

REV. COMB., AC3, 4KW/400V AC220V 50HZ/240V 60HZ 3-POLE,  
SZ S00 SCREW TERMINAL ELECTR. AND MECH. INTERLOCK



Figure similar

|   |  |
|---|--|
| <b>product brand name</b>   | SIRIUS   |
| <b>Product designation</b>  | reversing contactor assembly 3RA23   |
| <b>Manufacturer article number</b>  |  |
| <ul style="list-style-type: none"> <li>• 1 of the supplied contactor</li> <li>• 2 of the supplied contactor</li> <li>• of the supplied RH assembly kit</li> </ul> | <a href="#">3RT2016-1AP02</a><br><a href="#">3RT2016-1AP02</a><br><a href="#">3RA2913-2AA1</a> |

**General technical data:**

|  |                          |
|--|--------------------------|
| <b>Size of contactor</b>   | S00                      |
| <b>Product expansion</b>   |                          |
| <ul style="list-style-type: none"> <li>• Auxiliary switch</li> </ul>   | Yes                      |
| <b>Insulation voltage</b>  |                          |
| <ul style="list-style-type: none"> <li>• with degree of pollution 3 Rated value</li> </ul>   | 690 V                    |
| <b>Surge voltage resistance Rated value</b>  | 6 kV                     |
| <b>Protection class IP</b>   |                          |
| <ul style="list-style-type: none"> <li>• on the front</li> </ul>   | IP20                     |
| <b>Degree of pollution</b>   | 3                        |
| <b>Mechanical service life (switching cycles)</b>  |                          |
| <ul style="list-style-type: none"> <li>• of the contactor typical</li> <li>• of the contactor with added auxiliary switch block typical</li> </ul> | 10 000 000<br>10 000 000 |
| <b>Equipment marking</b>   |                          |
| <ul style="list-style-type: none"> <li>• acc. to DIN EN 81346-2</li> </ul>   | Q                        |

**Ambient conditions:**

|  |         |
|--|---------|
| <b>Installation altitude at height above sea level maximum</b> | 2 000 m |
|--|---------|

|  |   |
|--|---|
| <b>Ambient temperature</b>   |   |
| <ul style="list-style-type: none"> <li>during operation</li> <li>during storage</li> </ul>   | <p>-25 ... +60 °C</p> <p>-55 ... +80 °C</p>                                 |
| <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>Number of NC contacts for main contacts</b>   | 0   |
| <b>Operating voltage</b>   |   |
| <ul style="list-style-type: none"> <li>at AC-3 Rated value maximum</li> </ul>  | 690 V   |
| <b>Operating current</b>   |   |
| <ul style="list-style-type: none"> <li>at AC-1 at 400 V <ul style="list-style-type: none"> <li>at ambient temperature 40 °C Rated value</li> <li>at ambient temperature 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 400 V Rated value</li> </ul> </li> </ul>  | <p>18 A</p> <p>16 A</p> <p>7 A</p> <p>9 A</p>                               |
| <b>Operating current</b>   |   |
| <ul style="list-style-type: none"> <li>with 1 current path at DC-1 <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-1 <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-1 <ul style="list-style-type: none"> <li>at 24 V Rated value</li> <li>at 110 V Rated value</li> </ul> </li> </ul>                         | <p>20 A</p> <p>2.1 A</p> <p>20 A</p> <p>12 A</p> <p>20 A</p> <p>20 A</p>    |
| <b>Operating current</b>   |   |
| <ul style="list-style-type: none"> <li>with 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 110 V Rated value</li> <li>at 24 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 110 V Rated value</li> <li>at 24 V Rated value</li> </ul> </li> </ul> | <p>20 A</p> <p>0.15 A</p> <p>0.35 A</p> <p>20 A</p> <p>20 A</p> <p>20 A</p> |
| <b>No-load switching frequency</b>   | 1 500 1/h   |
| <b>Operating frequency</b>   |   |
| <ul style="list-style-type: none"> <li>at AC-1 maximum</li> <li>at AC-2 maximum</li> <li>at AC-3 maximum</li> </ul>  | <p>1 000 1/h</p> <p>750 1/h</p> <p>750 1/h</p>                              |

