



Contactor 96...127 V AC/DC AC3 kW 400 V AC (50...60 Hz) / DC operation  
 auxiliary contacts 2 NO + 2 NC, 3-pole, size S6 bar connections electronic  
 operating mechanism with PLC interface 24 V DC screw terminal

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT5
<b>General technical data</b>	
size of contactor	S6
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
• at AC in hot operating state per pole	9 W
• without load current share typical	2.8 W
type of calculation of power loss current-dependent	quadratic
insulation voltage rated value	1 000 V
degree of pollution	3
surge voltage resistance rated value	8 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	690 V
shock resistance at rectangular impulse	
• at AC	8,5 g / 5 ms, 4,2 g / 10 ms
• at DC	8,5 g / 5 ms, 4,2 g / 10 ms
shock resistance with sine pulse	
• at AC	13,4 g / 5 ms, 6,5 g / 10 ms
• at DC	13,4 g / 5 ms, 6,5 g / 10 ms
mechanical service life (operating cycles)	
• of contactor typical	10 000 000
• of the contactor with added auxiliary switch block typical	10 000 000
Substance Prohibitance (day/month/year)	05/01/2012
SVHC substance name	Lead CAS-No. 7439-92-1 Lead monoxide (lead oxide) CAS-No. 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5 Melamine CAS-No. 108-78-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1
Net Weight	3.325 kg
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-55 ... +80 °C
<b>Main circuit</b>	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
number of NC contacts for main contacts	0

<b>operating voltage</b>	
<ul style="list-style-type: none"> <li>● at AC-3 rated value maximum</li> <li>● at AC-3e rated value maximum</li> </ul>	<p>1 000 V</p> <p>1 000 V</p>
<b>operational current</b>	
<ul style="list-style-type: none"> <li>● at AC-1 at 400 V rated value</li> <li>● at AC-1 up to 690 V <ul style="list-style-type: none"> <li>— at ambient temperature 40 °C rated value</li> <li>— at ambient temperature 60 °C rated value</li> </ul> </li> <li>● at AC-3 <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> <li>● at AC-3e <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 690 V rated value</li> <li>— at 1000 V rated value</li> </ul> </li> </ul>	<p>250 A</p> <p>185 A</p> <p>160 A</p> <p>150 A</p> <p>150 A</p> <p>150 A</p> <p>150 A</p> <p>65 A</p>
<b>connectable conductor cross-section in main circuit at AC-1</b>	
<ul style="list-style-type: none"> <li>● at 60 °C minimum permissible</li> <li>● at 40 °C minimum permissible</li> </ul>	<p>70 mm<sup>2</sup></p> <p>95 mm<sup>2</sup></p>
<b>operational current for approx. 200000 operating cycles at AC-4</b>	
<ul style="list-style-type: none"> <li>● at 400 V rated value</li> <li>● at 690 V rated value</li> </ul>	<p>68 A</p> <p>57 A</p>
<b>operating power</b>	
<ul style="list-style-type: none"> <li>● at AC-1 <ul style="list-style-type: none"> <li>— at 230 V at 60 °C rated value</li> <li>— at 400 V at 60 °C rated value</li> <li>— at 690 V at 60 °C rated value</li> </ul> </li> <li>● at AC-3 <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> </li> <li>● at AC-3e <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> <li>— at 1000 V rated value</li> </ul> </li> </ul>	<p>60 kW</p> <p>105 kW</p> <p>181 kW</p> <p>45 kW</p> <p>75 kW</p> <p>90 kW</p> <p>132 kW</p> <p>45 kW</p> <p>75 kW</p> <p>90 kW</p> <p>132 kW</p> <p>90 kW</p>
<b>operating power for approx. 200000 operating cycles at AC-4</b>	
<ul style="list-style-type: none"> <li>● at 400 V rated value</li> <li>● at 690 V rated value</li> </ul>	<p>38 kW</p> <p>55 kW</p>
<b>no-load switching frequency</b>	
<ul style="list-style-type: none"> <li>● at AC</li> <li>● at DC</li> </ul>	<p>2 000 1/h</p> <p>2 000 1/h</p>
<b>operating frequency</b>	
<ul style="list-style-type: none"> <li>● at AC-1 maximum</li> <li>● at AC-3 maximum</li> <li>● at AC-3e maximum</li> <li>● at AC-4 maximum</li> </ul>	<p>800 1/h</p> <p>750 1/h</p> <p>750 1/h</p> <p>130 1/h</p>
<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>	<p>96 ... 127 V</p> <p>96 ... 127 V</p>
<b>control supply voltage at DC rated value</b>	96 ... 127 V
<b>operating range factor control supply voltage rated value of magnet coil at DC</b>	
<ul style="list-style-type: none"> <li>● initial value</li> </ul>	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	0.8 ... 1.1
• at 60 Hz	0.8 ... 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	300 VA
• at 60 Hz	300 VA
<b>inductive power factor with closing power of the coil</b>	
• at 50 Hz	0.9
• at 60 Hz	0.9
<b>apparent holding power of magnet coil at AC</b>	
• at 50 Hz	5.8 VA
• at 60 Hz	5.8 VA
<b>inductive power factor with the holding power of the coil</b>	
• at 50 Hz	0.8
• at 60 Hz	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>Auxiliary circuit</b>	
number of NC contacts for auxiliary contacts instantaneous contact	2
number of NO contacts for auxiliary contacts instantaneous contact	2
operational current at AC-12 maximum	10 A
<b>operational current at AC-15</b>	
• at 230 V rated value	6 A
• at 400 V rated value	3 A
<b>operational current at DC-12</b>	
• at 24 V rated value	6 A
• at 110 V rated value	3 A
• at 220 V rated value	1 A
<b>operational current at DC-13</b>	
• at 24 V rated value	6 A
• at 110 V rated value	1 A
• at 220 V rated value	0.3 A
<b>UL/CSA ratings</b>	
yielded mechanical performance [hp] for 3-phase AC motor at 460/480 V rated value	125 hp
<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 coordination 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 position</b>	with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back
fastening method side-by-side mounting	Yes
<b>fastening method</b>	screw fixing
<b>height</b>	172 mm
<b>width</b>	120 mm
<b>depth</b>	170 mm
<b>Connections/ Terminals</b>	
<b>type of electrical connection</b>	
• for main current circuit	screw-type terminals
• for auxiliary and control circuit	screw-type terminals
<b>type of connectable conductor cross-sections</b>	
• for auxiliary contacts	

— finely stranded with core end processing

2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)

• for AWG cables for auxiliary contacts

2x (20 ... 16), 2x (18 ... 14), 1x 12

#### Safety related data

product function mirror contact according to IEC 60947-4-1 Yes

#### Electrical Safety

protection class IP on the front according to IEC 60529 IP00; IP20 with box terminal/cover

touch protection on the front according to IEC 60529 finger-safe, for vertical contact from the front with box terminal/cover

#### Approvals Certificates

General Product Approval

EMV



[Confirmation](#)



EG-Konf.



RCM

Maritime application

other

Environment

[CCS \(China Classification Society\)](#)

[Confirmation](#)



[Environmental Confirmations](#)

#### Further information

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

<https://support.industry.siemens.com/cs/products?pnid=16027&lc=en-CN>

last modified:

4/12/2026