



CONTACTOR, AC-3, 3KW/400V, 1NO, DC 12V,  
3-POLE, SZ S00 SCREW TERMINAL

## General technical data:

|                                                              |    |                            |
|--------------------------------------------------------------|----|----------------------------|
| product brand name                                           |    | SIRIUS                     |
| Size of the contactor                                        |    | S00                        |
| Product extension                                            |    |                            |
| • auxiliary switch                                           |    | Yes                        |
| • function module for communication                          |    | No                         |
| Protection class IP / on the front                           |    | IP20                       |
| Protection against electrical shock                          |    | finger-safe                |
| Degree of pollution                                          |    | 3                          |
| Installation altitude / at a height over sea level / maximum | m  | 2,000                      |
| Ambient temperature                                          |    |                            |
| • during storage                                             | °C | -55 ... +80                |
| • during operating                                           | °C | -25 ... +60                |
| Shock resistance                                             |    |                            |
| • at rectangular impulse                                     |    |                            |
| • at DC                                                      |    | 6,7g / 5 ms, 4,2g / 10 ms  |
| • at sine pulse                                              |    |                            |
| • at DC                                                      |    | 10,5g / 5 ms, 6,6g / 10 ms |
| Impulse voltage resistance / rated value                     | kV | 6                          |
| Insulation voltage / rated value                             | 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 DC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 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>                                         |    | DC          |
| <b>Control supply voltage</b>                                                         |    |             |
| • for DC / rated value                                                                | V  | 12          |
| <b>Operating range factor control supply voltage rated value / of the magnet coil</b> |    |             |
| • for DC                                                                              |    | 0.8 ... 1.1 |
| <b>Pull-in power / of the solenoid / for DC</b>                                       | W  | 4           |
| <b>Holding power / of the solenoid / for DC</b>                                       | W  | 4           |
| <b>Closing delay</b>                                                                  |    |             |
| • at DC                                                                               | ms | 30 ... 100  |
| <b>Opening delay</b>                                                                  |    |             |
| • at DC                                                                               | ms | 7 ... 13    |
| <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 vertical mounting surface |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|

|                                                                     |    |                                                                                        |
|---------------------------------------------------------------------|----|----------------------------------------------------------------------------------------|
| <b>Mounting type</b>                                                |    | screw and snap-on mounting onto 35 mm standard 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                                                 | screw-type terminals                        |
| • for auxiliary and control current circuit                                | screw-type terminals                        |
| • for main contacts / finely stranded / with conductor end processing      | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) |
| • for AWG conductors / for main contacts                                   | 2x (20 ... 16), 2x (18 ... 14), 2x 12       |
| • for auxiliary contacts / finely stranded / with conductor end processing | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) |
| • for AWG conductors / for auxiliary contacts                              | 2x (20 ... 16), 2x (18 ... 14), 2x 12       |

#### Safety related data:

##### B10 value / with high demand rate

|                         |  |           |
|-------------------------|--|-----------|
| • according to SN 31920 |  | 1,000,000 |
|-------------------------|--|-----------|

##### T1 value / for proof test interval or service life

|                          |   |    |
|--------------------------|---|----|
| • according to IEC 61508 | a | 20 |
|--------------------------|---|----|

##### Proportion of dangerous failures

|                                                 |   |    |
|-------------------------------------------------|---|----|
| • with low demand rate / according to SN 31920  | % | 40 |
| • with high demand rate / according to SN 31920 | % | 73 |

##### Failure rate [FIT] / with low demand rate

|                         |     |     |
|-------------------------|-----|-----|
| • according to SN 31920 | FIT | 100 |
|-------------------------|-----|-----|

##### Product function

|                                                |            |
|------------------------------------------------|------------|
| • mirror contact to IEC 60947-4-1              | Yes        |
| • comment                                      | with 3RH29 |
| • positively driven operation to IEC 60947-5-1 | No         |

