

Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0
 27.0...32.0 A 230 V AC screw terminal for installation on standard
 mounting rail (also fulfills type of coordination 1) Type of coordination
 2, I_q = 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"> • of the supplied contactor 	3RT2027-1AP00
<ul style="list-style-type: none"> • of the supplied circuit-breakers 	3RV2021-4EA10
<ul style="list-style-type: none"> • of the supplied link module 	3RA2921-1AA00

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

Mechanical service life (switching cycles)	
• of contactor typical	10 000 000
Type of assignment	2
Type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD
Certificate of suitability according to ATEX directive 2014/34/EU	DMT 02 ATEX F 001

Ambient conditions	
Temperature compensation	-20 ... +60 °C
Relative humidity during operation	10 ... 95 %

Main circuit	
Number of poles for main current circuit	3
Design of the switching contact	electromechanical
Adjustable pick-up value current of the current-dependent overload release	27 ... 32 A
Operating voltage	
• rated value	690 V
• at AC-3 rated value maximum	690 V
Operating frequency rated value	50 ... 60 Hz
Operating current	
• at AC-3	
— at 400 V rated value	29 A
Operating power	
• at AC-3	
— at 400 V rated value	15 000 W

Control circuit/ Control	
Type of voltage of the control supply voltage	AC
Control supply voltage at AC	
• at 50 Hz rated value	230 V
Apparent holding power of magnet coil at AC	9.8 V·A

Auxiliary circuit	
Product extension Auxiliary switch	Yes

Protective and monitoring functions	
Trip class	CLASS 10
Design of the overload release	thermal (bimetallic)

UL/CSA ratings	
Full-load current (FLA) for three-phase AC motor	
• at 480 V rated value	14 A
Yielded mechanical performance [hp]	
• 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

Product function Short circuit protection	Yes
Design of the short-circuit trip	magnetic
Conditional short-circuit current (I_q)	
• at 400 V acc. to IEC 60947-4-1 rated value	150 000 A

Installation/ mounting/ dimensions

Mounting position	vertical
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail
Height	193 mm
Width	45 mm
Depth	97 mm
Required spacing	
• 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

Type of electrical connection	
• for main current circuit	screw-type terminals

Safety related data

B10 value	
• with high demand rate acc. to SN 31920	1 000 000
Proportion of dangerous failures	
• 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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[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=3RA2120-4EA27-0AP0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-4EA27-0AP0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4EA27-0AP0>

