

Power contactor, AC-3 12 A, 5.5 kW / 400 V 24 V AC, 50/60 Hz 3-pole, Size S0 Screw terminal !!! Phased-out product !!! Successor is SIRIUS 3RT2 Preferred successor type is >>3RT2024-1AC20<<



Figure similar

<b>Product brand name</b>	SIRIUS
<b>Product designation</b>	power contactor
<b>General technical data</b>	
<b>Size of contactor</b>	S0
<b>Degree of pollution</b>	3
<b>Protection class IP</b>	
• on the front	IP20
• of the terminal	IP00
<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>Reference code acc. to DIN EN 81346-2</b>	Q
<b>Ambient conditions</b>	
<b>Installation altitude at height above sea level</b>	

- maximum

2 000 m

### 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>	40 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> </ul> </li> </ul>	40 A 35 A
<ul style="list-style-type: none"> <li>• at AC-3           <ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul> </li> </ul>	12 A
<ul style="list-style-type: none"> <li>• at AC-4 at 400 V rated value</li> </ul>	12.5 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>	35 A 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>	35 A 35 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>	35 A 35 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>	20 A 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 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> </ul>	35 A 15 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 24 V rated value</li> <li>— at 110 V rated value</li> </ul> </li> </ul>	35 A 35 A
<b>Operating power</b>	
<ul style="list-style-type: none"> <li>• at AC-1           <ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul> </li> </ul>	23 kW
<ul style="list-style-type: none"> <li>• at AC-2 at 400 V rated value</li> </ul>	5.5 kW
<ul style="list-style-type: none"> <li>• at AC-3</li> </ul>	

— at 400 V rated value	5.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	7.5 kW
<b>Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor</b>	0.5 W

#### 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	24 V
• at 60 Hz rated value	24 V
<b>Control supply voltage frequency</b>	
• 1 rated value	50 Hz
• 2 rated value	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	0.85 ... 1.1
<b>Apparent pick-up power of magnet coil at AC</b>	64 V·A
<b>Inductive power factor with closing power of the coil</b>	0.72
<b>Apparent holding power of magnet coil at AC</b>	8.4 V·A
<b>Inductive power factor with the holding power of the coil</b>	0.24

#### Auxiliary circuit

<b>Number of NC contacts for auxiliary contacts</b>	
• instantaneous contact	0
<b>Number of NO contacts for auxiliary contacts</b>	
• 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)

## 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: 63 A

fuse gL/gG: 25 A

fuse gL/gG: 10 A

## Installation/ mounting/ dimensions

### • (mounting type)

screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022

- Mounting type Side-by-side mounting

Yes

### (height)

85 mm

### Width

45 mm

### Depth

91 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
  - single or multi-stranded
  - finely stranded with core end processing
- at AWG conductors for main contacts

2x (1 ... 2.5 mm<sup>2</sup>), 2x (2.5 ... 6 mm<sup>2</sup>), max. 2x 10 mm<sup>2</sup>

2x (1 ... 2,5 mm<sup>2</sup>), 2x (2,5 ... 6 mm<sup>2</sup>), max. 2x 10 mm<sup>2</sup>

2x (1 ... 2.5 mm<sup>2</sup>), 2x (2.5 ... 6 mm<sup>2</sup>)

2x (16 ... 12), 2x (14 ... 10), 1x 8

### 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	Functional Safety/Safety of Machinery	Declaration of Conformity
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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
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[Confirmation](#)

[Miscellaneous](#)

## 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=3RT1024-1AC20>

### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1024-1AC20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1024-1AC20>

