



4NO CONTACTOR, AC1: 50A AC 110V 50HZ, 120V 60HZ 4-POLE, 4NO, SZ: S0, SCREW TERMINAL 1NO+1NC INTEGR.

product brand name	SIRIUS
Product designation	3RT2 contactor
<b>General technical data:</b>	
Size of contactor	S0
Product expansion	No
<ul style="list-style-type: none"> <li>function module for communication</li> <li>Auxiliary switch</li> </ul>	Yes
Insulation voltage	690 V
<ul style="list-style-type: none"> <li>Rated value</li> </ul>	690 V
Surge voltage resistance Rated value	6 kV
maximum permissible voltage for safe isolation between coil and main contacts acc. to EN 60947-1	400 V
Protection class IP	IP20
<ul style="list-style-type: none"> <li>on the front</li> <li>of the terminal</li> </ul>	IP20
Degree of pollution	3
Shock resistance	
<ul style="list-style-type: none"> <li>at rectangular impulse                             <ul style="list-style-type: none"> <li>at AC</li> </ul> </li> <li>with sine pulse                             <ul style="list-style-type: none"> <li>at AC</li> </ul> </li> </ul>	8,3g / 5 ms, 5,3g / 10 ms
	13,5g / 5 ms, 8,3g / 10 ms
Mechanical service life (switching cycles)	
<ul style="list-style-type: none"> <li>of the contactor typical</li> <li>of the contactor with added electronics-compatible auxiliary switch block typical</li> </ul>	10 000 000
	5 000 000

• of the contactor with added auxiliary switch block typical	10 000 000
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#### Ambient conditions:

<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 NO contacts for main contacts</b>	4
<b>Number of NC contacts for main contacts</b>	0
<b>Operating voltage</b>	
• at AC-3 Rated value maximum	690 V
<b>Operating current</b>	
• at AC-1 at 400 V	
— at ambient temperature 40 °C Rated value	50 A
• at AC-1 up to 690 V	
— at ambient temperature 40 °C Rated value	50 A
— at ambient temperature 60 °C Rated value	42 A
• at AC-2 at 400 V Rated value	17 A
• at AC-3	
— at 400 V Rated value	15.5 A
<b>Connectable conductor cross-section in main circuit at AC-1</b>	
• at 60 °C minimum permissible	10 mm <sup>2</sup>
• at 40 °C minimum permissible	10 mm <sup>2</sup>
<b>Operating current</b>	
• with 1 current path at DC-1	
— at 24 V Rated value	42 A
— at 110 V Rated value	4.5 A
— at 220 V Rated value	1 A
— at 440 V Rated value	0.4 A
• with 2 current paths in series at DC-1	
— at 24 V Rated value	42 A
— at 110 V Rated value	42 A
— at 220 V Rated value	1 A
— at 440 V Rated value	1 A
• with 3 current paths in series at DC-1	
— at 24 V Rated value	42 A
— at 110 V Rated value	42 A
— at 220 V Rated value	42 A

— at 440 V Rated value	2.9 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
— at 220 V Rated value	1 A
— at 440 V Rated value	0.09 A
• with 2 current paths in series at DC-3 at DC-5	
— at 110 V Rated value	15 A
— at 220 V Rated value	3 A
— at 24 V Rated value	42 A
— at 440 V Rated value	0.27 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V Rated value	42 A
— at 220 V Rated value	10 A
— at 24 V Rated value	42 A
— at 440 V Rated value	0.6 A
<b>Operating power</b>	
• at AC-1	
— at 230 V Rated value	28 kW
— at 230 V at 60 °C Rated value	16 kW
— at 400 V Rated value	28 kW
— at 400 V at 60 °C Rated value	28 kW
• at AC-2 at 400 V Rated value	9 kW
• at AC-3	
— at 230 V Rated value	4 kW
— at 400 V Rated value	7.5 kW
<b>Thermal short-time current restricted to 10 s</b>	260 A
<b>Active power loss at AC-3 at 400 V for rated value of the operating current per conductor</b>	2.7 W
<b>No-load switching frequency</b>	
• at AC	5 000 1/h
<b>Operating frequency</b>	
• at AC-1 maximum	1 000 1/h
• at AC-2 maximum	750 1/h
• at AC-3 maximum	750 1/h
• at AC-4 maximum	250 1/h
<b>Control circuit/ Control:</b>	
<b>Type of voltage of the control supply voltage</b>	AC
<b>Control supply voltage at AC</b>	
• at 50 Hz Rated value	110 V

