



Contactore DC 220 V AC3 45 kW 400 V 3-pole, size S3, screw terminal

<b>product brand name</b>	SIRIUS
<b>product designation</b>	Power contactor
<b>product type designation</b>	3RT5
<b>General technical data</b>	
<b>size of contactor</b>	S3
product extension auxiliary switch	Yes
<b>power loss [W] for rated value of the current</b>	
• at AC in hot operating state per pole	10.8 W
• without load current share typical	15 W
<b>type of calculation of power loss current-dependent</b>	quadratic
<b>insulation voltage rated value</b>	1 000 V
<b>degree of pollution</b>	3
<b>surge voltage resistance rated value</b>	6 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	690 V
<b>shock resistance at rectangular impulse</b>	
• at DC	6,8 g / 5 ms, 4 g / 10 ms
<b>shock resistance with sine pulse</b>	
• at DC	10,6 g / 5 ms, 6,2 g / 10 ms
<b>mechanical service life (operating cycles)</b>	
• of contactor typical	10 000 000
• of the contactor with added auxiliary switch block typical	10 000 000
<b>Substance Prohibition (day/month/year)</b>	03/01/2017
<b>Net Weight</b>	2.8 kg
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage	-55 ... +80 °C
<b>Main circuit</b>	
<b>number of poles for main current circuit</b>	3
<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	1 000 V
• at AC-3e rated value maximum	1 000 V
<b>operational current</b>	
• at AC-1 up to 690 V	
— at ambient temperature 40 °C rated value	120 A

— at ambient temperature 60 °C rated value	100 A
● at AC-3	
— at 400 V rated value	95 A
— at 690 V rated value	58 A
● at AC-3e	
— at 400 V rated value	95 A
— at 690 V rated value	58 A
— at 1000 V rated value	30 A
<b>connectable conductor cross-section in main circuit at AC-1</b>	
● at 60 °C minimum permissible	35 mm <sup>2</sup>
● at 40 °C minimum permissible	50 mm <sup>2</sup>
<b>operational current for approx. 200000 operating cycles at AC-4</b>	
● at 400 V rated value	42 A
● at 690 V rated value	27 A
<b>operating power</b>	
● at AC-1	
— at 230 V at 60 °C rated value	38 kW
— at 400 V at 60 °C rated value	66 kW
— at 690 V at 60 °C rated value	114 kW
● at AC-3	
— at 230 V rated value	22 kW
— at 400 V rated value	45 kW
— at 500 V rated value	55 kW
— at 690 V rated value	55 kW
● at AC-3e	
— at 230 V rated value	22 kW
— at 400 V rated value	45 kW
— at 500 V rated value	55 kW
— at 690 V rated value	55 kW
— at 1000 V rated value	37 kW
<b>operating power for approx. 200000 operating cycles at AC-4</b>	
● at 400 V rated value	22 kW
● at 690 V rated value	25.4 kW
<b>no-load switching frequency</b>	
● at DC	1 000 1/h
<b>operating frequency</b>	
● at AC-1 maximum	900 1/h
● at AC-3 maximum	850 1/h
● at AC-3e maximum	850 1/h
● at AC-4 maximum	250 1/h
<b>Control circuit/ Control</b>	
<b>type of voltage of the control supply voltage</b>	DC
<b>control supply voltage at DC rated value</b>	220 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>closing power of magnet coil at DC</b>	15 W
<b>holding power of magnet coil at DC</b>	15 W
<b>Auxiliary circuit</b>	
number of NC contacts for auxiliary contacts instantaneous contact	0
number of NO contacts for auxiliary contacts instantaneous contact	0
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>	
<ul style="list-style-type: none"> <li>• at 110 V rated value</li> <li>• at 220 V rated value</li> </ul>	<p>3 A</p> <p>1 A</p>
<b>operational current at DC-13</b>	
<ul style="list-style-type: none"> <li>• at 24 V rated value</li> <li>• at 110 V rated value</li> <li>• at 220 V rated value</li> </ul>	<p>6 A</p> <p>1 A</p> <p>0.3 A</p>
<b>contact reliability of auxiliary contacts</b>	1 faulty switching per 100 million (17 V, 1 mA)

