

3RT2017-1AP01 CONTACTOR, AC3:5,5KW 1NO AC230V 50/60HZ

Technical / CAx data

☒ Technical Data ☐ CAx data



CONTACTOR, AC-3, 5.5KW/400V, 1NO, AC 230V, 50/60 HZ,  
3-POLE, SZ S00 SCREW TERMINAL

| General technical data:                                                               |    |                            |
|---------------------------------------------------------------------------------------|----|----------------------------|
| product brand name                                                                    |    | SIRIUS                     |
| Size of the contactor                                                                 |    | S00                        |
| Product extension / auxiliary switch                                                  |    | Yes                        |
| 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                  |
| Ambient temperature / during operating                                                | °C | -25...+60                  |
| Shock resistance                                                                      |    |                            |
| • at rectangular impulse                                                              |    |                            |
| • at AC                                                                               |    | 7,3g / 5 ms, 4,7g / 10 ms  |
| • at sine pulse                                                                       |    |                            |
| • at AC                                                                               |    | 11,4g / 5 ms, 7,3g / 10 ms |
| Impulse voltage resistance / rated value                                              | kV | 6                          |
| Insulation voltage / rated value                                                      | V  | 690                        |
| Mechanical operating cycles as operating time                                         |    |                            |
| • 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                  |

| Main circuit:                             |  |   |
|-------------------------------------------|--|---|
| Number of NC contacts / for main contacts |  | 0 |
| Number of NO contacts / for main contacts |  | 3 |

|                                                                                       |     |            |
|---------------------------------------------------------------------------------------|-----|------------|
| <b>Operating current</b>                                                              |     |            |
| • at AC-1 / at 400 V                                                                  | A   | 22         |
| • at 40 °C ambient temperature / rated value                                          |     |            |
| • at 60 °C ambient temperature / rated value                                          | A   | 20         |
| • at AC-2 / at 400 V / rated value                                                    | A   | 12         |
| • at AC-3 / at 400 V / rated value                                                    | A   | 12         |
| • at AC-4 / at 400 V / rated value                                                    | A   | 8.5        |
| <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        |
| • with 2 current paths in series / at DC-1                                            |     |            |
| • at 24 V / rated value                                                               | A   | 20         |
| • at 110 V / rated value                                                              | A   | 12         |
| • with 3 current paths in series / at DC-1                                            |     |            |
| • at 24 V / rated value                                                               | A   | 20         |
| • at 110 V / rated value                                                              | A   | 20         |
| • with 1 current path / at DC-3 / at DC-5                                             |     |            |
| • at 24 V / rated value                                                               | A   | 20         |
| • at 110 V / rated value                                                              | A   | 0.1        |
| • with 2 current paths in series / at DC-3 / at DC-5                                  |     |            |
| • at 24 V / rated value                                                               | A   | 20         |
| • at 110 V / rated value                                                              | A   | 0.35       |
| • with 3 current paths in series / at DC-3 / at DC-5                                  |     |            |
| • at 24 V / rated value                                                               | A   | 20         |
| • at 110 V / rated value                                                              | A   | 20         |
| <b>Service power</b>                                                                  |     |            |
| • at AC-2 / at 400 V / rated value                                                    | kW  | 5.5        |
| • at AC-3 / at 400 V / rated value                                                    | kW  | 5.5        |
| • at AC-4 / at 400 V / rated value                                                    | kW  | 4          |
| <b>Active power loss / per conductor / typical</b>                                    | W   | 1.2        |
| <b>Off-load operating frequency</b>                                                   |     |            |
| • at AC                                                                               | 1/h | 10,000     |
| • at DC                                                                               | 1/h | 10,000     |
| <b>Frequency of operation / at AC-1 / according to IEC 60947-6-2</b>                  | 1/h | 1,000      |
| <b>Frequency of operation / at AC-2 / according to IEC 60947-6-2</b>                  | 1/h | 750        |
| <b>Frequency of operation / at AC-3 / according to IEC 60947-6-2</b>                  | 1/h | 750        |
| <b>Frequency of operation / at AC-4 / according to IEC 60947-6-2</b>                  | 1/h | 250        |
| <b>Control circuit:</b>                                                               |     |            |
| <b>Type of voltage / of the controlled supply voltage</b>                             | AC  |            |
| <b>Control supply voltage / 1</b>                                                     |     |            |
| • at 50 Hz / for AC / rated value                                                     | V   | 230        |
| • at 60 Hz / for AC / rated value                                                     | V   | 230        |
| <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 | 37      |
| <b>Apparent holding power / of the solenoid / for AC</b> | V·A | 5.7     |
| <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  | 8...33  |
| <b>Opening delay</b>                                     |     |         |
| • at AC                                                  | ms  | 4...15  |
| <b>Arcing time</b>                                       | ms  | 10...15 |

