

Fuseless motor starter Direct start 600VAC Size S0 2.2-3.2A  
 110/120VAC 50/60HZ screw connection For screw mounting Or 35  
 mm rail-mounting Type of coordination 2 IQ = 150 KA Also full fills  
 type Of coordination 1 1NO+1NC (contactor)



<b>Product brand name</b>	SIRIUS
<b>Product designation</b>	non-fused motor starter 3RA2
<b>Design of the product</b>	direct starter
<b>Manufacturer's article number</b>	
<ul style="list-style-type: none"> <li>• of the supplied contactor</li> </ul>	<a href="#">3RT2023-1AK60</a>
<ul style="list-style-type: none"> <li>• of the supplied circuit-breakers</li> </ul>	<a href="#">3RV2011-1DA10</a>
<ul style="list-style-type: none"> <li>• of the supplied link module</li> </ul>	<a href="#">3RA2921-1AA00</a>

General technical data	
<b>Size of the circuit-breaker</b>	S00
<b>Size of load feeder</b>	S0
<b>Product extension</b>	
<ul style="list-style-type: none"> <li>• Auxiliary switch</li> </ul>	Yes
<b>Insulation voltage</b>	
<ul style="list-style-type: none"> <li>• with degree of pollution 3 at AC rated value</li> </ul>	690 V
<b>Degree of pollution</b>	3
<b>Surge voltage resistance rated value</b>	6 kV
<b>Protection class IP</b>	
<ul style="list-style-type: none"> <li>• on the front</li> </ul>	IP20
<ul style="list-style-type: none"> <li>• of the terminal</li> </ul>	IP00

<b>Shock resistance</b>	
<ul style="list-style-type: none"> <li>• acc. to IEC 60068-2-27</li> </ul>	6g / 11 ms
<b>Mechanical service life (switching cycles)</b>	
<ul style="list-style-type: none"> <li>• of contactor typical</li> </ul>	10 000 000
<b>Type of assignment</b>	2

### Main circuit

<b>Number of poles for main current circuit</b>	3
<b>Design of the switching contact</b>	electromechanical
<b>Adjustable pick-up value current of the current-dependent overload release</b>	2.2 ... 3.2 A
<b>Operating voltage</b>	
<ul style="list-style-type: none"> <li>• rated value</li> </ul>	690 V
<ul style="list-style-type: none"> <li>• at AC-3 rated value maximum</li> </ul>	690 V
<b>Operating frequency rated value</b>	50 ... 60 Hz
<b>Operating current</b>	
<ul style="list-style-type: none"> <li>• at AC-3</li> <li>— at 400 V rated value</li> </ul>	2.7 A
<b>Operating power</b>	
<ul style="list-style-type: none"> <li>• at AC-3</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> </ul>	1 100 W 1 500 W

### Control circuit/ Control

<b>Control supply voltage at AC</b>	
<ul style="list-style-type: none"> <li>• at 50 Hz rated value</li> <li>• at 50 Hz rated value</li> <li>• at 60 Hz rated value</li> <li>• at 60 Hz rated value</li> </ul>	110 V 88 ... 121 V 120 V 96 ... 132 V
<b>Apparent holding power of magnet coil at AC</b>	7.2 V·A
<b>Inductive power factor with the holding power of the coil</b>	0.28

### Auxiliary circuit

<b>Number of NC contacts for auxiliary contacts</b>	1
<b>Number of NO contacts for auxiliary contacts</b>	1

### Protective and monitoring functions

<b>Trip class</b>	CLASS 10
<b>Design of the overload release</b>	thermal (bimetallic)
<b>Response value current</b>	
<ul style="list-style-type: none"> <li>• of instantaneous short-circuit trip unit</li> </ul>	41.6 A

### 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> </ul>	2.8 A

<ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>	3.16 A
<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 200/208 V rated value</li> <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>	0.1 hp 0.25 hp 0.5 hp 0.75 hp 1.5 hp 2 hp