<ul style="list-style-type: none"> <li>• at 60 Hz Rated value</li> </ul>	120 V
<b>Operating range factor control supply voltage rated value of the magnet coil at AC</b>	
<ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>	0.8 ... 1.1
<ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>	0.85 ... 1.1
<b>Apparent pick-up power of the magnet coil at AC</b>	
<ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>	81 V·A
<ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>	79 V·A
<b>Inductive power factor with closing power of the coil</b>	
<ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>	0.72
<ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>	0.74
<b>Apparent holding power of the magnet coil at AC</b>	
<ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>	10.5 V·A
<ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>	8.5 V·A
<b>Inductive power factor with the holding power of the coil</b>	
<ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>	0.25
<ul style="list-style-type: none"> <li>• at 60 Hz</li> </ul>	0.28
<b>Closing delay</b>	
<ul style="list-style-type: none"> <li>• at AC</li> </ul>	8 ... 40 ms
<b>Opening delay</b>	
<ul style="list-style-type: none"> <li>• at AC</li> </ul>	4 ... 16 ms
<b>Arcing time</b>	10 ... 10 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>	1
<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>	1
Operating current at AC-12 maximum	10 A
<b>Operating current at AC-15</b>	
<ul style="list-style-type: none"> <li>• at 230 V Rated value</li> </ul>	10 A
<ul style="list-style-type: none"> <li>• at 400 V Rated value</li> </ul>	3 A
<ul style="list-style-type: none"> <li>• at 500 V Rated value</li> </ul>	2 A
<ul style="list-style-type: none"> <li>• at 690 V Rated value</li> </ul>	1 A
<b>Operating current at DC-12</b>	
<ul style="list-style-type: none"> <li>• at 24 V Rated value</li> </ul>	10 A
<ul style="list-style-type: none"> <li>• at 48 V Rated value</li> </ul>	6 A
<ul style="list-style-type: none"> <li>• at 60 V Rated value</li> </ul>	6 A
<ul style="list-style-type: none"> <li>• at 110 V Rated value</li> </ul>	3 A
<ul style="list-style-type: none"> <li>• at 125 V Rated value</li> </ul>	2 A

<ul style="list-style-type: none"> <li>• at 220 V Rated value</li> <li>• at 600 V Rated value</li> </ul>	<p>1 A</p> <p>0.15 A</p>
<b>Operating current at DC-13</b>	
<ul style="list-style-type: none"> <li>• at 24 V Rated value</li> <li>• at 48 V Rated value</li> <li>• at 60 V Rated value</li> <li>• at 110 V Rated value</li> <li>• at 125 V Rated value</li> <li>• at 220 V Rated value</li> <li>• at 600 V Rated value</li> </ul>	<p>10 A</p> <p>2 A</p> <p>2 A</p> <p>1 A</p> <p>0.9 A</p> <p>0.3 A</p> <p>0.1 A</p>
<b>Contact reliability of the auxiliary contacts</b>	1 faulty switching per 100 million (17 V, 1 mA)

#### UL/CSA ratings:

<b>Full-load current (FLA) for three-phase AC motor</b>	
<ul style="list-style-type: none"> <li>• at 480 V Rated value</li> <li>• at 600 V Rated value</li> </ul>	<p>14 A</p> <p>17 A</p>
<b>yielded mechanical performance [hp]</b>	
<ul style="list-style-type: none"> <li>• for single-phase AC motor <ul style="list-style-type: none"> <li>— at 110/120 V Rated value</li> <li>— at 230 V Rated value</li> </ul> </li> <li>• for three-phase AC motor <ul style="list-style-type: none"> <li>— at 200/208 V Rated value</li> <li>— at 220/230 V Rated value</li> <li>— at 460/480 V Rated value</li> <li>— at 575/600 V Rated value</li> </ul> </li> </ul>	<p>1 hp</p> <p>3 hp</p> <p>3 hp</p> <p>5 hp</p> <p>10 hp</p> <p>15 hp</p>
<b>Contact rating of the auxiliary contacts acc. to UL</b>	A600 / Q600

#### Short-circuit:

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

#### Installation/ mounting/ dimensions:

<b>mounting position</b>	+/-180° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface
<b>Mounting type</b>	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022
<ul style="list-style-type: none"> <li>• Side-by-side mounting</li> </ul>	Yes
<b>Height</b>	85 mm
<b>Width</b>	60 mm

<b>Depth</b>	97 mm
<b>Required spacing</b>	
<ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 0 mm</li> <li>— downwards 0 mm</li> <li>— at the side 0 mm</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 0 mm</li> <li>— at the side 6 mm</li> <li>— downwards 0 mm</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards 0 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 0 mm</li> <li>— downwards 0 mm</li> <li>— at the side 6 mm</li> </ul> </li> </ul>	

