



2NO+2NC CONTACTOR,  
AC3: 4KW DC 110V 50HZ,  
120V 60HZ 4-POLE, 2NO+2NC, 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 AC                                                      |    | 6,7g / 5 ms, 4,2g / 10 ms  |
| • at sine pulse                                              |    |                            |
| • at AC                                                      |    | 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>                                                                              |   | 2          |
| <b>Number of NO contacts / for main contacts</b>                                                                              |   | 2          |
| <b>Operational current / at AC-1 / up to 690 V</b>                                                                            |   |            |
| • at 40 °C ambient temperature / rated value                                                                                  | A | 22         |
| • at 60 °C ambient temperature / rated value                                                                                  | A | 20         |
| <b>Operating current / at AC-2 / at AC-3</b>                                                                                  |   |            |
| • at 400 V                                                                                                                    |   |            |
| • per NO contact / rated value                                                                                                | A | 9          |
| • per NC contact / rated value                                                                                                | A | 9          |
| <b>Operating current</b>                                                                                                      |   |            |
| • with 1 current path / at DC-1                                                                                               |   |            |
| • at 24 V / rated value                                                                                                       | A | 20         |
| • at 110 V / rated value                                                                                                      | A | 2.1        |
| • at 220 V / rated value                                                                                                      | A | 0.8        |
| • at 440 V / rated value                                                                                                      | A | 0.6        |
| • with 2 current paths in series / at DC-1                                                                                    |   |            |
| • at 24 V / rated value                                                                                                       | A | 20         |
| • at 110 V / rated value                                                                                                      | A | 12         |
| • at 220 V / rated value                                                                                                      | A | 1.6        |
| • at 440 V / rated value                                                                                                      | A | 0.8        |
| <b>Operating current</b>                                                                                                      |   |            |
| • with 1 current path / at DC-3 / at DC-5                                                                                     |   |            |
| • at 24 V                                                                                                                     |   |            |
| • per NO contact / rated value                                                                                                | A | 16         |
| • per NC contact / rated value                                                                                                | A | 16         |
| • at 110 V                                                                                                                    |   |            |
| • per NO contact / rated value                                                                                                | A | 0.15       |
| • per NC contact / rated value                                                                                                | A | 0.075      |
| • at 220 V                                                                                                                    |   |            |
| • per NO contact / rated value                                                                                                | A | 0.75       |
| • per NC contact / rated value                                                                                                | A | 0.375      |
| • with 2 current paths in series / at DC-3 / at DC-5                                                                          |   |            |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |     |        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|--------|
| <ul style="list-style-type: none"> <li>• at 24 V <ul style="list-style-type: none"> <li>• per NO contact / rated value</li> <li>• per NC contact / rated value</li> </ul> </li> <li>• at 110 V <ul style="list-style-type: none"> <li>• per NO contact / rated value</li> <li>• per NC contact / rated value</li> </ul> </li> </ul>                                                                                                                                                                                                          | A   | 16     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | A   | 16     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | A   | 0.35   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | A   | 0.175  |
| <b>Operating performance</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 400 V / rated value</li> </ul> </li> <li>• at AC-2 / at AC-3 <ul style="list-style-type: none"> <li>• at 230 V <ul style="list-style-type: none"> <li>• per NO contact / rated value</li> <li>• per NC contact / rated value</li> </ul> </li> <li>• at 400 V <ul style="list-style-type: none"> <li>• per NO contact / rated value</li> <li>• per NC contact / rated value</li> </ul> </li> </ul> </li> </ul> | kW  | 6.5    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | kW  | 11     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | kW  | 2.2    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | kW  | 2.2    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | kW  | 4      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | kW  | 4      |
| <b>Active power loss / at AC-3 / at 400 V / with rated Operating current value / per conductor</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           | W   | 0.7    |
| <b>Off-load operating frequency</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |     |        |
| <ul style="list-style-type: none"> <li>• at AC</li> <li>• at DC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1/h | 10,000 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1/h | 10,000 |
| <b>Frequency of operation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |     |        |
| <ul style="list-style-type: none"> <li>• with AC-1 / maximum</li> <li>• at AC-2 / at AC-3 / maximum</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                               | 1/h | 1,000  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1/h | 1,000  |

