

COUPLING CONT., AC-3, 3KW/400V, 1NO, DC 24V,  
0.85...1.85\*US, W. PLUGGED-ON VARISTOR 3-POLE SZ S00,  
SCREW TERMINAL



|                                                     |                           |
|-----------------------------------------------------|---------------------------|
| product brandname                                   | SIRIUS                    |
| Product designation                                 | Coupling relay            |
| Product type designation                            | 3RT2                      |
| General technical data                              |                           |
| Size of contactor                                   | S00                       |
| Product extension                                   |                           |
| • function module for communication                 | No                        |
| • Auxiliary switch                                  | No                        |
| Insulation voltage                                  |                           |
| • rated value                                       | 690 V                     |
| 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 at rectangular impulse             |                           |
| • at DC                                             | 6,7g / 5 ms, 4,2g / 10 ms |

|                                                                      |                            |
|----------------------------------------------------------------------|----------------------------|
| <b>Shock resistance with sine pulse</b>                              |                            |
| • at DC                                                              | 10,5g / 5 ms, 6,6g / 10 ms |
| <b>Mechanical service life (switching cycles)</b>                    |                            |
| • of contactor typical                                               | 30 000 000                 |
| <b>Ambient conditions</b>                                            |                            |
| <b>Ambient temperature</b>                                           |                            |
| • during operation                                                   | -25 ... +60 °C             |
| • during storage                                                     | -55 ... +80 °C             |
| <b>Main circuit</b>                                                  |                            |
| <b>Number of poles for main current circuit</b>                      | 3                          |
| <b>Number of NO contacts for main contacts</b>                       | 3                          |
| <b>Operating voltage</b>                                             |                            |
| • at AC-3 rated value maximum                                        | 690 V                      |
| <b>Operating current</b>                                             |                            |
| • at AC-1 at 400 V                                                   |                            |
| — at ambient temperature 40 °C rated value                           | 18 A                       |
| • at AC-1                                                            |                            |
| — up to 690 V at ambient temperature 40 °C rated value               | 18 A                       |
| — up to 690 V at ambient temperature 60 °C rated value               | 16 A                       |
| • at AC-2 at 400 V rated value                                       | 7 A                        |
| • at AC-3                                                            |                            |
| — at 400 V rated value                                               | 7 A                        |
| — at 500 V rated value                                               | 6 A                        |
| — at 690 V rated value                                               | 4.9 A                      |
| <b>Connectable conductor cross-section in main circuit at AC-1</b>   |                            |
| • at 60 °C minimum permissible                                       | 2.5 mm <sup>2</sup>        |
| • at 40 °C minimum permissible                                       | 2.5 mm <sup>2</sup>        |
| <b>Operating current for approx. 200000 operating cycles at AC-4</b> |                            |
| • at 400 V rated value                                               | 2.6 A                      |
| • at 690 V rated value                                               | 1.8 A                      |
| <b>Operating current</b>                                             |                            |
| • at 1 current path at DC-1                                          |                            |
| — at 24 V rated value                                                | 15 A                       |
| — at 110 V rated value                                               | 1.5 A                      |
| — at 220 V rated value                                               | 0.6 A                      |
| — at 440 V rated value                                               | 0.42 A                     |
| — at 600 V rated value                                               | 0.42 A                     |
| • with 2 current paths in series at DC-1                             |                            |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                              | 15 A<br>8.4 A<br>1.2 A<br>0.6 A<br>0.5 A                                                   |
| <ul style="list-style-type: none"> <li>• with 3 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                                  | 15 A<br>15 A<br>15 A<br>0.9 A<br>0.7 A                                                     |
| <b>Operating current</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                            |
| <ul style="list-style-type: none"> <li>• at 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> <li>• with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> <li>• with 3 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> <li>— at 220 V rated value</li> <li>— at 440 V rated value</li> <li>— at 600 V rated value</li> </ul> </li> </ul> | 15 A<br>0.1 A<br><br>15 A<br>0.25 A<br><br>15 A<br>15 A<br>1.2 A<br>0.14 A<br>0.14 A       |
| <b>Operating power</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                            |
| <ul style="list-style-type: none"> <li>• at AC-1 <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 230 V at 60 °C rated value</li> <li>— at 400 V rated value</li> <li>— at 400 V at 60 °C rated value</li> <li>— at 690 V rated value</li> <li>— at 690 V at 60 °C rated value</li> </ul> </li> <li>• at AC-2 at 400 V rated value</li> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>                                                                                                | 6.3 kW<br>6 kW<br>11 kW<br>10.5 kW<br>19 kW<br>18 kW<br>3 kW<br><br>1.5 kW<br>3 kW<br>4 kW |
| <b>Operating power for approx. 200000 operating cycles at AC-4</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                            |
| <ul style="list-style-type: none"> <li>• at 400 V rated value</li> <li>• at 690 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1.15 kW<br>1.15 kW                                                                         |