**Connections/ Terminals:**

<b>Type of electrical connection</b>	
<ul style="list-style-type: none"> <li>• for main current circuit screw-type terminals</li> <li>• for auxiliary and control current circuit screw-type terminals</li> </ul>	
<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>— single or multi-stranded 2x (1 ... 2,5 mm<sup>2</sup>), 2x (2,5 ... 10 mm<sup>2</sup>)</li> <li>— finely stranded with core end processing 2x (1 ... 2.5 mm<sup>2</sup>), 2x (2.5 ... 6 mm<sup>2</sup>), 1x 10 mm<sup>2</sup></li> </ul> </li> <li>• for AWG conductors for main contacts 2x (16 ... 12), 2x (14 ... 8)</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>— single or multi-stranded 2x (0,5 ... 1,5 mm<sup>2</sup>), 2x (0,75 ... 2,5 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)</li> </ul>	






**Safety related data:**





<b>B10 value with high demand rate acc. to SN 31920</b>	1 000 000
<b>Proportion of dangerous failures</b>	
<ul style="list-style-type: none"> <li>• with low demand rate acc. to SN 31920 40 %</li> <li>• with high demand rate acc. to SN 31920 73 %</li> </ul>	
<b>Product function</b>	
<ul style="list-style-type: none"> <li>• Mirror contact acc. to IEC 60947-4-1 Yes</li> </ul>	





T1 value for proof test interval or service life acc. to IEC 61508


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Certificates/ approvals:

General Product Approval	EMC	Functional Safety/Safety of Machinery	Declaration of Conformity
 CSA		 UL	 C-TICK
		<a href="#">Baumusterbescheinigung</a>	 EG-Konf.

Test Certificates	Shipping Approval
<a href="#">spezielle Prüfbescheinigung</a>	 ABS
<a href="#">Typprüfbescheinigung/Werkszeugnis</a>	 BUREAU VERITAS
	 DNV
	 GL

Shipping Approval	other
 LRS	<a href="#">Umweltbestätigung</a>
 PRS	<a href="#">Bestätigungen</a>
 RINA	
 RMRS	

other
 VDE

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

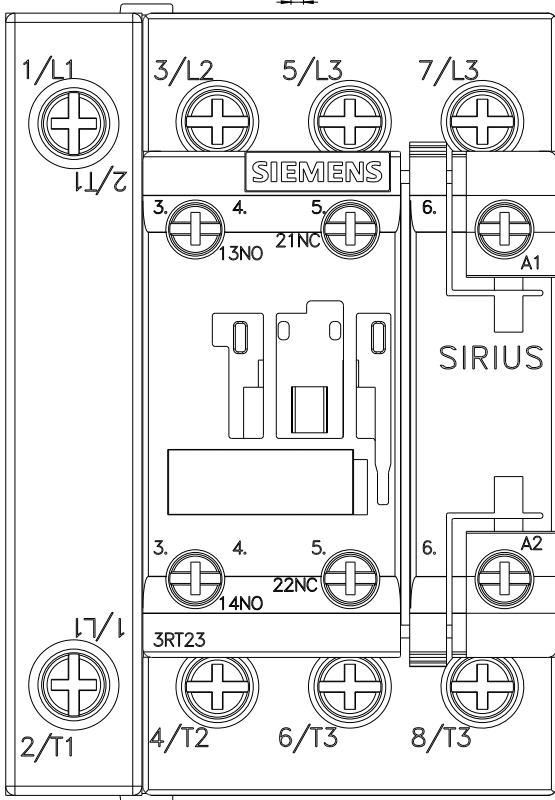
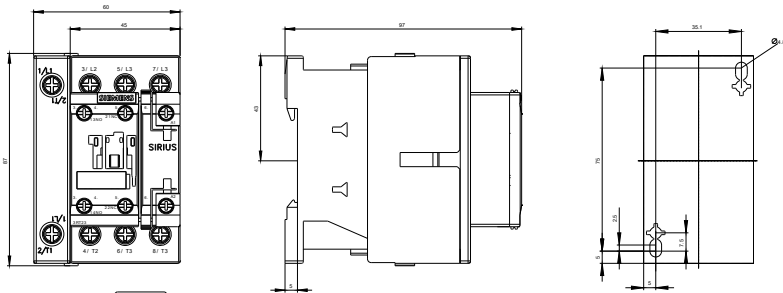
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT23271AK60>

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

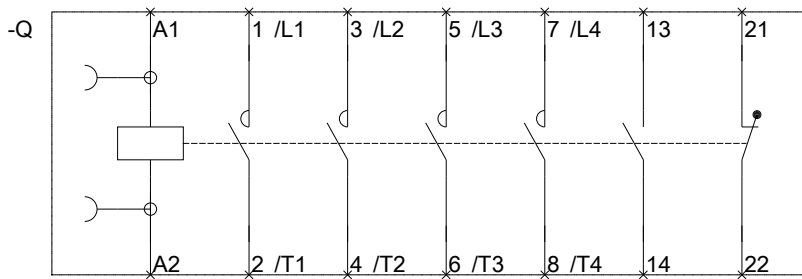
<https://support.industry.siemens.com/cs/ww/en/ps/3RT23271AK60>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT23271AK60&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT23271AK60&lang=en)







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