



FUSELESS MOTOR STARTER DIRECT START 600V AC SZ S0  
27-32A 110/120V AC 50/60HZ SCREW CONNECTION FOR  
SCREW MOUNTING OR 35 MM RAIL-MOUNTING TYPE OF  
COORDINATION 2 IQ = 150 KA ALSO FULFILLS TYPE OF  
COORDINATION 1 1NO+1NC (MSP) 1NO+1NC (CONTACTOR)

Product brand name	SIRIUS
Product designation	non-fused motor starter 3RA2
Design of the product	direct starter
Manufacturer's article number	
<ul style="list-style-type: none"> <li>• of the supplied contactor</li> <li>• of the supplied circuit-breakers</li> <li>• of the supplied link module</li> </ul>	<a href="#">3RT2027-1AK60</a> <a href="#">3RV2021-4EA15</a> <a href="#">3RA2921-1AA00</a>

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

<b>Shock resistance</b>	
• acc. to IEC 60068-2-27	6g / 11 ms
<b>Mechanical service life (switching cycles)</b>	
• of contactor typical	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>	27 ... 32 A
<b>Operating voltage</b>	
• rated value	690 V
• at AC-3 rated value maximum	690 V
<b>Operating frequency rated value</b>	50 ... 60 Hz
<b>Operating current</b>	
• at AC-3	
— at 400 V rated value	29 A
<b>Operating power</b>	
• at AC-3	
— at 400 V rated value	15 000 W
— at 500 V rated value	18 500 W

#### Control circuit/ Control

<b>Control supply voltage at AC</b>	
• at 50 Hz rated value	110 V
• at 50 Hz rated value	88 ... 121 V
• at 60 Hz rated value	120 V
• at 60 Hz rated value	96 ... 132 V
<b>Apparent holding power of magnet coil at AC</b>	9.4 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>	2
<b>Number of NO contacts for auxiliary contacts</b>	2

#### Protective and monitoring functions

<b>Trip class</b>	CLASS 10
<b>Design of the overload release</b>	thermal (bimetallic)
<b>Response value current</b>	
• of instantaneous short-circuit trip unit	416 A

#### UL/CSA ratings

<b>Full-load current (FLA) for three-phase AC motor</b>	
• at 480 V rated value	27 A

<ul style="list-style-type: none"> <li>• at 600 V rated value</li> </ul>	27 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 230 V rated value</li> </ul> </li> </ul>	5 hp
<ul style="list-style-type: none"> <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>	10 hp 10 hp 20 hp 25 hp

#### Short-circuit protection

<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
<ul style="list-style-type: none"> <li>• at 500 V acc. to IEC 60947-4-1 rated value</li> </ul>	100 000 A

#### Installation/ mounting/ dimensions

<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

#### Connections/ Terminals

<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
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[Miscellaneous](#)

Test Certificates	Marine / Shipping
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[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping	other	Railway
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[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=3RA2125-4EA27-0AK6>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2125-4EA27-0AK6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2125-4EA27-0AK6>

