

Reversing contactor assembly, AC-3, 22 kW 400 V, 220 V AC/50 Hz/240 V AC/60 Hz 3-pole, Size S2 screw terminal electrical and mechanical interlock 2 NO integrated



<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 <a href="#">3RT2036-1AL20</a></li> <li>• 2 of the supplied contactor <a href="#">3RT2036-1AL20</a></li> <li>• of the supplied RS assembly kit <a href="#">3RA2933-2AA1</a></li> </ul>

General technical data	
<b>Size of contactor</b>	S2
<b>Product extension</b>	Yes
<ul style="list-style-type: none"> <li>• Auxiliary switch</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Insulation voltage with degree of pollution 3 at AC rated value</li> </ul>	690 V
<b>Surge voltage resistance rated value</b>	6 kV
<ul style="list-style-type: none"> <li>• protection class IP on the front</li> </ul>	IP20
<b>Shock resistance at rectangular impulse</b>	
<ul style="list-style-type: none"> <li>• at AC</li> </ul>	11.8g / 5 ms, 11.6g / 10 ms
<b>Shock resistance with sine pulse</b>	
<ul style="list-style-type: none"> <li>• at AC</li> </ul>	18.5g / 5 ms, 11.6g / 10 ms

<b>Mechanical service life (switching cycles)</b>	
<ul style="list-style-type: none"> <li>• of contactor typical</li> </ul>	10 000 000
<ul style="list-style-type: none"> <li>• of the contactor with added auxiliary switch block typical</li> </ul>	10 000 000
<b>Reference code acc. to DIN EN 81346-2</b>	Q

### Ambient conditions

<b>Installation altitude at height above sea level</b>	
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	2 000 m
<b>Ambient temperature</b>	
<ul style="list-style-type: none"> <li>• during operation</li> </ul>	-25 ... +60 °C
<ul style="list-style-type: none"> <li>• during storage</li> </ul>	-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> </ul>	690 V
<b>Operating 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> </ul> </li> </ul>	50 A
<b>Operating current</b>	
<ul style="list-style-type: none"> <li>• at 1 current path 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>• with 2 current paths in series 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>• with 3 current paths in series 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> </ul>	55 A 4.5 A 55 A 25 A 55 A 55 A
<b>Operating current</b>	
<ul style="list-style-type: none"> <li>• at 1 current path 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> <li>• with 2 current paths in series 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> <li>• with 3 current paths in series 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>	35 A 2.5 A 55 A 25 A 55 A 55 A
<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 690 V rated value</li> </ul> </li> <li>• at AC-4 at 400 V rated value</li> </ul>	<p>22 kW</p> <p>22 kW</p> <p>22 kW</p>
<b>No-load switching frequency</b>	1 500 1/h
Operating frequency at AC-3 maximum	800 1/h

### Control circuit/ Control

<b>Type of voltage of the control supply voltage</b>	AC
<b>Control supply voltage 1 at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul>	<p>220 V</p> <p>240 V</p>
<b>Operating range factor control supply voltage rated value of magnet coil at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>	<p>0.8 ... 1.1</p> <p>0.85 ... 1.1</p>
<b>Apparent pick-up power of magnet coil at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>	<p>210 V·A</p> <p>188 V·A</p>
<b>Inductive power factor with closing power of the coil</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>	<p>0.69</p> <p>0.65</p>
<b>Apparent holding power of magnet coil at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>	<p>17.2 V·A</p> <p>16.5 V·A</p>
<b>Inductive power factor with the holding power of the coil</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>	<p>0.36</p> <p>0.39</p>

### Auxiliary circuit

<b>Number of NC contacts for auxiliary contacts</b> <ul style="list-style-type: none"> <li>• per direction of rotation</li> </ul>	0
<b>Number of NO contacts for auxiliary contacts</b> <ul style="list-style-type: none"> <li>• per direction of rotation</li> <li>• instantaneous contact</li> </ul>	<p>1</p> <p>2</p>
<b>Operating current of auxiliary contacts at AC-12 maximum</b> <ul style="list-style-type: none"> <li>• Operating current of auxiliary contacts at AC-15 at 230 V</li> <li>• operating current of auxiliary contacts at AC-15 at 400 V</li> <li>• operating current of auxiliary contacts at DC-13 at 24 V</li> </ul>	<p>10 A</p> <p>6 A</p> <p>3 A</p> <p>10 A</p>

<ul style="list-style-type: none"> <li>• Operating current of auxiliary contacts at DC-13 at 60 V</li> <li>• Operating current of auxiliary contacts at DC-13 at 110 V</li> <li>• Operating current of auxiliary contacts at DC-13 at 220 V</li> </ul>	<p>2 A</p> <p>1 A</p> <p>0.3 A</p>
<b>contact reliability of auxiliary contacts</b>	< 1 error per 100 million operating cycles

