



CONTACTOR, AC-3 18,5 KW/400 V, AC 230V 50/60HZ 3-POLE, SIZE S2, SCREW CONNECTION

Figure similar

<b>product brand name</b>	SIRIUS
<b>Product designation</b>	power contactor
<b>General technical data:</b>	
<b>Size of contactor</b>	S2
<b>Insulation voltage</b>	
• Rated value	690 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>	3
<b>Number of NC contacts for main contacts</b>	0
<b>Number of NO contacts for main contacts</b>	3
<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>	16 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• at 40 °C minimum permissible</li> </ul>	16 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>	60 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>	60 A 55 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> </ul> </li> </ul>	40 A 24 A
<ul style="list-style-type: none"> <li>• at AC-4 at 400 V Rated value</li> </ul>	35 A
<b>Operating current for ≥ 200000 operating cycles at AC-4</b>	
<ul style="list-style-type: none"> <li>• at 400 V Rated value</li> </ul>	18.5 A
<ul style="list-style-type: none"> <li>• at 690 V Rated value</li> </ul>	12.6 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>	55 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>	55 A 25 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>	55 A 55 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>	35 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>	25 A 55 A
<ul style="list-style-type: none"> <li>• with 3 current paths in series at DC-3 at DC-5</li> </ul>	

— at 110 V Rated value	55 A
— at 24 V Rated value	55 A
<b>Operating power</b>	
• at AC-1	
— at 230 V at 60 °C Rated value	22 kW
— at 690 V at 60 °C Rated value	66 kW
<b>Operating power for ≥ 200000 operating cycles at AC-4</b>	
• at 400 V Rated value	9.5 kW
• at 690 V Rated value	11.4 kW
<b>Thermal short-time current restricted to 10 s</b>	400 A
<b>Active power loss at AC-3 at 400 V for rated value of the operating current per conductor</b>	2.6 W
<b>No-load switching frequency</b>	
• with AC	5 000 1/h
<b>Operating frequency</b>	
• at AC-1 maximum	1 200 1/h
• at AC-2 maximum	600 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 with AC</b>	
• at 50 Hz Rated value	230 V
• at 60 Hz Rated value	230 V
• Rated value	50 Hz
<b>Control supply voltage frequency 2 Rated value</b>	60 Hz
<b>Operating range factor control supply voltage rated value of the magnet coil with AC</b>	
• at 50 Hz	0.8 ... 1.1
• at 60 Hz	0.85 ... 1.1
<b>Apparent pick-up power of the magnet coil with AC</b>	170 V·A
<b>Inductive power factor with closing power of the coil</b>	0.76
<b>Apparent holding power of the magnet coil with AC</b>	15 V·A
<b>Inductive power factor with the holding power of the coil</b>	0.35
<b>Closing delay</b>	
• with AC	10 ... 24 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
Operating current at AC-12 maximum	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: 125 A
— with type of assignment 2 required	fuse gL/gG: 63 A
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A

#### Installation/ mounting/ dimensions:





<b>Mounting type</b>	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
• Side-by-side mounting	Yes
<b>Height</b>	112 mm
<b>Width</b>	55 mm
<b>Depth</b>	115 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> <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>— solid 2x (0.75 ... 16 mm<sup>2</sup>)</li> <li>— stranded 2x (0.75 ... 25 mm<sup>2</sup>)</li> <li>— single or multi-stranded 2x (0,75 ... 16 mm<sup>2</sup>)</li> <li>— finely stranded with core end processing 2x (0.75 ... 16 mm<sup>2</sup>)</li> <li>— finely stranded without core end processing 2x (0.75 ... 16 mm<sup>2</sup>)</li> </ul> </li> <li>• for AWG conductors for main contacts 2x (18 ... 2)</li> </ul>
<b>Type of connectable conductor cross-section</b> <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— 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>)</li> <li>— finely stranded with core end processing 2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</li> </ul> </li> <li>• for AWG conductors for auxiliary contacts 2x (20 ... 16), 2x (18 ... 14), 1x 12</li> </ul>

Certificates/ approvals:

<b>General Product Approval</b>	<b>Functional Safety/Safety of Machinery</b>	<b>Declaration of Conformity</b>	<b>Test Certificates</b>
 CSA  UL  EAC	<a href="#">Type Examination</a>	 EG-Konf.	<a href="#">Special Test Certificate</a>

<b>Test Certificates</b>	<b>Shipping Approval</b>				
<a href="#">Type Test Certificates/Test Report</a>	 ABS	 DNV	 GL	 LRS	 RINA

<b>Shipping Approval</b>	<b>other</b>		
 RMRS	<a href="#">Environmental Confirmations</a>	<a href="#">Confirmation</a>	<a href="#">other</a>

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**

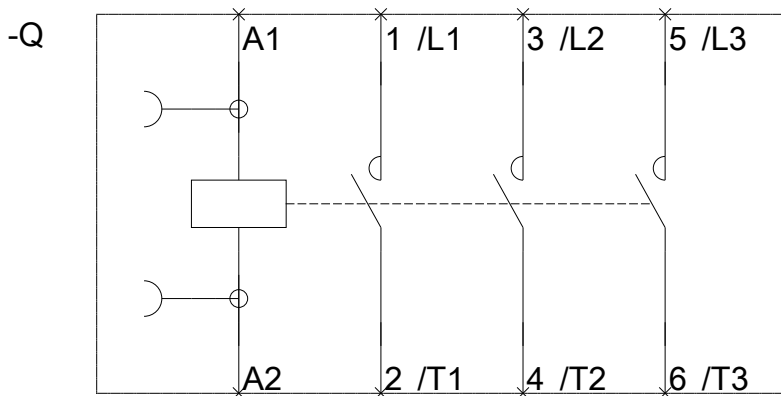
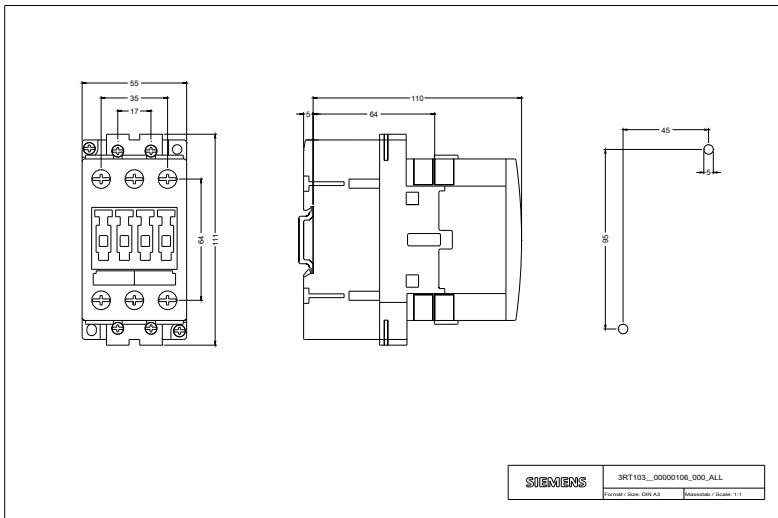
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT10351AL20>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT10351AL20>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT10351AL20&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT10351AL20&lang=en)



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