



CONTACTOR, AC-3, 3KW/400V, 1NO,  
AC 400V, 50/60 HZ, 3-POLE,  
SZ S00 SCREW TERMINAL

#### General technical data:

|   |    |                            |
|---|----|----------------------------|
| <b>product brand name</b>   |    | SIRIUS                     |
| <b>Size of the contactor</b>  |    | S00                        |
| <b>Product extension</b>  |    |                            |
| • auxiliary switch  |    | Yes                        |
| • function module for communication                                 |    | No                         |
| <b>Protection class IP / on the front</b>                           |    | IP20                       |
| <b>Protection against electrical shock</b>                          |    | finger-safe                |
| <b>Degree of pollution</b>  |    | 3                          |
| <b>Installation altitude / at a height over sea level / maximum</b> | m  | 2,000                      |
| <b>Ambient temperature</b>  |    |                            |
| • during storage  | °C | -55 ... +80                |
| • during operating  | °C | -25 ... +60                |
| <b>Shock resistance</b>   |    |                            |
| • at rectangular impulse  |    |                            |
| • at AC   |    | 6,7g / 5 ms, 4,2g / 10 ms  |
| • at sine pulse   |    |                            |
| • at AC   |    | 10,5g / 5 ms, 6,6g / 10 ms |
| <b>Impulse voltage resistance / rated value</b>                     | kV | 6                          |
| <b>Insulation voltage / rated value</b>                             | V  | 690                        |

|   |                 |            |
|---|-----------------|------------|
| <b>Maximum permissible voltage for protective separation / between coil and main contacts / in accordance with EN 60947-1</b> | V               | 400        |
| <b>Mechanical operating cycles as operating time</b>  |                 |            |
| • of the contactor / typical  |                 | 30,000,000 |
| • of the contactor with added auxiliary switch block / typical  |                 | 10,000,000 |
| • of the contactor with added electronics-compatible auxiliary switch block / typical   |                 | 5,000,000  |
| <b>Main circuit:</b>  |                 |            |
| <b>Number of NC contacts / for main contacts</b>  |                 | 0          |
| <b>Number of NO contacts / for main contacts</b>  |                 | 3          |
| <b>Connectable conductor cross-section / in main circuit</b>  |                 |            |
| • at AC-1   |                 |            |
| • at 40 °C / minimum permissible  | mm <sup>2</sup> | 2.5        |
| • at 60 °C / minimum permissible  | mm <sup>2</sup> | 2.5        |
| <b>Operating current</b>  |                 |            |
| • at AC-1 / up to 690 V   |                 |            |
| • at 40 °C ambient temperature / rated value  | A               | 18         |
| • at 60 °C ambient temperature / rated value  | A               | 16         |
| • at AC-2 / at 400 V / rated value  | A               | 7          |
| • at AC-3   |                 |            |
| • at 400 V / rated value  | A               | 7          |
| • at 500 V / rated value  | A               | 6          |
| • at 690 V / rated value  | A               | 4.9        |
| • at AC-4 / at 400 V / rated value  | A               | 6.5        |
| <b>Operational current / for ≥ 200000 operating cycles / at AC-4</b>  |                 |            |
| • at 400 V / rated value  | A               | 2.6        |
| • at 690 V / rated value  | A               | 1.8        |
| <b>Operating current</b>  |                 |            |
| • with 1 current path / at DC-1   |                 |            |
| • at 24 V / rated value   | A               | 15         |
| • at 110 V / rated value  | A               | 1.5        |
| • at 220 V / rated value  | A               | 0.6        |
| • at 440 V / rated value  | A               | 0.42       |
| • at 600 V / rated value  | A               | 0.42       |
| • with 2 current paths in series / at DC-1  |                 |            |
| • at 24 V / rated value   | A               | 15         |
| • at 110 V / rated value  | A               | 8.4        |
| • at 220 V / rated value  | A               | 1.2        |
| • at 440 V / rated value  | A               | 0.6        |
| • at 600 V / rated value  | A               | 0.5        |