<b>Short-circuit protection</b>	
<b>Product function Short circuit protection</b>	Yes
<b>Design of the short-circuit trip</b>	magnetic
<b>Conditional short-circuit current (I<sub>q</sub>)</b>	
<ul style="list-style-type: none"> <li>• at 400 V acc. to IEC 60947-4-1 rated value</li> </ul>	153 000 A

<b>Installation/ mounting/ dimensions</b>	
<b>Mounting position</b>	vertical
<b>Mounting type</b>	Snap-mounted to DIN rail or screw-mounted with additional push-in lug
<b>Height</b>	193.1 mm
<b>Width</b>	45 mm
<b>Depth</b>	97.1 mm
<b>Required spacing</b>	
<ul style="list-style-type: none"> <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> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul>	10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 10 mm 9 mm




<b>Connections/ Terminals</b>	
<b>Type of electrical connection</b>	
<ul style="list-style-type: none"> <li>• for main current circuit</li> </ul>	screw-type terminals
<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>— stranded</li> </ul> </li> </ul>	1 ... 10 mm <sup>2</sup> , 2x (2.5 ... 6 mm <sup>2</sup> )

• at AWG conductors for main contacts	2x (16 ... 12), 2x (14 ... 8)
<b>Connectable conductor cross-section for main contacts</b>	
• finely stranded with core end processing	1 ... 6 mm <sup>2</sup>

#### Safety related data

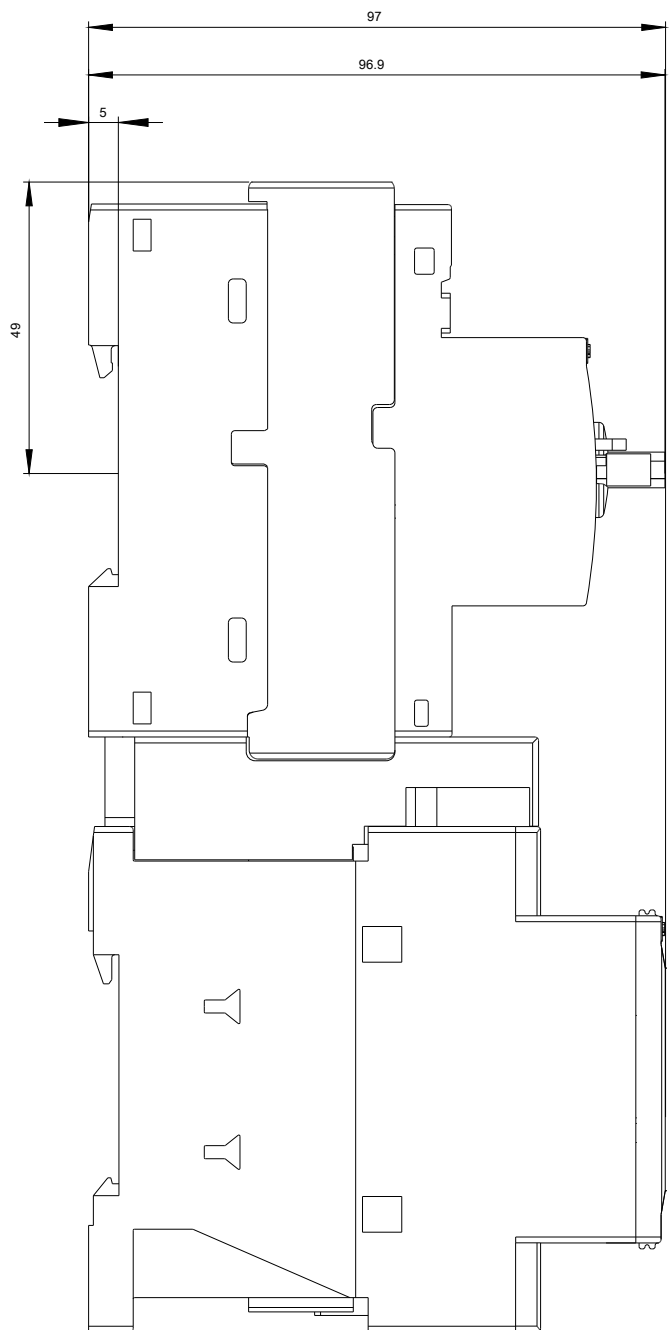
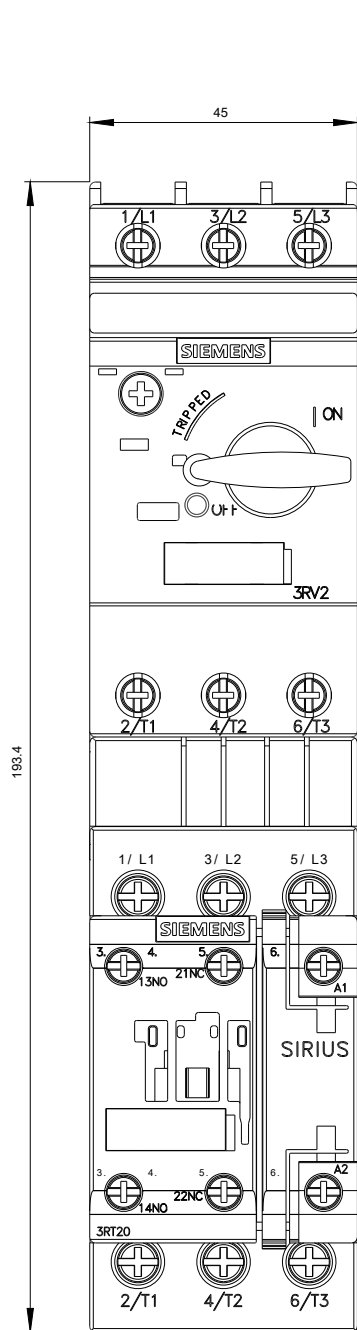
<b>B10 value</b>	
• with high demand rate acc. to SN 31920	1 000 000
<b>Proportion of dangerous failures</b>	
• with high demand rate acc. to SN 31920	73 %

