




Contactor, AC-1, 525 A/400 V/40 °C, S12, 4-pole, 250-500 V AC/DC, 2 NO+2 NC, Connection rail/ screw terminal

<b>product brand name</b>	SIRIUS
<b>product designation</b>	Contactor
<b>product type designation</b>	3RT13
<b>General technical data</b>	
<b>size of contactor</b>	S12
<b>product extension</b>	
• function module for communication	No
• auxiliary switch	Yes
<b>power loss [W] for rated value of the current</b>	
• at AC in hot operating state	288 W
• at AC in hot operating state per pole	72 W
• without load current share typical	4.7 W
<b>type of calculation of power loss depending on pole</b>	quadratic
<b>insulation voltage</b>	
• of main circuit with degree of pollution 3 rated value	1 000 V
• of the auxiliary and control circuit with degree of pollution 3 rated value	690 V
<b>surge voltage resistance</b>	
• of main circuit rated value	8 kV
• of auxiliary circuit rated value	6 kV
<b>reference code according to IEC 81346-2</b>	Q
<b>Substance Prohibitance (Date)</b>	03/27/2017
<b>Weight</b>	6.442 kg
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
• during operation	-40 ... +60 °C
• during storage	-40 ... +70 °C
<b>relative humidity minimum</b>	10 %
<b>relative humidity at 55 °C according to IEC 60068-2-30 maximum</b>	95 %
<b>Main circuit</b>	
<b>number of poles for main current circuit</b>	4
<b>number of NO contacts for main contacts</b>	4
<b>type of voltage for main current circuit</b>	AC
<b>operational current</b>	
• at AC-1 at 400 V at ambient temperature 40 °C rated value	525 A
• at AC-1 — up to 690 V at ambient temperature 40 °C rated value	525 A

— up to 690 V at ambient temperature 60 °C rated value	425 A
— up to 1000 V at ambient temperature 40 °C rated value	400 A
— up to 1000 V at ambient temperature 60 °C rated value	350 A
● at AC-3	
— at 400 V rated value	370 A
minimum cross-section in main circuit at maximum AC-1 rated value	370 mm <sup>2</sup>
<b>operating power</b>	
● at AC-3 at 400 V rated value	200 kW
<b>no-load switching frequency</b>	
● at AC	300 1/h
● at DC	300 1/h
<b>Control circuit/ Control</b>	
<b>type of voltage</b>	AC
<b>type of voltage of the control supply voltage</b>	AC/DC
<b>control supply voltage at AC</b>	
● at 50 Hz rated value	250 ... 500 V
● at 60 Hz rated value	250 ... 500 V
<b>control supply voltage at DC rated value</b>	250 ... 500 V
<b>operating range factor control supply voltage rated value of magnet coil at DC</b>	
● initial value	0.8
● full-scale value	1.1
<b>operating range factor control supply voltage rated value of magnet coil at AC</b>	
● at 50 Hz	0.85 ... 1.1
● at 60 Hz	0.85 ... 1.1
<b>design of the surge suppressor</b>	with varistor
<b>apparent pick-up power of magnet coil at AC</b>	
● at 50 Hz	420 VA
● at 60 Hz	420 VA
<b>apparent holding power of magnet coil at AC</b>	
● at 50 Hz	21 VA
● at 60 Hz	21 VA
<b>closing power of magnet coil at DC</b>	600 W
<b>holding power of magnet coil at DC</b>	4.7 W
<b>closing delay</b>	
● at AC	30 ... 60 ms
● at DC	30 ... 60 ms
<b>opening delay</b>	
● at AC	45 ... 80 ms
● at DC	45 ... 80 ms
<b>control version of the switch operating mechanism</b>	Standard A1 - A2
<b>Auxiliary circuit</b>	
<b>number of NC contacts for auxiliary contacts</b>	2
● attachable	2
● instantaneous contact	2
<b>number of NO contacts for auxiliary contacts</b>	2
● attachable	2
● instantaneous contact	2
<b>operational current at AC-15</b>	
● at 230 V rated value	4 A
● at 400 V rated value	3 A
● at 500 V rated value	2 A
● at 690 V rated value	2 A
<b>operational current at DC-13</b>	
● at 24 V rated value	3 A
● at 48 V rated value	1.5 A
● at 110 V rated value	0.55 A

