

REV. COMB., AC3, 4KW/400V AC48V, 50/60 HZ, 3-POLE, SZ S00 SCREW TERMINAL ELECTR. AND MECH. INTERLOCK



product brand name	SIRIUS
Product designation	reversing contactor assembly 3RA23
<b>Manufacturer article number</b>	
<ul style="list-style-type: none"> <li>• 1 of the supplied contactor</li> <li>• 2 of the supplied contactor</li> <li>• of the supplied RH assembly kit</li> </ul>	<a href="#">3RT2016-1AH02</a> <a href="#">3RT2016-1AH02</a> <a href="#">3RA2913-2AA1</a>

General technical data:

<b>Insulation voltage</b>		
<ul style="list-style-type: none"> <li>• with degree of pollution 3 Rated value</li> </ul>	V	690
<b>Degree of pollution</b>		3
<b>Shock resistance</b>		9.8g / 5 ms and 5.9g / 10 ms
<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 auxiliary switch block typical</li> </ul>		10 000 000 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 81346-2</li> </ul>		Q

Main circuit:

<b>Number of poles for main current circuit</b>		3
<b>Number of NC contacts for main contacts</b>		0
<b>Number of NO contacts for main contacts</b>		3
<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>— at 400 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	18
	A	16
	A	7
	A	9
	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> </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	20
	A	0.15
<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> </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	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> </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	20
	A	20
	A	20
<b>Operating power</b>		
<ul style="list-style-type: none"> <li>• at AC-2 at 400 V Rated value</li> <li>• at AC-4 at 400 V Rated value</li> </ul>	kW	4
	kW	4
<b>Operating power</b>		
<ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 400 V Rated value</li> <li>— at 500 V Rated value</li> <li>— at 690 V Rated value</li> </ul> </li> </ul>	kW	4
	kW	4.5
	kW	5.5
<b>Operating frequency</b>		
<ul style="list-style-type: none"> <li>• at AC-3 maximum</li> </ul>	1/h	750

No-load switching frequency	1/h	1 500
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### Control circuit/ Control:

Type of voltage of the control supply voltage		AC
Control supply voltage 1 with AC		
• at 50 Hz Rated value	V	48
• at 60 Hz Rated value	V	48
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

### Auxiliary circuit:

Number of NC contacts		
• for auxiliary contacts		
— per direction of rotation		0
— instantaneous contact		0
— lagging switching		0
Number of NO contacts		
• for auxiliary contacts		
— per direction of rotation		0
— instantaneous contact		0
— leading contact		0
Product expansion Auxiliary switch		Yes
Operating current of the auxiliary contacts at AC-12 maximum	A	10
Operating current of the auxiliary contacts at AC-15		
• at 230 V	A	6
• at 400 V	A	3
Operating current of the auxiliary contacts at DC-13		
• at 24 V	A	10
• at 60 V	A	2
• at 110 V	A	1
• at 220 V	A	0.3
Contact reliability of the auxiliary contacts		< 1 error per 100 million operating cycles

### UL/CSA ratings:

Full-load current (FLA) for three-phase AC motor		
• at 480 V Rated value	A	7.6
• at 600 V Rated value	A	9
yielded mechanical performance [hp]		
• for single-phase AC motor at 110/120 V Rated value	metric hp	0.33

<ul style="list-style-type: none"> <li>• for single-phase AC motor at 230 V Rated value</li> <li>• for three-phase AC motor at 200/208 V Rated value</li> <li>• for three-phase AC motor at 220/230 V Rated value</li> <li>• for three-phase AC motor at 460/480 V Rated value</li> <li>• for three-phase AC motor at 575/600 V Rated value</li> </ul>	metric hp	1
	metric hp	2
	metric hp	3
	metric hp	5
	metric hp	7.5
<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
<b>Height</b>	mm	68
<b>Width</b>	mm	90
<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</li> </ul>	mm	6 0 6 6 6  6 0 6 6 6

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

#### Connections/ Terminals:

<b>Type of electrical connection</b>		
• for main current circuit		screw-type terminals
• for auxiliary and control current circuit		screw-type terminals
<b>Type of connectable conductor cross-section</b>		
• for main contacts		
— single or multi-stranded		2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> ), 2x (0,5 ... 4 mm <sup>2</sup> )
— 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 conductors for main contacts		2x (20 ... 16), 2x (18 ... 14)
• for auxiliary contacts		
— single or multi-stranded		2x (0,5 ... 1,5 mm <sup>2</sup> ), 2x (0,75 ... 2,5 mm <sup>2</sup> )
— 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 conductors for auxiliary contacts		2x (20 ... 16), 2x (18 ... 14)
<b>Apparent pick-up power of the magnet coil with AC</b>		
• at 50 Hz	V·A	27

