

CONTACTOR, AC-3 22 KW/400 V, AC 110V 50HZ/120V 60HZ 3-POLE, SIZE S2, SCREW CONNECTION

|   |                        |
|---|------------------------|
| product brand name                                  | SIRIUS                 |
| Product designation                                 | power contactor        |
| <b>General technical data:</b>                      |                        |
| Size of contactor                                   | S2                     |
| Insulation voltage                                  |                        |
| • rated value                                       | 690 V                  |
| Degree of pollution                                 | 3                      |
| Surge voltage resistance rated value                | 6 kV                   |
| maximum permissible voltage for safe isolation      |                        |
| • between coil and main contacts acc. to EN 60947-1 | 400 V                  |
| Protection class IP                                 |                        |
| • on the front                                      | IP00                   |
| • of the terminal                                   | IP00                   |
| Shock resistance                                    |                        |
| • at rectangular impulse                            |                        |
| — at AC   | 10g / 5 ms, 5g / 10 ms |
| • with sine pulse                                   |                        |
| — at AC   | 15g / 5 ms, 8g / 10 ms |

|   |                    |
|---|--------------------|
| <b>Mechanical service life (switching cycles)</b>   |                    |
| <ul style="list-style-type: none"> <li>• of contactor typical</li> </ul>  | 10 000 000         |
| <ul style="list-style-type: none"> <li>• of the contactor with added electronics-compatible auxiliary switch block typical</li> </ul>   | 5 000 000          |
| <ul style="list-style-type: none"> <li>• of the contactor with added auxiliary switch block typical</li> </ul>  | 10 000 000         |
| <b>Ambient conditions:</b>  |                    |
| <b>Installation altitude at height above sea level maximum</b>  | 2 000 m            |
| <b>Ambient temperature</b>  |                    |
| <ul style="list-style-type: none"> <li>• during operation</li> </ul>  | -25 ... +60 °C     |
| <ul style="list-style-type: none"> <li>• during storage</li> </ul>  | -55 ... +80 °C     |
| <b>Main circuit:</b>  |                    |
| <b>Number of NO contacts for main contacts</b>  | 3                  |
| <b>Number of NC contacts for main contacts</b>  | 0                  |
| <b>Operating current</b>  |                    |
| <ul style="list-style-type: none"> <li>• at AC-1 at 400 V <ul style="list-style-type: none"> <li>— at ambient temperature 40 °C rated value</li> </ul> </li> </ul>  | 60 A               |
| <ul style="list-style-type: none"> <li>• at AC-1 up to 690 V <ul style="list-style-type: none"> <li>— at ambient temperature 40 °C rated value</li> <li>— at ambient temperature 60 °C rated value</li> </ul> </li> </ul> | 60 A<br>55 A       |
| <ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>   | 50 A<br>24 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> </ul>  | 16 mm <sup>2</sup> |
| <ul style="list-style-type: none"> <li>• at 40 °C minimum permissible</li> </ul>  | 16 mm <sup>2</sup> |
| <b>Operating current for approx. 200000 operating cycles at AC-4</b>  |                    |
| <ul style="list-style-type: none"> <li>• at 400 V rated value</li> </ul>  | 24 A               |
| <ul style="list-style-type: none"> <li>• at 690 V rated value</li> </ul>  | 12.6 A             |
| <b>Operating current</b>  |                    |
| <ul style="list-style-type: none"> <li>• at 1 current path at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> </ul>                                    | 55 A<br>4.5 A      |
| <ul style="list-style-type: none"> <li>• with 2 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> </ul>                       | 55 A<br>25 A       |
| <ul style="list-style-type: none"> <li>• with 3 current paths in series at DC-1 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> </ul>                       | 55 A<br>55 A       |

