

Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0
 9.00...12.5 A 24 V DC 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 	3RT2024-1BB40
<ul style="list-style-type: none"> • of the supplied circuit-breakers 	3RV2011-1KA10
<ul style="list-style-type: none"> • of the supplied link module 	3RA2921-1BA00

General technical data	
Size of the circuit-breaker	S00
Size of load feeder	S0
<ul style="list-style-type: none"> • Insulation voltage with degree of pollution 3 at AC rated value 	690 V
Surge voltage resistance rated value	6 kV
<ul style="list-style-type: none"> • protection class IP on the front 	IP20
<ul style="list-style-type: none"> • Protection class IP 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	
Ambient temperature	
• during operation	-20 ... +60 °C
• during storage	-50 ... +80 °C
• during transport	-50 ... +80 °C
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	9 ... 12.5 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	11.5 A
Operating power	
• at AC-3	
— at 400 V rated value	5 500 W

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

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	11 A

Yielded mechanical performance [hp]	
<ul style="list-style-type: none"> • for three-phase AC motor <ul style="list-style-type: none"> — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value 	<ul style="list-style-type: none"> 3 hp 3 hp 7.5 hp 10 hp

Short-circuit protection

Product function Short circuit protection	Yes
Design of the short-circuit trip	magnetic
Conditional short-circuit current (I_q)	
<ul style="list-style-type: none"> • at 400 V acc. to IEC 60947-4-1 rated value 	150 000 A

Installation/ mounting/ dimensions

<ul style="list-style-type: none"> • mounting position 	vertical
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail
Height	193 mm
Width	45 mm
Depth	107 mm
Required spacing	
<ul style="list-style-type: none"> • for grounded parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — Backwards — upwards — downwards — at the side 	<ul style="list-style-type: none"> 20 mm 0 mm 50 mm 20 mm 10 mm 20 mm 0 mm 50 mm 10 mm 20 mm

Connections/ Terminals

<ul style="list-style-type: none"> • Type of electrical connection for main current circuit 	screw-type terminals
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — stranded • at AWG conductors for main contacts 	<ul style="list-style-type: none"> 1 ... 10 mm², 2x (2.5 ... 6 mm²) 2x (16 ... 12), 2x (14 ... 8)
Connectable conductor cross-section for main contacts	
<ul style="list-style-type: none"> • finely stranded with core end processing 	1 ... 6 mm ²

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](#)



ABS

BUREAU VERITAS

LRS

PRS

Marine / Shipping	other	Railway
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[Confirmation](#)

[Vibration and Shock](#)

RINA

RMRS

DNV-GL

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=3RA2120-1KA24-0BB4>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1KA24-0BB4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1KA24-0BB4>