|                                                                                               |            |
|-----------------------------------------------------------------------------------------------|------------|
| <b>Thermal short-time current limited to 10 s</b>                                             | 56 A       |
| <b>Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor</b> | 0.4 W      |
| <b>No-load switching frequency</b>                                                            |            |
| • at DC                                                                                       | 10 000 1/h |
| <b>Operating frequency</b>                                                                    |            |
| • at AC-1 maximum                                                                             | 1 000 1/h  |
| • at AC-2 maximum                                                                             | 750 1/h    |
| • at AC-3 maximum                                                                             | 750 1/h    |
| • at AC-4 maximum                                                                             | 250 1/h    |

#### Control circuit/ Control

|                                                                              |               |
|------------------------------------------------------------------------------|---------------|
| <b>Type of voltage of the control supply voltage</b>                         | DC            |
| <b>Control supply voltage at DC</b>                                          |               |
| • rated value                                                                | 24 V          |
| <b>Design of the surge suppressor</b>                                        | with varistor |
| <b>Closing power of magnet coil at DC</b>                                    | 1.6 W         |
| <b>Holding power of magnet coil at DC</b>                                    | 1.6 W         |
| <b>Closing delay</b>                                                         |               |
| • at DC                                                                      | 30 ... 100 ms |
| <b>Opening delay</b>                                                         |               |
| • at DC                                                                      | 7 ... 13 ms   |
| <b>Arcing time</b>                                                           | 10 ... 15 ms  |
| <b>Residual current of the electronics for control with signal &lt;0&gt;</b> |               |
| • at AC at 230 V maximum permissible                                         | 3 mA          |
| • at DC at 24 V maximum permissible                                          | 10 mA         |

#### Auxiliary circuit

|                                           |      |
|-------------------------------------------|------|
| <b>Number of NO contacts</b>              |      |
| • for auxiliary contacts                  |      |
| — instantaneous contact                   | 1    |
| <b>Operating current at AC-12 maximum</b> | 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  |

|                                                                                                                                                                                                                                                                       |                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at 220 V rated value</li> <li>• at 600 V rated value</li> </ul>                                                                                                                                                              | 1 A<br>0.15 A                                        |
| <b>Operating current at DC-13</b>                                                                                                                                                                                                                                     |                                                      |
| <ul style="list-style-type: none"> <li>• at 24 V rated value</li> <li>• at 48 V rated value</li> <li>• at 60 V rated value</li> <li>• at 110 V rated value</li> <li>• at 125 V rated value</li> <li>• at 220 V rated value</li> <li>• at 600 V rated value</li> </ul> | 10 A<br>2 A<br>2 A<br>1 A<br>0.9 A<br>0.3 A<br>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>                                                                                                                                                                                                                                                                                                                                                                   |                                                          |
| <ul style="list-style-type: none"> <li>• at 480 V rated value</li> <li>• at 600 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                  | 4.8 A<br>6.1 A                                           |
| <b>Yielded mechanical performance [hp]</b>                                                                                                                                                                                                                                                                                                                                                                                |                                                          |
| <ul style="list-style-type: none"> <li>• for single-phase AC motor <ul style="list-style-type: none"> <li>— at 110/120 V rated value</li> <li>— at 230 V rated value</li> </ul> </li> <li>• for three-phase AC motor <ul style="list-style-type: none"> <li>— at 200/208 V rated value</li> <li>— at 220/230 V rated value</li> <li>— at 460/480 V rated value</li> <li>— at 575/600 V rated value</li> </ul> </li> </ul> | 0.25 hp<br>0.75 hp<br><br>1.5 hp<br>2 hp<br>3 hp<br>5 hp |
| <b>Contact rating of auxiliary contacts according to UL</b>                                                                                                                                                                                                                                                                                                                                                               | A600 / Q600                                              |

