

Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0  
 5.50...8.00 A 24 V DC Spring-type terminal for installation on  
 standard mounting rail (also fulfills type of coordination 1) Type of  
 coordination 2, Iq = 150 kA 1 NO+1 NC (contactor)



product brand name	SIRIUS
Product designation	Direct (on-line) starter
Design of the product	for standard rail or screw mounting
Product type designation	3RA21
Manufacturer's article number	
<ul style="list-style-type: none"> <li>• of the supplied contactor</li> </ul>	<a href="#">3RT2024-2BB40</a>
<ul style="list-style-type: none"> <li>• of the supplied circuit-breakers</li> </ul>	<a href="#">3RV2021-1HA20</a>
<ul style="list-style-type: none"> <li>• of the supplied link module</li> </ul>	<a href="#">3RA2921-2AA00</a>

General technical data	
Size of the circuit-breaker	S0
Size of load feeder	S0
<ul style="list-style-type: none"> <li>• Insulation voltage with degree of pollution 3 at AC rated value</li> </ul>	690 V
Surge voltage resistance rated value	6 kV
<ul style="list-style-type: none"> <li>• protection class IP on the front</li> </ul>	IP20
<ul style="list-style-type: none"> <li>• Protection class IP of the terminal</li> </ul>	IP20
Shock resistance	
<ul style="list-style-type: none"> <li>• acc. to IEC 60068-2-27</li> </ul>	6g / 11 ms
Mechanical service life (switching cycles)	

• of contactor typical	10 000 000
<b>Type of assignment</b>	2
<b>Type of protection according to ATEX directive 2014/34/EU</b>	Ex II (2) GD
Certificate of suitability according to ATEX directive 2014/34/EU	DMT 02 ATEX F 001

### Ambient conditions

<b>Ambient temperature</b>	
• during operation	-20 ... +60 °C
• during storage	-50 ... +80 °C
• during transport	-50 ... +80 °C
<b>Temperature compensation</b>	-20 ... +60 °C
Relative humidity during operation	10 ... 95 %

### 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>	5.5 ... 8 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	6.5 A
<b>Operating power</b>	
• at AC-3	
— at 400 V rated value	3 000 W

### Control circuit/ Control

<b>Type of voltage of the control supply voltage</b>	DC
<b>Control supply voltage at DC</b>	
• rated value	24 V
<b>Holding power of magnet coil at DC</b>	5.9 W

### Auxiliary circuit

<b>Product extension Auxiliary switch</b>	Yes
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### Protective and monitoring functions

<b>Trip class</b>	CLASS 10
<b>Design of the overload release</b>	thermal (bimetallic)

### UL/CSA ratings

<b>Full-load current (FLA) for three-phase AC motor</b>	
• at 480 V rated value	8 A

<b>Yielded mechanical performance [hp]</b>	
<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>2 hp</li> <li>5 hp</li> <li>5 hp</li> </ul>

### 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>	150 000 A

### Installation/ mounting/ dimensions

<ul style="list-style-type: none"> <li>• <b>mounting position</b></li> </ul>	vertical
<b>Mounting type</b>	screw and snap-on mounting onto 35 mm standard mounting rail
<b>Height</b>	243 mm
<b>Width</b>	45 mm
<b>Depth</b>	107 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>	<ul style="list-style-type: none"> <li>20 mm</li> <li>0 mm</li> <li>50 mm</li> <li>20 mm</li> <li>10 mm</li> <li>20 mm</li> <li>0 mm</li> <li>50 mm</li> <li>10 mm</li> <li>20 mm</li> </ul>

### Connections/ Terminals

<ul style="list-style-type: none"> <li>• Type of electrical connection for main current circuit</li> </ul>	spring-loaded terminals
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### Safety related data

<b>B10 value</b>	
<ul style="list-style-type: none"> <li>• with high demand rate acc. to SN 31920</li> </ul>	1 000 000
<b>Proportion of dangerous failures</b>	
<ul style="list-style-type: none"> <li>• with high demand rate acc. to SN 31920</li> </ul>	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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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



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=3RA2120-1HE24-0BB4>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1HE24-0BB4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1HE24-0BB4>

