

**3RT2025-1AP00 SIRIUS NG CONTACTORS S0**

Technical / CAx data

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CONTACTOR, AC-3, 7.5KW/400V, 1NO+1NC, AC 230V  
50HZ, 3-POLE, SZ S0 SCREW TERMINAL

General technical data:		
Product brand name		SIRIUS
Product designation		3RT2 contactor
Size of the contactor		S0
Protection class IP / frontal/front side		IP20
Degree of pollution		3
Altitude of installation site / at a height over sea level / maximum	m	2,000
Ambient temperature		
• during storage	°C	-55...80
• during the operating phase	°C	-25...60
• during transport	°C	-55...80
Resistance against shock		12.5g / 5 ms and 7.8g / 10 ms
Impulse voltage resistance / rated value	kV	6
Insulation voltage / rated value	V	690
Resistive loss		
• per conductor / typical	W	0.9
Apparent loss power / of the magnet coil / at AC / typical	V·A	8.5
Item designation		
• according to DIN 40719 extendable after IEC 204-2 / according to IEC 750		K
• according to DIN EN 61346-2		Q
Mechanical operating cycles as operating time		
• of the contactor / typical		10,000,000
• of the contactor with added auxiliary switch block / typical		10,000,000
• of the contactor with added electronics-		10,000,000

compatible auxiliary switch block / typical

Main circuit:		
Number of poles / for main current circuit		3
Number of NC contacts / for main contacts		0
Number of NO contacts / for main contacts		3
Operating voltage / at 3 AC / rated value		
• maximum	V	690
Operating current / at AC-1 / at 400 V		
• at 40 °C ambient temperature / rated value	A	40
• at 60 °C ambient temperature / rated value	A	35
Operating current		
• at AC-2 / at 400 V / rated value	A	17
• at AC-3 / at 400 V / rated value	A	17
• at AC-4 / at 400 V / rated value	A	15.5
• with 1 current path / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	4.5
• with 2 current paths in series / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	35
• with 3 current paths in series / at DC-1		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	35
• with 1 current path / at DC-3 / at DC-5		
• at 24 V / rated value	A	20
• at 110 V / rated value	A	2.5
• with 2 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	15
• with 3 current paths in series / at DC-3 / at DC-5		
• at 24 V / rated value	A	35
• at 110 V / rated value	A	35
Service power		
• at AC-2 / at 400 V / rated value	kW	7.5
• at AC-3		
• at 400 V / rated value	kW	7.5
• at 500 V / rated value	kW	10
• at 690 V / rated value	kW	11
• at AC-4 / at 400 V / rated value	kW	7.5
Operating reactive power / at AC-6b		
• at 230 V / rated value	var	0
• at 400 V / rated value	var	0
• at 690 V / rated value	var	0
Off-load operating frequency	1/h	5,000
Switching frequency		
• at AC-1 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-2 / according to IEC 60947-6-2 / maximum	1/h	1,000
• at AC-3 / according to IEC 60947-6-2 / maximum	1/h	1,000
	1/h	300

- at AC-4 / according to IEC 60947-6-2 / maximum

Control circuit:		
Design of activation of the operating mechanism		conventional
Type of voltage / of the controlled supply voltage		AC
control supply voltage frequency	Hz	50
<ul style="list-style-type: none"> <li>• 1 / rated value</li> </ul>		
Control supply voltage / 1	V	230
<ul style="list-style-type: none"> <li>• at 50 Hz / for AC</li> <li>• rated value</li> </ul>		
Operating range factor control supply voltage rated value / of the solenoid		0.8...1.1
<ul style="list-style-type: none"> <li>• at 50 Hz / for AC</li> </ul>		
Apparent pull-in power / of the solenoid / for AC	V·A	65
Apparent holding power / of the solenoid / for AC	V·A	8.5
Power factor inductive		
<ul style="list-style-type: none"> <li>• at pull-in power of the coil</li> </ul>		0.82
<ul style="list-style-type: none"> <li>• at holding power of the coil</li> </ul>		0.25