<ul style="list-style-type: none"> <li>• at 125 V rated value</li> <li>• at 220 V rated value</li> </ul>	<p>0.55 A</p> <p>0.3 A</p>
<b>UL/CSA ratings</b>	
<b>contact rating of auxiliary contacts according to UL</b>	A600 / Q300
<b>Short-circuit protection</b>	
<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 2 required</li> </ul> </li> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>	<p>gG: 630 A (500 V, 100 kA)</p> <p>gG: 10 A (690 V, 1 kA)</p>
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	For vertical mounting surface can be rotated +/-180°, and with 0° rotation can be tilted forward or backward +/- 30°, or standing
fastening method side-by-side mounting	Yes
<b>fastening method</b>	screw fixing
<b>height</b>	225 mm
<b>width</b>	184 mm
<b>depth</b>	180 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>— 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>— 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>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul>	<p>20 mm</p> <p>10 mm</p> <p>10 mm</p> <p>0 mm</p> <p>20 mm</p> <p>10 mm</p> <p>10 mm</p> <p>10 mm</p> <p>20 mm</p> <p>10 mm</p> <p>10 mm</p> <p>10 mm</p>
<b>net weight</b>	6.5 kg
<b>Connections/ Terminals</b>	
<b>type of electrical connection</b>	
<ul style="list-style-type: none"> <li>• for main current circuit</li> <li>• for auxiliary and control circuit</li> <li>• at contactor for auxiliary contacts</li> <li>• of magnet coil</li> </ul>	<p>Connection bar, broadened &gt; 450A required</p> <p>screw-type terminals</p> <p>Screw-type terminals</p> <p>Screw-type terminals</p>
<b>connectable conductor cross-section for auxiliary contacts</b>	
<ul style="list-style-type: none"> <li>• solid or stranded</li> <li>• finely stranded with core end processing</li> </ul>	<p>1 ... 4 mm<sup>2</sup></p> <p>0.75 ... 2.5 mm<sup>2</sup></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>— solid</li> <li>— solid or stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG cables for auxiliary contacts</li> </ul>	<p>1x (1 ... 4mm<sup>2</sup>), 2x (1 ... 4mm<sup>2</sup>)</p> <p>1x (1 ... 4mm<sup>2</sup>), 2x (1 ... 4mm<sup>2</sup>)</p> <p>1x (0.75 ... 2.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</p> <p>1x (AWG 18 ... 14), 2x (AWG 18 ... 14)</p>
<b>AWG number as coded connectable conductor cross section for auxiliary contacts</b>	18 ... 14
<b>Safety related data</b>	
<b>product function</b>	
<ul style="list-style-type: none"> <li>• mirror contact according to IEC 60947-4-1</li> <li>• positively driven operation according to IEC 60947-5-1</li> </ul>	<p>Yes</p> <p>No</p>
<b>Electrical Safety</b>	
<b>protection class IP on the front according to IEC 60529</b>	IP00; IP20 with box terminal/cover
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front with box terminal/cover
<b>Communication/ Protocol</b>	
<b>product function bus communication</b>	No
<b>Approvals Certificates</b>	



Test Certificates	other	Railway	Environment
<a href="#">Special Test Certificate</a>		<a href="#">Confirmation</a>	<a href="#">Miscellaneous</a>
		<a href="#">Special Test Certificate</a>	<a href="#">Environmental Confirmations</a>

Further information

Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

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

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1375-6AR36>

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1375-6AR36>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1375-6AR36>

