

Power contactor, AC-3 65 A, 30 kW / 400 V 230 V AC, 50 Hz, 2 NO + 2 NC 3-pole, Size S3, Screw terminal !!! Phased-out product !!!  
 Successor is SIRIUS 3RT2 Preferred successor type is >>3RT2037-1AP04<<



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 AC	6,8g / 5 ms, 4g / 10 ms
Shock resistance with sine pulse	
• at AC	10,6g / 5 ms, 6,2g / 10 ms
Mechanical service life (switching cycles)	

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

Ambient conditions	
<b>Installation altitude at height above sea level</b>	
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	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

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>	
<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>	100 A
<ul style="list-style-type: none"> <li>• at AC-1 <ul style="list-style-type: none"> <li>— up to 690 V at ambient temperature 40 °C rated value</li> <li>— up to 690 V at ambient temperature 60 °C rated value</li> <li>— up to 1000 V at ambient temperature 40 °C rated value</li> <li>— up to 1000 V at ambient temperature 60 °C rated value</li> </ul> </li> </ul>	100 A 90 A 50 A 40 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> <li>— at 1000 V rated value</li> </ul> </li> </ul>	65 A 47 A 25 A
<ul style="list-style-type: none"> <li>• at AC-4 at 400 V rated value</li> </ul>	55 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>	35 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• at 40 °C minimum permissible</li> </ul>	35 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>	28 A
<ul style="list-style-type: none"> <li>• at 690 V rated value</li> </ul>	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>	<p>90 A</p> <p>4.5 A</p> <p>90 A</p> <p>90 A</p> <p>90 A</p> <p>90 A</p>
<p><b>Operating current</b></p> <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>	<p>40 A</p> <p>2.5 A</p> <p>90 A</p> <p>90 A</p> <p>90 A</p> <p>90 A</p>
<p><b>Operating power</b></p> <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>	<p>34 kW</p> <p>59 kW</p> <p>102 kW</p> <p>102 kW</p> <p>66 W</p> <p>30 kW</p> <p>18.5 kW</p> <p>30 kW</p> <p>37 kW</p> <p>45 kW</p> <p>30 W</p>
<p><b>Operating power for approx. 200000 operating cycles at AC-4</b></p> <ul style="list-style-type: none"> <li>• at 400 V rated value</li> <li>• at 690 V rated value</li> </ul>	<p>15.1 kW</p> <p>18.6 kW</p>
<p><b>Thermal short-time current limited to 10 s</b></p>	<p>600 A</p>
<p><b>No-load switching frequency</b></p> <ul style="list-style-type: none"> <li>• at AC</li> </ul>	<p>5 000 1/h</p>
<p><b>Operating frequency</b></p> <ul style="list-style-type: none"> <li>• at AC-1 maximum</li> </ul>	<p>1 000 1/h</p>

- 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

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

#### Auxiliary circuit

<b>Number of NC contacts for auxiliary contacts</b>	
• instantaneous contact	2
<b>Number of NO contacts for auxiliary contacts</b>	
• instantaneous contact	2
<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

**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 fuse gL/gG: 250 A
  - with type of assignment 2 required fuse gL/gG: 125 A
- for short-circuit protection of the auxiliary switch required fuse gL/gG: 10 A

## Installation/ mounting/ dimensions

### Mounting type

- Side-by-side mounting

screw and snap-on mounting onto 35 mm and 75 mm standard mounting rail

Yes

### Height

146 mm

### Width

70 mm

### Depth

188 mm

### Required spacing

- for grounded parts
  - at the side

6 mm

## Connections/ Terminals

### Type of electrical connection

- for main current circuit
- for auxiliary and control current circuit

screw-type terminals

screw-type terminals

### Type of connectable conductor cross-sections

- for main contacts
  - solid
  - stranded
  - single or multi-stranded
  - finely stranded with core end processing
  - finely stranded without core end processing
- at AWG conductors for main contacts

2x (2.5 ... 16 mm<sup>2</sup>)

2x (10 ... 50 mm<sup>2</sup>)

2x (2,5 ... 16 mm<sup>2</sup>)

2x (2.5 ... 35 mm<sup>2</sup>)

2x (10 ... 35 mm<sup>2</sup>)

2x (10 ... 1/0)

### Type of connectable conductor cross-sections

- for auxiliary contacts
  - solid
  - finely stranded with core end processing
- at AWG conductors for auxiliary contacts

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>)

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)

2x (20 ... 16), 2x (18 ... 14), 1x 12

## Certificates/ approvals

General Product Approval	EMC	Functional Safety/Safety of Machinery
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[Type Examination Certificate](#)

Declaration of Conformity	Test Certificates	Marine / Shipping
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[Miscellaneous](#)

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping	other	Railway
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[Miscellaneous](#)

[Confirmation](#)

[Special Test Certificate](#)

#### Further information

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

[www.siemens.com/sirius/catalogs](http://www.siemens.com/sirius/catalogs)