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

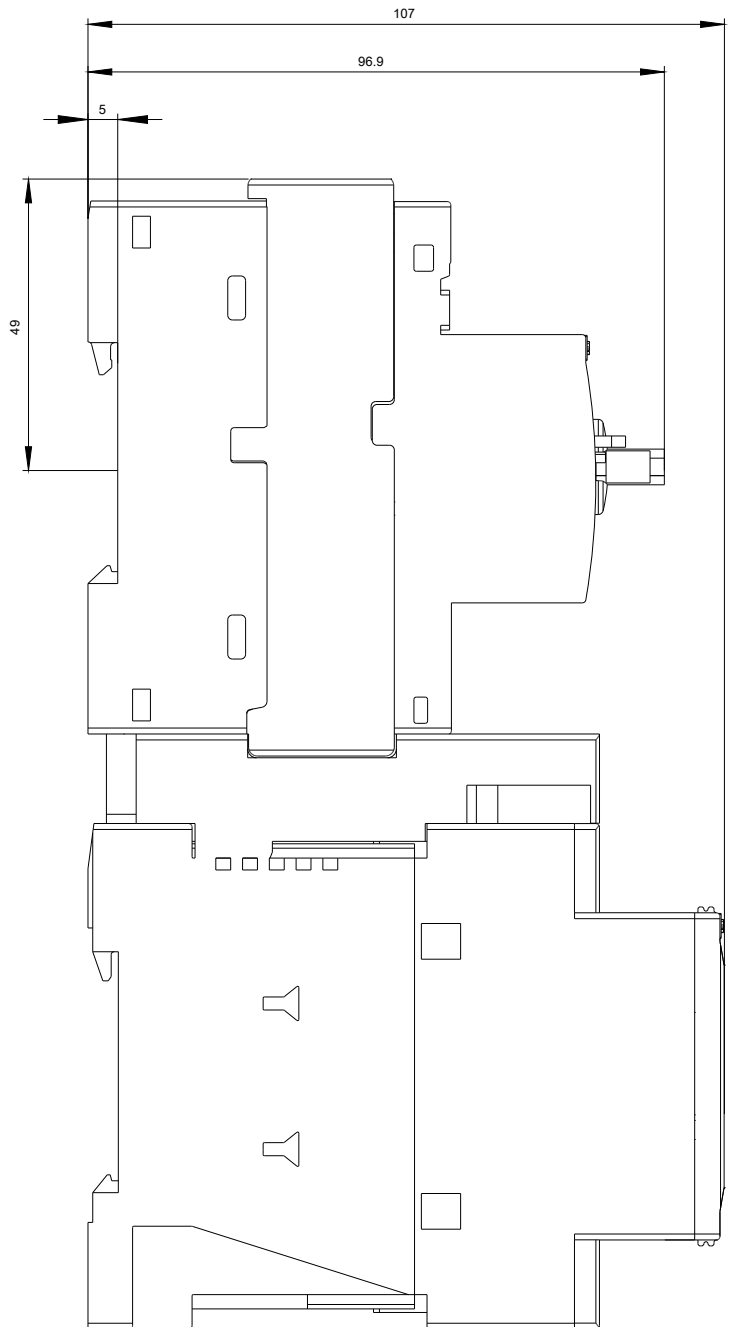
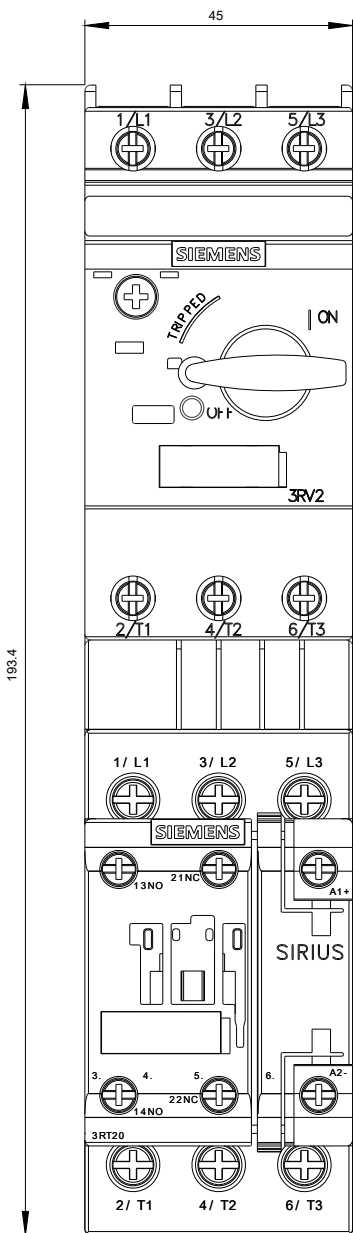
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1KA24-0BB4&lang=en

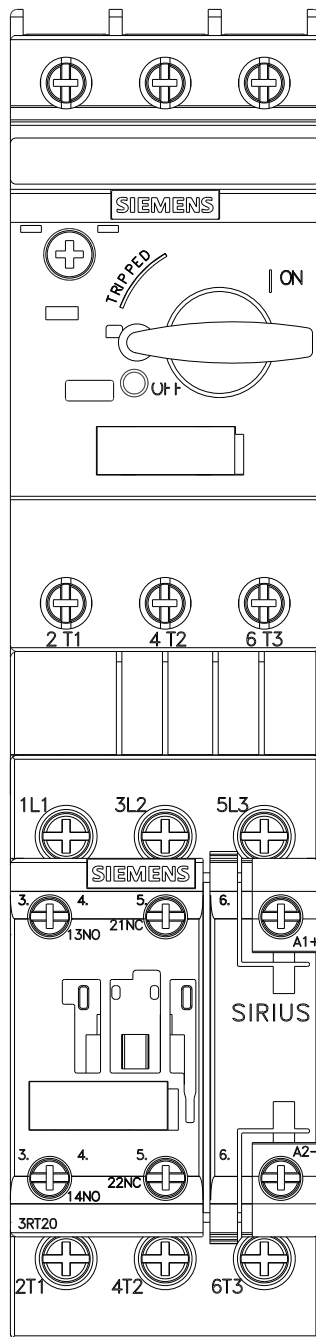
Characteristic: Tripping characteristics, I^t, Let-through current

