

Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0  
 27.0...32.0 A 24 V DC screw terminal for installation on standard  
 mounting rail (also fulfills type of coordination 1) Type of coordination  
 2, I<sub>q</sub> = 150 kA 1 NO+1 NC (contactor)



<b>Product brand name</b>	SIRIUS
<b>Product designation</b>	Direct (on-line) starter
<b>Design of the product</b>	for standard rail or screw mounting
<b>Product type designation</b>	3RA21
<b>Manufacturer's article number</b>	
<ul style="list-style-type: none"> <li>• of the supplied contactor</li> </ul>	<a href="#">3RT2027-1BB40</a>
<ul style="list-style-type: none"> <li>• of the supplied circuit-breakers</li> </ul>	<a href="#">3RV2021-4EA10</a>
<ul style="list-style-type: none"> <li>• of the supplied link module</li> </ul>	<a href="#">3RA2921-1BA00</a>

General technical data	
<b>Size of the circuit-breaker</b>	S0
<b>Size of load feeder</b>	S0
<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>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>	IP20
<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>	
• 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>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>	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

#### 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	14 A
<b>Yielded mechanical performance [hp]</b>	
• for three-phase AC motor	
— at 220/230 V rated value	10 hp

— at 460/480 V rated value	20 hp
— at 575/600 V rated value	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>	
• at 400 V acc. to IEC 60947-4-1 rated value	150 000 A

### Installation/ mounting/ dimensions

<b>Mounting position</b>	vertical
<b>Mounting type</b>	screw and snap-on mounting onto 35 mm standard mounting rail
<b>Height</b>	193 mm
<b>Width</b>	45 mm
<b>Depth</b>	107 mm
<b>Required spacing</b>	
• for grounded parts	
— forwards	20 mm
— Backwards	0 mm
— upwards	50 mm
— at the side	20 mm
— downwards	10 mm
• for live parts	
— forwards	20 mm
— Backwards	0 mm
— upwards	50 mm
— downwards	10 mm
— at the side	20 mm






### Connections/ Terminals

<b>Type of electrical connection</b>	
• for main current circuit	screw-type terminals
<b>Type of connectable conductor cross-sections</b>	
• for main contacts	
— stranded	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
 CSA	 UL	
	 ATEX	 EG-Konf.
<a href="#">Miscellaneous</a>		

Test Certificates	Marine / Shipping
<a href="#">Type Test Certificates/Test Report</a>	<a href="#">Special Test Certificate</a>
	 ABS
	 BUREAU VERITAS
	 LRS
	 PRS

Marine / Shipping	other	Railway
 RINA	 RMRS	 DNV-GL DNVGL.COM/AF
	<a href="#">Confirmation</a>	<a href="#">Vibration and Shock</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=3RA2120-4EA27-0BB4>

### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-4EA27-0BB4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4EA27-0BB4>