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

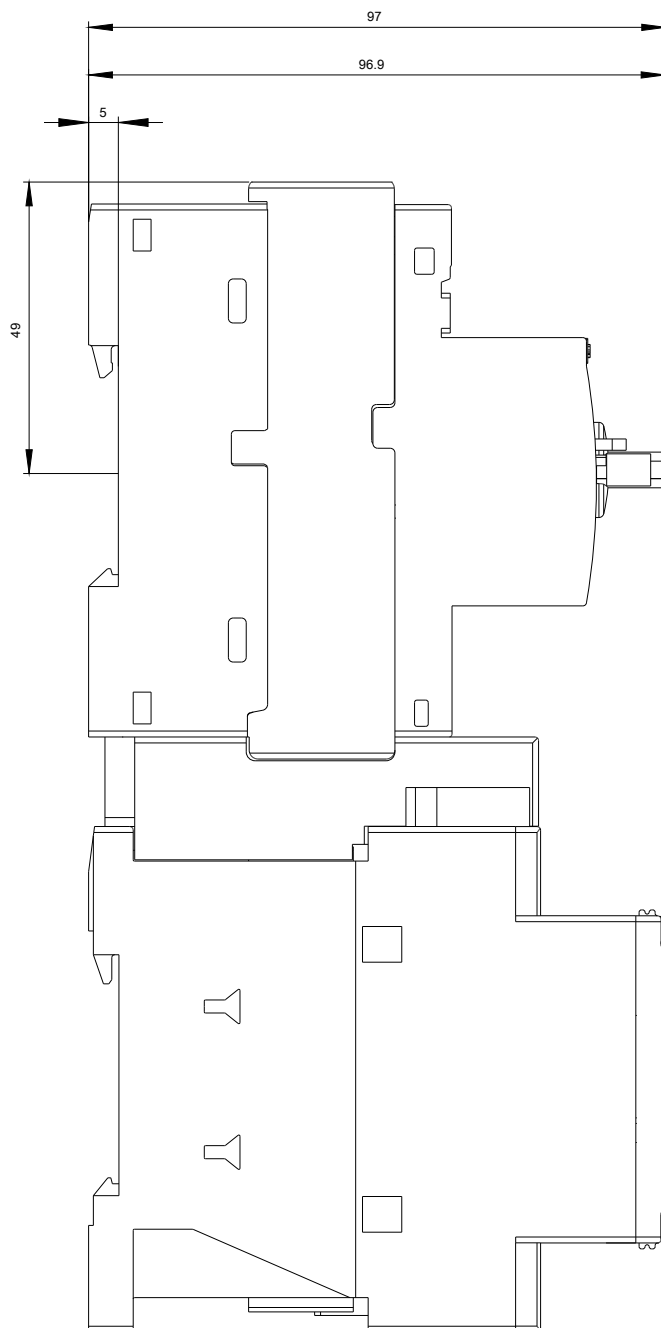
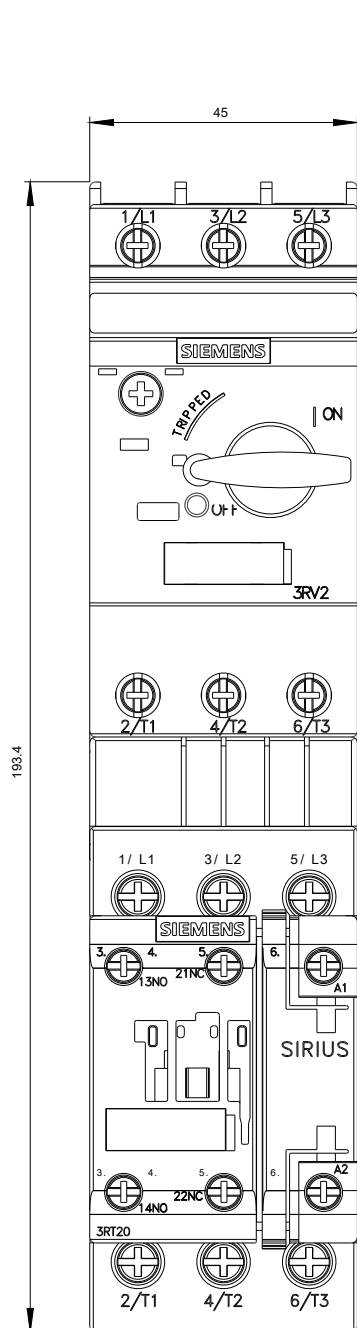
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-4EA27-0AP0&lang=en

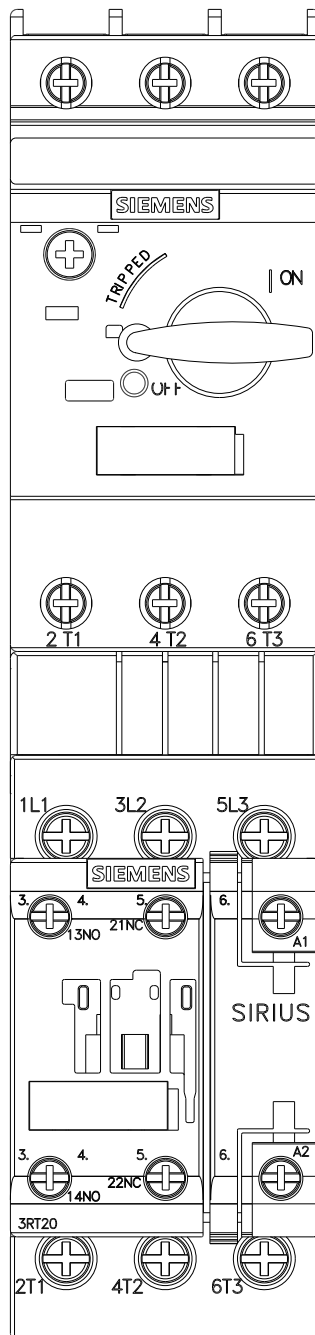
Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4EA27-0AP0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-4EA27-0AP0&objecttype=14&gridview=view1>







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