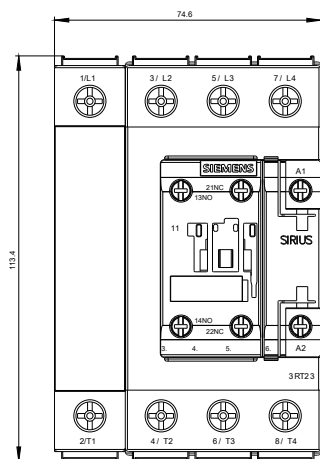
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2336-1NB30>

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

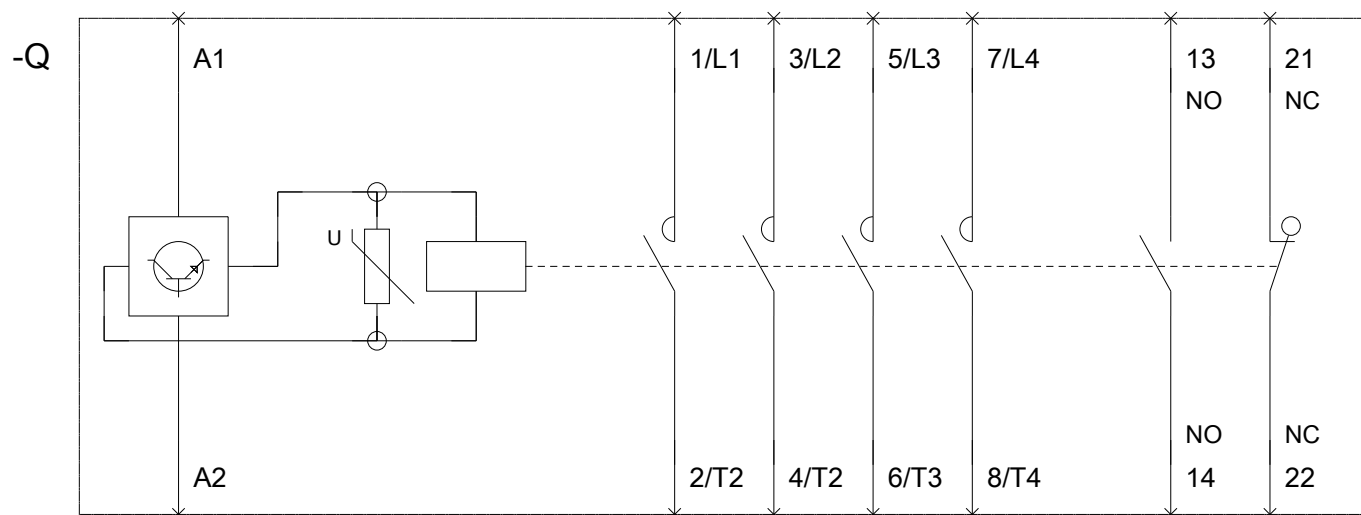
<https://support.industry.siemens.com/cs/ww/en/ps/3RT2336-1NB30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2336-1NB30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2336-1NB30&lang=en)







last modified:

07/28/2017