|  |     |        |
|--|-----|--------|
| <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>  | A   | 15     |
|  | A   | 15     |
|  | A   | 15     |
|  | A   | 0.9    |
|  | A   | 0.7    |
| <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 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> | A   | 15     |
|  | A   | 0.1    |
|  | A   | 15     |
|  | A   | 0.25   |
|  | A   | 15     |
|  | A   | 15     |
|  | A   | 1.2    |
|  | A   | 0.14   |
|  | A   | 0.14   |
| <b>Operating performance</b>   |     |        |
| • at AC-1 / at 230 V / rated value   | kW  | 6.3    |
| • at AC-1 / at 400 V / rated value   | kW  | 11     |
| • at AC-1 / at 690 V / rated value   | kW  | 19     |
| • at AC-2 <ul style="list-style-type: none"> <li>• at 400 V / rated value</li> </ul>   | kW  | 3      |
| • 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>   | kW  | 1.5    |
|  | kW  | 3      |
|  | kW  | 4      |
| • at AC-4 <ul style="list-style-type: none"> <li>• at 400 V / rated value</li> </ul>   | kW  | 3      |
| <b>Operating performance / for <math>\geq 200000</math> operating cycles / at AC-4</b>   |     |        |
| • at 400 V / rated value   | kW  | 1.15   |
| • at 690 V / rated value   | kW  | 1.15   |
| <b>Thermal short-time current / restricted to 10 s</b>   |     |        |
|  | A   | 56     |
| <b>Active power loss / at AC-3 / at 400 V / with rated Operating current value / per conductor</b>   |     |        |
|  | W   | 0.4    |
| <b>Off-load operating frequency</b>  |     |        |
| • at AC  | 1/h | 10,000 |
| <b>Frequency of operation</b>  |     |        |

- with AC-1 / maximum
- with AC-2 / maximum
- with AC-3 / maximum
- with AC-4 / maximum

|     |       |
|-----|-------|
| 1/h | 1,000 |
| 1/h | 750   |
| 1/h | 750   |
| 1/h | 250   |

#### Control circuit/ Control:

|   |     |              |
|---|-----|--------------|
| <b>Voltage type / of control feed voltage</b>   |     | AC           |
| <b>Control supply voltage</b>   |     |              |
| • at 50 Hz / at AC / rated value  | V   | 400          |
| • at 60 Hz / at AC / rated value  | V   | 400          |
| <b>Operating range factor control supply voltage rated value / of the magnet coil</b> |     |              |
| • at 50 Hz / for AC   |     | 0.8 ... 1.1  |
| • at 60 Hz / for AC   |     | 0.85 ... 1.1 |
| <b>Apparent pull-in power / of the solenoid / for AC</b>                              | V·A | 27           |
| <b>Apparent holding power / of the solenoid / for AC</b>                              | V·A | 4.2          |
| <b>Inductive power factor</b>   |     |              |
| • with the pull-in power of the coil  |     | 0.8          |
| • with the pull-in power of the coil  |     | 0.25         |
| <b>Closing delay</b>  |     |              |
| • at AC   | ms  | 9 ... 35     |
| <b>Opening delay</b>  |     |              |
| • at AC   | ms  | 3.5 ... 14   |
| <b>Arcing time</b>  | ms  | 10 ... 15    |
| <b>Residual current / of electronics / for control with signal &lt;0&gt;</b>          |     |              |
| • at 230 V / with AC / maximum permissible  | mA  | 3            |
| • at 24 V / with DC / maximum permissible   | mA  | 10           |

#### Auxiliary circuit:

|   |   |   |
|---|---|---|
| <b>Contact reliability / of the auxiliary contacts</b>                          |   | 1 faulty switching per 100 million (17 V, 1 mA) |
| <b>Number of NC contacts / for auxiliary contacts / instantaneous switching</b> |   | 0   |
| <b>Number of NO contacts / for auxiliary contacts / instantaneous switching</b> |   | 1   |
| <b>Operating current</b>  |   |   |
| • at AC-12 / maximum  | A | 10  |
| • at AC-15  |   |   |
| • at 230 V / rated value  | A | 10  |
| • at 400 V / rated value  | A | 3   |
| • at 500 V / rated value  | A | 2   |
| • at 690 V / rated value  | A | 1   |

|                                     |   |      |
|-------------------------------------|---|------|
| <b>Operating current / at DC-12</b> |   |      |
| • at 24 V / rated value             | A | 10   |
| • at 48 V / rated value             | A | 6    |
| • at 60 V / rated value             | A | 6    |
| • at 110 V / rated value            | A | 3    |
| • at 125 V / rated value            | A | 2    |
| • at 220 V / rated value            | A | 1    |
| • at 440 V / rated value            | A | 0.3  |
| • at 600 V / rated value            | A | 0.15 |

|                                     |   |      |
|-------------------------------------|---|------|
| <b>Operating current / at DC-13</b> |   |      |
| • at 24 V / rated value             | A | 10   |
| • at 48 V / rated value             | A | 2    |
| • at 60 V / rated value             | A | 2    |
| • at 110 V / rated value            | A | 1    |
| • at 125 V / rated value            | A | 0.9  |
| • at 220 V / rated value            | A | 0.3  |
| • at 440 V / rated value            | A | 0.14 |
| • at 600 V / rated value            | A | 0.1  |