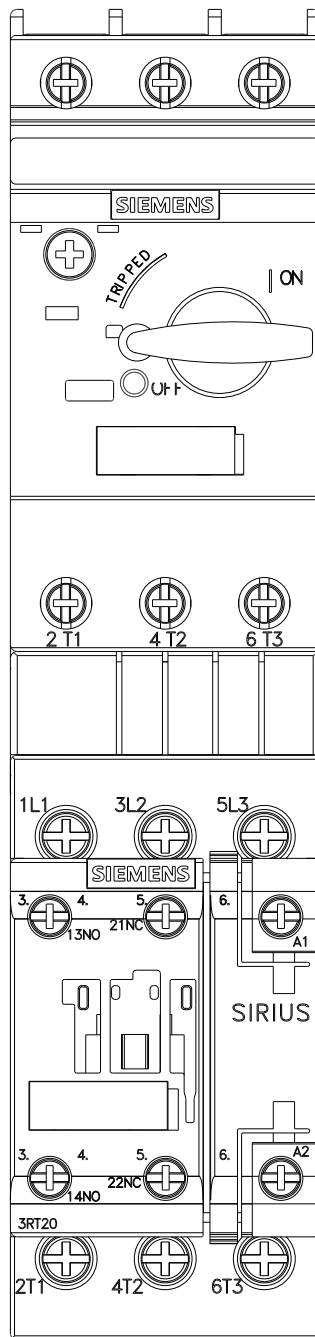
#### Certificates/ approvals

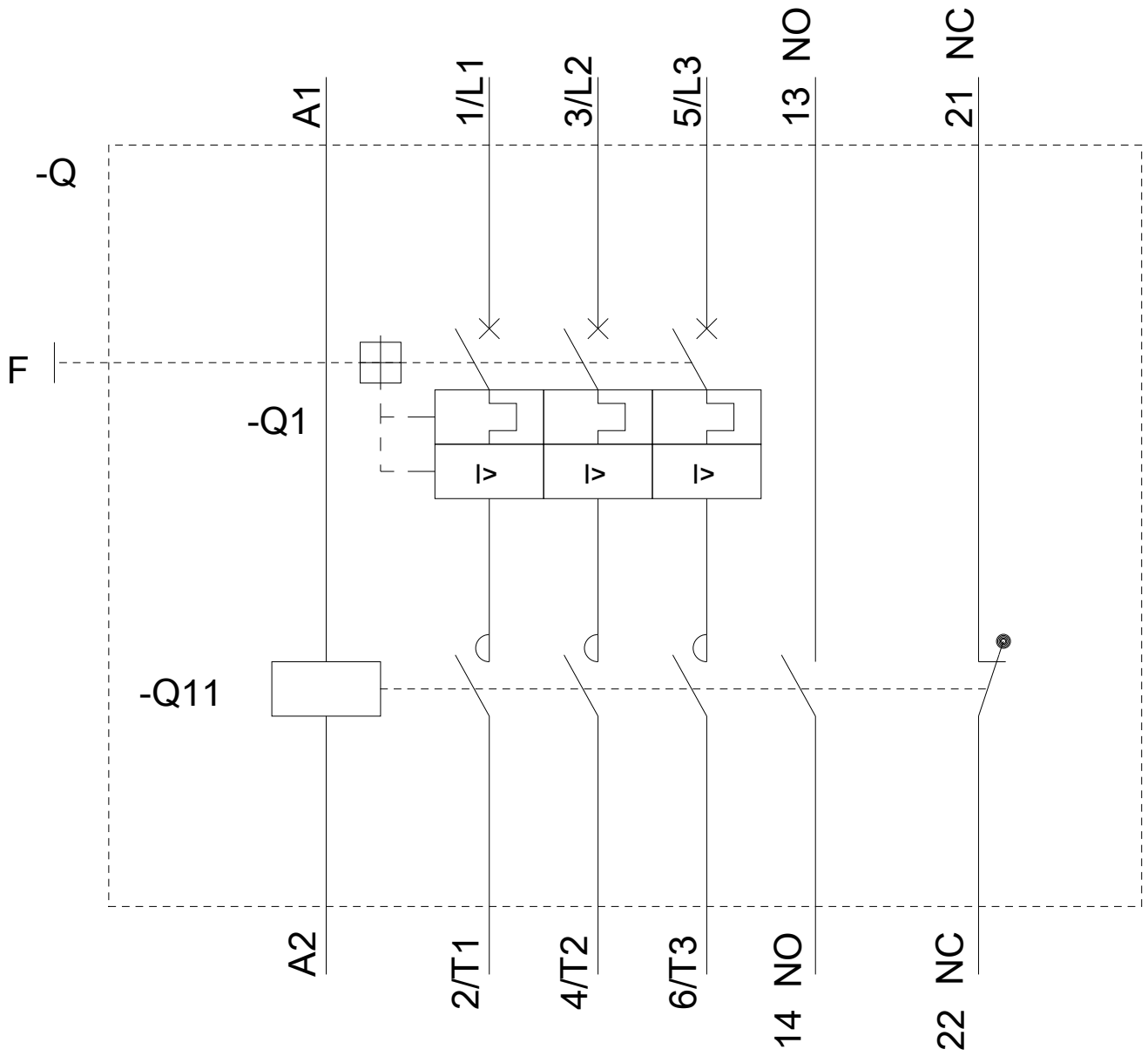
General Product Approval	For use in hazardous locations	Declaration of Conformity	other
			<a href="#">Confirmation</a>

#### 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=3RA2120-1DA23-0AK6>
- Cax online generator**  
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1DA23-0AK6>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**  
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1DA23-0AK6>
- Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**  
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2120-1DA23-0AK6&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1DA23-0AK6&lang=en)
- Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current**  
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1DA23-0AK6/char>
- Further characteristics (e.g. electrical endurance, switching frequency)**  
<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-1DA23-0AK6&objecttype=14&gridview=view1>







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