#### Short-circuit protection

|                                                                                                                                                                                                                                                                                                                       |                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>Design of the fuse link</b>                                                                                                                                                                                                                                                                                        |                                                                                                     |
| <ul style="list-style-type: none"> <li>• for short-circuit protection of the main circuit <ul style="list-style-type: none"> <li>— with type of coordination 1 required</li> <li>— with type of assignment 2 required</li> </ul> </li> <li>• for short-circuit protection of the auxiliary switch required</li> </ul> | gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A<br>gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A<br>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                                               |
| <ul style="list-style-type: none"> <li>• Side-by-side mounting</li> </ul> | Yes                                                                                                                                  |
| <b>Height</b>                                                             | 58 mm                                                                                                                                |
| <b>Width</b>                                                              | 45 mm                                                                                                                                |

|                                                                                                                                                                                                                                    |                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| <b>Depth</b>                                                                                                                                                                                                                       | 117 mm           |
| <b>Required spacing</b>                                                                                                                                                                                                            |                  |
| <ul style="list-style-type: none"> <li>• for grounded parts <ul style="list-style-type: none"> <li>— at the side</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— at the side</li> </ul> </li> </ul> | 6 mm<br><br>6 mm |

#### Connections/Terminals

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

#### Safety related data

|                                                                                                                                             |              |
|---------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>B10 value</b>                                                                                                                            |              |
| <ul style="list-style-type: none"> <li>• with high demand rate acc. to SN 31920</li> </ul>                                                  | 1 000 000    |
| <b>Proportion of dangerous failures</b>                                                                                                     |              |
| <ul style="list-style-type: none"> <li>• with low demand rate acc. to SN 31920</li> <li>• with high demand rate acc. to SN 31920</li> </ul> | 40 %<br>73 % |
| <b>Failure rate [FIT]</b>                                                                                                                   |              |
| <ul style="list-style-type: none"> <li>• with low demand rate acc. to SN 31920</li> </ul>                                                   | 100 FIT      |
| <b>Product function</b>                                                                                                                     |              |
| <ul style="list-style-type: none"> <li>• Mirror contact acc. to IEC 60947-4-1</li> </ul>                                                    | 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  |

#### Certificates/approvals

|                          |                                       |
|--------------------------|---------------------------------------|
| General Product Approval | Functional Safety/Safety of Machinery |
|--------------------------|---------------------------------------|



CCC



CSA



UL

[KTL](#)



[Baumusterbescheinigung](#)

|                           |                   |                   |
|---------------------------|-------------------|-------------------|
| Declaration of Conformity | Test Certificates | Shipping Approval |
|---------------------------|-------------------|-------------------|



EG-Konf.

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ABS



BUREAU VERITAS



GL

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



LRS



PRS



RINA



RMRS

[Umweltbestätigung](#)