Auxiliary circuit:		
Product extension / auxiliary switch		Yes
Contact reliability / of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)
Number of NC contacts / for auxiliary contacts		
<ul style="list-style-type: none"> <li>• instantaneous switching</li> </ul>		1
<ul style="list-style-type: none"> <li>• lagging switching</li> </ul>		0
Number of NO contacts / for auxiliary contact		
<ul style="list-style-type: none"> <li>• instantaneous switching</li> </ul>		1
<ul style="list-style-type: none"> <li>• leading switching</li> </ul>		0
Operating current / of the auxiliary contacts	A	10
<ul style="list-style-type: none"> <li>• at AC-12 / maximum</li> </ul>		
<ul style="list-style-type: none"> <li>• at AC-15</li> </ul>		
<ul style="list-style-type: none"> <li>• at 230 V</li> </ul>	A	10
<ul style="list-style-type: none"> <li>• at 400 V</li> </ul>	A	3
<ul style="list-style-type: none"> <li>• at DC-12</li> </ul>		
<ul style="list-style-type: none"> <li>• at 48 V</li> </ul>	A	6
<ul style="list-style-type: none"> <li>• at 60 V</li> </ul>	A	6
<ul style="list-style-type: none"> <li>• at 110 V</li> </ul>	A	3
<ul style="list-style-type: none"> <li>• at 220 V</li> </ul>	A	1
<ul style="list-style-type: none"> <li>• at DC-13</li> </ul>		
<ul style="list-style-type: none"> <li>• at 24 V</li> </ul>	A	6
<ul style="list-style-type: none"> <li>• at 48 V</li> </ul>	A	2
<ul style="list-style-type: none"> <li>• at 60 V</li> </ul>	A	2
<ul style="list-style-type: none"> <li>• at 110 V</li> </ul>	A	1
<ul style="list-style-type: none"> <li>• at 220 V</li> </ul>	A	0.3

Short-circuit:	
Design of the fuse link	
<ul style="list-style-type: none"> <li>• for short-circuit protection of the auxiliary switch / required</li> </ul>	fuse gL/gG: 10 A
<ul style="list-style-type: none"> <li>• for short-circuit protection of the main circuit</li> </ul>	
<ul style="list-style-type: none"> <li>• at type of coordination 1 / required</li> </ul>	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 63 A
<ul style="list-style-type: none"> <li>• at type of coordination 2 / required</li> </ul>	gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE: 25A

Installation/mounting/dimensions:		
<b>built in orientation</b>		vertical
<b>Type of fixing/fixation</b>		screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
<b>Type of fixing/fixation / Series installation</b>		Yes
<b>Width</b>	mm	45
<b>Height</b>	mm	85
<b>Depth</b>	mm	92
<b>distance, to be maintained, to the ranks assembly</b>		
• forwards	mm	0
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sideways	mm	0
<b>distance, to be maintained, to earthed part</b>		
• forwards	mm	6
• backwards	mm	0
• upwards	mm	6
• downwards	mm	6
• sideways	mm	6
<b>distance, to be maintained, conductive elements</b>		
• forwards	mm	6
• backwards	mm	6
• upwards	mm	6
• downwards	mm	10
• sideways	mm	6

Connections:		
<b>design of the electrical connection</b>		
• for main current circuit		screw-type terminals
• for auxiliary and control current circuit		screw-type terminals
<b>Type of the connectable conductor cross-section</b>		
• for main contacts		
• unifilar		2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )
• stranded wire		2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 10 mm <sup>2</sup> )
• stranded wire		
• with conductor end processing		2x (1 ... 2.5 mm <sup>2</sup> ), 2x (2.5 ... 6 mm <sup>2</sup> ), 1x 10 mm <sup>2</sup>
• at AWG-conductors / for main contacts		2x (16 ... 12), 2x (14 ... 8)
• for auxiliary contacts		
• solid		2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )
• finely stranded		
• with wire 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)

Certificates/approvals:		
<b>verification of suitability</b>		CE / UL / CSA / CCC

