

CONTACTOR, AC-3 30 KW/400 V, AC 230 V, 50 HZ, 2 NO + 2 NC  
3-POLE, SIZE S3, SCREW CONNECTION



|                                                     |                            |
|-----------------------------------------------------|----------------------------|
| product brandname                                   | SIRIUS                     |
| Product designation                                 | power contactor            |
| General technical data                              |                            |
| Size of contactor                                   | S3                         |
| Insulation voltage                                  |                            |
| • rated value                                       | 1 000 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 | 690 V                      |
| Protection class IP                                 |                            |
| • on the front                                      | IP00                       |
| • of the terminal                                   | IP00                       |
| Shock resistance                                    |                            |
| • at rectangular impulse                            |                            |
| — at AC                                             | 6,8g / 5 ms, 4g / 10 ms    |
| • with sine pulse                                   |                            |
| — 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 electronics-compatible auxiliary switch block typical | 5 000 000      |
| • of the contactor with added auxiliary switch block typical                        | 10 000 000     |
| <b>Ambient conditions</b>                                                           |                |
| <b>Installation altitude at height above sea level maximum</b>                      | 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>Operating current</b>                                                            |                |
| • at AC-1 at 400 V                                                                  |                |
| — at ambient temperature 40 °C rated value                                          | 100 A          |
| • at AC-1                                                                           |                |
| — up to 690 V at ambient temperature 40 °C rated value                              | 100 A          |
| — up to 690 V at ambient temperature 60 °C rated value                              | 90 A           |
| — up to 1000 V at ambient temperature 40 °C rated value                             | 50 A           |
| — up to 1000 V at ambient temperature 60 °C rated value                             | 40 A           |
| • at AC-3                                                                           |                |
| — at 400 V rated value                                                              | 65 A           |
| — at 690 V rated value                                                              | 47 A           |
| — at 1000 V rated value                                                             | 25 A           |
| <b>Connectable conductor cross-section in main circuit at AC-1</b>                  |                |
| • at 60 °C minimum permissible                                                      | 35 mm²         |
| • at 40 °C minimum permissible                                                      | 35 mm²         |
| <b>Operating current for approx. 200000 operating cycles at AC-4</b>                |                |
| • at 400 V rated value                                                              | 28 A           |
| • at 690 V rated value                                                              | 20 A           |
| <b>Operating current</b>                                                            |                |
| • at 1 current path at DC-1                                                         |                |
| — at 24 V rated value                                                               | 90 A           |

|                                                                                                                                                                                                                                                                                                   |                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| <ul style="list-style-type: none"> <li>— at 110 V rated value</li> </ul>                                                                                                                                                                                                                          | 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>                                                                                               | 90 A<br>90 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>                                                                                               | 90 A<br>90 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> </ul>                                                                                                    | 40 A<br>2.5 A                              |
| <ul style="list-style-type: none"> <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> </ul>                                                                                       | 90 A<br>90 A                               |
| <ul style="list-style-type: none"> <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>                                                                                       | 90 A<br>90 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 rated value</li> <li>— at 690 V rated value</li> <li>— at 690 V at 60 °C rated value</li> <li>— at 1000 V at 60 °C rated value</li> </ul> </li> </ul> | 34 kW<br>59 kW<br>102 kW<br>102 kW<br>66 W |
| <ul style="list-style-type: none"> <li>• at AC-2 at 400 V rated value</li> </ul>                                                                                                                                                                                                                  | 30 kW                                      |
| <ul style="list-style-type: none"> <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> <li>— at 1000 V rated value</li> </ul> </li> </ul>                            | 18.5 kW<br>30 kW<br>37 kW<br>45 kW<br>30 W |
| <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> </ul>                                                                                                                                                                                                                          | 15.1 kW                                    |
| <ul style="list-style-type: none"> <li>• at 690 V rated value</li> </ul>                                                                                                                                                                                                                          | 18.6 kW                                    |
| <b>Thermal short-time current limited to 10 s</b>                                                                                                                                                                                                                                                 | 600 A                                      |
| <b>Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor</b>                                                                                                                                                                                                     | 4.6 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> </ul>                                                                                                                                                                                                                               | 1 000 1/h                                  |

|                   |           |
|-------------------|-----------|
| • at AC-2 maximum | 400 1/h   |
| • at AC-3 maximum | 1 000 1/h |
| • at AC-4 maximum | 300 1/h   |

#### Control circuit/ Control

|                                                                                |              |
|--------------------------------------------------------------------------------|--------------|
| Type of voltage of the control supply voltage                                  | AC           |
| Control supply voltage at AC                                                   |              |
| • at 50 Hz rated value                                                         | 230 V        |
| Control supply voltage frequency 1 rated value                                 | 50 Hz        |
| Operating range factor control supply voltage rated value of magnet coil at AC |              |
| • at 50 Hz                                                                     | 0.8 ... 1.1  |
| Apparent pick-up power of magnet coil at AC                                    | 218 V·A      |
| Inductive power factor with closing power of the coil                          | 0.61         |
| Apparent holding power of magnet coil at AC                                    | 21 V·A       |
| Inductive power factor with the holding power of the coil                      | 0.26         |
| Closing delay                                                                  |              |
| • at AC                                                                        | 16 ... 57 ms |
| Opening delay                                                                  |              |
| • at AC                                                                        | 10 ... 19 ms |
| Arcing time                                                                    | 10 ... 15 ms |

