



Figure similar

CONTACTOR, AC-3 45 KW/400 V, AC 480 V, 60 HZ, 3-POLE, SIZE S3, SCREW CONNECTION

product brand name	SIRIUS
Product designation	power contactor
General technical data:	
Size of contactor	S3
Insulation voltage	
• Rated value	1 000 V
Surge voltage resistance Rated value	6 kV
Protection class IP	
• on the front	IP00
• of the terminal	IP00
Degree of pollution	3
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
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:	
Number of NO contacts for main contacts	3

<b>Number of NC contacts for main contacts</b>	0
<b>Operating current</b>	
• at AC-1 at 400 V	
— at ambient temperature 40 °C Rated value	120 A
• at AC-1 up to 690 V	
— at ambient temperature 40 °C Rated value	120 A
— at ambient temperature 60 °C Rated value	100 A
• at AC-3	
— at 400 V Rated value	95 A
— at 690 V Rated value	58 A
<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	50 mm <sup>2</sup>
<b>Operating current for ≥ 200000 operating cycles at AC-4</b>	
• at 400 V Rated value	42 A
• at 690 V Rated value	27 A
<b>Operating current</b>	
• with 1 current path at DC-1	
— at 24 V Rated value	100 A
— at 110 V Rated value	9 A
• with 2 current paths in series at DC-1	
— at 24 V Rated value	100 A
— at 110 V Rated value	100 A
• with 3 current paths in series at DC-1	
— at 24 V Rated value	100 A
— at 110 V Rated value	100 A
<b>Operating current</b>	
• with 1 current path at DC-3 at DC-5	
— at 24 V Rated value	40 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	100 A
— at 24 V Rated value	100 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V Rated value	100 A
— at 24 V Rated value	100 A
<b>Operating power</b>	
• at AC-1	
— at 230 V at 60 °C Rated value	38 kW
— at 400 V Rated value	66 kW

— at 690 V Rated value	114 kW
— at 690 V at 60 °C Rated value	114 kW
• at AC-2 at 400 V Rated value	45 kW
• at AC-3	
— at 230 V Rated value	22 kW
— at 400 V Rated value	45 kW
— at 500 V Rated value	55 kW
— at 690 V Rated value	55 kW
<b>Operating power for <math>\geq 200000</math> operating cycles at AC-4</b>	
• at 400 V Rated value	22 kW
• at 690 V Rated value	25.4 kW
<b>Thermal short-time current restricted to 10 s</b>	760 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>	
• at AC	5 000 1/h
<b>Operating frequency</b>	
• at AC-1 maximum	900 1/h
• at AC-2 maximum	350 1/h
• at AC-3 maximum	850 1/h
• at AC-4 maximum	250 1/h

#### Control circuit/ Control:

<b>Type of voltage of the control supply voltage</b>	AC
<b>Control supply voltage at AC</b>	
• at 60 Hz Rated value	480 V
• Rated value	60 Hz
<b>Operating range factor control supply voltage rated value of the magnet coil at AC</b>	
• at 60 Hz	0.8 ... 1.1
<b>Apparent pick-up power of the magnet coil at AC</b>	300 V·A
<b>Inductive power factor with closing power of the coil</b>	0.52
<b>Apparent holding power of the magnet coil at AC</b>	21 V·A
<b>Inductive power factor with the holding power of the coil</b>	0.29
<b>Closing delay</b>	
• at AC	17 ... 90 ms
<b>Opening delay</b>	
• at AC	10 ... 25 ms
<b>Arcing time</b>	10 ... 15 ms

#### Auxiliary circuit:

Number of NC contacts

• 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)
<b>UL/CSA ratings:</b>	
<b>Contact rating of the auxiliary contacts acc. to UL</b>	A600 / Q600
<b>Short-circuit:</b>	
<b>Design of the fuse link</b>	
• for short-circuit protection of the main circuit — with type of assignment 1 required — with type of assignment 2 required	fuse gL/gG: 250 A fuse gL/gG: 160 A fuse gL/gG: 10 A
• for short-circuit protection of the auxiliary switch required	
<b>Installation/ mounting/ dimensions:</b>	
<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>	70 mm
<b>Depth</b>	139 mm
<b>Required spacing</b>	
• for grounded parts — at the side	6 mm
<b>Connections/ Terminals:</b>	
<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	Test Certificates
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**EAC**



Baumusterbescheinigung



spezielle Prüfbescheinigungen

#### Shipping Approval

other



**GL**

**Lloyd's Register**



Bestätigungen

#### other

Umweltbestätigung

sonstig

#### Further information

Information- and Downloadcenter (Catalogs, Brochures,...)  
<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)  
<http://www.siemens.com/industrymall>

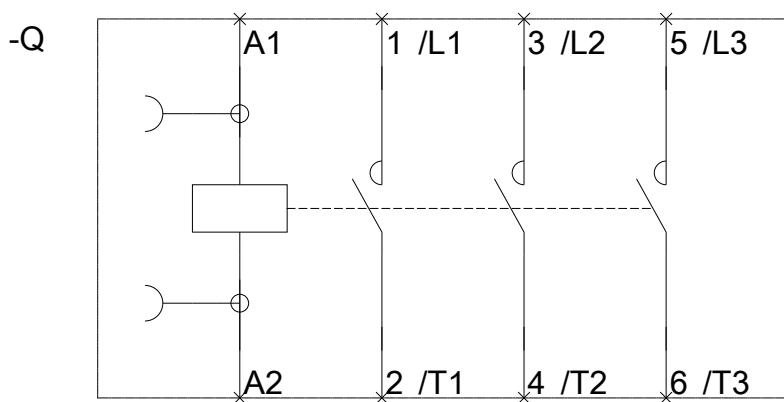
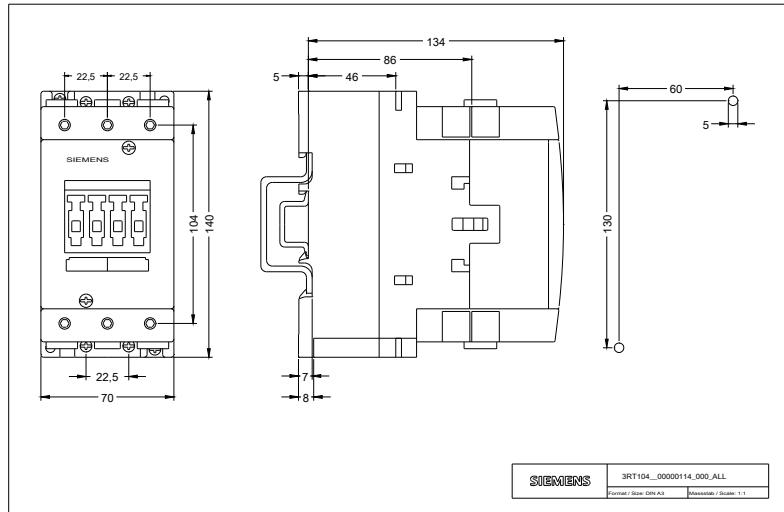
Cax online generator  
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RT10461AV60>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT10461AV60>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT10461AV60&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT10461AV60&lang=en)



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