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

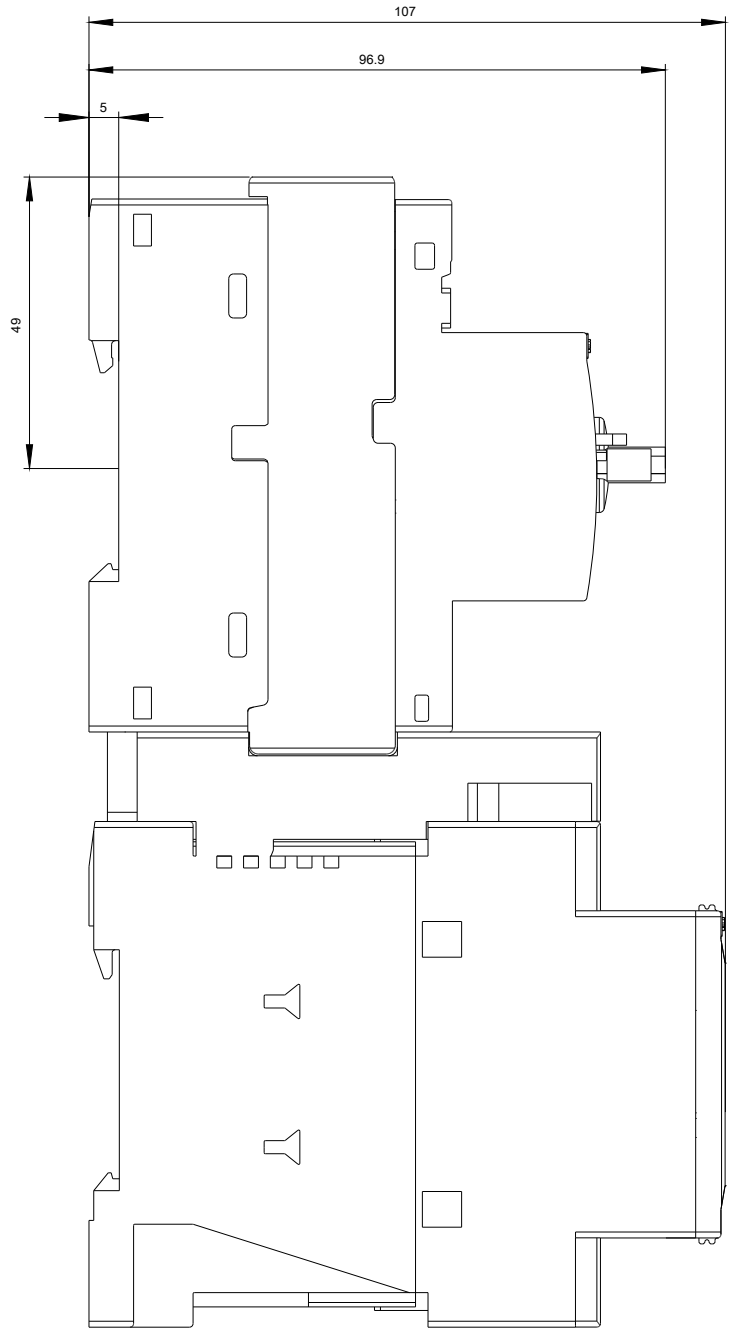
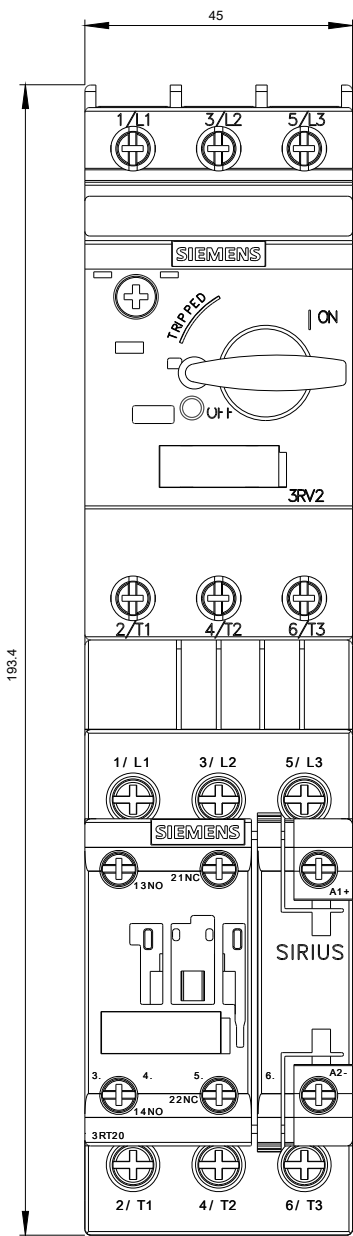
[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RA2120-4EA27-0BB4&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-4EA27-0BB4&lang=en)

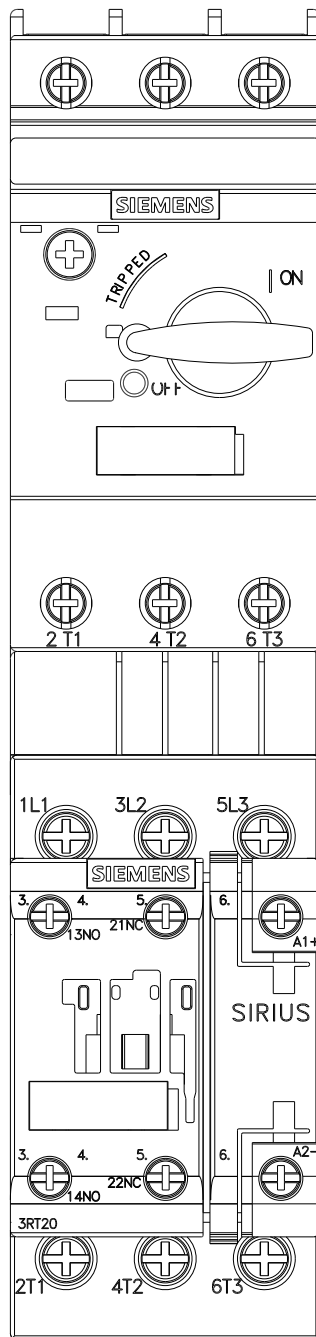
### Characteristic: Tripping characteristics, I<sup>2</sup>t, Let-through current

