



2NO+2NC CONTACTOR, AC3: 7.5KW DC 110V 50HZ,  
120V 60HZ 4-POLE, 2NO+2NC, SZ: S00, SCREW  
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> </ul>		30 000 000
<ul style="list-style-type: none"> <li>of the contactor with added electronics-compatible auxiliary switch block typical</li> </ul>		5 000 000
<ul style="list-style-type: none"> <li>of the contactor with added auxiliary switch block typical</li> </ul>		10 000 000
<b>Protection class IP</b>		
<ul style="list-style-type: none"> <li>on the front</li> </ul>		IP20
<b>Equipment marking</b>		
<ul style="list-style-type: none"> <li>acc. to DIN EN 61346-2</li> </ul>		Q
<ul style="list-style-type: none"> <li>acc. to DIN EN 81346-2</li> </ul>		Q

**Main circuit:**

<b>Number of poles for main current circuit</b>		4
<b>Number of NC contacts for main contacts</b>		2
<b>Number of NO contacts for main contacts</b>		2
<b>Operating current</b>		
<ul style="list-style-type: none"> <li>at AC-1</li> </ul>		

— up to 690 V at ambient temperature 40 °C Rated value	A	22
— up to 690 V at ambient temperature 60 °C Rated value	A	20
• at AC-2 at AC-3 at 400 V		
— per NO contact Rated value	A	16
— per NC contact Rated value	A	9
<b>Operating current with 1 current path</b>		
• at DC-1		
— at 24 V Rated value	A	20
— at 110 V Rated value	A	2.1
— at 220 V Rated value	A	0.8
— at 440 V Rated value	A	0.6
• at DC-3 at DC-5		
— at 24 V per NC contact Rated value	A	20
— at 24 V per NO contact Rated value	A	20
— at 110 V per NC contact Rated value	A	0.075
— at 110 V per NO contact Rated value	A	0.15
— at 220 V per NC contact Rated value	A	0.375
— at 220 V per NO contact Rated value	A	0.75
<b>Operating current with 2 current paths in series</b>		
• at DC-1		
— at 24 V Rated value	A	20
— at 110 V Rated value	A	12
— at 220 V Rated value	A	1.6
— at 440 V Rated value	A	0.8
• at DC-3 at DC-5		
— at 110 V per NC contact Rated value	A	0.175
— at 110 V per NO contact Rated value	A	0.35
— at 24 V per NC contact Rated value	A	20
— at 24 V per NO contact Rated value	A	20
<b>Operating power</b>		
• at AC-1 at 400 V Rated value	kW	13
<b>Operating power</b>		
• at AC-1		
— at 230 V Rated value	kW	7.5
• at AC-2 at AC-3		
— at 230 V per NC contact Rated value	kW	2.2
— at 230 V per NO contact Rated value	kW	4
— at 400 V per NC contact Rated value	kW	4
— at 400 V per NO contact Rated value	kW	7.5

Control circuit/ Control:		
Type of voltage of the control supply voltage		AC
Control supply voltage with AC		
• at 50 Hz Rated value	V	110
• at 60 Hz Rated value	V	120
Operating range factor control supply voltage rated value of the magnet coil with AC		
• at 50 Hz		0.8 ... 1.1
• at 60 Hz		0.85 ... 1.1
Apparent pick-up power of the magnet coil with AC	V·A	43
Apparent holding power of the magnet coil with AC	V·A	6.5
Inductive power factor		
• with closing power of the coil		0.8
• with the holding power of the coil		0.25

Auxiliary circuit:		
Number of NC contacts		
• for auxiliary contacts		
— instantaneous contact		0
Number of NO contacts		
• for auxiliary contacts		
— instantaneous contact		0
Product expansion Auxiliary switch		Yes
Operating current at AC-15		
• at 230 V Rated value	A	10
• at 400 V Rated value	A	3
Operating current		
• at DC-12 at 125 V Rated value	A	2
• at DC-12 at 220 V Rated value	A	1
• at DC-12 at 600 V Rated value	A	0.15
• at DC-13 at 220 V Rated value	A	0.3
• at DC-13 at 600 V Rated value	A	0.1
Operating current		
• at DC-12		
— at 60 V Rated value	A	6
— at 110 V Rated value	A	3
• at DC-13		
— at 24 V Rated value	A	10
— at 60 V Rated value	A	2
— at 110 V Rated value	A	1
Contact reliability of the auxiliary contacts		1 faulty switching per 100 million (17 V, 1 mA)

UL/CSA ratings:

<b>yielded mechanical performance [hp]</b>		
<ul style="list-style-type: none"> <li>• for single-phase AC motor at 110/120 V Rated value</li> </ul>	metric hp	1
<ul style="list-style-type: none"> <li>• for single-phase AC motor at 230 V Rated value</li> </ul>	metric hp	2
<b>Contact rating of the auxiliary contacts acc. to UL</b>		A600 / Q600

### Short-circuit:

<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 assignment 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 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
<ul style="list-style-type: none"> <li>• Side-by-side mounting</li> </ul>		Yes
<b>Height</b>	mm	57.5
<b>Width</b>	mm	45
<b>Depth</b>	mm	73
<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> </ul> </li> </ul>	mm	0 0 0 0 0  0 0 0 6 0  0 0 0