|  |  |
|--|--|
| <b>Operating current</b>   |  |
| <ul style="list-style-type: none"> <li>• at 1 current path at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> <li>• with 2 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 110 V rated value</li> <li>— at 24 V rated value</li> </ul> </li> <li>• with 3 current paths in series at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 110 V rated value</li> <li>— at 24 V rated value</li> </ul> </li> </ul> | <p>35 A</p> <p>2.5 A</p> <p>25 A</p> <p>55 A</p> <p>55 A</p> <p>55 A</p>   |
| <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 rated value</li> <li>— at 690 V rated value</li> <li>— at 690 V at 60 °C rated value</li> </ul> </li> <li>• at AC-2 at 400 V rated value</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 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>   | <p>22 kW</p> <p>38 kW</p> <p>66 kW</p> <p>66 kW</p> <p>22 kW</p> <p>15 kW</p> <p>22 kW</p> <p>30 kW</p> <p>22 kW</p> |
| <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>   | <p>12.6 kW</p> <p>11.4 kW</p>  |
| <b>Thermal short-time current limited to 10 s</b>  |  |
|  | 400 A  |
| <b>Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor</b>  |  |
|  | 5 W  |
| <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-2 maximum</li> <li>• at AC-3 maximum</li> <li>• at AC-4 maximum</li> </ul>   | <p>1 000 1/h</p> <p>400 1/h</p> <p>800 1/h</p> <p>300 1/h</p>  |
| <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> <li>• rated value</li> </ul>  | <p>110 V</p> <p>120 V</p> <p>50 Hz</p>   |

|   |              |
|---|--------------|
| <b>Control supply voltage frequency 2 rated value</b>                                 | 60 Hz        |
| <b>Operating range factor control supply voltage rated value of magnet coil at AC</b> |              |
| • at 50 Hz  | 0.8 ... 1.1  |
| • at 60 Hz  | 0.8 ... 1.1  |
| <b>Apparent pick-up power of magnet coil at AC</b>                                    | 166 V·A      |
| <b>Inductive power factor with closing power of the coil</b>                          | 0.71         |
| <b>Apparent holding power of magnet coil at AC</b>                                    | 12.6 V·A     |
| <b>Inductive power factor with the holding power of the coil</b>                      | 0.37         |
| <b>Closing delay</b>  |              |
| • at AC   | 10 ... 24 ms |
| <b>Opening delay</b>  |              |
| • at AC   | 7 ... 20 ms  |
| <b>Arcing time</b>  | 10 ... 15 ms |

#### Auxiliary circuit:

|  |   |
|--|---|
| <b>Number of NC contacts</b>                     |   |
| • for auxiliary contacts                         |   |
| — instantaneous contact                          | 0   |
| <b>Number of NO contacts</b>                     |   |
| • for auxiliary contacts                         |   |
| — instantaneous contact                          | 0   |
| <b>Operating current at AC-12 maximum</b>        | 10 A  |
| <b>Operating current at AC-15</b>                |   |
| • at 230 V rated value                           | 6 A   |
| • at 400 V rated value                           | 3 A   |
| <b>Operating current at DC-12</b>                |   |
| • at 60 V rated value                            | 6 A   |
| • at 110 V rated value                           | 3 A   |
| • at 220 V rated value                           | 1 A   |
| <b>Operating current at DC-13</b>                |   |
| • at 24 V rated value                            | 10 A  |
| • at 60 V rated value                            | 2 A   |
| • at 110 V rated value                           | 1 A   |
| • at 220 V rated value                           | 0.3 A   |
| <b>Contact reliability of auxiliary contacts</b> | 1 faulty switching per 100 million (17 V, 1 mA) |

#### UL/CSA ratings:

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

#### Short-circuit protection

|  |  |
|--|--|
| <b>Design of the fuse link</b>                     |  |
| • for short-circuit protection of the main circuit |  |

- with type of coordination 1 required
- with type of assignment 2 required
- for short-circuit protection of the auxiliary switch required

fuse gL/gG: 160 A  
 fuse gL/gG: 80 A  
 fuse gL/gG: 10 A

#### Installation/ mounting/ dimensions:






|                         |  |
|-------------------------|--|
| <b>Mounting type</b>    | screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022 |
| • Side-by-side mounting | Yes  |
| <b>Height</b>           | 112 mm   |
| <b>Width</b>            | 55 mm  |
| <b>Depth</b>            | 115 mm   |
| <b>Required spacing</b> |  |
| • for grounded parts    |  |
| — at the side           | 6 mm   |