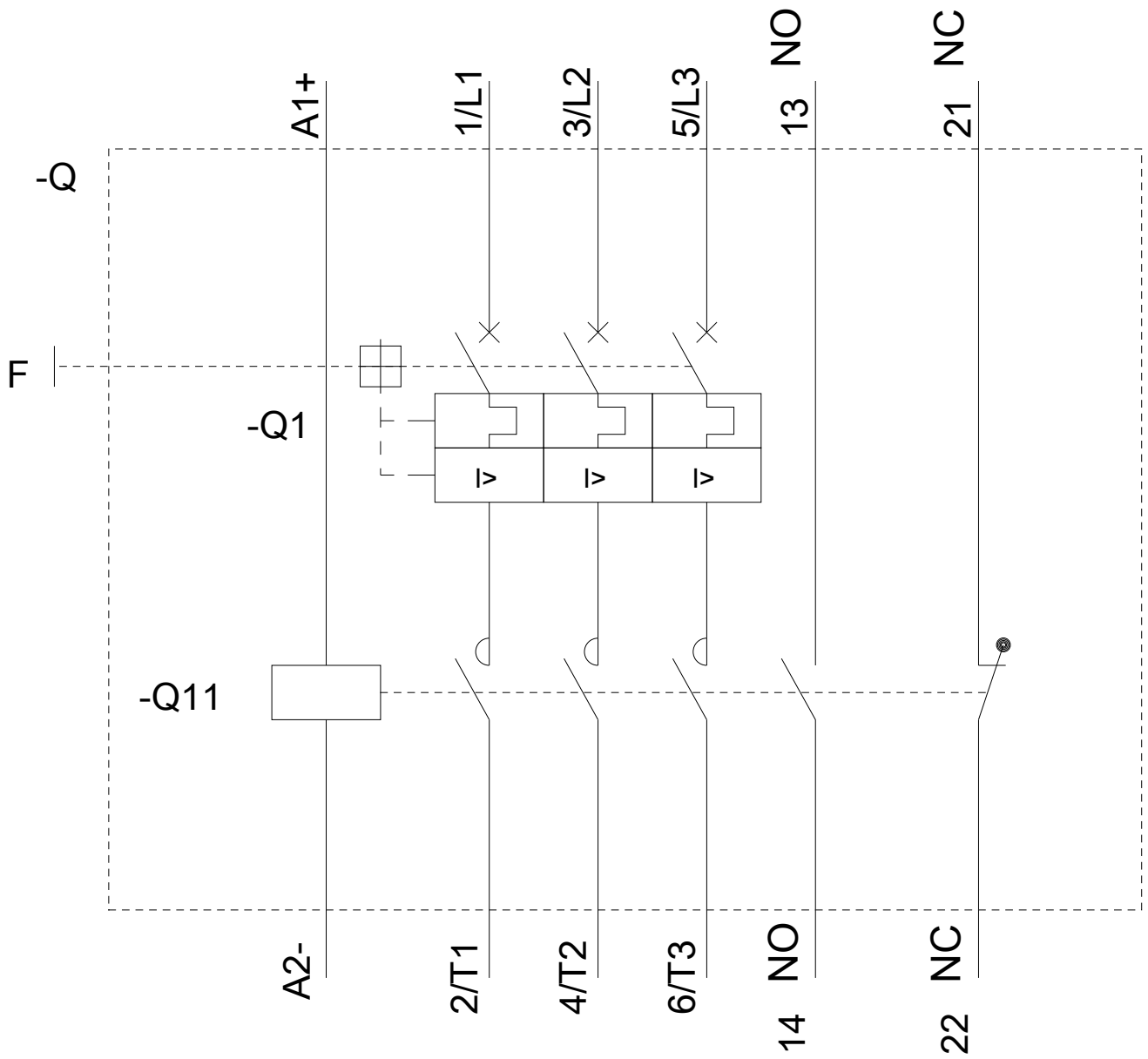
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4EA27-0BB4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-4EA27-0BB4&objecttype=14&gridview=view1>







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