

4NO CONTACTOR, AC1: 22A AC 24V 50/60HZ 4-POLE, 4NO, SZ: S00, SPRING-LOADED TERMINAL

product brand name	SIRIUS
Product designation	3RT2 contactor

General technical data:

<b>Insulation voltage</b>		
<ul style="list-style-type: none"> <li>Rated value</li> </ul>	V	690
<b>Degree of pollution</b>		3
<b>Surge voltage resistance Rated value</b>	kV	6
<b>Mechanical service life (switching cycles)</b>		
<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> <li>of the contactor with added auxiliary switch block typical</li> </ul>		30 000 000 5 000 000 10 000 000
<b>Thermal short-time current restricted to 10 s</b>	A	96
<b>Protection class IP</b>		
<ul style="list-style-type: none"> <li>on the front</li> <li>of the terminal</li> </ul>		IP20 IP20
<b>Equipment marking</b>		
<ul style="list-style-type: none"> <li>acc. to DIN EN 61346-2</li> <li>acc. to DIN EN 81346-2</li> </ul>		Q Q

Main circuit:

<b>Number of poles for main current circuit</b>		4
<b>Number of NC contacts for main contacts</b>		0
<b>Number of NO contacts for main contacts</b>		4
<b>Operating voltage</b>		

<ul style="list-style-type: none"> <li>• at AC-3 Rated value maximum</li> </ul>	V	690
<b>Operating current</b>		
<ul style="list-style-type: none"> <li>• at AC-1 <ul style="list-style-type: none"> <li>— at 400 V at ambient temperature 40 °C Rated value</li> <li>— up to 690 V at ambient temperature 40 °C Rated value</li> <li>— up to 690 V at ambient temperature 60 °C Rated value</li> </ul> </li> <li>• at AC-2 at 400 V Rated value</li> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V Rated value</li> </ul> </li> <li>• at AC-4 at 400 V Rated value</li> </ul>	A	22
	A	22
	A	20
	A	12
	A	12
	A	8.5
<b>Operating current with 1 current path</b>		
<ul style="list-style-type: none"> <li>• at DC-1 <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> <li>— at 440 V Rated value</li> </ul> </li> <li>• at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 24 V Rated value</li> <li>— at 110 V Rated value</li> </ul> </li> </ul>	A	20
	A	2.1
	A	0.8
	A	0.6
	A	20
	A	0.1
<b>Operating current with 2 current paths in series</b>		
<ul style="list-style-type: none"> <li>• at DC-1 <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> <li>— at 440 V Rated value</li> </ul> </li> <li>• at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 110 V Rated value</li> <li>— at 24 V Rated value</li> </ul> </li> </ul>	A	20
	A	12
	A	1.6
	A	0.8
	A	0.35
	A	20
<b>Operating current with 3 current paths in series</b>		
<ul style="list-style-type: none"> <li>• at DC-1 <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> <li>— at 440 V Rated value</li> </ul> </li> <li>• at DC-3 at DC-5 <ul style="list-style-type: none"> <li>— at 110 V Rated value</li> <li>— at 220 V Rated value</li> <li>— at 24 V Rated value</li> <li>— at 440 V Rated value</li> </ul> </li> </ul>	A	20
	A	20
	A	20
	A	1.3
	A	20
	A	1.5
	A	20
	A	0.2

<b>Operating power</b>		
• at AC-1 at 400 V Rated value	kW	13
• at AC-2 at 400 V Rated value	kW	5.5
• at AC-4 at 400 V Rated value	kW	4
<b>Operating power</b>		
• at AC-1		
— at 230 V at 60 °C Rated value	kW	7.5
— at 230 V Rated value	kW	7.5
— at 400 V at 60 °C Rated value	kW	13
— at 690 V at 60 °C Rated value	kW	22
• at AC-3		
— at 230 V Rated value	kW	3
— at 400 V Rated value	kW	5.5
<b>Operating frequency</b>		
• at AC-3 maximum	1/h	750

#### Control circuit/ Control:

<b>Type of voltage of the control supply voltage</b>		AC
<b>Control supply voltage with AC</b>		
• at 50 Hz Rated value	V	24
• at 60 Hz Rated value	V	24
<b>Operating range factor control supply voltage rated value of the magnet coil with AC</b>		
• at 50 Hz		0.8 ... 1.1
• at 60 Hz		0.85 ... 1.1

#### Auxiliary circuit:

<b>Number of NC contacts</b>		
• for auxiliary contacts		
— instantaneous contact		0
<b>Number of NO contacts</b>		
• for auxiliary contacts		
— instantaneous contact		0
<b>Product expansion Auxiliary switch</b>		
		Yes
<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>		
• at 480 V Rated value	A	7.6
• at 600 V Rated value	A	9
<b>yielded mechanical performance [hp]</b>		
• for single-phase AC motor at 110/120 V Rated value	metric hp	0.33

- for single-phase AC motor at 230 V Rated value
- for three-phase AC motor at 200/208 V Rated value
- for three-phase AC motor at 220/230 V Rated value
- for three-phase AC motor at 460/480 V Rated value
- for three-phase AC motor at 575/600 V Rated value

metric hp	1
metric hp	2
metric hp	3
metric hp	5
metric hp	7.5

**Short-circuit:**

**Design of the fuse link**

- for short-circuit protection of the main circuit
  - with type of assignment 1 required
  - with type of assignment 2 required
- for short-circuit protection of the auxiliary switch required

gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE:  
35 A  
gL/gG LV HRC 3NA, DIAZED 5SB, NEOZED 5SE:  
20 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
• Side-by-side mounting		Yes
<b>Height</b>	mm	69.5
<b>Width</b>	mm	45
<b>Depth</b>	mm	73
<b>Required spacing</b>		
• with side-by-side mounting		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	0
— downwards	mm	0
— at the side	mm	0
• for grounded parts		
— forwards	mm	0
— Backwards	mm	0
— upwards	mm	0
— at the side	mm	6
— downwards	mm	0
• for live parts		

