

Reversing contactor assembly AC-3,4 kW/400 V,AC24 V,50/60 Hz 3-pole,  
Size S00 screw terminal electrical and mechanical interlock



<b>product brand name</b>	SIRIUS
<b>product designation</b>	Reversing contactor assembly
<b>product type designation</b>	3RA23
<b>manufacturer's 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="#">3RT2016-1AB02</a> <a href="#">3RT2016-1AB02</a> <a href="#">3RA2913-2AA1</a>

### General technical data

<b>size of contactor</b>	S00
product extension auxiliary switch	Yes
<b>shock resistance at rectangular impulse</b>	
<ul style="list-style-type: none"> <li>• at AC</li> <li>• at DC</li> </ul>	6,7g / 5 ms, 4,2g / 10 ms 6,7g / 5 ms, 4,2g / 10 ms
<b>shock resistance with sine pulse</b>	
<ul style="list-style-type: none"> <li>• at AC</li> <li>• at DC</li> </ul>	10,5g / 5 ms, 6,6g / 10 ms 10,5g / 5 ms, 6,6g / 10 ms
<b>mechanical service life (operating cycles)</b>	
<ul style="list-style-type: none"> <li>• of contactor typical</li> <li>• of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000 10 000 000
<b>reference code according to IEC 81346-2</b>	Q
<b>Substance Prohibitation (Date)</b>	10/01/2009

### Ambient conditions

installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> </ul>	-25 ... +60 °C -55 ... +80 °C

### Main circuit

<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>	
<ul style="list-style-type: none"> <li>• at AC-3 rated value maximum</li> <li>• at AC-3e rated value maximum</li> </ul>	690 V 690 V
<b>operational current</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> <li>• at AC-3e <ul style="list-style-type: none"> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> </ul> </li> </ul>	9 A 7.7 A 6.7 A 9 A 7.7 A

— at 690 V rated value	6.7 A
<b>operating power</b>	
• at AC-3	
— at 400 V rated value	4 kW
— at 500 V rated value	4 kW
— at 690 V rated value	5.5 kW
• at AC-3e	
— at 400 V rated value	4 kW
— at 690 V rated value	5.5 kW
• at AC-4 at 400 V rated value	4 kW
<b>operating frequency</b>	
• at AC-3 maximum	750 1/h
• at AC-3e maximum	750 1/h

#### Control circuit/ Control

<b>type of voltage of the control supply voltage</b>	AC
<b>control supply voltage 1 at AC</b>	
• at 50 Hz rated value	24 V
• at 60 Hz rated value	24 V
<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	0.85 ... 1.1
<b>apparent pick-up power of magnet coil at AC</b>	
• at 50 Hz	27 VA
<b>inductive power factor with closing power of the coil</b>	
• at 50 Hz	0.8
<b>apparent holding power of magnet coil at AC</b>	
• at 50 Hz	4.2 VA
<b>inductive power factor with the holding power of the coil</b>	
• at 50 Hz	0.25

#### Auxiliary circuit

<b>contact reliability of auxiliary contacts</b>	< 1 error per 100 million operating cycles
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#### UL/CSA ratings

<b>full-load current (FLA) for 3-phase AC motor</b>	
• at 480 V rated value	7.6 A
• at 600 V rated value	9 A
yielded mechanical performance [hp] for 3-phase AC motor	
• at 200/208 V rated value	2 hp
• at 220/230 V rated value	3 hp
• at 460/480 V rated value	5 hp
• at 575/600 V rated value	7.5 hp
<b>contact rating of auxiliary contacts according to UL</b>	A600 / Q600

#### Short-circuit protection

<b>design of the fuse link</b>	
• for short-circuit protection of the main circuit	
— with type of coordination 1 required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 35 A
— with type of assignment 2 required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 20 A
• for short-circuit protection of the auxiliary switch required	fuse 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>fastening method</b>	screw and snap-on mounting onto 35 mm DIN rail
<b>height</b>	68 mm
<b>width</b>	90 mm
<b>depth</b>	73 mm
<b>required spacing</b>	
• with side-by-side mounting	
— forwards	6 mm
— backwards	0 mm
— upwards	6 mm
— downwards	6 mm

— at the side	6 mm
• for grounded parts	
— forwards	6 mm
— backwards	0 mm
— upwards	6 mm
— at the side	6 mm
— downwards	6 mm
• for live parts	
— forwards	6 mm
— backwards	0 mm
— upwards	6 mm
— downwards	6 mm
— at the side	6 mm

### Connections/ Terminals

#### type of electrical connection

- for main current circuit
- for auxiliary and control circuit
- at contactor for auxiliary contacts
- of magnet coil

screw-type terminals  
screw-type terminals  
Screw-type terminals  
Screw-type terminals