Safety:		
<b>B10 value / with high demand rate</b>		
• according to SN 31920		1,000,000
<b>T1 value / for proof test interval or service life</b>		
• according to IEC 61508	a	20
<b>Proportion of dangerous failures</b>		
• with low demand rate / according to SN 31920	%	75
	%	75

- with high demand rate / according to SN 31920

**Failure rate (FIT value) / with low demand rate**

- according to SN 31920

**Protection against electrical shock**

FIT 50  
finger-safe

**Further information:**

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

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

**Global Industry Mall (Online ordering system)**

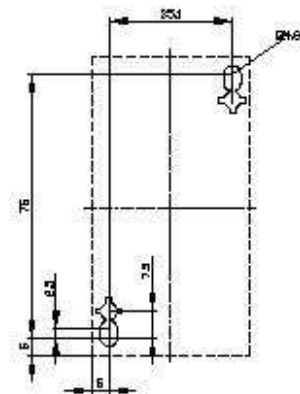
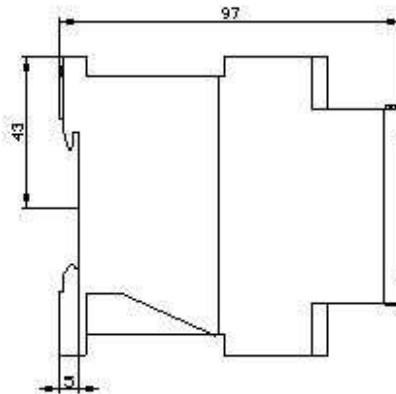
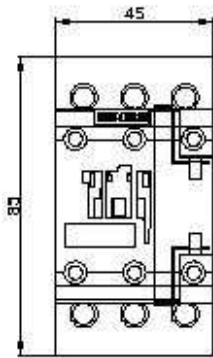
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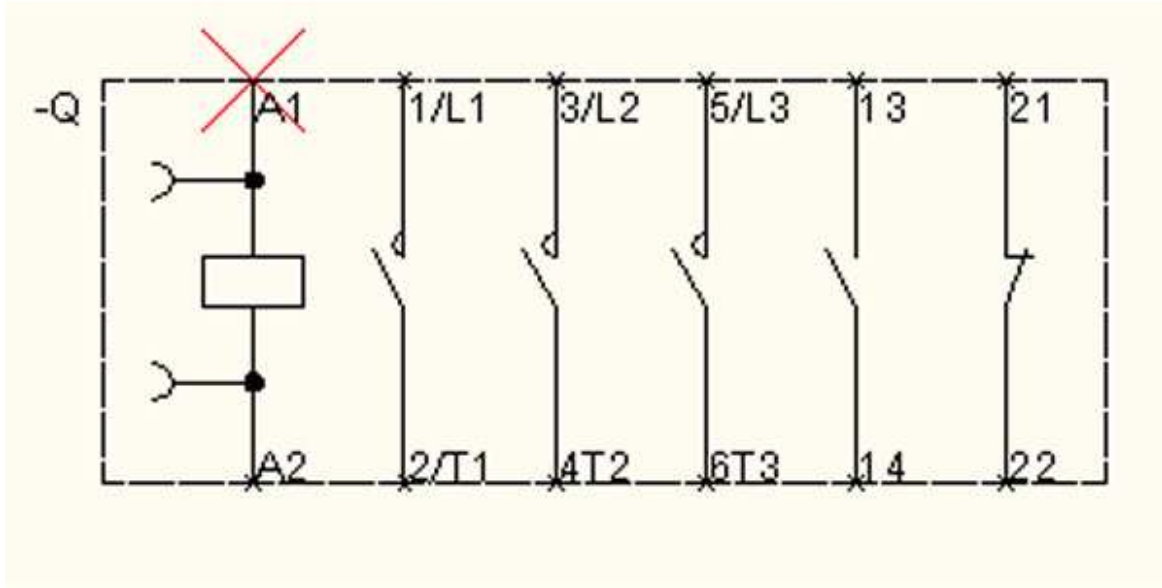
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RT2025-1AP00/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3RT2025-1AP00](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3RT2025-1AP00)





last change:

Aug 9, 2010