



Contactor AC 230 V 50/60 HZ AC3 37 kW 400 V 3-pole, size S3 screw terminal

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| <b>product brand name</b>                                                                        | SIRIUS                     |
| <b>product designation</b>                                                                       | Power contactor            |
| <b>product type designation</b>                                                                  | 3RT5                       |
| <b>General technical data</b>                                                                    |                            |
| <b>size of contactor</b>                                                                         | S3                         |
| product extension auxiliary switch                                                               | Yes                        |
| insulation voltage rated value                                                                   | 1 000 V                    |
| <b>degree of pollution</b>                                                                       | 3                          |
| <b>surge voltage resistance rated value</b>                                                      | 6 kV                       |
| maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1 | 690 V                      |
| <b>shock resistance at rectangular impulse</b>                                                   |                            |
| • at AC                                                                                          | 6.8g / 5 ms, 4g / 10 ms    |
| <b>shock resistance with sine pulse</b>                                                          |                            |
| • at AC                                                                                          | 10.6g / 5 ms, 6.2g / 10 ms |
| <b>mechanical service life (switching cycles)</b>                                                |                            |
| • of contactor typical                                                                           | 10 000 000                 |
| • of the contactor with added auxiliary switch block typical                                     | 10 000 000                 |
| Substance Prohibitance (Date)                                                                    | 01.03.2017 00:00:00        |
| <b>Ambient conditions</b>                                                                        |                            |
| installation altitude at height above sea level maximum                                          | 2 000 m                    |
| <b>ambient temperature</b>                                                                       |                            |
| • during operation                                                                               | -25 ... +60 °C             |
| • during storage                                                                                 | -55 ... +80 °C             |
| <b>Main circuit</b>                                                                              |                            |
| <b>number of poles for main current circuit</b>                                                  | 3                          |
| <b>number of NO contacts for main contacts</b>                                                   | 3                          |
| <b>number of NC contacts for main contacts</b>                                                   | 0                          |
| <b>operational current</b>                                                                       |                            |
| • at AC-1 up to 690 V                                                                            |                            |
| — at ambient temperature 40 °C rated value                                                       | 120 A                      |
| — at ambient temperature 60 °C rated value                                                       | 100 A                      |
| • at AC-3                                                                                        |                            |
| — at 400 V rated value                                                                           | 80 A                       |
| — at 690 V rated value                                                                           | 58 A                       |
| <b>connectable conductor cross-section in main circuit at AC-1</b>                               |                            |