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

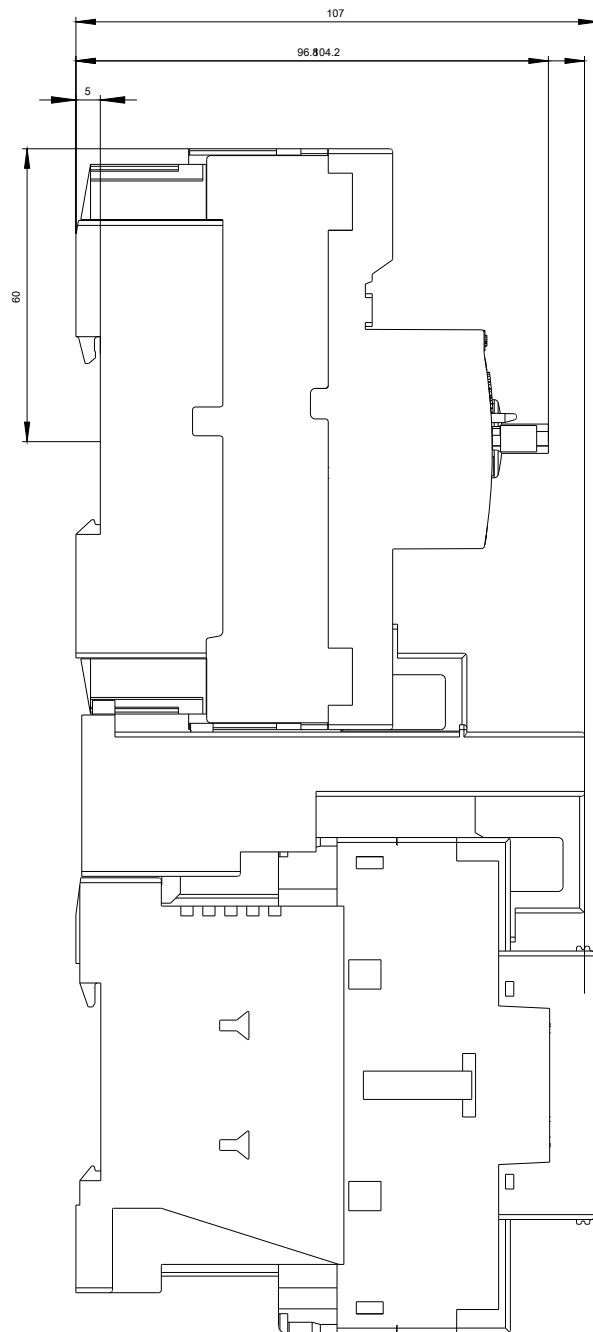
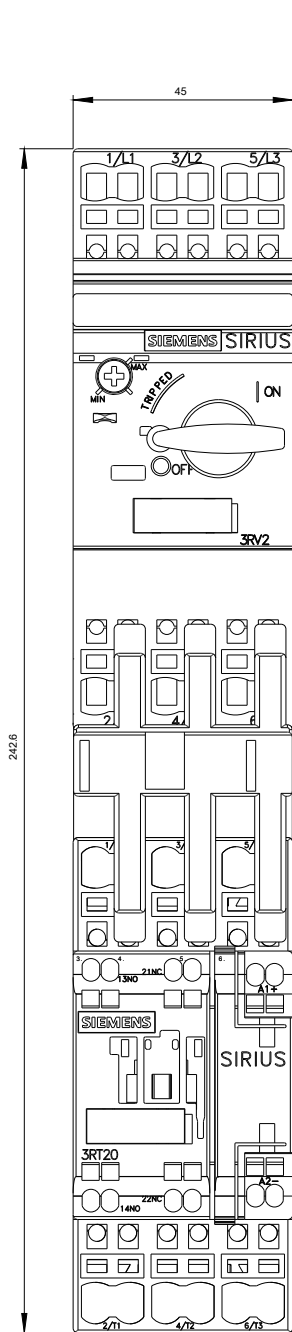
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2120-1HE24-0BB4&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1HE24-0BB4&lang=en)

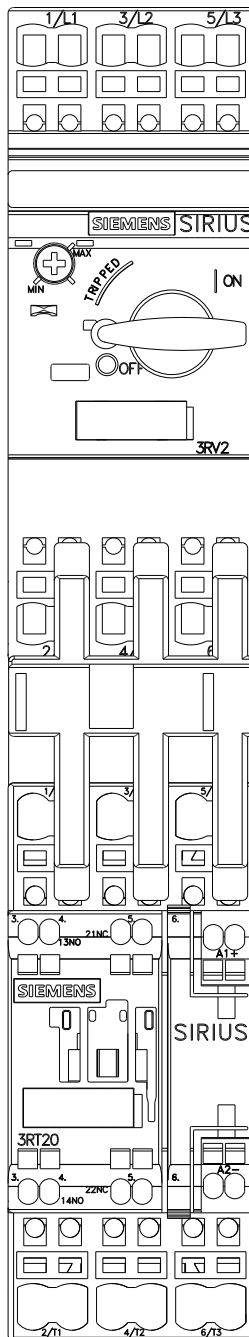
**Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current**

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1HE24-0BB4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-1HE24-0BB4&objecttype=14&gridview=view1>







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08/13/2020