| Control circuit/ Control:                                                                                                            |     |              |
|--------------------------------------------------------------------------------------------------------------------------------------|-----|--------------|
| <b>Voltage type / of control feed voltage</b>                                                                                        |     | AC           |
| <b>Control supply voltage</b>                                                                                                        |     |              |
| <ul style="list-style-type: none"> <li>• at 50 Hz / at AC / rated value</li> <li>• at 60 Hz / at AC / rated value</li> </ul>         | V   | 110          |
|                                                                                                                                      | V   | 120          |
| <b>operating range factor control supply voltage rated value / of the magnet coil</b>                                                |     |              |
| <ul style="list-style-type: none"> <li>• at 50 Hz / for AC</li> <li>• at 60 Hz / for AC</li> </ul>                                   |     | 0.8 ... 1.1  |
|                                                                                                                                      |     | 0.85 ... 1.1 |
| <b>Apparent pull-in power / of the solenoid / for AC</b>                                                                             | V·A | 32           |
| <b>Apparent holding power / of the solenoid / for AC</b>                                                                             | V·A | 4.8          |
| <b>Inductive power factor</b>                                                                                                        |     |              |
| <ul style="list-style-type: none"> <li>• with the pull-in power of the coil</li> <li>• with the pull-in power of the coil</li> </ul> |     | 0.8          |
|                                                                                                                                      |     | 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                                   | A  | 0.0030     |

#### 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> |   | 0                                               |
| <b>Operating current</b>                                                        |   |                                                 |
| • at AC-12 / maximum                                                            | A | 10                                              |
| • at AC-15 / at 230 V / rated value                                             | A | 10                                              |
| • at AC-15 / at 400 V / rated value                                             | A | 3                                               |
| <b>Operating current / at DC-12</b>                                             |   |                                                 |
| • 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 220 V / rated value                                                        | A | 0.3                                             |
| • 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 | 0.33        |
| • at 230 V / rated value                                                     | hp | 1           |
| <b>Contact rating designation / for auxiliary contacts / according 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 auxiliary switch / required</li> <li>• for short-circuit protection of the main circuit <ul style="list-style-type: none"> <li>• with type of assignment 1 / required</li> </ul> </li> <li>• at type of coordination 2 / required</li> </ul> |  | fuse gL/gG: 10 A<br><br>gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 35 A<br><br>gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 20 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 50022                                               |
| <b>Mounting type / series installation</b> |    | Yes                                                                                                                                  |
| <b>Width</b>                               | mm | 45                                                                                                                                   |
| <b>Height</b>                              | mm | 57.5                                                                                                                                 |
| <b>Depth</b>                               | mm | 73                                                                                                                                   |

| Connections/ terminals:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Design of the 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><br>screw-type terminals                                                                                                                                                                                                                                                           |
| <b>Type of the connectable conductor cross-section</b> <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded <ul style="list-style-type: none"> <li>• with conductor end processing</li> </ul> </li> </ul> </li> <li>• for AWG conductors / for main contacts</li> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded <ul style="list-style-type: none"> <li>• with conductor end processing</li> </ul> </li> </ul> </li> <li>• for AWG conductors / for auxiliary contacts</li> </ul> |  | 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 4 mm²<br><br>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)<br>2x (20 ... 16), 2x (18 ... 14), 2x 12<br><br>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²), 2x 4 mm²<br><br>2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²)<br>2x (20 ... 16), 2x (18 ... 14), 2x 12 |

| Safety related data:                                                                                                                                                                              |            |              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------|
| <b>B10 value / with high demand rate</b> <ul style="list-style-type: none"> <li>• according to SN 31920</li> </ul>                                                                                |            | 1,000,000    |
| <b>T1 value / for proof test interval or service life</b> <ul style="list-style-type: none"> <li>• according to IEC 61508</li> </ul>                                                              | a          | 20           |
| <b>Proportion of dangerous failures</b> <ul style="list-style-type: none"> <li>• with low demand rate / according to SN 31920</li> <li>• with high demand rate / according to SN 31920</li> </ul> | %<br><br>% | 40<br><br>73 |

|                                                                                                                                                                                        |     |                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------------------------|
| <b>Failure rate [FIT] / with low demand rate</b> <ul style="list-style-type: none"> <li>• according to SN 31920</li> </ul>                                                             | FIT | 100                     |
| <b>Product function</b> <ul style="list-style-type: none"> <li>• mirror contact to IEC 60947-4-1</li> <li>• comment</li> <li>• positively driven operation to IEC 60947-5-1</li> </ul> |     | Yes<br>with 3RH29<br>No |

