

Power contactor, AC-3 65 A, 30 kW / 400 V 110 V DC, 3-pole, Size S3, Screw terminal !!! Phased-out product !!! Successor is SIRIUS 3RT2 Preferred successor type is >>3RT2037-1NF30<<



|                                                     |                                                   |
|-----------------------------------------------------|---------------------------------------------------|
| Product brand name                                  | SIRIUS                                            |
| Product designation                                 | power contactor                                   |
| <b>General technical data</b>                       |                                                   |
| 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                                      | IP20; IP20 on the front with cover / box terminal |
| • of the terminal                                   | IP00                                              |
| Shock resistance at rectangular impulse             |                                                   |
| • at DC                                             | 6,8g / 5 ms, 4g / 10 ms                           |
| Shock resistance with sine pulse                    |                                                   |
| • at DC                                             | 10,6g / 5 ms, 6,2g / 10 ms                        |
| Mechanical service life (switching cycles)          |                                                   |

|                                                                                     |            |
|-------------------------------------------------------------------------------------|------------|
| • 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>Reference code acc. to DIN EN 81346-2</b>                                        | Q          |

#### Ambient conditions

|                                                        |                |
|--------------------------------------------------------|----------------|
| <b>Installation altitude at height above sea level</b> |                |
| • maximum                                              | 2 000 m        |
| <b>Ambient temperature</b>                             |                |
| • during operation                                     | -25 ... +60 °C |
| • during storage                                       | -55 ... +80 °C |

#### Main circuit

|                                                                      |        |
|----------------------------------------------------------------------|--------|
| <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   |
| • at AC-4 at 400 V rated value                                       | 55 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>                                             |        |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <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> <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> <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>4.5 A<br><br>90 A<br>90 A<br><br>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> <li>• with 2 current paths in series 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 3 current paths in series 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>                                  | <br>40 A<br>2.5 A<br><br>90 A<br>90 A<br><br>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> <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> <li>— at 1000 V rated value</li> </ul> </li> </ul> | <br>34 kW<br>59 kW<br>102 kW<br>102 kW<br>66 W<br>30 kW<br><br>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> <li>• at 690 V rated value</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                    | 15.1 kW<br>18.6 kW                                                                                        |
| <b>Thermal short-time current limited to 10 s</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 600 A                                                                                                     |
| <b>No-load switching frequency</b> <ul style="list-style-type: none"> <li>• at DC</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1 000 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                                  | DC            |
| Control supply voltage at DC                                                   |               |
| • rated value                                                                  | 110 V         |
| Operating range factor control supply voltage rated value of magnet coil at DC |               |
| • initial value                                                                | 0.8           |
| • Full-scale value                                                             | 1.1           |
| Closing power of magnet coil at DC                                             | 15 W          |
| Holding power of magnet coil at DC                                             | 15 W          |
| Closing delay                                                                  |               |
| • at DC                                                                        | 90 ... 230 ms |
| Opening delay                                                                  |               |
| • at DC                                                                        | 14 ... 20 ms  |
| Arcing time                                                                    | 10 ... 15 ms  |

#### Auxiliary circuit

|                                              |                                                 |
|----------------------------------------------|-------------------------------------------------|
| Number of NC contacts for auxiliary contacts |                                                 |
| • instantaneous contact                      | 0                                               |
| Number of NO contacts for auxiliary contacts |                                                 |
| • instantaneous contact                      | 0                                               |
| 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

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

#### Short-circuit protection

|                         |  |
|-------------------------|--|
| Design of the fuse link |  |
|-------------------------|--|

- 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: 250 A  
 fuse gL/gG: 125 A  
 fuse gL/gG: 10 A

## Installation/ mounting/ dimensions

|                                                                                      |                                                                        |
|--------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| <b>Mounting type</b>                                                                 | screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail |
| • Side-by-side mounting                                                              | Yes                                                                    |
| <b>Height</b>                                                                        | 146 mm                                                                 |
| <b>Width</b>                                                                         | 70 mm                                                                  |
| <b>Depth</b>                                                                         | 152 mm                                                                 |
| <b>Required spacing</b>                                                              |                                                                        |
| • for grounded parts <ul style="list-style-type: none"> <li>— at the side</li> </ul> | 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 <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> | 2x (2.5 ... 16 mm <sup>2</sup> )<br>2x (10 ... 50 mm <sup>2</sup> )<br>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> )        |
| • at AWG conductors for main contacts                                                                                                                                                                                                            | 2x (10 ... 1/0)                                                                                                                                                                       |
| <b>Type of connectable conductor cross-sections</b>                                                                                                                                                                                              |                                                                                                                                                                                       |
| • for auxiliary contacts <ul style="list-style-type: none"> <li>— solid</li> <li>— finely stranded with core end processing</li> </ul>                                                                                                           | 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> )<br>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 | EMC | Functional Safety/Safety of Machinery |
|--------------------------|-----|---------------------------------------|



CCC



CSA



UL



RCM

[Type Examination Certificate](#)

|                           |                   |                   |
|---------------------------|-------------------|-------------------|
| Declaration of Conformity | Test Certificates | Marine / Shipping |
|---------------------------|-------------------|-------------------|



EG-Konf.