[Bestätigungen](#)

other



VDE

## 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=3RT2015-1WB41>

Cax online generator

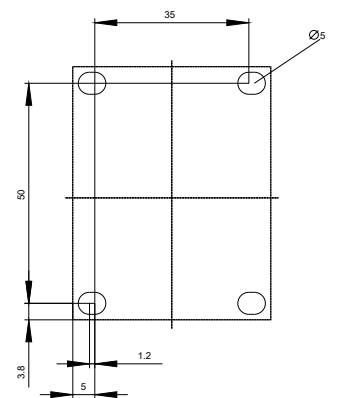
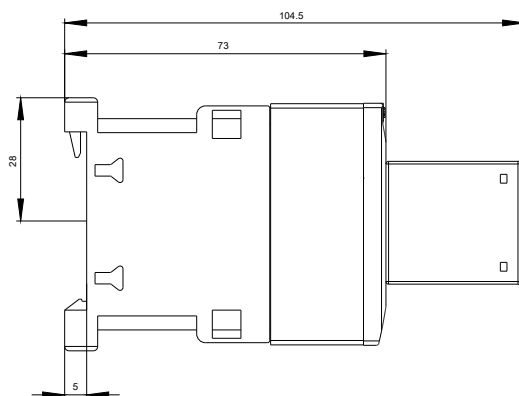
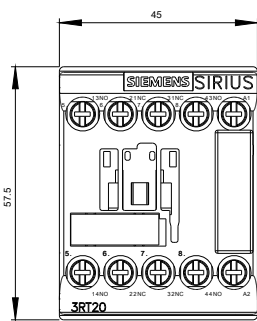
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT2015-1WB41>

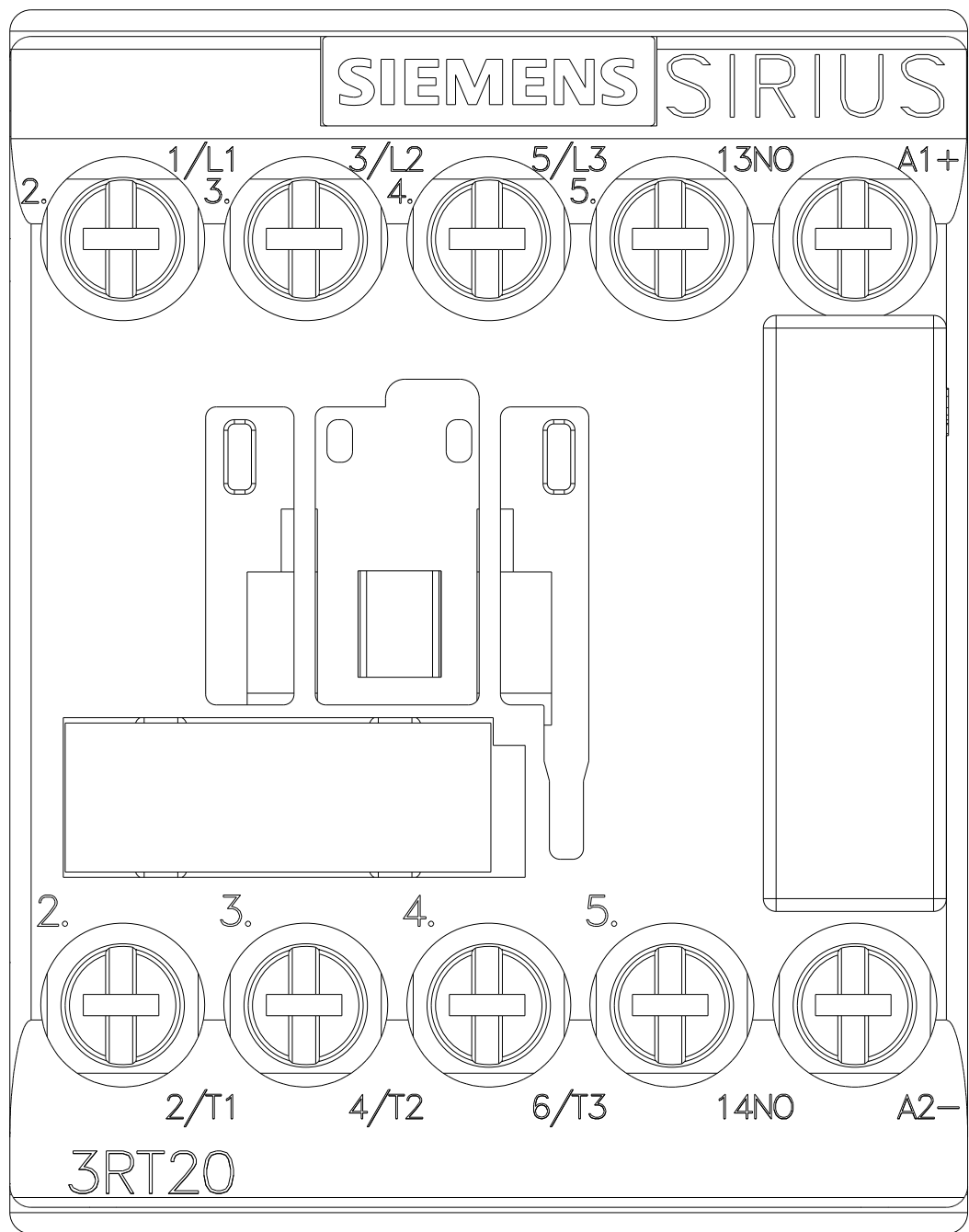
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