— forwards	mm	0
— Backwards	mm	0
— upwards	mm	0
— downwards	mm	0
— at the side	mm	6

#### Connections/ Terminals:

<b>Type of electrical connection</b>		
• for main current circuit		spring-loaded terminals
• for auxiliary and control current circuit		spring-loaded terminals
<b>Type of connectable conductor cross-section</b>		
• for main contacts		
— single or multi-stranded		2x (0,5 ... 4 mm <sup>2</sup> )
— finely stranded with core end processing		2x (0.5 ... 2.5 mm <sup>2</sup> )
— finely stranded without core end processing		2x (0.5 ... 2.5 mm <sup>2</sup> )
• for AWG conductors for main contacts		2x (20 ... 12)
• for auxiliary contacts		
— single or multi-stranded		2x (0,5 ... 4 mm <sup>2</sup> )
— finely stranded with core end processing		2x (0.5 ... 2.5 mm <sup>2</sup> )
— finely stranded without core end processing		2x (0.5 ... 2.5 mm <sup>2</sup> )
• for AWG conductors for auxiliary contacts		2x (20 ... 12)
<b>Apparent pick-up power of the magnet coil with AC</b>		
• at 50 Hz	V·A	37
• at 60 Hz	V·A	43

#### Safety related data:

<b>B10 value with high demand rate acc. to SN 31920</b>		1 000 000
<b>Proportion of dangerous failures</b>		
• with low demand rate acc. to SN 31920	%	40
• with high demand rate acc. to SN 31920	%	73
<b>Failure rate [FIT] with low demand rate acc. to SN 31920</b>	FIT	100
<b>Product function Mirror contact acc. to IEC 60947-4-1</b>		Yes
• Note		with 3RH29
<b>T1 value for proof test interval or service life acc. to IEC 61508</b>	y	20
<b>Protection against electrical shock</b>		finger-safe

#### Mechanical data:

<b>Size of contactor</b>		S00
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#### Ambient conditions:

Installation altitude at height above sea level maximum	m	2 000
Ambient temperature		
• during operation	°C	-25 ... +60
• during storage	°C	-55 ... +80

#### Certificates/ approvals:

General Product Approval	Functional Safety/Safety of Machinery	Declaration of Conformity
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[Type Examination](#)



Test Certificates	Shipping Approval
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[Special Test Certificate](#)



Shipping Approval	other
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[Confirmation](#)

[Environmental Confirmations](#)



#### 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**

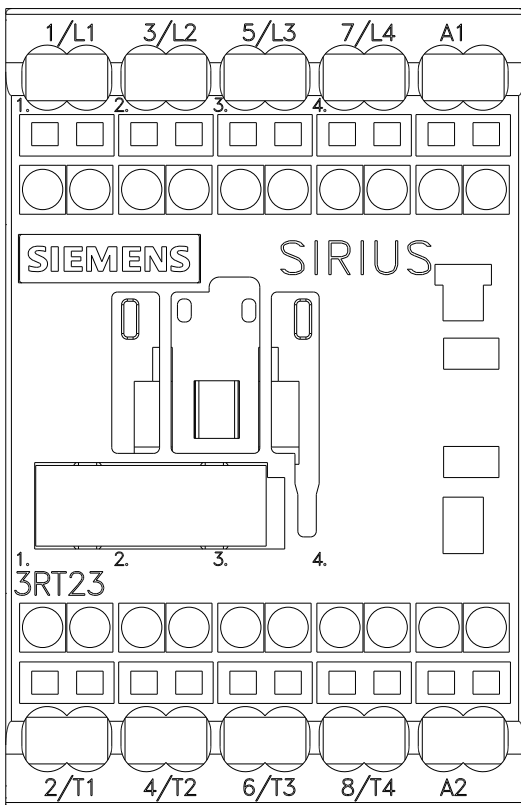
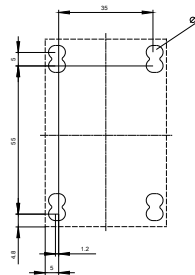
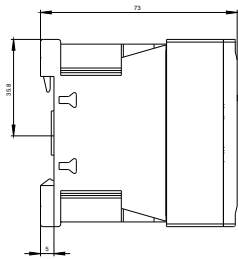
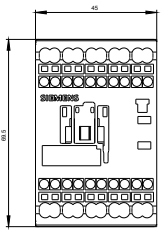
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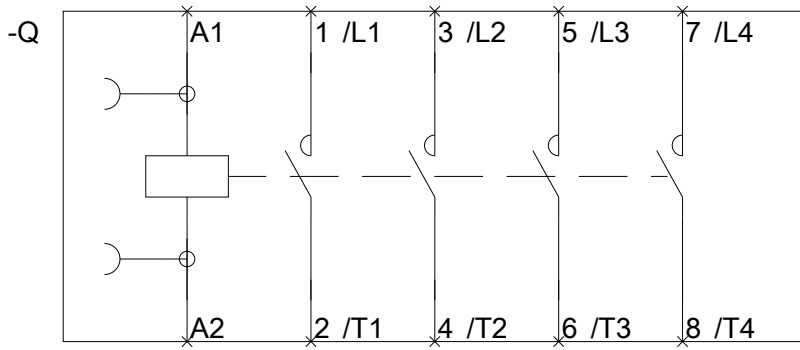
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RT23172AB00/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RT23172AB00&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT23172AB00&lang=en)





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