



CONTACTOR, AC-1 110 A, DC 24 V, 4-POLE, SIZE S3, SCREW CONNECTION AVAILABLE MARCH '98

Figure similar

product brand name	SIRIUS
Product designation	power contactor
General technical data:	
Size of contactor	S3
Insulation voltage	
• Rated value	1 000 V
Degree of pollution	3
Surge voltage resistance Rated value	6 kV
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
Protection class IP	
• on the front	IP00
• of the terminal	IP00
Equipment marking	
• acc. to DIN EN 61346-2	Q
• acc. to DIN EN 81346-2	Q
Ambient conditions:	
Installation altitude at height above sea level maximum	2 000 m
Ambient temperature	
• 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>	
• at 60 °C minimum permissible	35 mm <sup>2</sup>
• at 40 °C minimum permissible	35 mm <sup>2</sup>
<b>Operating current</b>	
• at AC-1 at 400 V	
— at ambient temperature 40 °C Rated value	110 A
• at AC-1 up to 690 V	
— at ambient temperature 40 °C Rated value	110 A
— at ambient temperature 60 °C Rated value	100 A
<b>Operating current</b>	
• with 1 current path at DC-1	
— at 24 V Rated value	70 A
— at 110 V Rated value	4.5 A
• with 2 current paths in series at DC-1	
— at 24 V Rated value	70 A
— at 110 V Rated value	70 A
• with 3 current paths in series at DC-1	
— at 24 V Rated value	70 A
— at 110 V Rated value	70 A
<b>Operating current</b>	
• with 1 current path at DC-3 at DC-5	
— at 24 V Rated value	20 A
— at 110 V Rated value	2.5 A
• with 2 current paths in series at DC-3 at DC-5	
— at 110 V Rated value	70 A
— at 24 V Rated value	70 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V Rated value	70 A
— at 24 V Rated value	70 A
<b>Operating power</b>	
• at AC-1	
— at 230 V at 60 °C Rated value	42 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>	4.6 W
<b>No-load switching frequency</b>	

• for DC	1 000 1/h
<b>Operating frequency</b>	
• at AC-1 maximum	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>	
• Rated value	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>	
• for DC	110 ... 200 ms
<b>Arcing time</b>	10 ... 15 ms

#### 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-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 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>	
• for short-circuit protection of the main circuit	
— with type of assignment 1 required	fuse gL/gG: 250 A

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

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

**Industry Mall (Online ordering system)**

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

**Cax online generator**

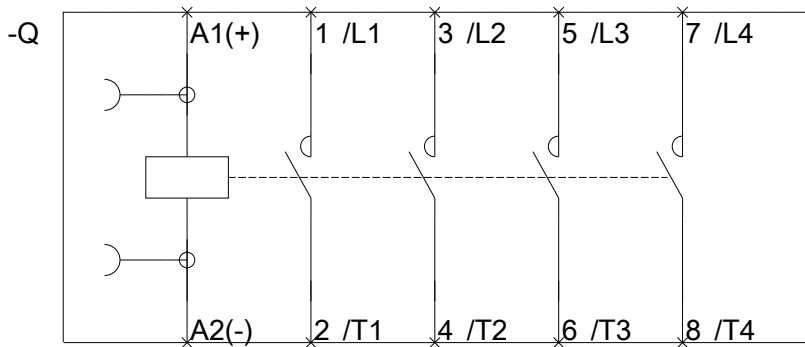
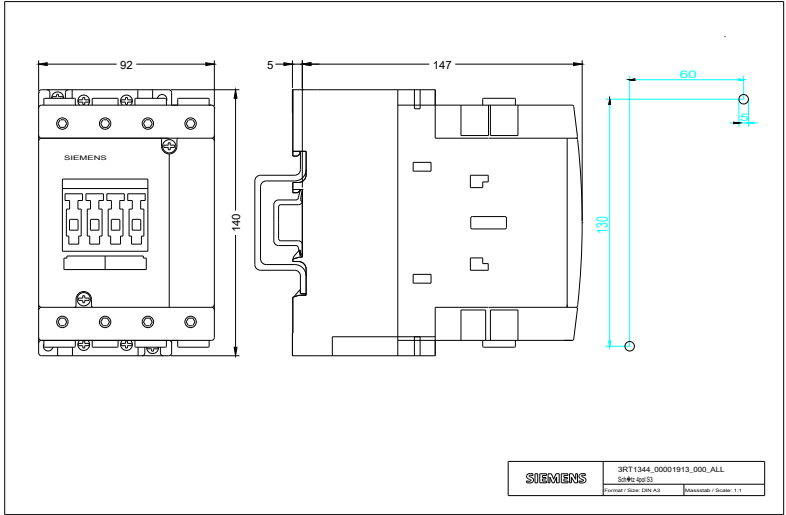
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT13441BB40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT13441BB40>

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

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last modified:

02.06.2015