- downwards
- at the side

mm	0
mm	6

#### 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 current circuit</li> </ul>		screw-type terminals screw-type terminals
<b>Type of connectable conductor cross-section</b>		
<ul style="list-style-type: none"> <li>• for main contacts               <ul style="list-style-type: none"> <li>— solid</li> <li>— single or multi-stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG conductors for main contacts</li> <li>• for auxiliary contacts               <ul style="list-style-type: none"> <li>— solid</li> <li>— single or multi-stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• for AWG conductors for auxiliary contacts</li> </ul>		2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup> 2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup> 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) 2x (20 ... 16), 2x (18 ... 14), 2x 12  2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup> 2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup> 2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> ) 2x (20 ... 16), 2x (18 ... 14), 2x 12
<b>Apparent pick-up power of the magnet coil with AC</b>		
<ul style="list-style-type: none"> <li>• at 50 Hz</li> </ul>	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>		
<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>	%	40
	%	73
Failure rate [FIT] with low demand rate acc. to SN 31920	FIT	100
<b>Product function Mirror contact acc. to IEC 60947-4-1</b>		Yes
<ul style="list-style-type: none"> <li>• Note</li> </ul>		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:

<b>Installation altitude at height above sea level maximum</b>	m	2 000
<b>Ambient temperature</b>		
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> </ul>	°C	-25 ... +60
	°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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[Environmental Confirmations](#)

[Confirmation](#)



#### 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**

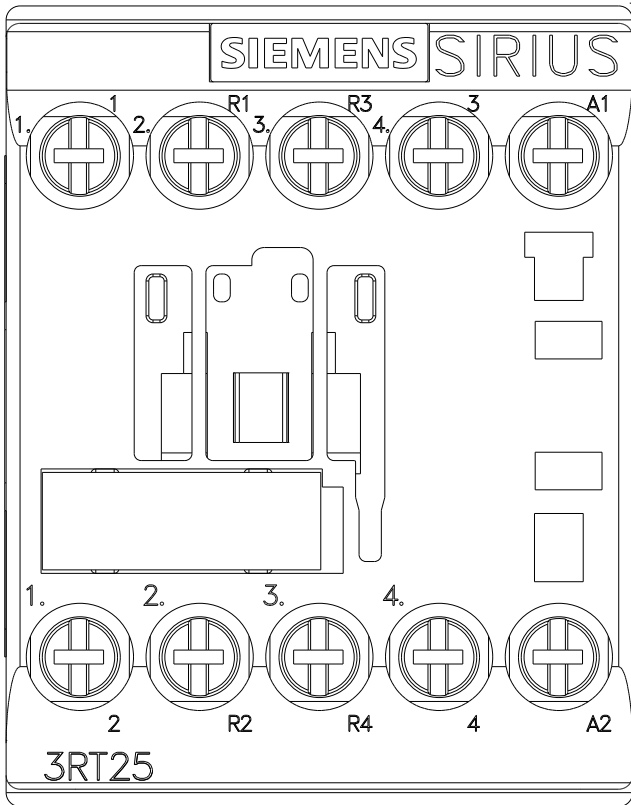
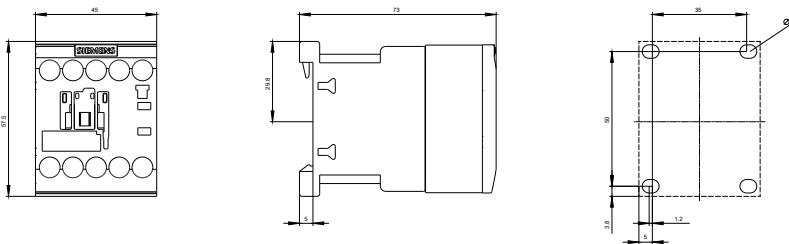
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT25181AK60>

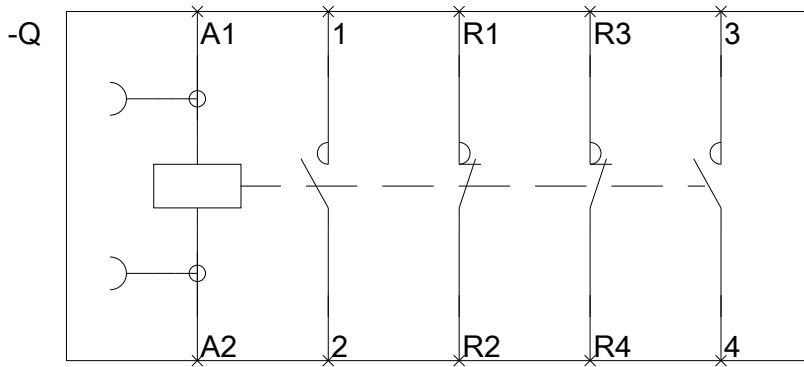
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3RT25181AK60/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=3RT25181AK60&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RT25181AK60&lang=en)





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