



CONTACTOR, AC-1 140 A / 400 V, AC 400 V, 50 HZ, 3-POLE, SIZE S3, SCREW CONNECTION

Figure similar

product brand name		SIRIUS
Product designation		power contactor

General technical data:

Insulation voltage		
• Rated value	V	1 000
Degree of pollution		3
Surge voltage resistance Rated value	kV	6
Mechanical service life (switching cycles)		
• of the 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
Thermal short-time current restricted to 10 s	A	600
Protection class IP		
• on the front		IP20
• of the terminal		IP00
Equipment marking		
• acc. to DIN EN 61346-2		Q
• acc. to DIN EN 81346-2		Q

Main circuit:

Number of poles for main current circuit		3
Number of NC contacts for main contacts		0
Number of NO contacts for main contacts		3
Operating current		

<ul style="list-style-type: none"> <li>• at AC-1 <ul style="list-style-type: none"> <li>— at 400 V at ambient temperature 40 °C Rated value</li> <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> <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>	A	140
	A	140
	A	130
	A	44
	A	44
<b>Operating current with 1 current path</b>		
<ul style="list-style-type: none"> <li>• 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>• 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>	A	130
	A	12
	A	6
	A	1.25
<b>Operating current with 2 current paths in series</b>		
<ul style="list-style-type: none"> <li>• 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>• 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>	A	130
	A	130
	A	130
	A	130
	A	130
<b>Operating current with 3 current paths in series</b>		
<ul style="list-style-type: none"> <li>• 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>• 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>	A	130
	A	130
	A	130
	A	130
	A	130
<b>Operating power</b>		
<ul style="list-style-type: none"> <li>• at AC-1 at 400 V Rated value</li> <li>• at AC-2 at 400 V Rated value</li> </ul>	kW	86
	kW	22
<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 690 V at 60 °C Rated value</li> <li>— at 690 V Rated value</li> </ul> </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> </ul> </li> </ul>	kW	50
	kW	148
	kW	148
	kW	12.7
	kW	22

- at 500 V Rated value
- at 690 V Rated value

kW	29.9
kW	38.2

#### Control circuit/ Control:

<b>Type of voltage of the control supply voltage</b>		AC
<b>Control supply voltage with AC</b>		
• at 50 Hz Rated value	V	400
• Rated value	Hz	50
<b>Operating range factor control supply voltage rated value of the magnet coil with AC</b>		
• at 50 Hz		0.8 ... 1.1
<b>Apparent pick-up power of the magnet coil with AC</b>	V·A	270
<b>Apparent holding power of the magnet coil with AC</b>	V·A	22
<b>Inductive power factor</b>		
• with closing power of the coil		0.68
• with the holding power of the coil		0.27

#### 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-15</b>		
• at 230 V Rated value	A	6
• at 400 V Rated value	A	3
<b>Operating current</b>		
• at DC-12 at 220 V Rated value	A	1
• at DC-13 at 220 V Rated value	A	0.3
<b>Operating current</b>		
• at DC-12		
— at 60 V Rated value	A	6
— at 110 V Rated value	A	3
• at DC-13		
— at 24 V Rated value	A	10
— at 60 V Rated value	A	2
— at 110 V Rated value	A	1
<b>Contact reliability of the auxiliary contacts</b>		1 faulty switching per 100 million (17 V, 1 mA)

#### UL/CSA ratings:

<b>Contact rating of the auxiliary contacts acc. to UL</b>	A600 / Q600
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#### Short-circuit:

<b>Design of the fuse link</b>	
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- for short-circuit protection of the main circuit
  - with type of assignment 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: 250 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>	mm	146
<b>Width</b>	mm	70
<b>Depth</b>	mm	139
<b>Required spacing</b>		
• for grounded parts <ul style="list-style-type: none"> <li>— at the side</li> </ul>	mm	6

#### 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-section</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> ) 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> )
• for AWG conductors for main contacts		2x (10 ... 1/0)
• 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> ) 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
• for AWG conductors for auxiliary contacts		2x (20 ... 16), 2x (18 ... 14), 1x 12

#### Mechanical data:

<b>Size of contactor</b>		S3
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#### Ambient conditions:

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

## Certificates/ approvals:

General Product Approval	Functional Safety/Safety of Machinery	Declaration of Conformity
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[Type Examination](#)



Test Certificates	Shipping Approval
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[Special Test Certificate](#)



## other

[Environmental Confirmations](#)

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[other](#)

## Further information

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

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

**Industry Mall (Online ordering system)**

<http://www.siemens.com/industrymall>

**Cax online generator**

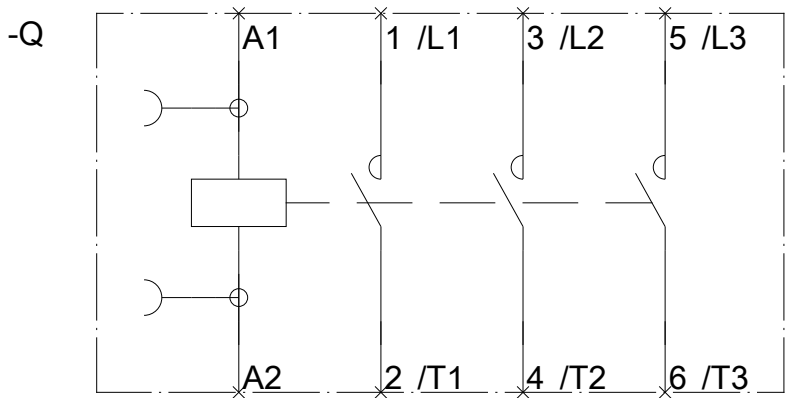
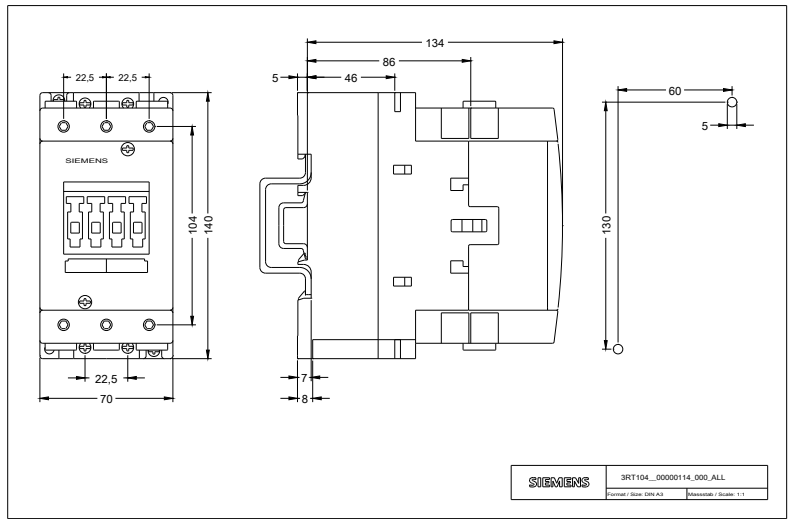
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT14461AV00>

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

<http://support.automation.siemens.com/WW/view/en/3RT14461AV00/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT14461AV00&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT14461AV00&lang=en)



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