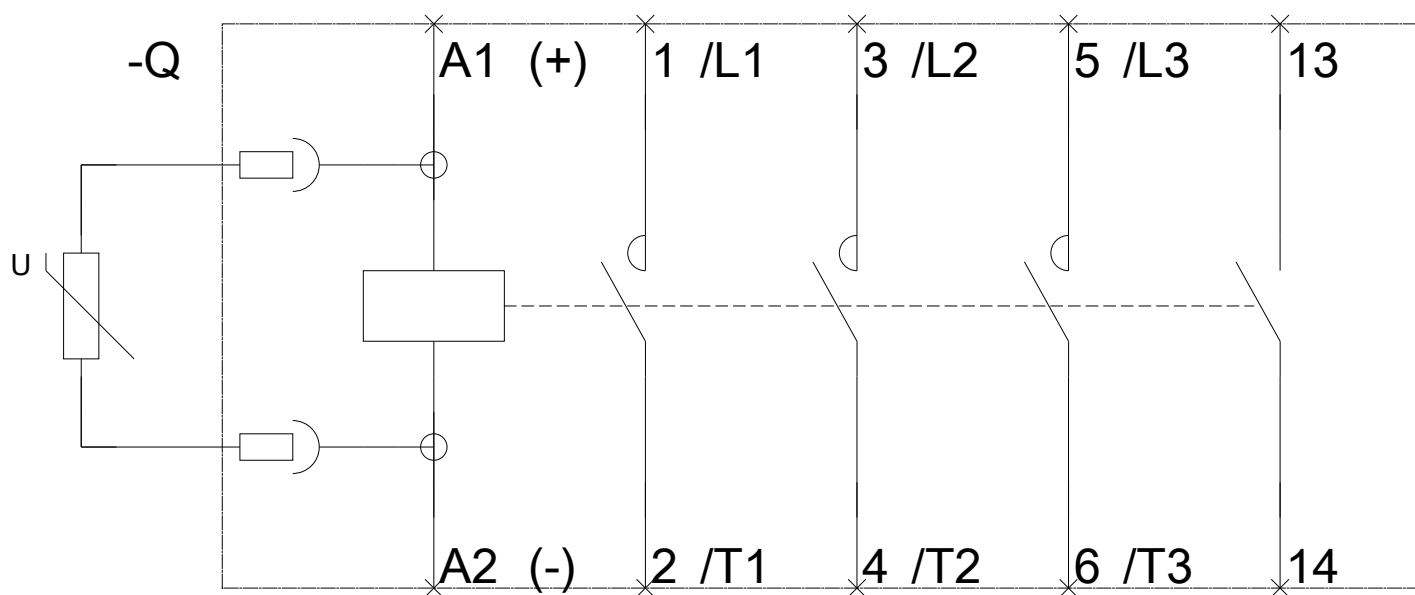
<https://support.industry.siemens.com/cs/ww/en/ps/3RT2015-1WB41>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT2015-1WB41&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT2015-1WB41&lang=en)







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