#### 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	%	75
<b>Failure rate [FIT] with low demand rate acc. to SN 31920</b>	FIT	100
<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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#### Communication/ Protocol:

<b>Product function Bus communication</b>		No
<b>Protocol is supported</b>		
• AS-interface protocol		No
<b>Product function Control circuit interface with IO link</b>		No

#### Ambient conditions:

<b>Installation altitude at height above sea level maximum</b>	m	2 000
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### Ambient temperature

- during operation
- during storage

°C	-25 ... +60
°C	-55 ... +80

### Certificates/ approvals:

#### General Product Approval



CSA



UL



EG-Konf.

#### Declaration of Conformity

#### Test Certificates

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

### Shipping Approval



ABS



BUREAU VERITAS



DNV



GL



LRS



PRS

### Shipping Approval

#### other



RINA



RMRS

[Environmental Confirmations](#)

[other](#)

### 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

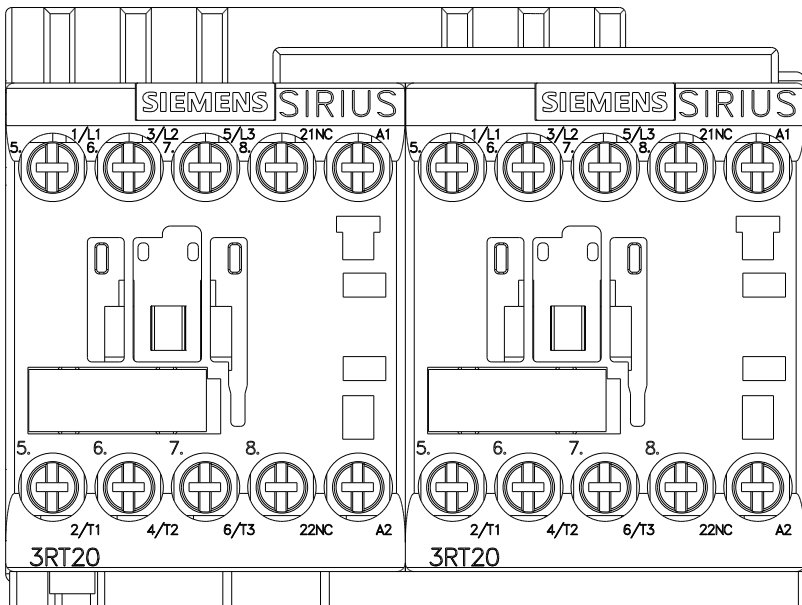
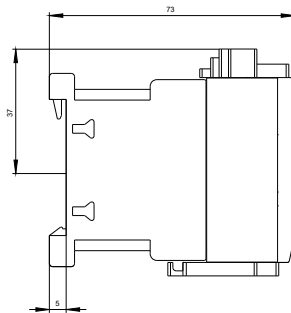
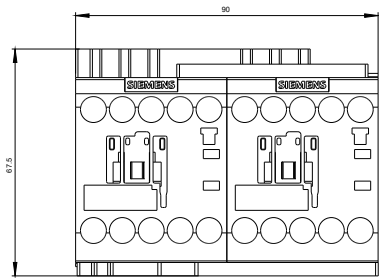
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA23168XB301AH0>

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

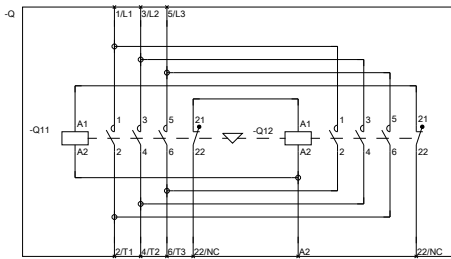
<http://support.automation.siemens.com/WW/view/en/3RA23168XB301AH0/all>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA23168XB301AH0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA23168XB301AH0&lang=en)



WENDEKOMBINATION BGR. S00



REVERSING COMB. SZ S00

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11.03.2015