

Reversing contactor assembly AC-3, 37 kW/400 V, AC/DC 20-33V 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="#">3RT2038-1NB30</a></li> <li>• 2 of the supplied contactor <a href="#">3RT2038-1NB30</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>	
<b>Insulation voltage</b>	690 V
<ul style="list-style-type: none"> <li>• with degree of pollution 3 rated value</li> </ul>	
<b>Degree of pollution</b>	3
<b>Surge voltage resistance rated value</b>	6 kV
<b>Protection class IP</b>	IP20
<ul style="list-style-type: none"> <li>• on the front</li> </ul>	
<b>Shock resistance at rectangular impulse</b>	7.7g / 5 ms, 4.5g / 10 ms
<ul style="list-style-type: none"> <li>• at AC</li> </ul>	

<ul style="list-style-type: none"> <li>• at DC</li> </ul>	7.7g / 5 ms, 4.5g / 10 ms
<b>Shock resistance with sine pulse</b>	
<ul style="list-style-type: none"> <li>• at AC</li> </ul>	12g / 5 ms, 7g / 10 ms
<ul style="list-style-type: none"> <li>• at DC</li> </ul>	12g / 5 ms, 7g / 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

### 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-1 at 400 V <ul style="list-style-type: none"> <li>— at ambient temperature 40 °C rated value</li> <li>— 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> </ul>	80 A 70 A 80 A 80 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> </ul> </li> </ul>	35 A 2.5 A 55 A

<ul style="list-style-type: none"> <li>— at 110 V rated value</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>	<p>25 A</p> <p>55 A</p> <p>55 A</p>
<b>Operating power</b> <ul style="list-style-type: none"> <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> <li>— at 690 V rated value</li> </ul> </li> <li>• at AC-4 at 400 V rated value</li> </ul>	<p>37 kW</p> <p>37 kW</p> <p>45 kW</p> <p>30 kW</p>
<b>No-load switching frequency</b>	1 500 1/h
<b>Operating frequency</b> <ul style="list-style-type: none"> <li>• at AC-1 maximum</li> <li>• at AC-2 maximum</li> <li>• at AC-3 maximum</li> <li>• at AC-4 maximum</li> </ul>	<p>700 1/h</p> <p>350 1/h</p> <p>500 1/h</p> <p>150 1/h</p>

Control circuit/ Control	
<b>Type of voltage of the control supply voltage</b>	AC/DC
<b>Control supply voltage 1 at AC</b> <ul style="list-style-type: none"> <li>• at 50 Hz</li> <li>• at 60 Hz</li> </ul>	<p>20 ... 33 V</p> <p>20 ... 33 V</p>
<b>Control supply voltage 1</b> <ul style="list-style-type: none"> <li>• at DC</li> </ul>	20 ... 33 V
<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>0.8 ... 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>40 V·A</p> <p>40 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>0.64</p> <p>0.5</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>2 V·A</p> <p>2 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>
<b>Closing power of magnet coil at DC</b>	23 W
<b>Holding power of magnet coil at DC</b>	1 W

Auxiliary circuit	
<b>Number of NC contacts for auxiliary contacts</b>	
• per direction of rotation	0
<b>Number of NO contacts for auxiliary contacts</b>	
• per direction of rotation	1
<b>Operating current of auxiliary contacts at AC-12 maximum</b>	10 A
<b>Operating current of auxiliary contacts at AC-15</b>	
• at 230 V	6 A
• at 400 V	3 A
<b>Operating current of auxiliary contacts at DC-13</b>	
• at 24 V	10 A
• at 60 V	2 A
• at 110 V	1 A
• at 220 V	0.3 A
<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>	
• at 480 V rated value	65 A
• at 600 V rated value	62 A
<b>Yielded mechanical performance [hp]</b>	
• for single-phase AC motor	
— at 110/120 V rated value	5 hp
— at 230 V rated value	15 hp
• for three-phase AC motor	
— at 220/230 V rated value	20 hp
— at 460/480 V rated value	50 hp
— at 575/600 V rated value	60 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: 250 A
— with type of assignment 2 required	gG NH 3NA, DIAZED 5SB, NEOZED 5SE: 160 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
• (mounting type)	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 10 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 10 mm</li> <li>— downwards 10 mm</li> <li>— at the side 10 mm</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards 10 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 10 mm</li> <li>— at the side 10 mm</li> <li>— downwards 10 mm</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards 10 mm</li> <li>— Backwards 0 mm</li> <li>— upwards 10 mm</li> <li>— downwards 10 mm</li> <li>— at the side 10 mm</li> </ul> </li> </ul>	

