

CONTACTOR,AC3:37KW/400V,  
1NO+1NC,400VAC50HZ/400.440V60HZ 3-POLE, SIZE S2, SCREW  
TERMINAL



Figure similar

product brand name	SIRIUS
Product designation	3RT2 contactor

General technical data:

Size of contactor	S2
Product extension	
<ul style="list-style-type: none"> <li>function module for communication</li> <li>Auxiliary switch</li> </ul>	<p>No</p> <p>Yes</p>
Insulation voltage	
<ul style="list-style-type: none"> <li>rated value</li> </ul>	690 V
Degree of pollution	3
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
<ul style="list-style-type: none"> <li>between coil and main contacts acc. to EN 60947-1</li> </ul>	400 V
Protection class IP	
<ul style="list-style-type: none"> <li>on the front</li> <li>of the terminal</li> </ul>	<p>IP20</p> <p>IP00</p>
Shock resistance	
<ul style="list-style-type: none"> <li>at rectangular impulse</li> </ul>	

— at AC	11.8g / 5 ms, 7.4g / 10 ms
• with sine pulse	
— at AC	18.5g / 5 ms, 11.6g / 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 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	90 A
• at AC-1 up to 690 V	
— at ambient temperature 40 °C rated value	90 A
— at ambient temperature 60 °C rated value	80 A
• at AC-2 at 400 V rated value	80 A
• at AC-3	
— at 400 V rated value	80 A
— at 500 V rated value	80 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	25 mm <sup>2</sup>
• at 40 °C minimum permissible	35 mm <sup>2</sup>
<b>Operating current for approx. 200000 operating cycles at AC-4</b>	
• at 400 V rated value	30 A
• at 690 V rated value	24 A
<b>Operating current</b>	
• at 1 current path at DC-1	
— at 24 V rated value	55 A

— at 110 V rated value	4.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.4 A
— at 600 V rated value	0.25 A
• with 2 current paths in series at DC-1	
— at 24 V rated value	55 A
— at 110 V rated value	45 A
— at 220 V rated value	5 A
— at 440 V rated value	1 A
— at 600 V rated value	0.8 A
• with 3 current paths in series at DC-1	
— at 24 V rated value	55 A
— at 110 V rated value	55 A
— at 220 V rated value	45 A
— at 440 V rated value	2.9 A
— at 600 V rated value	1.4 A
<b>Operating current</b>	
• at 1 current path at DC-3 at DC-5	
— at 24 V rated value	35 A
— at 110 V rated value	2.5 A
— at 220 V rated value	1 A
— at 440 V rated value	0.1 A
— at 600 V rated value	0.06 A
• with 2 current paths in series at DC-3 at DC-5	
— at 110 V rated value	25 A
— at 220 V rated value	5 A
— at 24 V rated value	55 A
— at 440 V rated value	0.27 A
— at 600 V rated value	0.16 A
• with 3 current paths in series at DC-3 at DC-5	
— at 110 V rated value	55 A
— at 220 V rated value	25 A
— at 24 V rated value	55 A
— at 440 V rated value	0.6 A
— at 600 V rated value	0.35 A
<b>Operating power</b>	
• at AC-1	
— at 230 V rated value	34 kW
— at 230 V at 60 °C rated value	28 kW
— at 400 V rated value	59 kW
— at 400 V at 60 °C rated value	49 kW

— at 690 V rated value	102 kW
— at 690 V at 60 °C rated value	85 kW
• at AC-2 at 400 V rated value	37 kW
• at AC-3	
— at 230 V rated value	22 kW
— at 400 V rated value	37 kW
— at 500 V rated value	37 kW
— at 690 V rated value	45 kW
<b>Operating power for approx. 200000 operating cycles at AC-4</b>	
• at 400 V rated value	15.8 kW
• at 690 V rated value	21.8 kW
<b>Thermal short-time current limited to 10 s</b>	640 A
<b>Power loss [W] at AC-3 at 400 V for rated value of the operating current per conductor</b>	5.7 W
<b>No-load switching frequency</b>	
• at AC	5 000 1/h
<b>Operating frequency</b>	
• at AC-1 maximum	700 1/h
• at AC-2 maximum	350 1/h
• at AC-3 maximum	500 1/h
• at AC-4 maximum	150 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	400 V
• at 60 Hz rated value	400 ... 440 V
<b>Operating range factor control supply voltage rated value of magnet coil at AC</b>	
• at 50 Hz	0.8 ... 1.1
• at 60 Hz	0.85 ... 1.1
<b>Apparent pick-up power of magnet coil at AC</b>	
• at 50 Hz	212 V·A
• at 60 Hz	188 V·A
<b>Apparent holding power of magnet coil at AC</b>	
• at 50 Hz	18.5 V·A
• at 60 Hz	16.5 V·A
<b>Closing delay</b>	
• at AC	10 ... 80 ms
<b>Opening delay</b>	
• at AC	10 ... 18 ms
<b>Arcing time</b>	10 ... 20 ms