#### type of connectable conductor cross-sections

- for main contacts
  - solid
  - solid or stranded
  - finely stranded with core end processing
- at AWG cables for main contacts

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 (0.5 ... 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)

#### type of connectable conductor cross-sections

- for auxiliary contacts
  - solid or stranded
  - finely stranded with core end processing
- at AWG cables for auxiliary contacts

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

### Safety related data

B10 value with high demand rate according to SN 31920

1 000 000

#### proportion of dangerous failures

- with low demand rate according to SN 31920
- with high demand rate according to SN 31920

40 %  
75 %

failure rate [FIT] with low demand rate according to SN 31920

100 FIT

T1 value for proof test interval or service life according to IEC 61508

20 y

protection class IP on the front according to IEC 60529

IP20

touch protection on the front according to IEC 60529

finger-safe, for vertical contact from the front

### Communication/ Protocol

product function bus communication

Yes

protocol is supported AS-Interface protocol

No

product function control circuit interface with IO link

No

### Certificates/ approvals

#### General Product Approval

#### Declaration of Conformity



[Confirmation](#)



#### Test Certificates

#### Marine / Shipping

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)




[Confirmation](#)
[Vibration and Shock](#)

## Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2316-8XB30-1AB0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2316-8XB30-1AB0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2316-8XB30-1AB0>

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

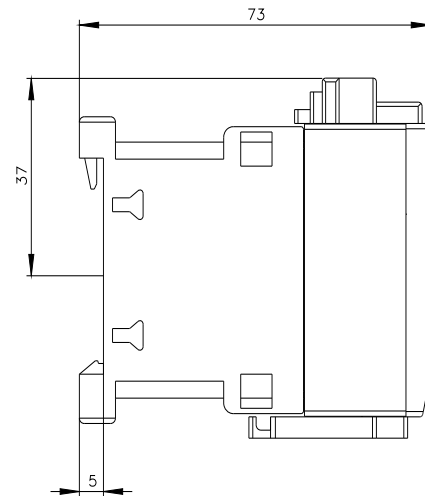
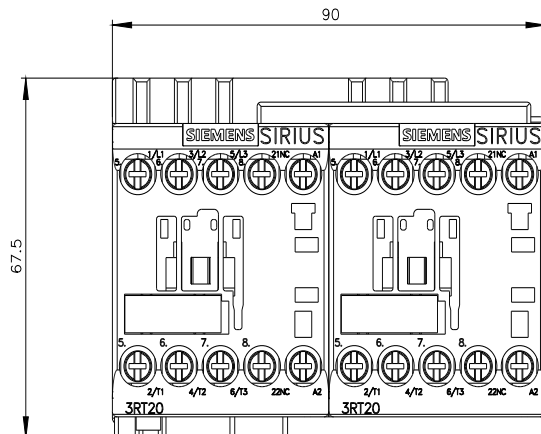
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2316-8XB30-1AB0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2316-8XB30-1AB0&lang=en)