#### 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 / of the auxiliary contacts</b>                            |   |                                                 |
| • at AC-12 / maximum                                                            | A | 10                                              |
| • at AC-15                                                                      |   |                                                 |
| • at 230 V                                                                      | A | 6                                               |
| • at 400 V                                                                      | A | 3                                               |
| • at DC-12                                                                      |   |                                                 |
| • at 48 V                                                                       | A | 6                                               |
| • at 60 V                                                                       | A | 6                                               |
| • at 110 V                                                                      | A | 3                                               |
| • at 220 V                                                                      | A | 1                                               |
| • at DC-13                                                                      |   |                                                 |
| • at 24 V                                                                       | A | 6                                               |
| • at 48 V                                                                       | A | 2                                               |
| • at 60 V                                                                       | A | 2                                               |
| • at 110 V                                                                      | A | 1                                               |
| • at 220 V                                                                      | A | 0.3                                             |

#### 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>Built in orientation</b>                                         |    | vertical                                                                               |
| <b>Type of mounting</b>                                             |    | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 |
| <b>Type of fixing/fixation / 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                                                                                      |
| <b>Distance, to be maintained, to earthed part / sideways</b>       | mm | 6                                                                                      |

#### Connections:

|                                            |  |
|--------------------------------------------|--|
| <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>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> </ul> </li> <li>finely stranded             <ul style="list-style-type: none"> <li>with conductor end processing</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 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup><br><br>2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )<br>2x (20 ... 16), 2x (18 ... 14), 2x 12<br><br>2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup><br><br>2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )<br>2x (20 ... 16), 2x (18 ... 14), 2x 12 |

#### Certificates/approvals:

| General Product Approval                          |                                                   |                                                  |                                                    | Declaration of Conformity                          | Test Certificates                                  |
|---------------------------------------------------|---------------------------------------------------|--------------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|
| <input checked="" type="checkbox"/> CCC           | <input checked="" type="checkbox"/> CSA           | <input checked="" type="checkbox"/> GOST         | <input checked="" type="checkbox"/> UL             | <input checked="" type="checkbox"/> EC-Declaration | Special Test Certificate                           |
| Shipping Approval                                 |                                                   |                                                  |                                                    |                                                    |                                                    |
| <input checked="" type="checkbox"/> ABS (America) | <input checked="" type="checkbox"/> DNV / Det Nor | <input checked="" type="checkbox"/> GL / Germani | <input checked="" type="checkbox"/> LRS / Lloyds R | <input checked="" type="checkbox"/> PRS / Polski R | <input checked="" type="checkbox"/> RINA / Registr |
| Shipping Approval other                           |                                                   |                                                  |                                                    |                                                    |                                                    |
| <input checked="" type="checkbox"/> RMRS / Russ   | Confirmation                                      | <input checked="" type="checkbox"/> Household ar |                                                    |                                                    |                                                    |

#### UL/CSA ratings:

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| <b>yielded mechanical performance (hp)</b> <ul style="list-style-type: none"> <li>for single-phase squirrel cage motors             <ul style="list-style-type: none"> <li>at 110/120 V / rated value</li> <li>at 230 V / rated value</li> </ul> </li> <li>for three-phase squirrel cage motors             <ul style="list-style-type: none"> <li>at 200/208 V / rated value</li> <li>at 220/230 V / rated value</li> <li>at 460/480 V / rated value</li> <li>at 575/600 V / rated value</li> </ul> </li> </ul> | hp 0.5<br>hp 2<br><br>hp 3<br>hp 3<br>hp 7.5<br>hp 10 |
| <b>Operating current (FLA) / for three-phase squirrel cage motors</b> <ul style="list-style-type: none"> <li>at 480 V / rated value</li> <li>at 600 V / rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                   | A 11<br>A 11                                          |
| <b>Contact rating designation / for auxiliary contacts / according to UL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                     | A600 / Q600                                           |

#### Safety-related Parameter:

|                                                                                                                                                                                               |              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <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> | % 40<br>% 73 |
| <b>Failure rate (FIT value) / with low demand rate</b>                                                                                                                                        |              |

- according to SN 31920

**Product function**

- mirror contact to IEC 60947-4-1
- comment
- positively driven operation to IEC 60947-5-1