### Connections/Terminals

<b>Type of electrical connection</b>	
<ul style="list-style-type: none"> <li>• for main current circuit screw-type terminals</li> <li>• for auxiliary and control current circuit screw-type terminals</li> </ul>	
<b>Type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>— solid 2x (1 ... 35 mm<sup>2</sup>), 1x (1 ... 50 mm<sup>2</sup>)</li> <li>— single or multi-stranded 2x (1 ... 35 mm<sup>2</sup>), 1x (1 ... 50 mm<sup>2</sup>)</li> <li>— finely stranded with core end processing 2x (1 ... 25 mm<sup>2</sup>), 1x (1 ... 35 mm<sup>2</sup>)</li> </ul> </li> <li>• at AWG conductors for main contacts 2x (18 ... 2), 1x (18 ... 1)</li> </ul>	
<b>Type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— single or multi-stranded 2x (0,5 ... 1,5 mm<sup>2</sup>), 2x (0,75 ... 2,5 mm<sup>2</sup>)</li> <li>— finely stranded with core end processing 2x (0.5 ... 1.5 mm<sup>2</sup>), 2x (0.75 ... 2.5 mm<sup>2</sup>)</li> </ul> </li> <li>• at AWG conductors for auxiliary contacts 2x (20 ... 16), 2x (18 ... 14)</li> </ul>	





### Safety related data

<b>B10 value</b>	
<ul style="list-style-type: none"> <li>• with high demand rate acc. to SN 31920 1 000 000</li> </ul>	
<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>	<p>40 %</p> <p>73 %</p>
<b>Failure rate [FIT]</b>	
<ul style="list-style-type: none"> <li>with low demand rate acc. to SN 31920</li> </ul>	100 FIT
<b>T1 value for proof test interval or service life acc. to IEC 61508</b>	20 y

Communication/ Protocol	
Product function Bus communication	No
Protocol is supported	
<ul style="list-style-type: none"> <li>AS-interface protocol</li> </ul>	No
Product function Control circuit interface with IO link	No

### Certificates/approvals

General Product Approval	Declaration of Conformity	Test Certificates
 CSA  UL  EAC  EG-Konf.	<a href="#">Miscellaneous</a>	<a href="#">Type Test Certificates/Test Report</a>

### Marine / Shipping



### other

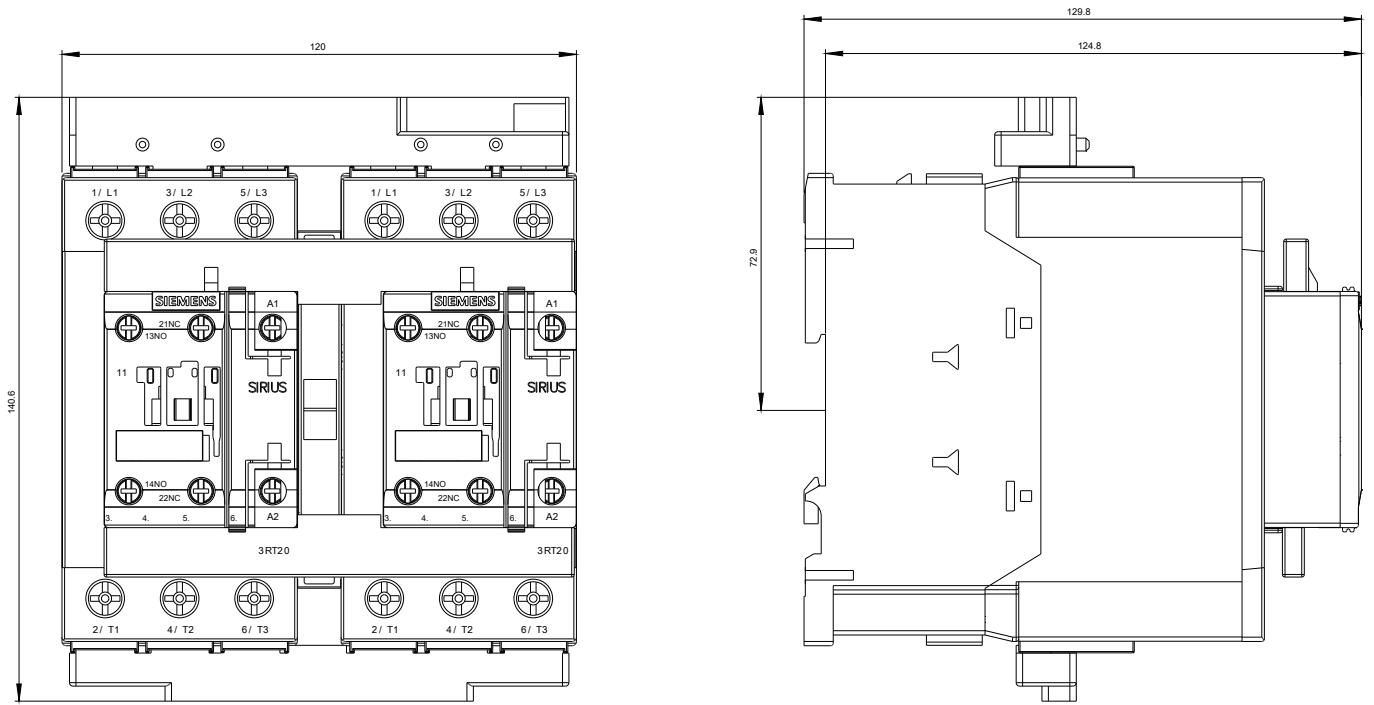
[Confirmation](#)