### UL/CSA ratings

<b>Full-load current (FLA) for three-phase AC motor</b>	
<ul style="list-style-type: none"> <li>• at 480 V rated value</li> <li>• at 600 V rated value</li> </ul>	<p>52 A</p> <p>52 A</p>
<b>Yielded mechanical performance [hp]</b>	
<ul style="list-style-type: none"> <li>• for single-phase AC motor <ul style="list-style-type: none"> <li>— at 110/120 V rated value</li> <li>— at 230 V rated value</li> </ul> </li> <li>• for three-phase AC motor <ul style="list-style-type: none"> <li>— at 220/230 V rated value</li> <li>— at 460/480 V rated value</li> <li>— at 575/600 V rated value</li> </ul> </li> </ul>	<p>3 hp</p> <p>7.5 hp</p> <p>15 hp</p> <p>40 hp</p> <p>50 hp</p>
<b>Contact rating of auxiliary contacts according to UL</b>	A600 / Q600

### 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 assignment 2 required</li> </ul> </li> <li>• for short-circuit protection of the auxiliary switch required</li> </ul>	<p>gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 A</p> <p>gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 80 A</p> <p>fuse gG: 10 A</p>

### Installation/ mounting/ dimensions

<ul style="list-style-type: none"> <li>• <b>mounting position</b></li> </ul>	+/-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>	141 mm
<b>Width</b>	120 mm
<b>Depth</b>	130 mm
<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> </ul>	<p>10 mm</p> <p>0 mm</p> <p>10 mm</p> <p>10 mm</p> <p>10 mm</p>

- for grounded parts
  - forwards 10 mm
  - Backwards 0 mm
  - upwards 10 mm
  - at the side 10 mm
  - downwards 10 mm
- for live parts
  - forwards 10 mm
  - Backwards 0 mm
  - upwards 10 mm
  - downwards 10 mm
  - at the side 10 mm

### Connections/ Terminals

- Type of electrical connection for main current circuit screw-type terminals
- Type of electrical connection for auxiliary and control current circuit screw-type terminals

#### Type of connectable conductor cross-sections

- for main contacts
  - solid 2x (1 ... 35 mm<sup>2</sup>), 1x (1 ... 50 mm<sup>2</sup>)
  - single or multi-stranded 2x (1 ... 35 mm<sup>2</sup>), 1x (1 ... 50 mm<sup>2</sup>)
  - finely stranded with core end processing 2x (1 ... 25 mm<sup>2</sup>), 1x (1 ... 35 mm<sup>2</sup>)
- at AWG conductors for main contacts 2x (18 ... 2), 1x (18 ... 1)

#### Type of connectable conductor cross-sections

- 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>)
- at AWG conductors for auxiliary contacts 2x (20 ... 16), 2x (18 ... 14)

### Safety related data

#### B10 value

- with high demand rate acc. to SN 31920 1 000 000

#### Proportion of dangerous failures

- with low demand rate acc. to SN 31920 40 %
- with high demand rate acc. to SN 31920 73 %

#### Failure rate [FIT]

- with low demand rate acc. to SN 31920 100 FIT

#### T1 value for proof test interval or service life acc. to IEC 61508

20 y

### 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



CSA



UL



EG-Konf.

[Miscellaneous](#)

### Test Certificates

[Type Test Certificates/Test Report](#)

## Marine / Shipping



ABS



BUREAU  
VERITAS



LRS



PRS



RINA



RMRS

### Marine / Shipping

### other



DNVGL.COM/AF

[Confirmation](#)

## 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=3RA2336-8XB30-1AP6>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2336-8XB30-1AP6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2336-8XB30-1AP6>

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

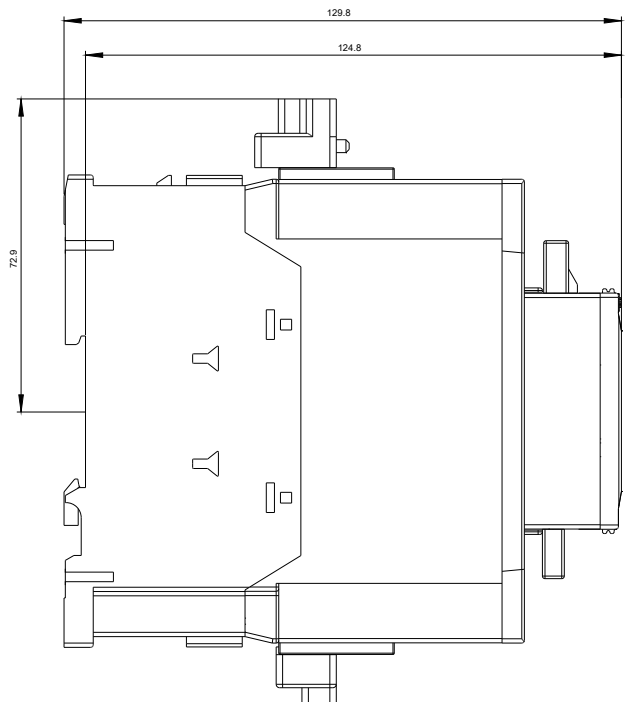
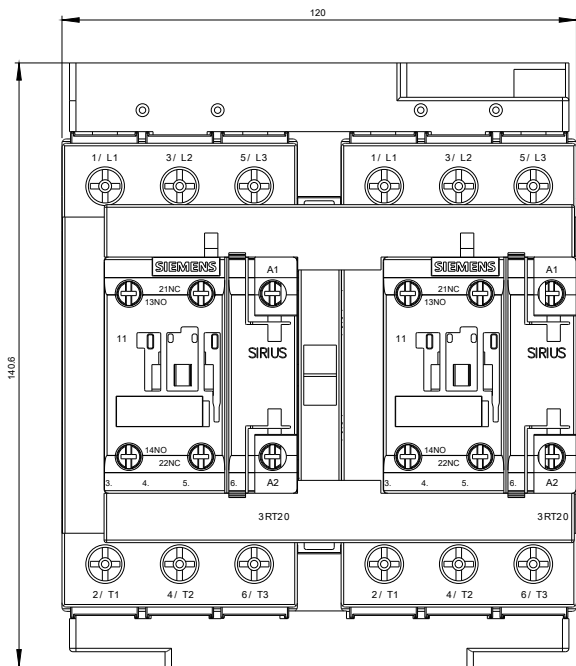
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2336-8XB30-1AP6&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2336-8XB30-1AP6&lang=en)

