



CONTACTOR, AC-1 140 A, DC 24 V, 4-POLE, SIZE S3, SCREW CONNECTION AVAILABLE MARCH '98

Figure similar

<b>product brand name</b>	SIRIUS
<b>Product designation</b>	power contactor
<b>General technical data:</b>	
<b>Size of contactor</b>	S3
<b>Insulation voltage</b>	
• Rated value	1 000 V
<b>Degree of pollution</b>	3
<b>Surge voltage resistance Rated value</b>	6 kV
<b>Mechanical service life (switching cycles)</b>	
• 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
<b>Protection class IP</b>	
• on the front	IP00
• of the terminal	IP00
<b>Equipment marking</b>	
• acc. to DIN EN 61346-2	Q
• acc. to DIN EN 81346-2	Q
<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

#### Main circuit:

<b>Number of poles for main current circuit</b>	4
<b>Number of NC contacts for main contacts</b>	0
<b>Number of NO contacts for main contacts</b>	4
<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>	50 mm <sup>2</sup>
<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>	140 A
<ul style="list-style-type: none"> <li>• at AC-1 up to 690 V           <ul style="list-style-type: none"> <li>— at ambient temperature 40 °C Rated value</li> <li>— at ambient temperature 60 °C Rated value</li> </ul> </li> </ul>	140 A 120 A
<b>Operating current</b>	
<ul style="list-style-type: none"> <li>• with 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>	80 A 9 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>	80 A 80 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>	80 A 80 A
<b>Operating current</b>	
<ul style="list-style-type: none"> <li>• with 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 110 V Rated value</li> <li>— at 24 V Rated value</li> </ul> </li> </ul>	80 A 80 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>	80 A 80 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> </ul> </li> </ul>	53 kW
<b>Thermal short-time current restricted to 10 s</b>	600 A
<b>Active power loss at AC-3 at 400 V for rated value of the operating current per conductor</b>	10.8 W
<b>No-load switching frequency</b>	

<ul style="list-style-type: none"> <li>• for 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

#### Control circuit/ Control:

<b>Type of voltage of the control supply voltage</b>	DC
<b>Control supply voltage for DC</b>	
<ul style="list-style-type: none"> <li>• Rated value</li> </ul>	24 V
<b>Operating range factor control supply voltage rated value of the magnet coil for DC</b>	0.8 ... 1.1
<b>Closing power of the magnet coil for DC</b>	15 W
<b>Holding power of the magnet coil for DC</b>	15 W
<b>Closing delay</b>	
<ul style="list-style-type: none"> <li>• for DC</li> </ul>	111 ... 200 ms
<b>Arcing time</b>	10 ... 15 ms

#### Auxiliary circuit:

<b>Number of NC contacts</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— instantaneous contact</li> </ul> </li> </ul>	0
<b>Number of NO contacts</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— instantaneous contact</li> </ul> </li> </ul>	0
<b>Operating current at AC-12 maximum</b>	10 A
<b>Operating current at AC-15</b>	
<ul style="list-style-type: none"> <li>• at 230 V Rated value</li> <li>• at 400 V Rated value</li> </ul>	6 A 3 A
<b>Operating current at DC-12</b>	
<ul style="list-style-type: none"> <li>• at 60 V Rated value</li> <li>• at 110 V Rated value</li> <li>• at 220 V Rated value</li> </ul>	6 A 3 A 1 A
<b>Operating current at DC-13</b>	
<ul style="list-style-type: none"> <li>• at 24 V Rated value</li> <li>• at 60 V Rated value</li> <li>• at 110 V Rated value</li> <li>• at 220 V Rated value</li> </ul>	10 A 2 A 1 A 0.3 A
<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>	
<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 assignment 1 required</li> </ul> </li> </ul>	fuse gL/gG: 250 A

- with type of assignment 2 required
- for short-circuit protection of the auxiliary switch required

fuse gL/gG: 160 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>	93 mm
<b>Depth</b>	152 mm
<b>Required spacing</b>	
• for grounded parts	
— at the side	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-section</b>	
• for main contacts	
— solid	2x (2.5 ... 16 mm <sup>2</sup> )
— stranded	2x (10 ... 50 mm <sup>2</sup> )
— single or multi-stranded	2x (2,5 ... 16 mm <sup>2</sup> )
— finely stranded with core end processing	2x (2.5 ... 35 mm <sup>2</sup> )
— finely stranded without core end processing	2x (10 ... 35 mm <sup>2</sup> )
• for AWG conductors for main contacts	2x (10 ... 1/0)
<b>Type of connectable conductor cross-section</b>	
• for auxiliary contacts	
— solid	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> )
— finely stranded with core end processing	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

#### 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](#)



Shipping Approval	other
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[Confirmation](#)

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#### Further information

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

**Industry Mall (Online ordering system)**

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

**Cax online generator**

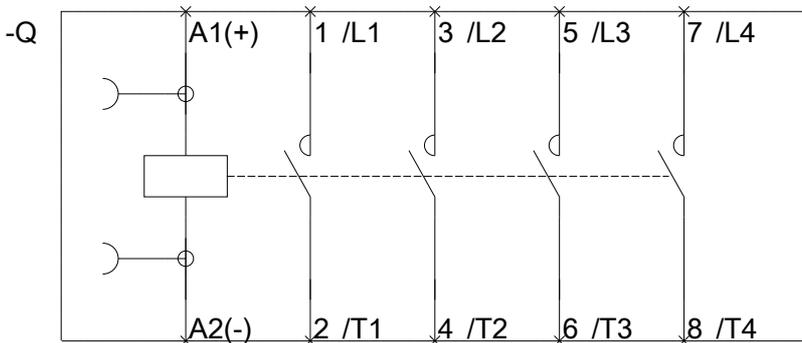
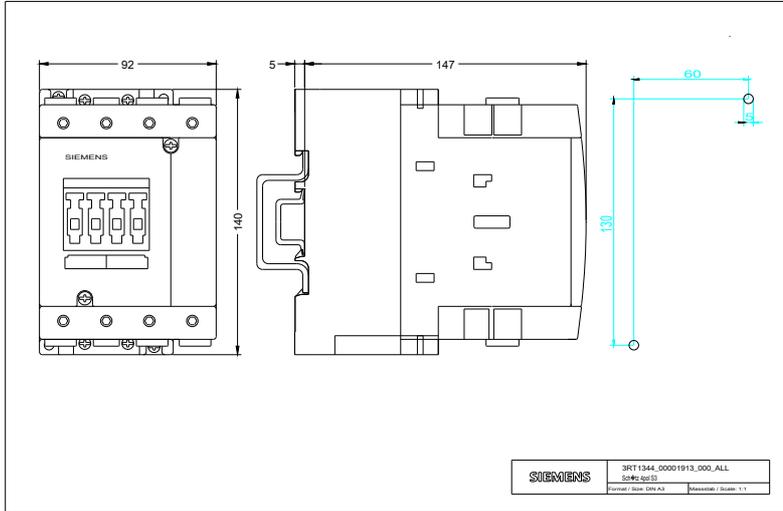
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RT13461BB40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT13461BB40>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mfb=3RT13461BB40&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3RT13461BB40&lang=en)



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