#### Connections/ Terminals:

|   |  |
|---|--|
| <b>Type of electrical connection</b>                |  |
| • for main current circuit                          | screw-type terminals   |
| • for auxiliary and control current circuit         | screw-type terminals   |
| <b>Type of connectable conductor cross-sections</b> |  |
| • for main contacts                                 |  |
| — solid   | 2x (0.75 ... 16 mm <sup>2</sup> )  |
| — stranded  | 2x (0.75 ... 25 mm <sup>2</sup> )  |
| — single or multi-stranded                          | 2x (0,75 ... 16 mm <sup>2</sup> )  |
| — finely stranded with core end processing          | 2x (0.75 ... 16 mm <sup>2</sup> )  |
| — finely stranded without core end processing       | 2x (0.75 ... 16 mm <sup>2</sup> )  |
| • at AWG conductors for main contacts               | 2x (18 ... 2)  |
| <b>Type of connectable conductor cross-sections</b> |  |
| • for auxiliary contacts                            |  |
| — solid   | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), max. 2x (0.75 ... 4 mm <sup>2</sup> ) |
| — finely stranded with core end processing          | 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )  |
| • at AWG conductors for auxiliary contacts          | 2x (20 ... 16), 2x (18 ... 14), 1x 12  |

#### Certificates/approvals

|  |  |   |   |   |   |
|--|--|---|---|---|---|
| General Product Approval   |  |   |   | Declaration of Conformity   | Test Certificates                             |
| <br>CCC | <br>CSA |  | <br>UL | <br>EG-Konf. | <a href="#">spezielle Prüfbescheinigungen</a> |

|   |  |  |   |  |   |
|---|--|--|---|--|---|
| Test Certificates                                 | Shipping Approval  |  |   |  |   |
| <a href="#">Typprüfbescheinigung/Werkszeugnis</a> | <br>ABS | <br>DNV | <br>GL | <br>LRS | <br>RINA |

|   |                               |                                   |                         |
|---|-------------------------------|-----------------------------------|-------------------------|
| Shipping Approval   | other                         |                                   |                         |
| <br>RMRS | <a href="#">Bestätigungen</a> | <a href="#">Umweltbestätigung</a> | <a href="#">sonstig</a> |

#### Further information

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

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

##### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT10361AK60>

##### Cax online generator

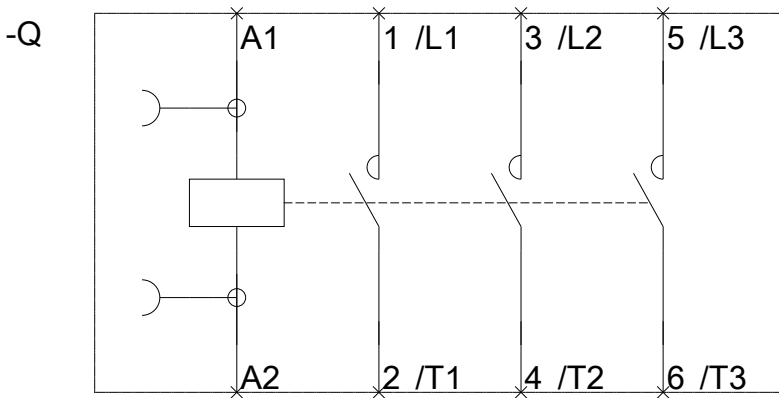
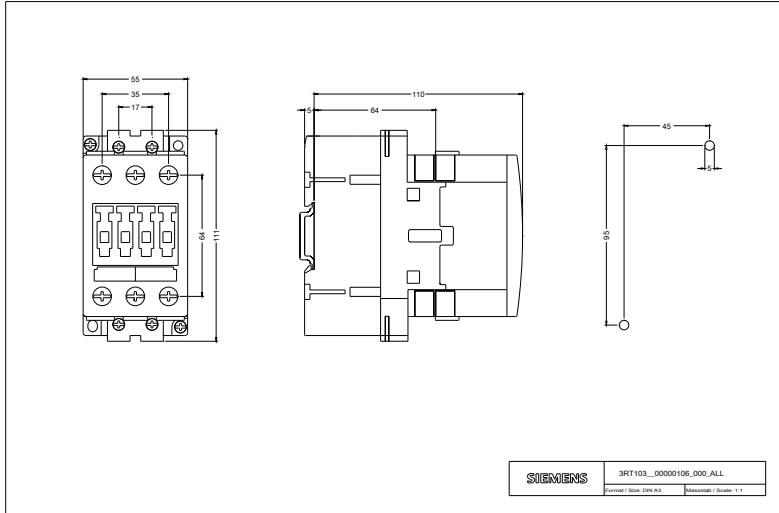
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT10361AK60>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT10361AK60>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT10361AK60&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT10361AK60&lang=en)



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