- at AC-4 maximum

250 1/h

#### Control circuit/ Control:

|   |              |
|---|--------------|
| <b>Type of voltage of the control supply voltage</b>                                      | AC           |
| <b>Control supply voltage 1 at AC</b>   |              |
| • at 50 Hz Rated value  | 220 V        |
| • at 60 Hz Rated value  | 240 V        |
| <b>Operating range factor control supply voltage rated value of the magnet coil at AC</b> |              |
| • at 50 Hz  | 0.8 ... 1.1  |
| • at 60 Hz  | 0.85 ... 1.1 |
| <b>Apparent pick-up power of the magnet coil at AC</b>                                    |              |
| • at 50 Hz  | 27 V·A       |
| <b>Inductive power factor with closing power of the coil</b>                              |              |
| • at 50 Hz  | 0.8          |
| <b>Apparent holding power of the magnet coil at AC</b>                                    |              |
| • at 50 Hz  | 4.2 V·A      |
| <b>Inductive power factor with the holding power of the coil</b>                          |              |
| • at 50 Hz  | 0.25         |

#### Auxiliary circuit:

|   |  |
|---|--|
| <b>Number of NC contacts</b>  |  |
| • for auxiliary contacts  |  |
| — per direction of rotation   | 0  |
| — instantaneous contact   | 0  |
| — lagging switching   | 0  |
| <b>Number of NO contacts</b>  |  |
| • for auxiliary contacts  |  |
| — per direction of rotation   | 0  |
| — instantaneous contact   | 0  |
| — leading contact   | 0  |
| <b>Operating current of the auxiliary contacts at AC-12 maximum</b> | 10 A                                       |
| <b>Operating current of the auxiliary contacts at AC-15</b>         |  |
| • at 230 V  | 6 A  |
| • at 400 V  | 3 A  |
| <b>Operating current of the auxiliary contacts at DC-13</b>         |  |
| • at 24 V   | 10 A                                       |
| • at 60 V   | 2 A  |
| • at 110 V  | 1 A  |
| • at 220 V  | 0.3 A                                      |
| <b>Contact reliability of the auxiliary contacts</b>                | < 1 error per 100 million operating cycles |

**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>  | <p>7.6 A</p> <p>9 A</p>  |
| <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> | <p>0.33 hp</p> <p>1 hp</p> <p>2 hp</p> <p>3 hp</p> <p>5 hp</p> <p>7.5 hp</p> |
| <b>Contact rating of the auxiliary contacts acc. to UL</b>  | A600 / Q600  |

**Short-circuit:**

|   |   |
|---|---|
| <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 assignment 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> | <p>gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A</p> <p>gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 A</p> <p>fuse gL/gG: 10 A</p> |

**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   |
| <b>Height</b>   | 68 mm  |
| <b>Width</b>  | 90 mm  |
| <b>Depth</b>  | 73 mm  |
| <b>Required spacing</b>   |  |
| <ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> </ul> | <p>6 mm</p> <p>0 mm</p> <p>6 mm</p> <p>6 mm</p> <p>6 mm</p> <p>6 mm</p> <p>6 mm</p> <p>0 mm</p> <p>6 mm</p> <p>6 mm</p>              |

|                  |      |
|------------------|------|
| — downwards      | 6 mm |
| • for live parts |      |
| — forwards       | 6 mm |
| — Backwards      | 0 mm |
| — upwards        | 6 mm |
| — downwards      | 6 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-section</b> |  |
| • for main contacts                                |  |
| — single or multi-stranded                         | 2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> ), 2x (0,5 ... 4 mm <sup>2</sup> ) |
| — finely stranded with core end processing         | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )                                  |
| • for AWG conductors for main contacts             | 2x (20 ... 16), 2x (18 ... 14)   |
| <b>Type of connectable conductor cross-section</b> |  |
| • for auxiliary contacts                           |  |
| — single or multi-stranded                         | 2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )                                  |
| — finely stranded with core end processing         | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )                                  |
| • for AWG conductors for auxiliary contacts        | 2x (20 ... 16), 2x (18 ... 14)   |





