

CONTACTOR, 55KW/400V/AC-3, AC(40...60HZ)/DC OPERATION  
 UC 440...480V AUXIL. CONTACTS 2NO+2NC 3-POLE, SIZE S6  
 BAR CONNECTIONS CONVENTIONAL OPERATING MECHAN.  
 SCREW TERMINAL



Figure similar

product brand name	SIRIUS
Product designation	power contactor

General technical data:	
Size of contactor	S6
Insulation voltage	
• rated value	1 000 V
Degree of pollution	3
Surge voltage resistance rated value	8 kV
maximum permissible voltage for safe isolation	
• between coil and main contacts acc. to EN 60947-1	690 V
Protection class IP	
• on the front	IP00
• of the terminal	IP00
Shock resistance	
• at rectangular impulse	
— at AC	8,5g / 5 ms, 4,2g / 10 ms
— at DC	8,5g / 5 ms, 4,2g / 10 ms
• with sine pulse	

— at AC	13,4g / 5 ms, 6,5g / 10 ms
— at DC	13,4g / 5 ms, 6,5g / 10 ms
<b>Mechanical service life (switching cycles)</b>	
• of 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>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
<b>Main circuit:</b>	
<b>Number of NO contacts for main contacts</b>	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	160 A
• at AC-1 up to 690 V	
— at ambient temperature 40 °C rated value	160 A
— at ambient temperature 60 °C rated value	140 A
• at AC-3	
— at 400 V rated value	115 A
— at 690 V rated value	115 A
<b>Connectable conductor cross-section in main circuit at AC-1</b>	
• at 60 °C minimum permissible	50 mm <sup>2</sup>
• at 40 °C minimum permissible	70 mm <sup>2</sup>
<b>Operating current for approx. 200000 operating cycles at AC-4</b>	
• at 400 V rated value	54 A
• at 690 V rated value	48 A
<b>Operating current</b>	
• at 1 current path at DC-1	
— at 24 V rated value	160 A
— at 110 V rated value	18 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	160 A
— at 110 V rated value	160 A
• with 3 current paths in series at DC-1	

— at 24 V rated value	160 A
— at 110 V rated value	160 A
<b>Operating current</b>	
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	160 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	160 A
— at 24 V rated value	160 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V rated value	160 A
— at 24 V rated value	160 A
<b>Operating power</b>	
• at AC-1	
— at 230 V at 60 °C rated value	53 kW
— at 400 V rated value	92 kW
— at 690 V rated value	159 kW
— at 690 V at 60 °C rated value	159 kW
• at AC-2 at 400 V rated value	64 kW
• at AC-3	
— at 230 V rated value	37 kW
— at 400 V rated value	64 kW
— at 500 V rated value	81 kW
— at 690 V rated value	113 kW
<b>Operating power for approx. 200000 operating cycles at AC-4</b>	
• at 400 V rated value	29 kW
• at 690 V rated value	48 kW
<b>Thermal short-time current limited to 10 s</b>	1 100 A
<b>Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor</b>	7 W
<b>No-load switching frequency</b>	
• at AC	2 000 1/h
• at DC	2 000 1/h
<b>Operating frequency</b>	
• at AC-1 maximum	800 1/h
• at AC-2 maximum	400 1/h
• at AC-3 maximum	1 000 1/h
• at AC-4 maximum	130 1/h
<b>Control circuit/ Control:</b>	
<b>Type of voltage of the control supply voltage</b>	AC/DC
<b>Control supply voltage at AC</b>	

<ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul>	440 ... 480 V 440 ... 480 V
<b>Control supply voltage at DC</b>	
<ul style="list-style-type: none"> <li>• rated value</li> <li>• rated value</li> </ul>	440 ... 480 V 50 Hz
<b>Control supply voltage frequency 2 rated value</b>	60 Hz
<b>Operating range factor control supply voltage rated value of magnet coil at AC</b>	
<ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>	0.8 ... 1.1 0.8 ... 1.1
<b>Operating range factor control supply voltage rated value of magnet coil at DC</b>	0.8 ... 1.1
<b>Design of the surge suppressor</b>	with varistor
<b>Apparent pick-up power of magnet coil at AC</b>	300 V·A
<b>Inductive power factor with closing power of the coil</b>	0.9
<b>Apparent holding power of magnet coil at AC</b>	5.8 V·A
<b>Inductive power factor with the holding power of the coil</b>	0.8
<b>Closing power of magnet coil at DC</b>	360 W
<b>Holding power of magnet coil at DC</b>	5.2 W
<b>Closing delay</b>	
<ul style="list-style-type: none"> <li>• at AC</li> <li>• at DC</li> </ul>	20 ... 95 ms 20 ... 95 ms
<b>Opening delay</b>	
<ul style="list-style-type: none"> <li>• at AC</li> <li>• at DC</li> </ul>	40 ... 60 ms 40 ... 60 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>	2
<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>	2
<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>	
• 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>UL/CSA ratings:</b>	
<b>Contact rating of auxiliary contacts according to UL</b>	A600 / Q600