#### Auxiliary circuit

|                                           |                                                 |
|-------------------------------------------|-------------------------------------------------|
| Number of NC contacts                     |                                                 |
| • for auxiliary contacts                  |                                                 |
| — instantaneous contact                   | 2                                               |
| Number of NO contacts                     |                                                 |
| • for auxiliary contacts                  |                                                 |
| — instantaneous contact                   | 2                                               |
| Operating current at AC-12 maximum        | 10 A                                            |
| Operating current at AC-15                |                                                 |
| • at 230 V rated value                    | 6 A                                             |
| • at 400 V rated value                    | 3 A                                             |
| Operating current at DC-12                |                                                 |
| • at 60 V rated value                     | 6 A                                             |
| • at 110 V rated value                    | 3 A                                             |
| • at 220 V rated value                    | 1 A                                             |
| Operating current at DC-13                |                                                 |
| • 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                                           |
| Contact reliability of auxiliary contacts | 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>                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                     |
| <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>                              | <p>fuse gL/gG: 250 A</p> <p>fuse gL/gG: 125 A</p> <p>fuse gL/gG: 10 A</p>                                                                                                                                                           |
| Installation/ mounting/ dimensions                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                     |
| <b>Mounting type</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>                                                                                                                                                                                                                                                                                                                                   | 188 mm                                                                                                                                                                                                                              |
| <b>Required spacing</b>                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                     |
| <ul style="list-style-type: none"> <li>for grounded parts <ul style="list-style-type: none"> <li>— at the side</li> </ul> </li> </ul>                                                                                                                                                                                                          | 6 mm                                                                                                                                                                                                                                |
| Connections/Terminals                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                     |
| <b>Type of electrical connection</b>                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                     |
| <ul style="list-style-type: none"> <li>for main current circuit</li> <li>for auxiliary and control current circuit</li> </ul>                                                                                                                                                                                                                  | <p>screw-type terminals</p> <p>screw-type terminals</p>                                                                                                                                                                             |
| <b>Type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                     |
| <ul style="list-style-type: none"> <li>for main contacts <ul style="list-style-type: none"> <li>— solid</li> <li>— stranded</li> <li>— single or multi-stranded</li> <li>— finely stranded with core end processing</li> <li>— finely stranded without core end processing</li> </ul> </li> <li>at AWG conductors for main contacts</li> </ul> | <p>2x (2.5 ... 16 mm<sup>2</sup>)</p> <p>2x (10 ... 50 mm<sup>2</sup>)</p> <p>2x (2,5 ... 16 mm<sup>2</sup>)</p> <p>2x (2.5 ... 35 mm<sup>2</sup>)</p> <p>2x (10 ... 35 mm<sup>2</sup>)</p> <p>2x (10 ... 1/0)</p>                  |
| <b>Type of connectable conductor cross-sections</b>                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                     |
| <ul style="list-style-type: none"> <li>for auxiliary contacts <ul style="list-style-type: none"> <li>— solid</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>at AWG conductors for auxiliary contacts</li> </ul>                                                                                                      | <p>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>)</p> <p>2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</p> <p>2x (20 ... 16), 2x (18 ... 14), 1x 12</p> |
| Certificates/approvals                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                     |

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

| Shipping Approval                                                                        |                                                                                                        |                                                                                         |                                                                                          |                                                                                             |                                                                                             |
|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <br>ABS | <br>BUREAU<br>VERITAS | <br>GL | <br>LRS | <br>RINA | <br>RMRS |

| other                         |                                   |                         |
|-------------------------------|-----------------------------------|-------------------------|
| <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=3RT1044-1AP04-3MA0>

##### Cax online generator

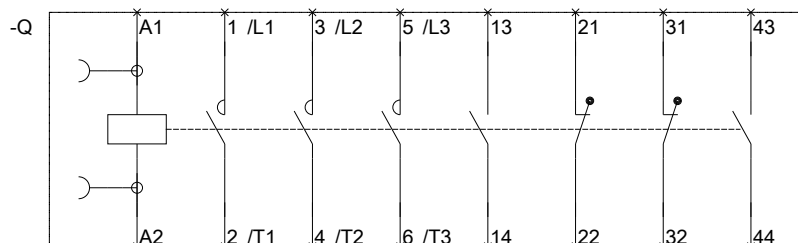
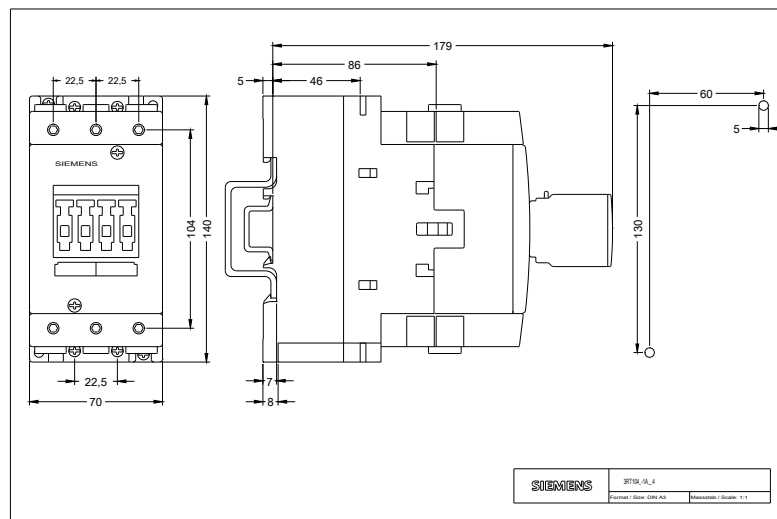
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1044-1AP04-3MA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1044-1AP04-3MA0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT1044-1AP04-3MA0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1044-1AP04-3MA0&lang=en)



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