#### Certificates/ approvals:

##### General Product Approval

##### Functional Safety / Safety of Machinery

##### Declaration of Conformity



[Type Examination](#)



##### 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://www.siemens.com/industrymall>

##### Cax online generator

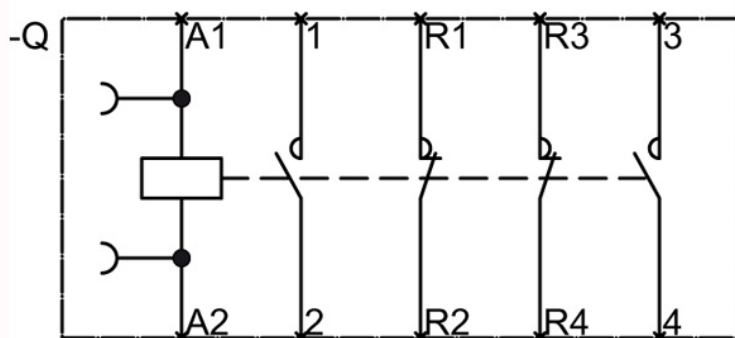
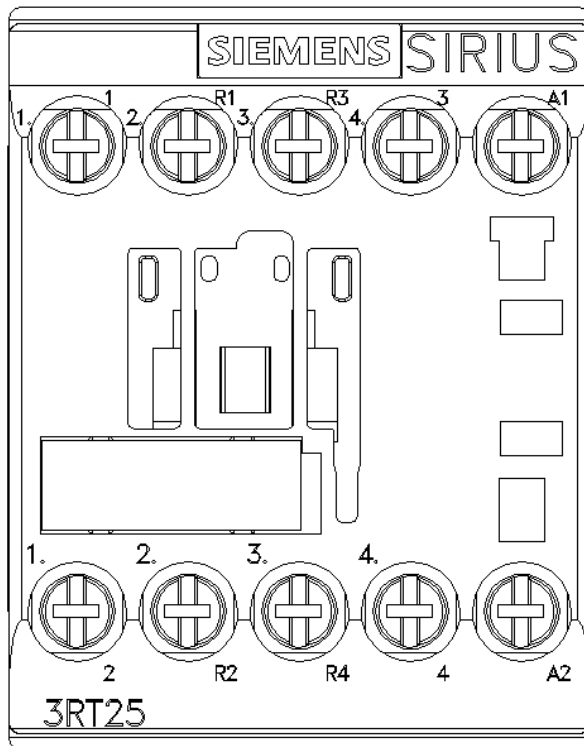
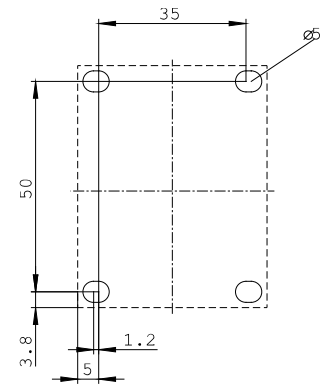
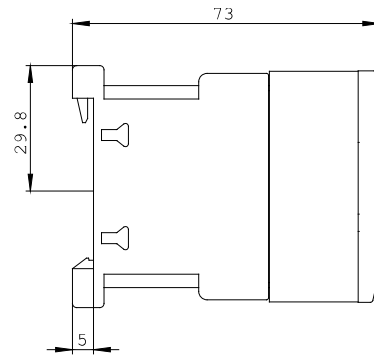
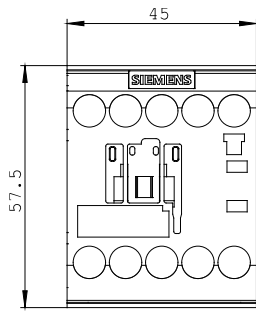
<http://www.siemens.com/cax>

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

<http://support.automation.siemens.com/WW/view/en/3RT2516-1AK60/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2516-1AK60](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2516-1AK60)



last change:

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