|                                                                                                                                                                                                                                                                                                                                                                                               |                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• at 60 °C minimum permissible</li> <li>• at 40 °C minimum permissible</li> </ul>                                                                                                                                                                                                                                                                      | 35 mm <sup>2</sup><br>50 mm <sup>2</sup>                |
| <b>operational current for approx. 200000 operating cycles at AC-4</b>                                                                                                                                                                                                                                                                                                                        |                                                         |
| <ul style="list-style-type: none"> <li>• at 400 V rated value</li> <li>• at 690 V rated value</li> </ul>                                                                                                                                                                                                                                                                                      | 34 A<br>22 A                                            |
| <b>operating power</b>                                                                                                                                                                                                                                                                                                                                                                        |                                                         |
| <ul style="list-style-type: none"> <li>• at AC-1 <ul style="list-style-type: none"> <li>— at 230 V at 60 °C rated value</li> <li>— at 400 V at 60 °C rated value</li> <li>— at 690 V at 60 °C rated value</li> </ul> </li> <li>• 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> </li> </ul> | 38 kW<br>66 kW<br>114 kW<br><br>22 kW<br>37 kW<br>55 kW |
| <b>operating power for approx. 200000 operating cycles at AC-4</b>                                                                                                                                                                                                                                                                                                                            |                                                         |
| <ul style="list-style-type: none"> <li>• at 400 V rated value</li> <li>• at 690 V rated value</li> </ul>                                                                                                                                                                                                                                                                                      | 17.9 kW<br>21.1 kW                                      |
| <b>no-load switching frequency</b>                                                                                                                                                                                                                                                                                                                                                            |                                                         |
| <ul style="list-style-type: none"> <li>• at AC</li> </ul>                                                                                                                                                                                                                                                                                                                                     | 5 000 1/h                                               |
| <b>operating frequency</b>                                                                                                                                                                                                                                                                                                                                                                    |                                                         |
| <ul style="list-style-type: none"> <li>• at AC-1 maximum</li> <li>• at AC-3 maximum</li> <li>• at AC-4 maximum</li> </ul>                                                                                                                                                                                                                                                                     | 900 1/h<br>1 000 1/h<br>300 1/h                         |
| <b>Control circuit/ Control</b>                                                                                                                                                                                                                                                                                                                                                               |                                                         |
| <b>type of voltage of the control supply voltage</b>                                                                                                                                                                                                                                                                                                                                          | AC                                                      |
| <b>control supply voltage at AC</b>                                                                                                                                                                                                                                                                                                                                                           |                                                         |
| <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul>                                                                                                                                                                                                                                                                                      | 230 V<br>230 V                                          |
| <b>operating range factor control supply voltage rated value of magnet coil at AC</b>                                                                                                                                                                                                                                                                                                         |                                                         |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                                                              | 0.8 ... 1.1<br>0.85 ... 1.1                             |
| <b>apparent pick-up power of magnet coil at AC</b>                                                                                                                                                                                                                                                                                                                                            |                                                         |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                                                              | 298 V·A<br>298 V·A                                      |
| <b>inductive power factor with closing power of the coil</b>                                                                                                                                                                                                                                                                                                                                  |                                                         |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                                                              | 0.7<br>0.7                                              |
| <b>apparent holding power of magnet coil at AC</b>                                                                                                                                                                                                                                                                                                                                            |                                                         |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                                                              | 27 V·A<br>27 V·A                                        |
| <b>inductive power factor with the holding power of the coil</b>                                                                                                                                                                                                                                                                                                                              |                                                         |
| <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>                                                                                                                                                                                                                                                                                                              | 0.29<br>0.29                                            |
| <b>Auxiliary circuit</b>                                                                                                                                                                                                                                                                                                                                                                      |                                                         |
| number of NC contacts for auxiliary contacts instantaneous contact                                                                                                                                                                                                                                                                                                                            | 0                                                       |
| number of NO contacts for auxiliary contacts instantaneous contact                                                                                                                                                                                                                                                                                                                            | 0                                                       |
| operational current at AC-12 maximum                                                                                                                                                                                                                                                                                                                                                          | 10 A                                                    |
| <b>operational current at AC-15</b>                                                                                                                                                                                                                                                                                                                                                           |                                                         |
| <ul style="list-style-type: none"> <li>• at 230 V rated value</li> <li>• at 400 V rated value</li> </ul>                                                                                                                                                                                                                                                                                      | 6 A<br>3 A                                              |
| <b>operational current at DC-12</b>                                                                                                                                                                                                                                                                                                                                                           |                                                         |
| <ul style="list-style-type: none"> <li>• at 110 V rated value</li> <li>• at 220 V rated value</li> </ul>                                                                                                                                                                                                                                                                                      | 3 A<br>1 A                                              |