#### Certificates/ approvals:

## General Product Approval



## Test Certificates

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

## Shipping Approval



## Shipping Approval

other



[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

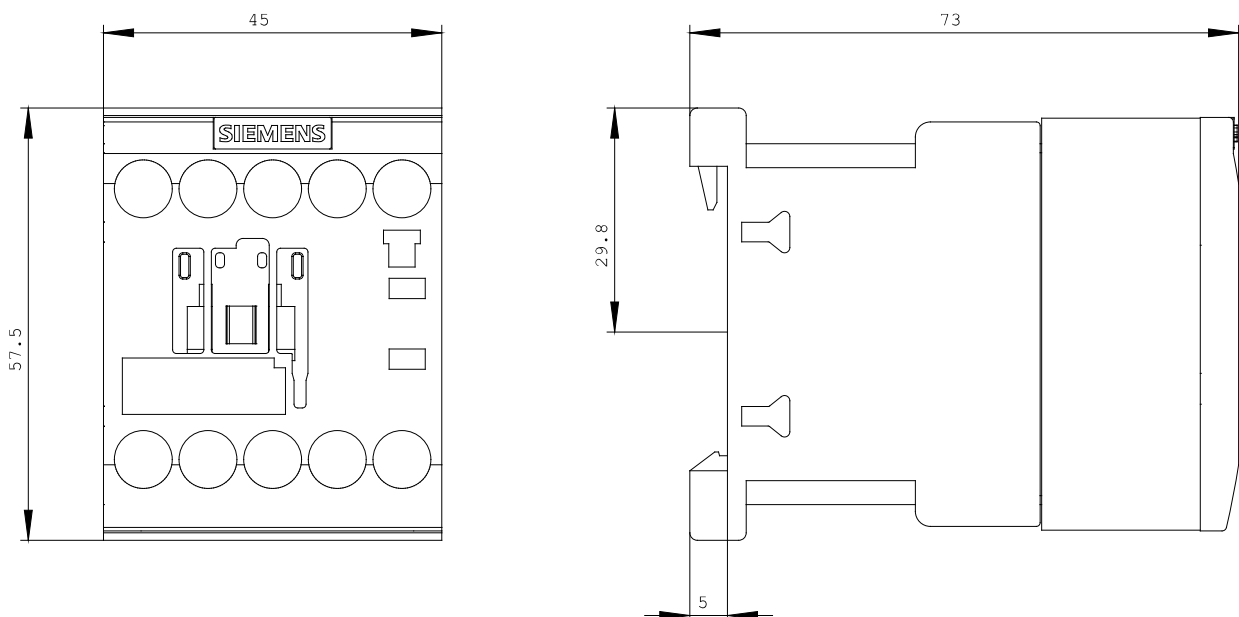
<http://www.siemens.com/cax>

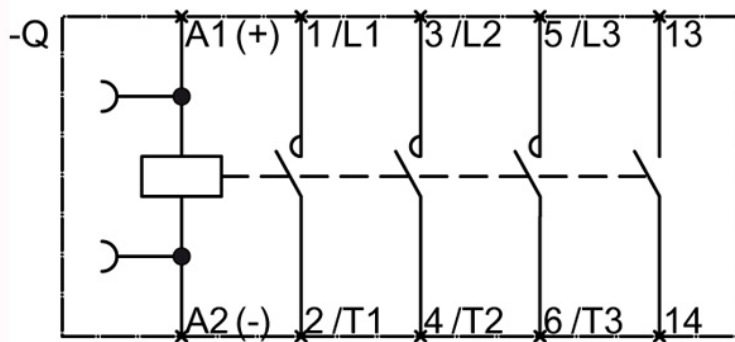
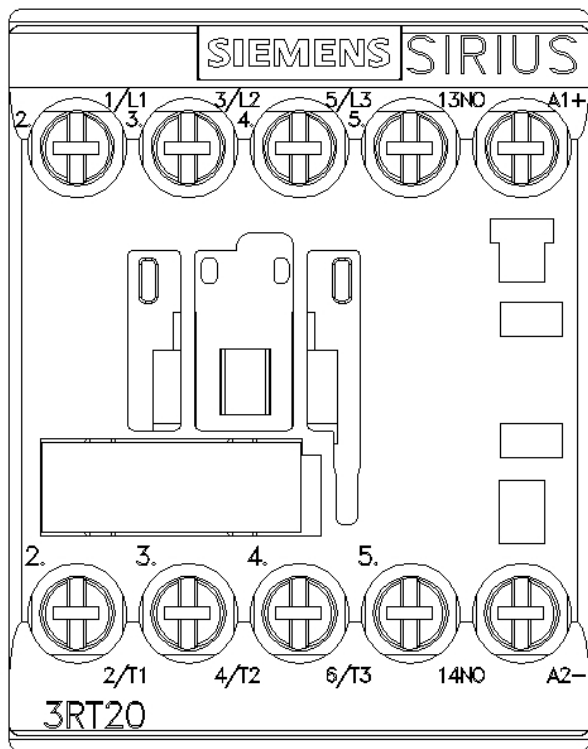
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<http://support.automation.siemens.com/WW/view/en/3RT2015-1BA41/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2015-1BA41](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2015-1BA41)





last change:

Aug 4, 2014