FIT 100

Yes  
with 3RH29  
No

**Further information:**

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

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

**Industry Mall (Online ordering system)**

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

**Cax online generator:**

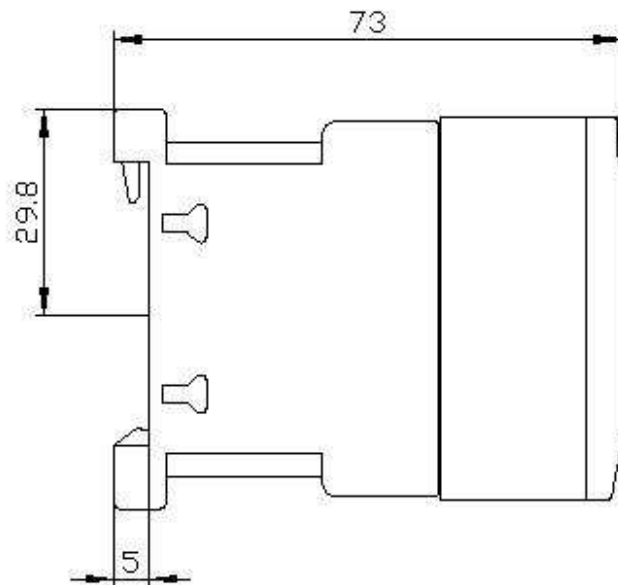
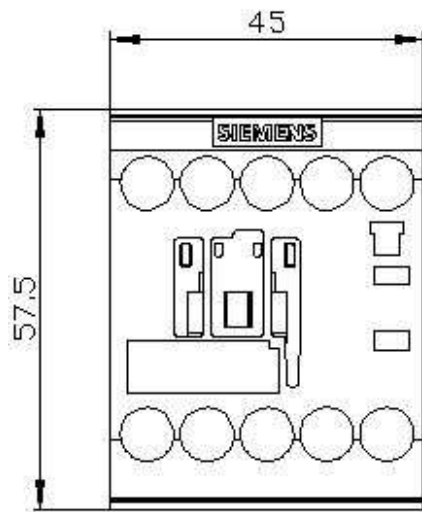
<http://www.siemens.com/cax>

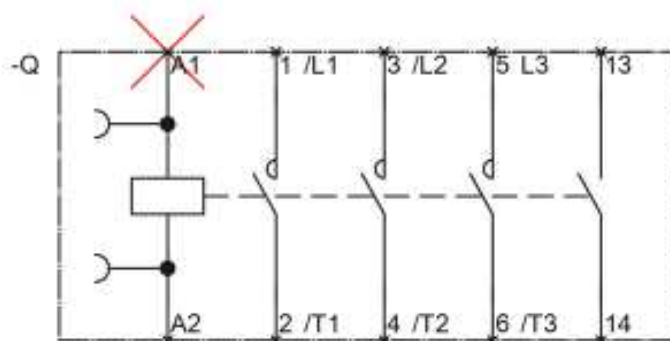
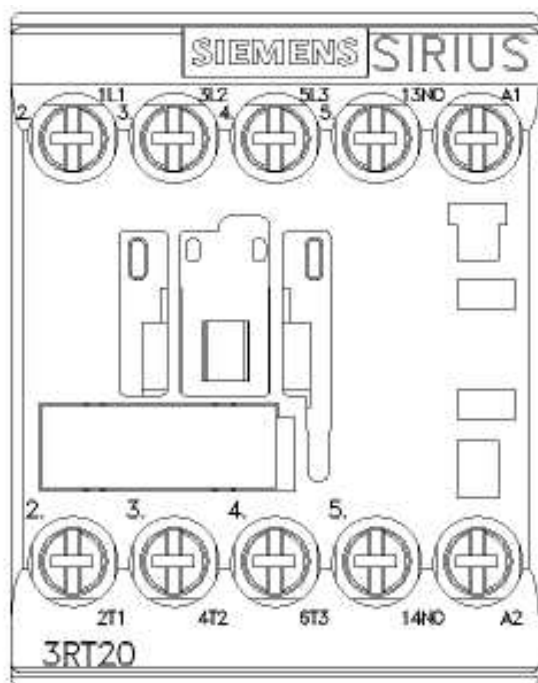
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RT2017-1AP01/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mifb=3RT2017-1AP01](http://www.automation.siemens.com/bilddb/cax_en.aspx?mifb=3RT2017-1AP01)





last change:

Mar 27, 2012