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

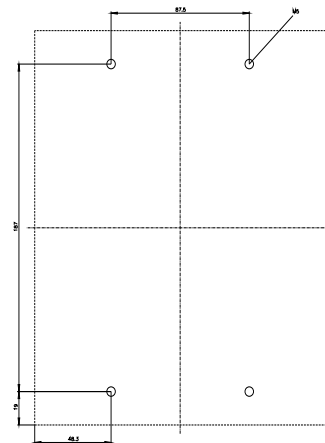
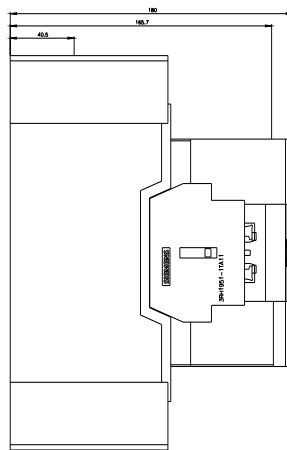
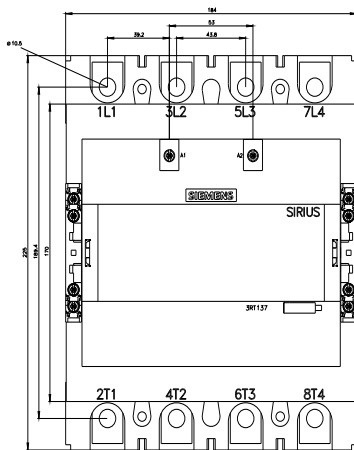
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT1375-6AR36&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT1375-6AR36&lang=en)

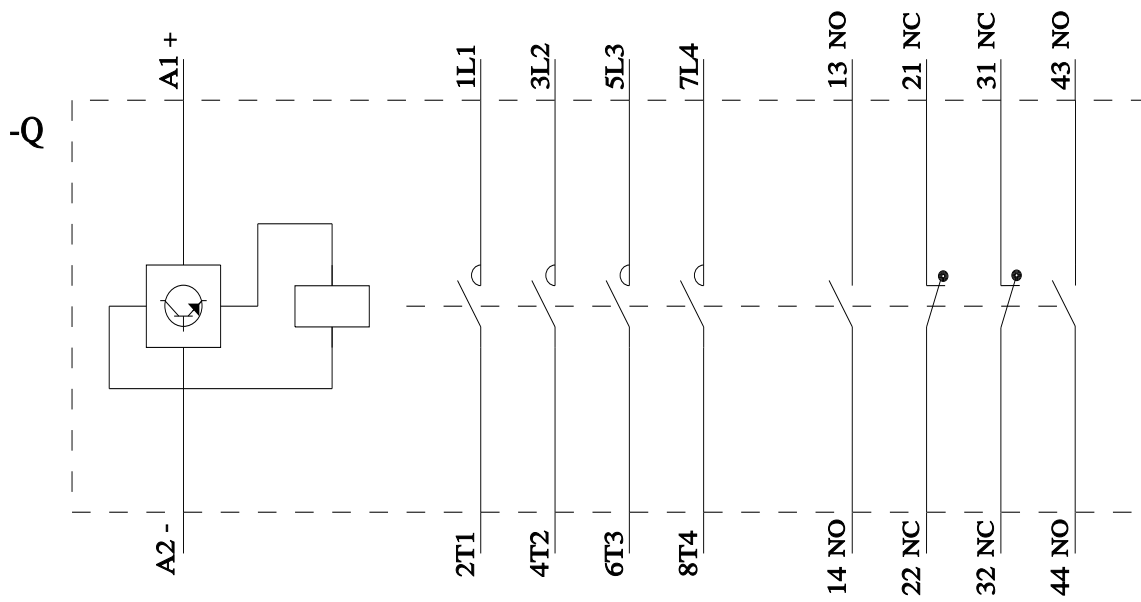
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RT1375-6AR36/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1375-6AR36&objectype=14&gridview=view1>





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