|                                                                                                                                                                                                                                                                                                               |                                                                                                                                      |              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>operational current at DC-13</b>                                                                                                                                                                                                                                                                           | 6 A<br>1 A<br>0.3 A                                                                                                                  |              |
| <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> </ul>                                                                                                                                                                             |                                                                                                                                      |              |
| <b>contact reliability of auxiliary contacts</b>                                                                                                                                                                                                                                                              | 1 faulty switching per 100 million (17 V, 1 mA)                                                                                      |              |
| <b>Short-circuit protection</b>                                                                                                                                                                                                                                                                               |                                                                                                                                      |              |
| <b>design of the fuse link</b>                                                                                                                                                                                                                                                                                | fuse gL/gG: 250 A<br>fuse gL/gG: 160 A<br>fuse gL/gG: 10 A                                                                           |              |
| <ul style="list-style-type: none"> <li>for short-circuit protection of the main circuit <ul style="list-style-type: none"> <li>with type of coordination 1 required</li> <li>with type of assignment 2 required</li> </ul> </li> <li>for short-circuit protection of the auxiliary switch required</li> </ul> |                                                                                                                                      |              |
| <b>Installation/ mounting/ dimensions</b>                                                                                                                                                                                                                                                                     |                                                                                                                                      |              |
| <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>fastening method</b>                                                                                                                                                                                                                                                                                       | screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail                                                               |              |
| <ul style="list-style-type: none"> <li>side-by-side mounting</li> </ul>                                                                                                                                                                                                                                       | Yes                                                                                                                                  |              |
| <b>height</b>                                                                                                                                                                                                                                                                                                 | 146 mm                                                                                                                               |              |
| <b>width</b>                                                                                                                                                                                                                                                                                                  | 70 mm                                                                                                                                |              |
| <b>depth</b>                                                                                                                                                                                                                                                                                                  | 139 mm                                                                                                                               |              |
| <b>Connections/ Terminals</b>                                                                                                                                                                                                                                                                                 |                                                                                                                                      |              |
| <b>type of electrical connection</b>                                                                                                                                                                                                                                                                          | screw-type terminals<br>screw-type terminals                                                                                         |              |
| <ul style="list-style-type: none"> <li>for main current circuit</li> <li>for auxiliary and control circuit</li> </ul>                                                                                                                                                                                         |                                                                                                                                      |              |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                           | 2x (2,5 ... 16 mm <sup>2</sup> )<br>2x (2,5 ... 35 mm <sup>2</sup> )<br>2x (10 ... 35 mm <sup>2</sup> )<br>2x (10 ... 1/0)           |              |
| <ul style="list-style-type: none"> <li>for main contacts <ul style="list-style-type: none"> <li>solid or stranded</li> <li>finely stranded with core end processing</li> <li>finely stranded without core end processing</li> </ul> </li> <li>at AWG cables for main contacts</li> </ul>                      |                                                                                                                                      |              |
| <b>type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                           | 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), 1x 12                       |              |
| <ul style="list-style-type: none"> <li>for auxiliary contacts <ul style="list-style-type: none"> <li>finely stranded with core end processing</li> </ul> </li> <li>at AWG cables for auxiliary contacts</li> </ul>                                                                                            |                                                                                                                                      |              |
| <b>Safety related data</b>                                                                                                                                                                                                                                                                                    |                                                                                                                                      |              |
| <b>product function mirror contact acc. to IEC 60947-4-1</b>                                                                                                                                                                                                                                                  | Yes                                                                                                                                  |              |
| <b>protection class IP on the front acc. to IEC 60529</b>                                                                                                                                                                                                                                                     | IP20                                                                                                                                 |              |
| <b>touch protection on the front acc. to IEC 60529</b>                                                                                                                                                                                                                                                        | finger-safe, for vertical contact from the front                                                                                     |              |
| <b>Certificates/ approvals</b>                                                                                                                                                                                                                                                                                |                                                                                                                                      |              |
| <b>General Product Approval</b>                                                                                                                                                                                                                                                                               | <b>EMC</b>                                                                                                                           | <b>other</b> |