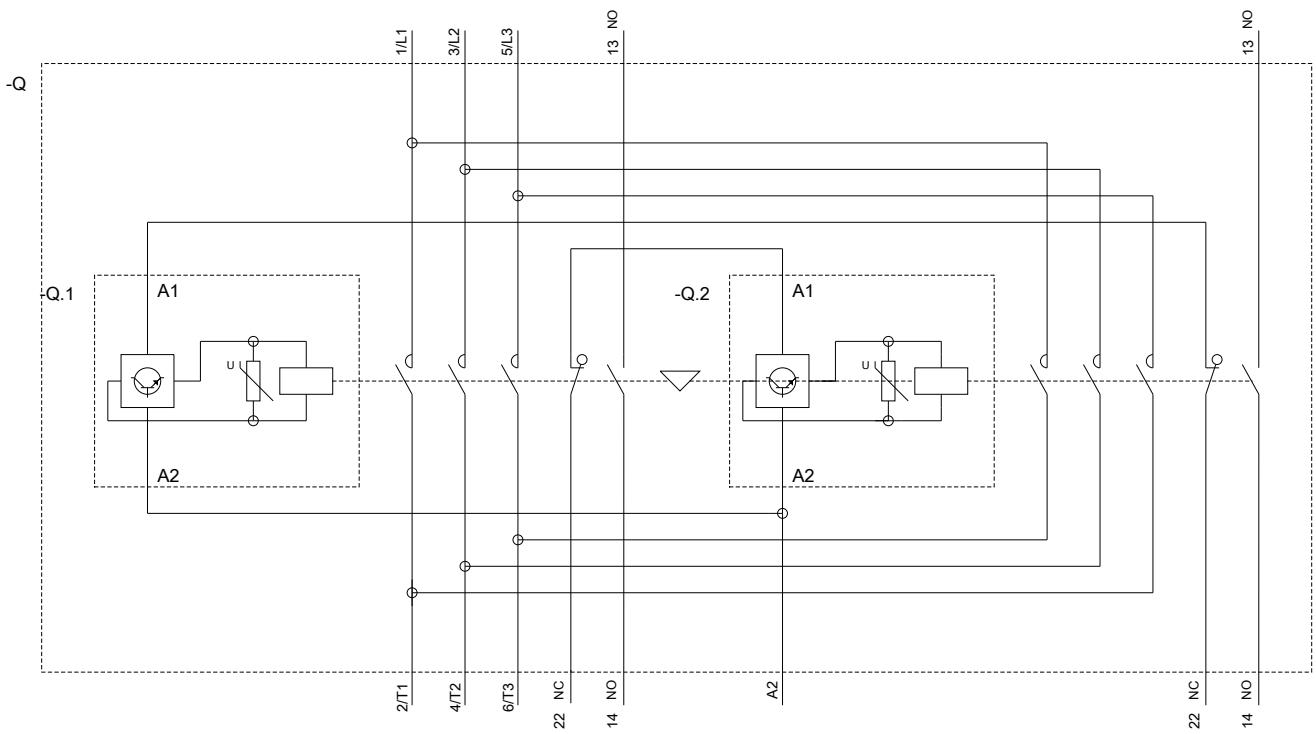
### Further information

- Information- and Downloadcenter (Catalogs, Brochures,...)**  
<http://www.siemens.com/industrial-controls/catalogs>
- Industry Mall (Online ordering system)**  
<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2338-8XB30-1NB3>
- Cax online generator**  
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2338-8XB30-1NB3>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**  
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2338-8XB30-1NB3>
- Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**  
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2338-8XB30-1NB3&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2338-8XB30-1NB3&lang=en)
- Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current**  
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2338-8XB30-1NB3/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2338-8XB30-1NB3&objectype=14&gridview=view1>





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