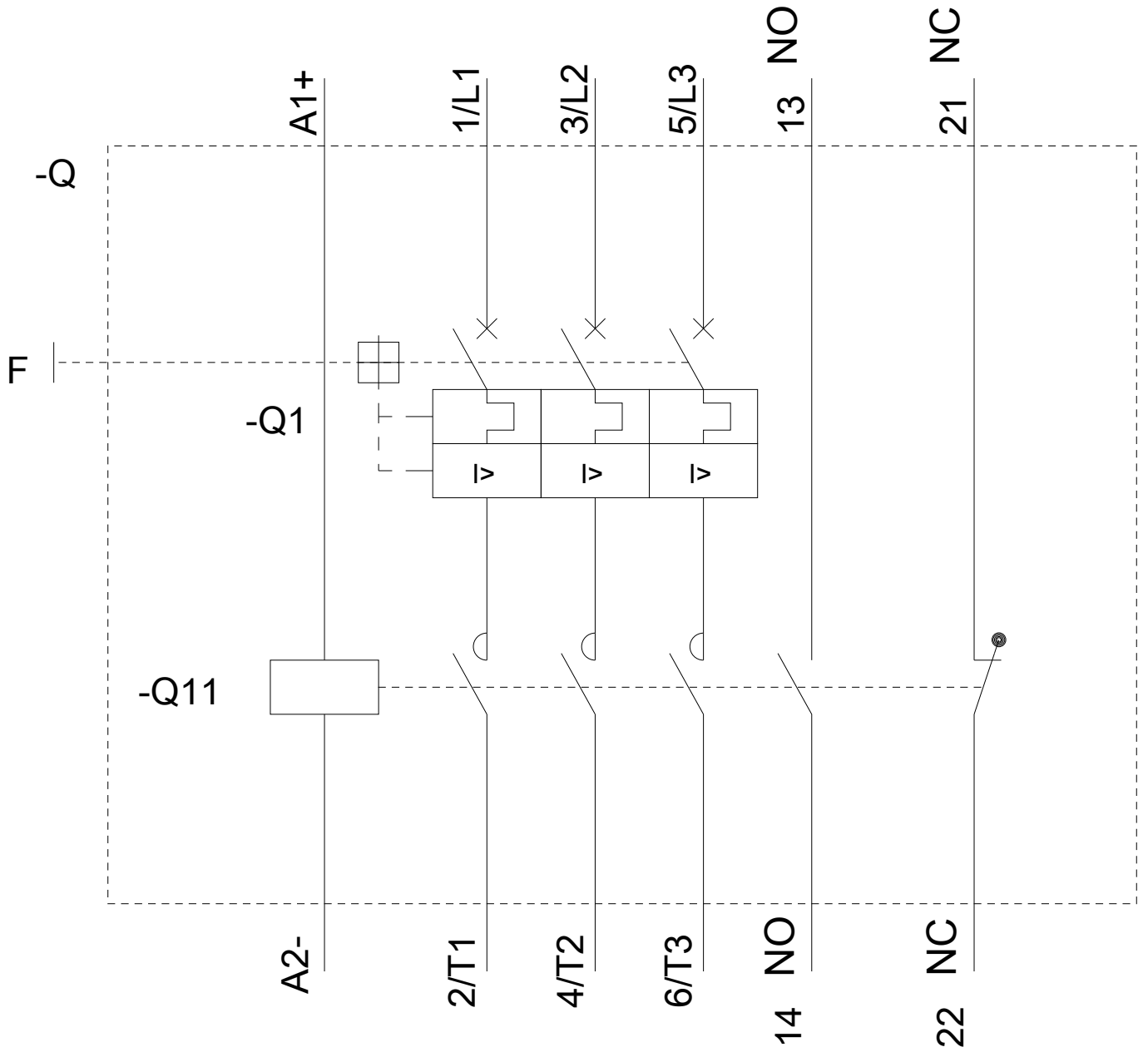
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1KA24-0BB4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-1KA24-0BB4&objecttype=14&gridview=view1>







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