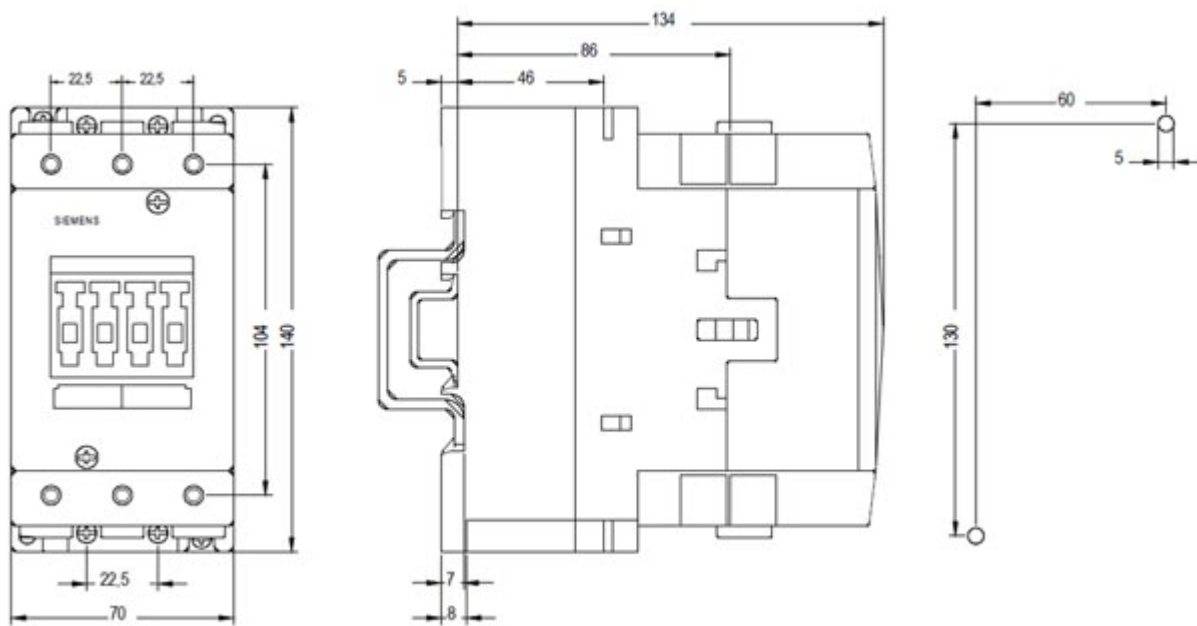


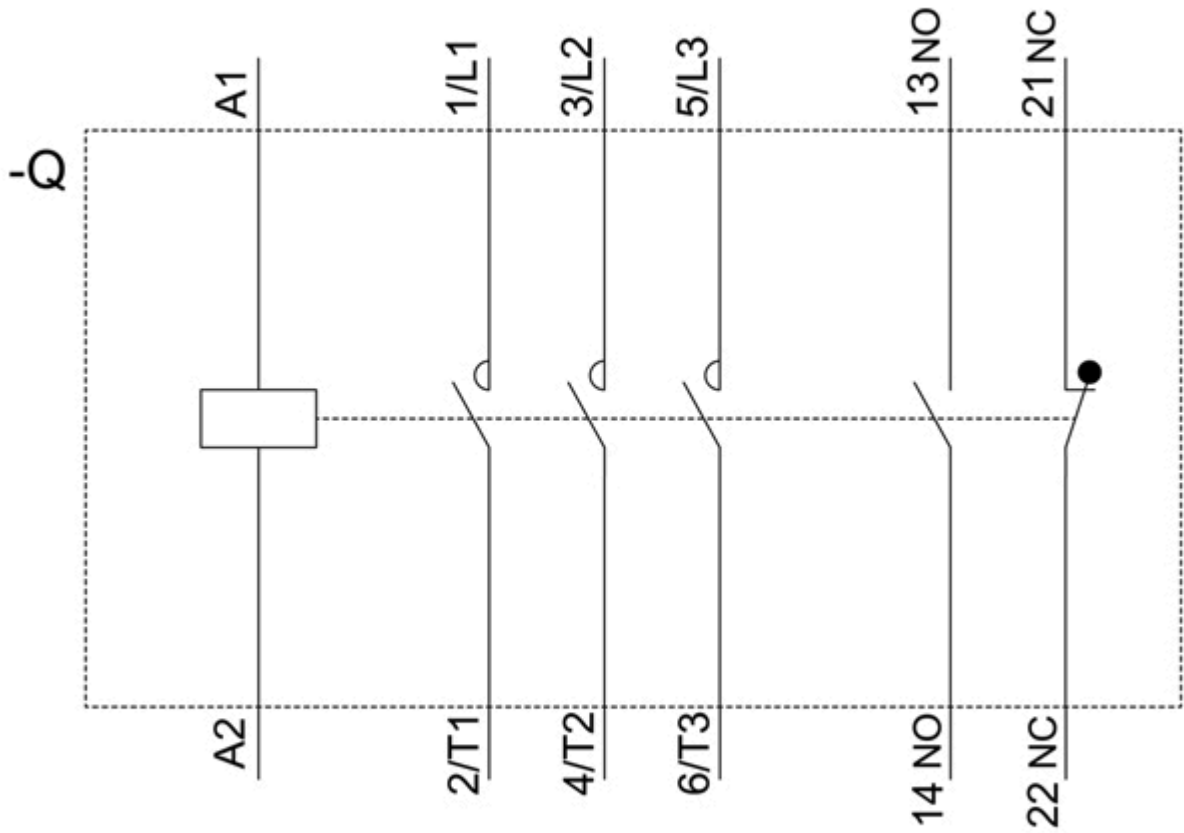
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#### Further information

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**  
<https://support.industry.siemens.com/cs/products?pnid=16027&lc=en-CN>





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