### Auxiliary circuit:

<b>Number of NC contacts</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts</li> <li>— instantaneous contact</li> </ul>	1
<b>Number of NO contacts</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts</li> <li>— instantaneous contact</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> <li>• at 400 V rated value</li> <li>• at 500 V rated value</li> <li>• at 690 V rated value</li> </ul>	10 A 3 A 2 A 1 A
<b>Operating current at DC-12</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>	10 A 6 A 6 A 3 A 2 A 1 A 0.15 A
<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>	10 A 2 A 2 A 1 A 0.9 A 0.3 A 0.1 A
<b>Contact reliability of 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>	65 A 62 A
<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> </ul> </li> </ul>	5 hp 15 hp 20 hp 25 hp

— at 460/480 V rated value	50 hp
— at 575/600 V rated value	60 hp
<b>Contact rating of auxiliary contacts according to UL</b>	A600 / P600

### Short-circuit protection

<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 coordination 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>	gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 250 A gL/gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A fuse gL/gG: 10 A

### 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>	114 mm
<b>Width</b>	55 mm
<b>Depth</b>	130 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</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— Backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul>	0 mm 0 mm 0 mm 0 mm 0 mm  0 mm 0 mm 50 mm 6 mm 50 mm  0 mm 0 mm 50 mm 50 mm 6 mm

### Connections/ Terminals:






<b>Type of electrical connection</b>	
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<ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control current circuit</li> </ul>	<p>screw-type terminals</p> <p>screw-type terminals</p>
<b>Type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>— single or multi-stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• at AWG conductors for main contacts</li> </ul>	<p>2x (1 ... 35 mm<sup>2</sup>), 1x (1 ... 50 mm<sup>2</sup>)</p> <p>2x (1 ... 25 mm<sup>2</sup>), 1x (1 ... 35 mm<sup>2</sup>)</p> <p>2x (18 ... 2), 1x (18 ... 1)</p>
<b>Type of connectable conductor cross-sections</b> <ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— single or multi-stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• at AWG conductors for auxiliary contacts</li> </ul>	<p>2x (0,5 ... 1,5 mm<sup>2</sup>), 2x (0,75 ... 2,5 mm<sup>2</sup>)</p> <p>2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</p> <p>2x (20 ... 16), 2x (18 ... 14)</p>

**Safety related data:**

<b>Proportion of dangerous failures</b> <ul style="list-style-type: none"> <li>• with low demand rate acc. to SN 31920</li> <li>• with high demand rate acc. to SN 31920</li> </ul>	<p>40 %</p> <p>73 %</p>
<b>Product function</b> <ul style="list-style-type: none"> <li>• Mirror contact acc. to IEC 60947-4-1</li> <li>• positively driven operation acc. to IEC 60947-5-1</li> </ul>	<p>Yes</p> <p>No</p>

**Certificates/approvals**

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

Test Certificates	other
<p><a href="#">spezielle Prüfbescheinigungen</a></p> <p><a href="#">n</a></p>	<p><a href="#">Bestätigungen</a></p> <p><a href="#">Umweltbestätigung</a></p>

**Further information**

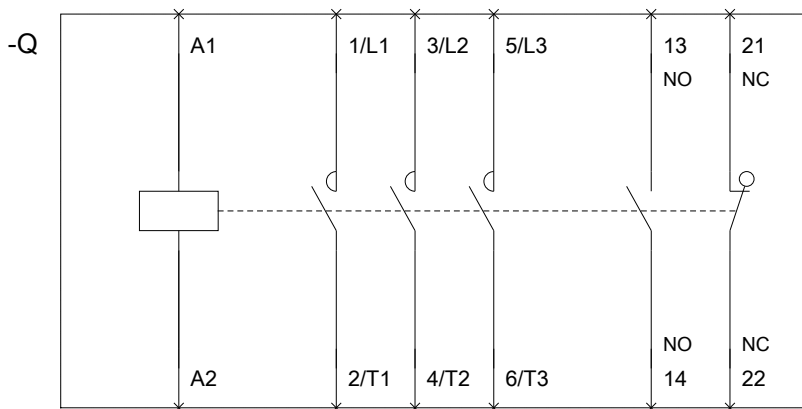
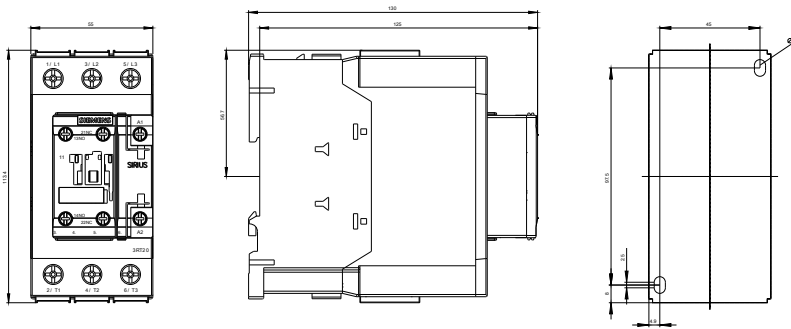
- Information- and Downloadcenter (Catalogs, Brochures,...)**  
<http://www.siemens.com/industrial-controls/catalogs>
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**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3RT20381AR60>

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

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