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

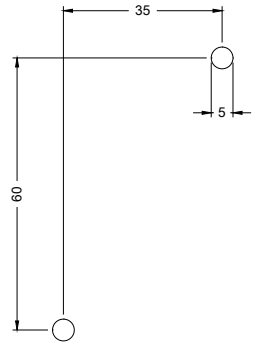
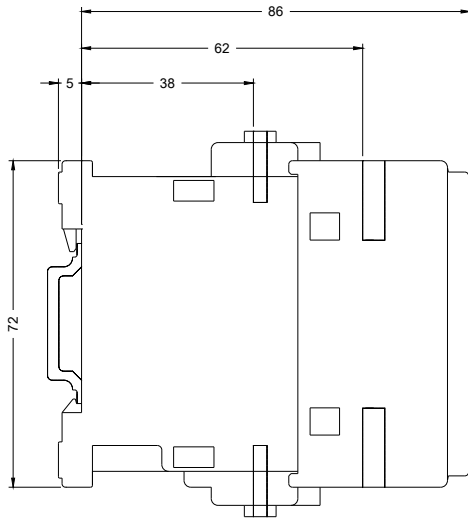
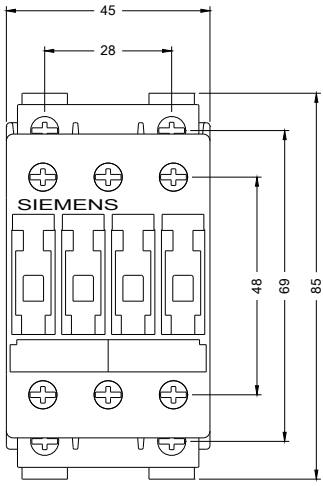
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT1024-1AC20&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1024-1AC20&lang=en)

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

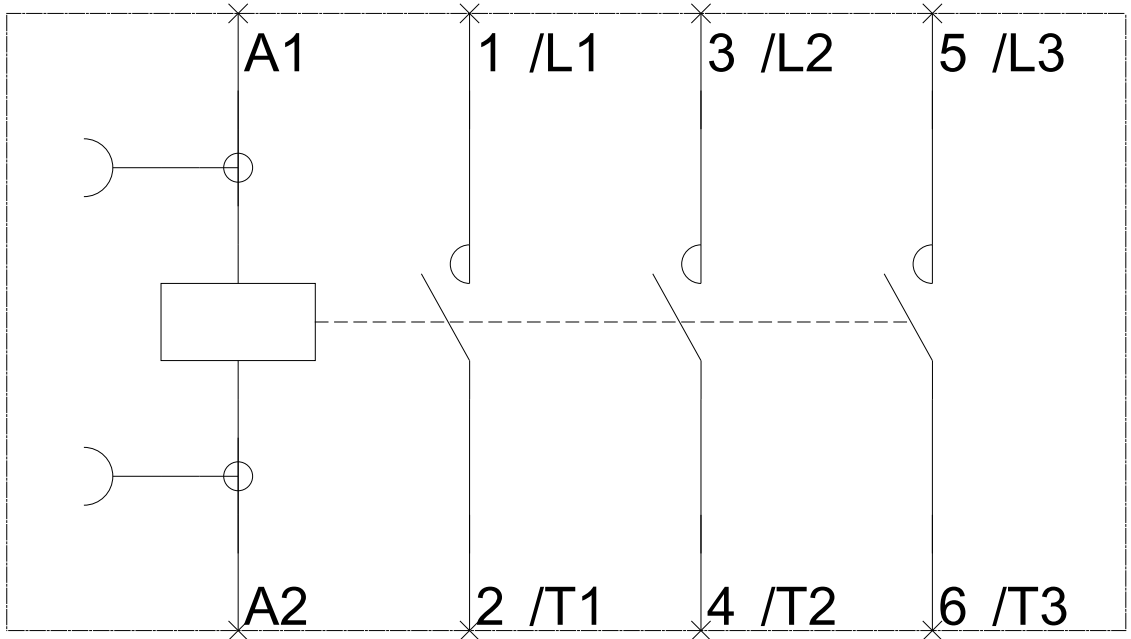
<https://support.industry.siemens.com/cs/ww/en/ps/3RT1024-1AC20/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1024-1AC20&objecttype=14&gridview=view1>



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