#### UL/CSA ratings

yielded mechanical performance [hp] for 3-phase AC motor at 460/480 V rated value	75 hp
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#### 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 coordination 2 required</li> </ul> </li> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>	<p>fuse gL/gG: 250 A</p> <p>fuse gL/gG: 160 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
fastening method side-by-side mounting	Yes
<b>fastening method</b>	screw and snap-on mounting onto 35 mm and 75 mm DIN rail
<b>height</b>	146 mm
<b>width</b>	70 mm
<b>depth</b>	152 mm

#### Connections/ Terminals

<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> </ul>	<p>screw-type terminals</p> <p>screw-type terminals</p>
type of connectable conductor cross-sections for main contacts	
<ul style="list-style-type: none"> <li>• solid or stranded</li> <li>• finely stranded with core end processing</li> <li>• finely stranded without core end processing</li> </ul>	<p>2x (2.5 ... 16 mm<sup>2</sup>)</p> <p>2x (2.5 ... 35 mm<sup>2</sup>)</p> <p>2x (10 ... 35 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>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG cables 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 (20 ... 16), 2x (18 ... 14), 1x 12</p>

#### Safety related data

product function mirror contact according to IEC 60947-4-1	Yes
Electrical Safety	
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front

#### Approvals Certificates

<b>General Product Approval</b>	EMV
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[Confirmation](#)



<b>Maritime application</b>	other	<b>Environment</b>
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[CCS \(China Classification Society\)](#)

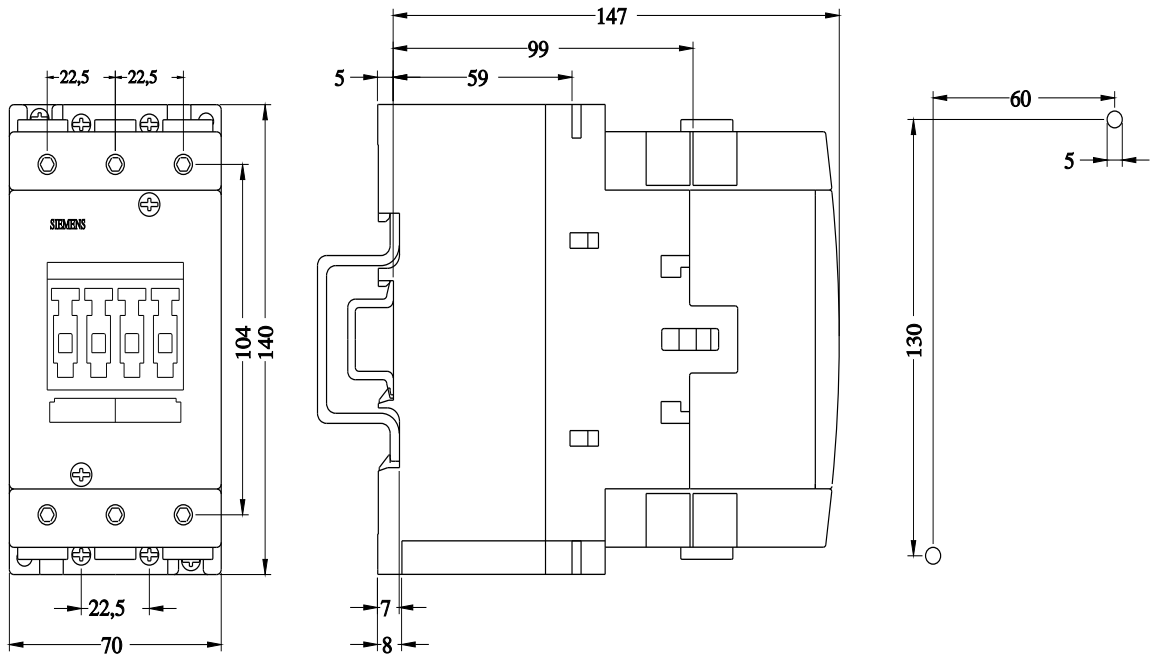
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[Environmental Conformations](#)

#### Further information

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





last modified:

4/4/2026 