**Industry Mall (Online ordering system)**

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1044-1AP04>

**Cax online generator**

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

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

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

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

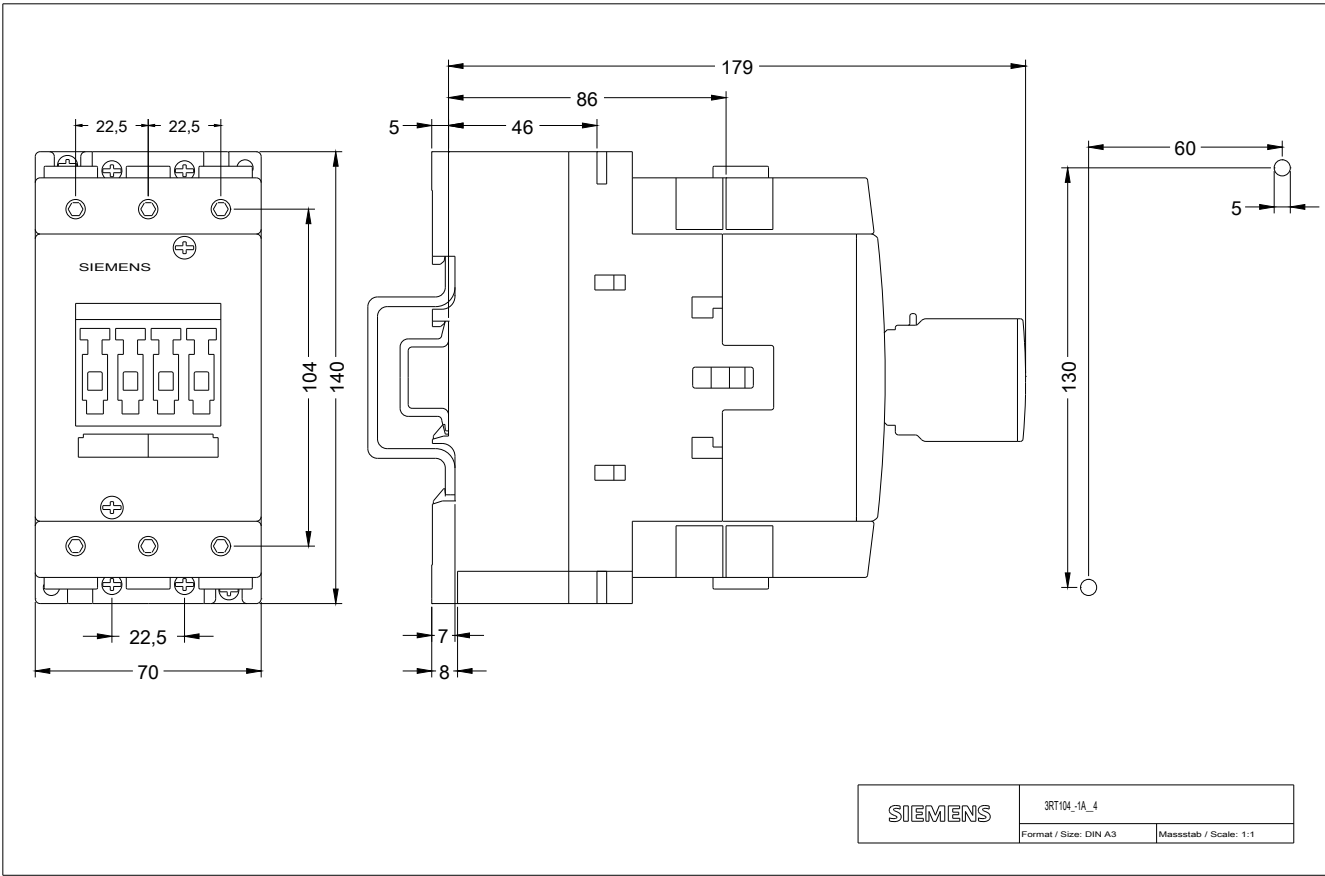
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT1044-1AP04&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1044-1AP04&lang=en)

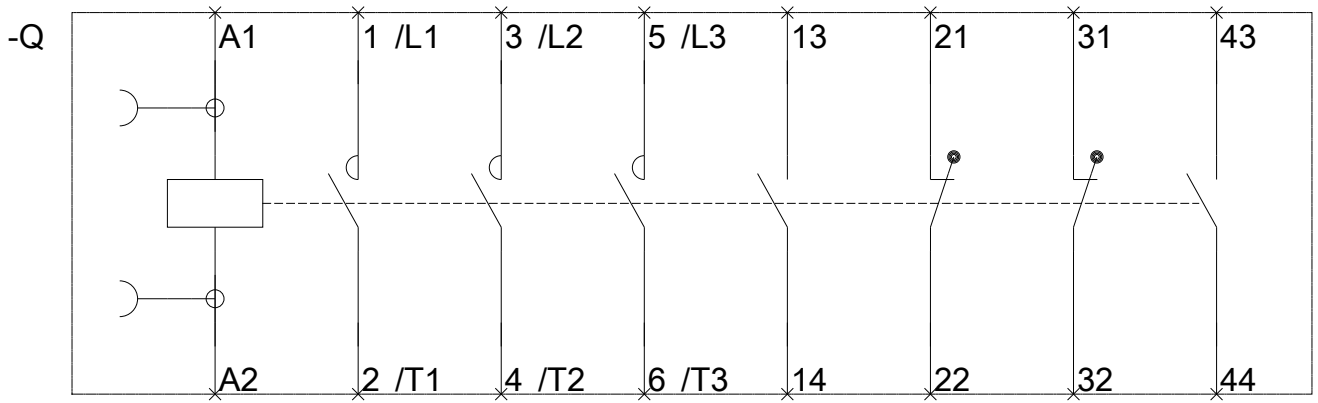
**Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current**

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

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1044-1AP04&objecttype=14&gridview=view1>





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