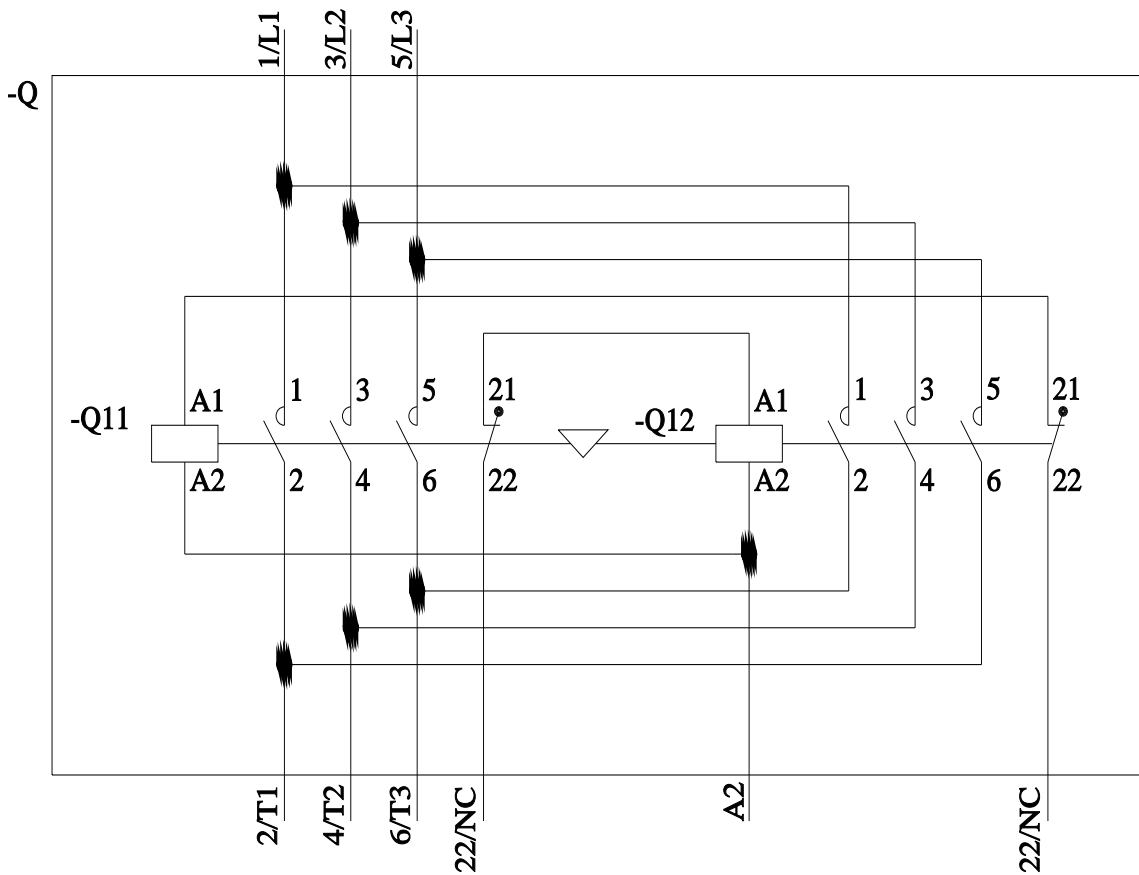
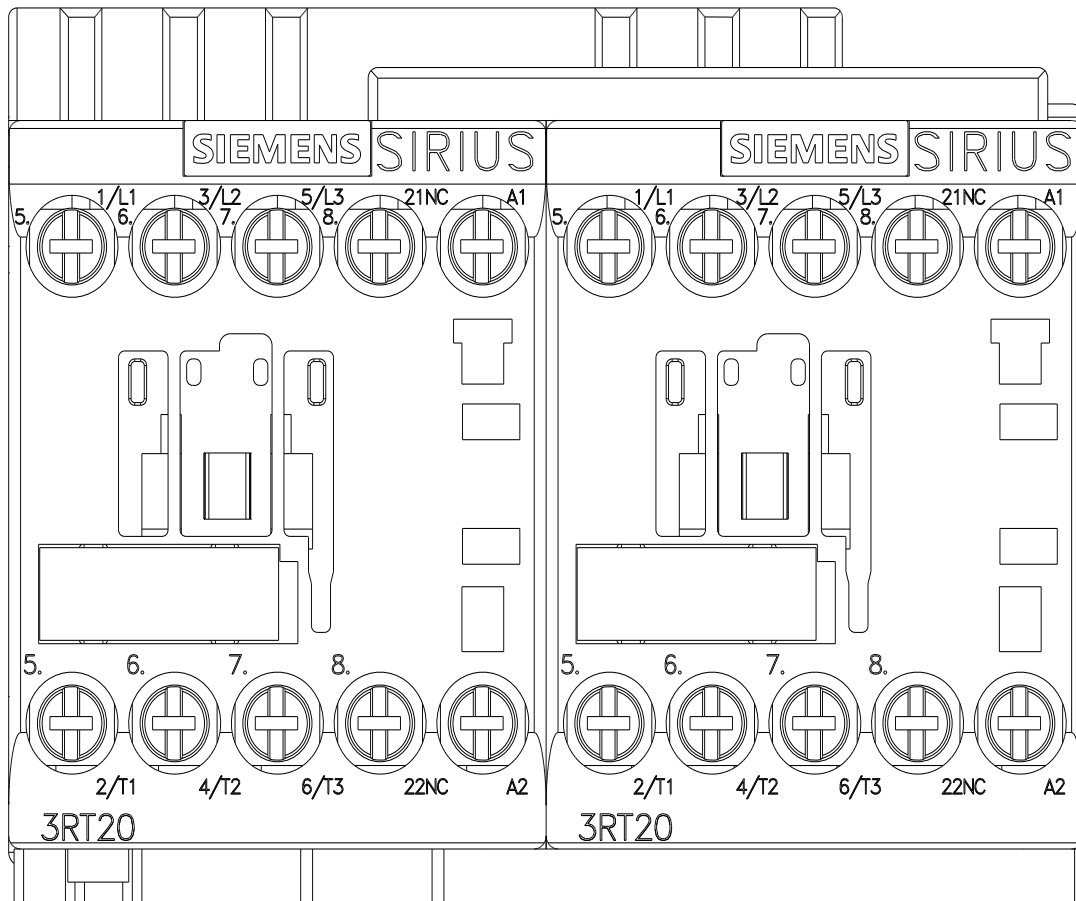
Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2316-8XB30-1AB0/char>

Further characteristics (e.g. electrical endurance, switching frequency)

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2316-8XB30-1AB0&objecttype=14&gridview=view1>





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