[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



ABS



LRS

|                   |       |         |
|-------------------|-------|---------|
| Marine / Shipping | other | Railway |
|-------------------|-------|---------|



RINA



RMRS

[Miscellaneous](#)

[Confirmation](#)

[Special Test Certificate](#)

#### Further information

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

<https://www.siemens.com/ic10>

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

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1044-1BF40>

##### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1044-1BF40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1044-1BF40>

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

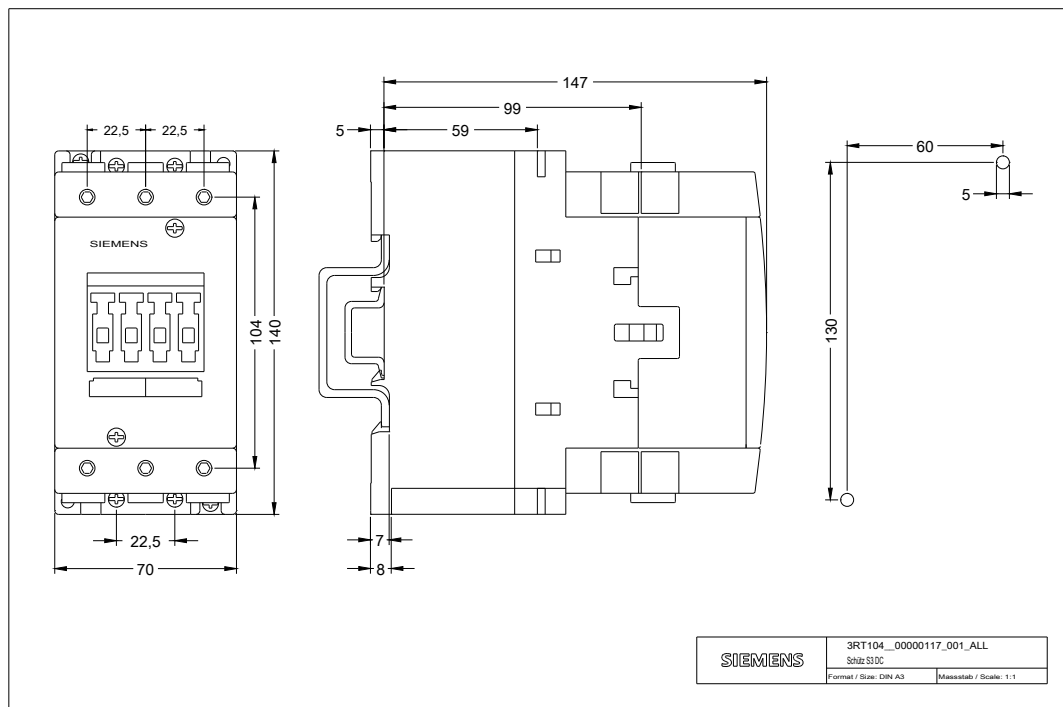
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT1044-1BF40&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1044-1BF40&lang=en)

##### Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current

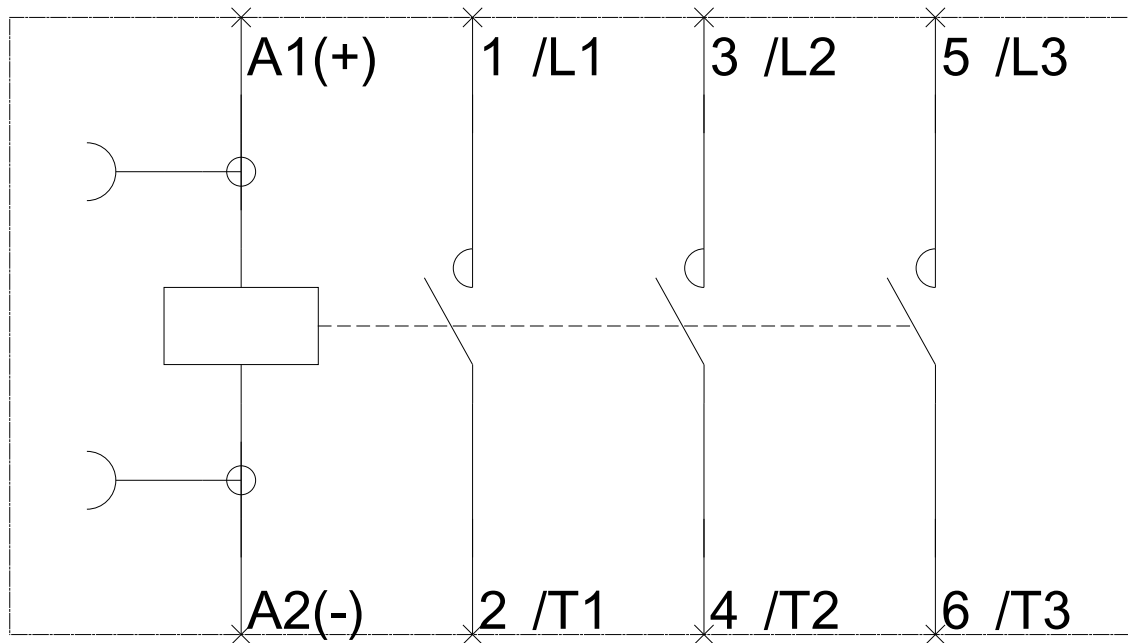
<https://support.industry.siemens.com/cs/ww/en/ps/3RT1044-1BF40/char>

##### Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1044-1BF40&objecttype=14&gridview=view1>



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last modified:

04/27/2020