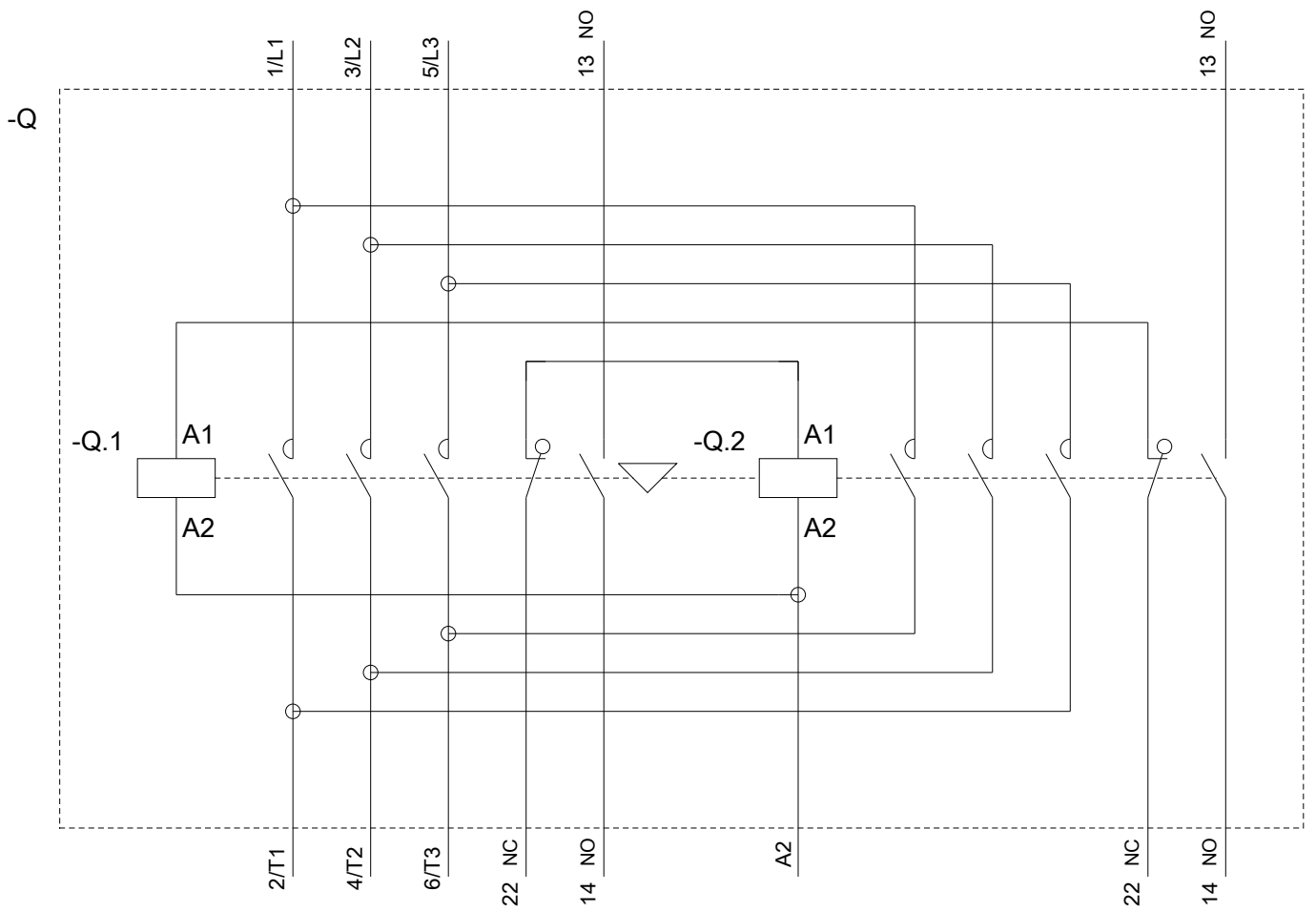
**Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current**

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2336-8XB30-1AP6/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2336-8XB30-1AP6&objecttype=14&gridview=view1>





last modified:

08/13/2020