### UL/CSA ratings:

|  |    |      |
|--|----|------|
| <b>yielded mechanical performance [hp]</b> |    |      |
| • for single-phase squirrel cage motors    |    |      |
| • at 110/120 V / rated value               | hp | 0.25 |
| • at 230 V / rated value                   | hp | 0.75 |
| • for three-phase squirrel cage motors     |    |      |
| • at 200/208 V / rated value               | hp | 1.5  |
| • at 220/230 V / rated value               | hp | 2    |
| • at 460/480 V / rated value               | hp | 3    |
| • at 575/600 V / rated value               | hp | 5    |

|  |   |     |
|--|---|-----|
| <b>Full-load current (FLA) / for 3-phase motor</b> |   |     |
| • at 480 V / rated value                           | A | 4.8 |
| • at 600 V / rated value                           | A | 6.1 |

|  |  |             |
|--|--|-------------|
| <b>Contact rating designation / for auxiliary contacts / according to UL</b> |  | A600 / Q600 |
|--|--|-------------|

### Short-circuit:

|   |  |  |
|---|--|--|
| <b>Design of the fuse link</b>                                    |  |  |
| • for short-circuit protection of the auxiliary switch / required |  | fuse gL/gG: 10 A                               |
| • for short-circuit protection of the main circuit                |  |  |
| • with type of assignment 1 / required                            |  | gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A |

- at type of coordination 2 / required

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE:  
20A

#### Installation/ mounting/ dimensions:

|   |    |  |
|---|----|--|
| <b>mounting position</b>  |    | +/-180° rotation possible on vertical mounting surface;<br>can be tilted forward and backward by +/- 22.5° on<br>vertical mounting surface |
| <b>Mounting type</b>  |    | screw and snap-on mounting onto 35 mm standard<br>mounting rail according to DIN EN 50022  |
| <b>Mounting type / series installation</b>                          |    | Yes  |
| <b>Width</b>  | mm | 45   |
| <b>Height</b>   | mm | 57.5   |
| <b>Depth</b>  | mm | 73   |
| <b>Distance, to be maintained, to the ranks assembly / sideways</b> | mm | 0  |

#### Connections/ terminals:

##### Design of the electrical connection

- for main current circuit
- for auxiliary and control current circuit
- for main contacts / finely stranded / with conductor end  
processing
- for AWG conductors / for main contacts
- for auxiliary contacts / finely stranded / with conductor end  
processing
- for AWG conductors / for auxiliary contacts

screw-type terminals  
screw-type terminals  
2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)  
2x (20 ... 16), 2x (18 ... 14), 2x 12  
2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)  
2x (20 ... 16), 2x (18 ... 14), 2x 12

#### Safety related data:

|   |     |            |
|---|-----|------------|
| <b>B10 value / with high demand rate</b>  |     | 1,000,000  |
| <ul style="list-style-type: none"> <li>• according to SN 31920</li> </ul>                         |     |            |
| <b>T1 value / for proof test interval or service life</b>   |     | 20         |
| <ul style="list-style-type: none"> <li>• according to IEC 61508</li> </ul>                        | a   |            |
| <b>Proportion of dangerous failures</b>   |     |            |
| <ul style="list-style-type: none"> <li>• with low demand rate / according to SN 31920</li> </ul>  | %   | 40         |
| <ul style="list-style-type: none"> <li>• with high demand rate / according to SN 31920</li> </ul> | %   | 73         |
| <b>Failure rate [FIT] / with low demand rate</b>  |     | 100        |
| <ul style="list-style-type: none"> <li>• according to SN 31920</li> </ul>                         | FIT |            |
| <b>Product function</b>   |     |            |
| <ul style="list-style-type: none"> <li>• mirror contact to IEC 60947-4-1</li> </ul>               |     | Yes        |
| <ul style="list-style-type: none"> <li>• comment</li> </ul>                                       |     | with 3RH29 |
| <ul style="list-style-type: none"> <li>• positively driven operation to IEC 60947-5-1</li> </ul>  |     | No         |

#### Certificates/ approvals:

General Product Approval



Functional Safety / Safety of Machinery

[Type Examination](#)

Declaration of Conformity



Test Certificates

[Special Test Certificate](#)

Shipping Approval



Shipping Approval

other



[Confirmation](#)



[Environmental Confirmations](#)

Further information:

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<http://mall.industry.siemens.com/>