<b>Short-circuit protection</b>	
<b>Design of the fuse link</b>	
• for short-circuit protection of the main circuit	
— with type of coordination 1 required	fuse gL/gG: 355 A
— with type of assignment 2 required	fuse gL/gG: 315 A
• for short-circuit protection of the auxiliary switch required	fuse gL/gG: 10 A

<b>Installation/ mounting/ dimensions:</b>	
<b>Mounting type</b>	screw fixing
• Side-by-side mounting	Yes
<b>Height</b>	172 mm
<b>Width</b>	120 mm
<b>Depth</b>	170 mm
<b>Required spacing</b>	
• for grounded parts	
— at the side	10 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-sections</b>	
• at AWG conductors for main contacts	4 ... 250 kcmil
<b>Type of connectable conductor cross-sections</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> )
• at AWG conductors for auxiliary contacts	2x (20 ... 16), 2x (18 ... 14), 1x 12

**Certificates/approvals**

General Product Approval				Declaration of Conformity	Test Certificates
 CCC	 CSA		 UL	 EG-Konf.	<a href="#">Typprüfbescheinigung/Werkszeugnis</a>

Test Certificates	Shipping Approval				other
<a href="#">spezielle Prüfbescheinigung</a> <a href="#">n</a>	 ABS	 DNV	 GL	 RMRS	<a href="#">Bestätigungen</a>

other	
<a href="#">sonstig</a>	<a href="#">Umweltbestätigung</a>

#### Further information

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

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

##### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT10546AR36>

##### Cax online generator

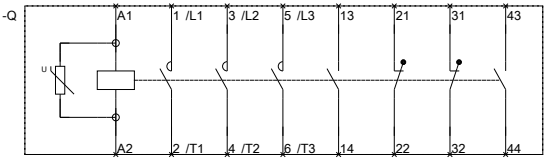
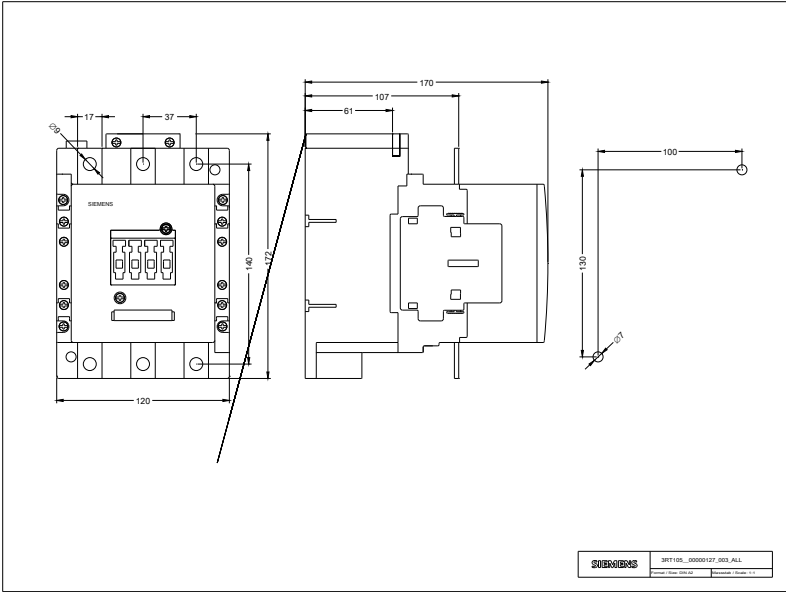
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT10546AR36>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT10546AR36>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT10546AR36&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT10546AR36&lang=en)



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