#### Safety related data:

|   |           |
|---|-----------|
| <b>B10 value with high demand rate acc. to SN 31920</b>                   | 1 000 000 |
| <b>Proportion of dangerous failures</b>                                   |           |
| • with low demand rate acc. to SN 31920                                   | 40 %      |
| • with high demand rate acc. to SN 31920                                  | 75 %      |
| <b>T1 value for proof test interval or service life acc. to IEC 61508</b> | 20 y      |



#### Communication/ Protocol:

|   |    |
|---|----|
| <b>Product function Bus communication</b> | No |
| <b>Protocol is supported</b>              |    |
| • AS-interface protocol                   | No |

#### Certificates/ approvals:

| General Product Approval   |   |   | Declaration of Conformity   | Test Certificates                                 |   |
|--|---|---|---|---|---|
| <br>CSA | <br>UL |  | <br>EG-Konf. | <a href="#">Typprüfbescheinigung/Werkszeugnis</a> | <a href="#">spezielle Prüfbescheinigungen</a> |

| Shipping Approval  |   |  |   |  |  |
|--|---|--|---|--|--|
| <br>ABS | <br>BUREAU VERITAS | <br>DNV | <br>GL | <br>LRS | <br>PRS |

| Shipping Approval   | other   |
|---|---|
| <br>RINA | <br>RMRS |
|   | <a href="#">Umweltbestätigung</a>   |

### 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**

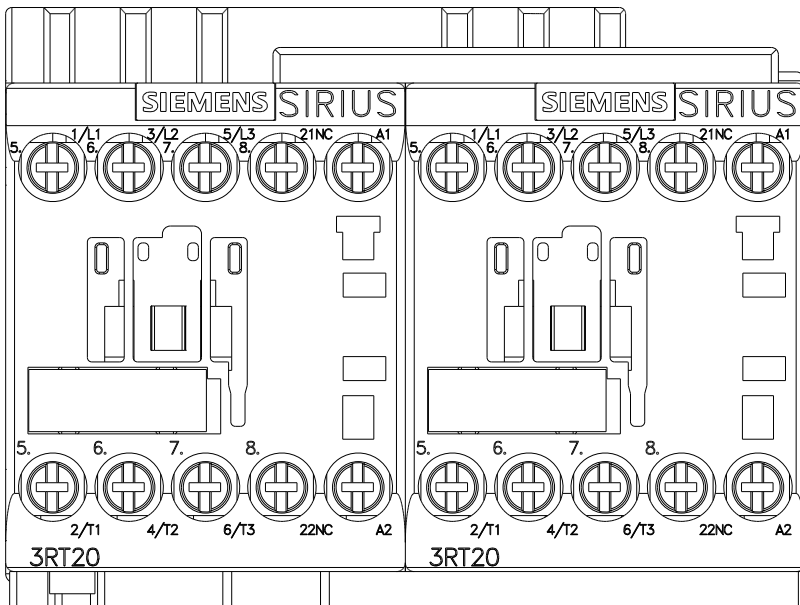
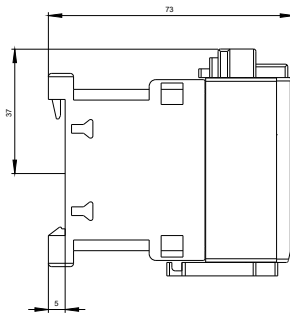
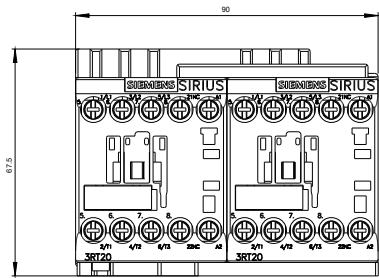
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA23168XB301AP6>

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

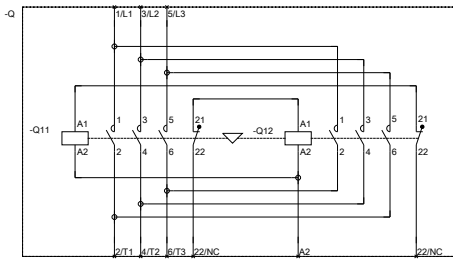
<https://support.industry.siemens.com/cs/ww/en/ps/3RA23168XB301AP6>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA23168XB301AP6&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA23168XB301AP6&lang=en)



WENDEKOMBINATION BGR. S00



REVERSING COMB. SZ S00

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