Cax online generator

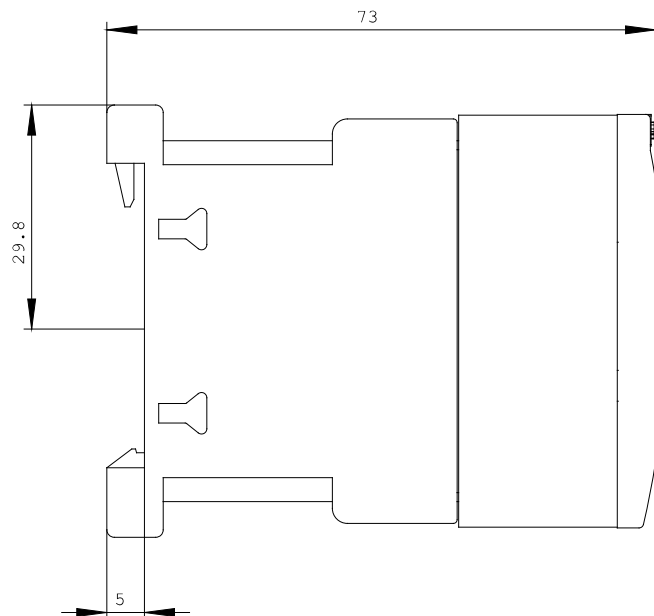
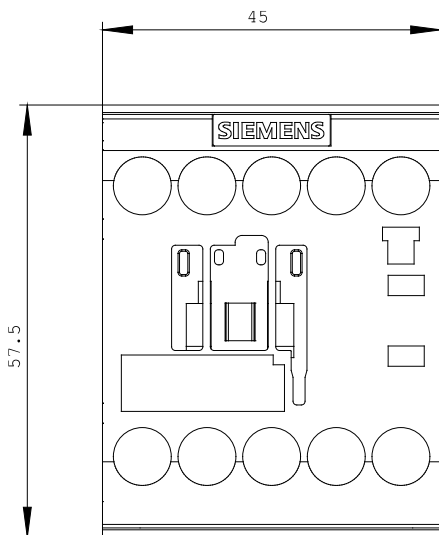
<http://www.siemens.com/cax>

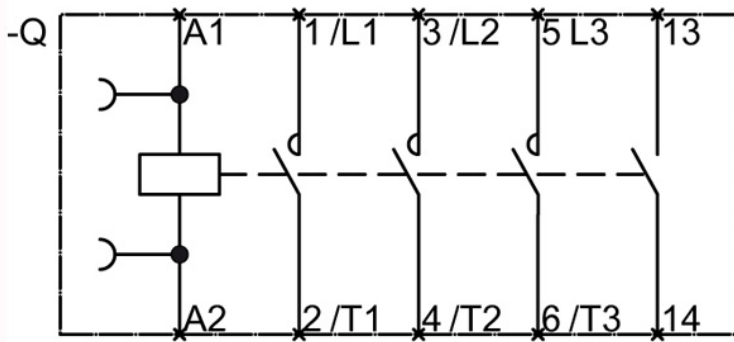
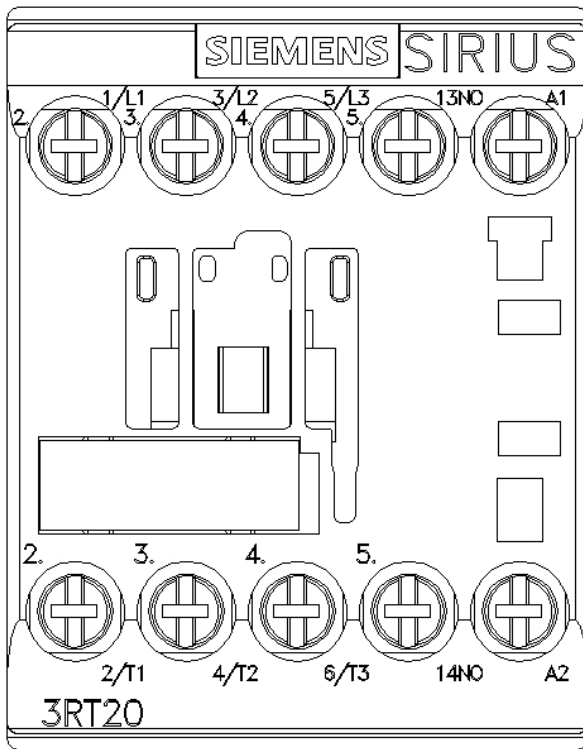
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT2015-1AV01/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2015-1AV01](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2015-1AV01)





last change:

Aug 4, 2014