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

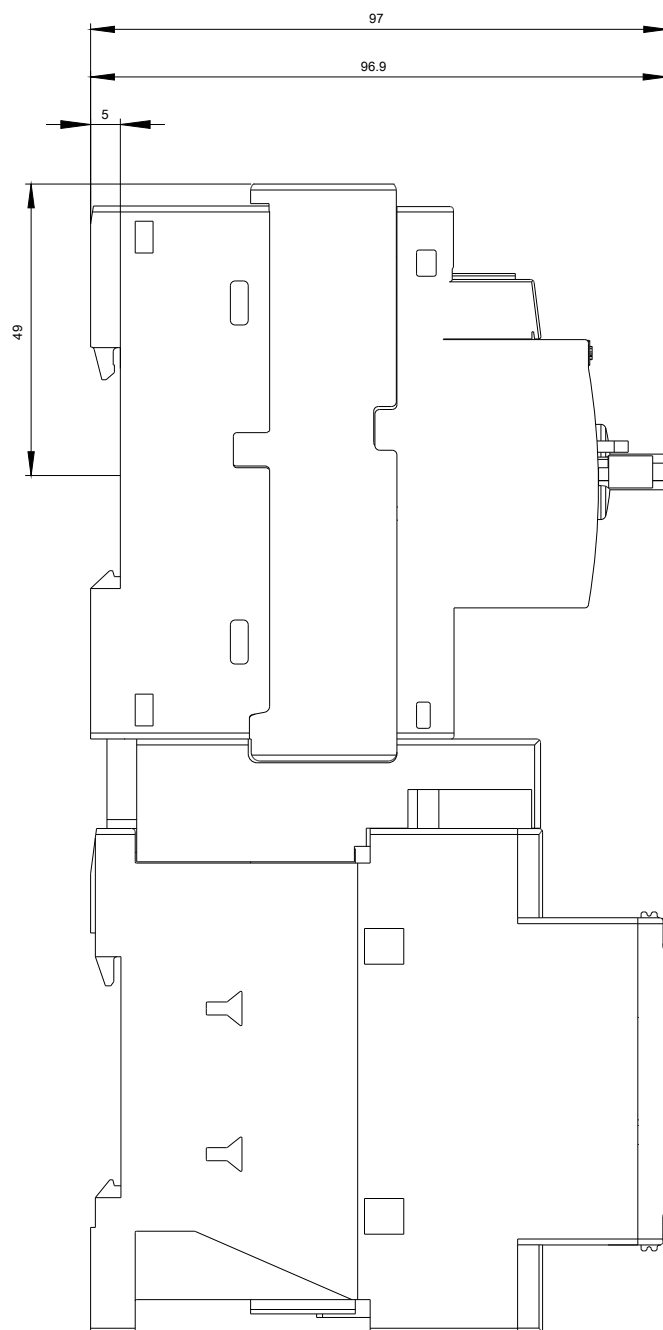
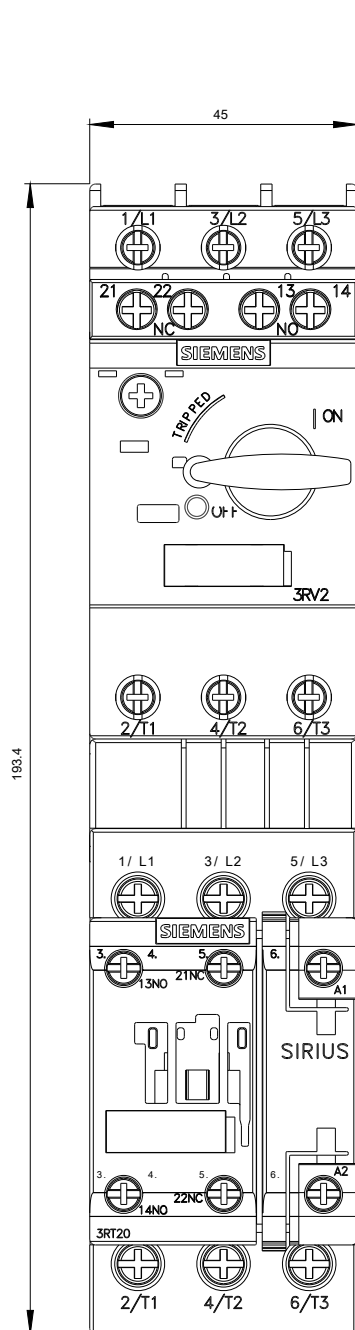
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2125-4EA27-0AK6&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2125-4EA27-0AK6&lang=en)

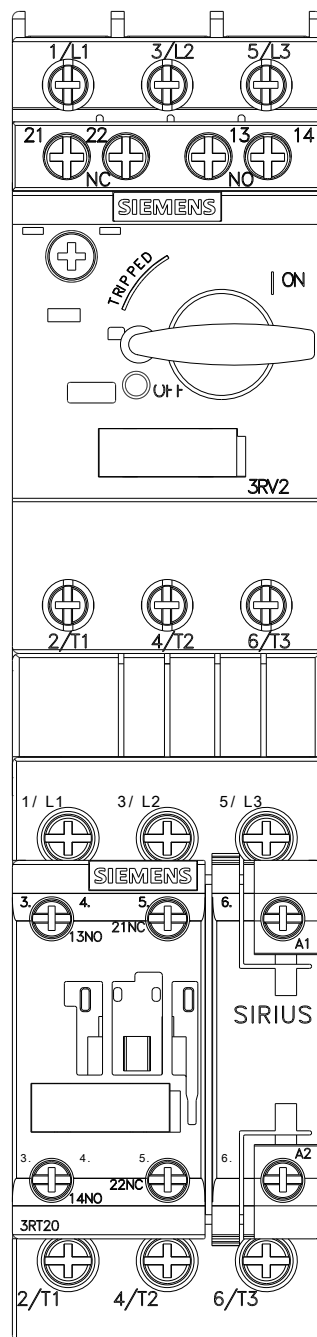
**Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current**

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2125-4EA27-0AK6/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2125-4EA27-0AK6&objecttype=14&gridview=view1>





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