

FUSELESS LOAD FEEDER DIRECT START, AC 400V, SZ. S0, 9...12.5A, AC 110/120V 50/60HZ SCREW TERMINAL FOR RAIL MOUNTING, TYPE OF ASSIGNMENT 2,IQ = 150KA (ALSO FULFILLS TYPE OF ASSIGNMENT 1) 1NO+1NC (CONTACTOR)



Product brand name	SIRIUS
Product designation	non-fused load feeders 3RA2
Design of the product	direct starter
Manufacturer's article number	<ul style="list-style-type: none"> • of the supplied contactor 3RT2024-1AK60 • of the supplied circuit-breakers 3RV2021-1KA10 • of the supplied link module 3RA2921-1AA00

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

Shock resistance	
<ul style="list-style-type: none"> • acc. to IEC 60068-2-27 	6g / 11 ms
Mechanical service life (switching cycles)	
<ul style="list-style-type: none"> • of contactor typical 	10 000 000
Type of assignment	2

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	
<ul style="list-style-type: none"> • rated value 	690 V
<ul style="list-style-type: none"> • at AC-3 rated value maximum 	690 V
Operating frequency rated value	50 ... 60 Hz
Operating current	
<ul style="list-style-type: none"> • at AC-3 — at 400 V rated value 	11.5 A
Operating power	
<ul style="list-style-type: none"> • at AC-3 — at 400 V rated value — at 500 V rated value — at 690 V rated value 	5 500 W 7 500 W 7 500 W

Control circuit/ Control

Control supply voltage at AC	
<ul style="list-style-type: none"> • at 50 Hz rated value • at 60 Hz rated value 	110 V 120 V
Apparent holding power of magnet coil at AC	8.5 V·A

Protective and monitoring functions

Trip class	CLASS 10
Design of the overload release	thermal (bimetallic)
Response value current	
<ul style="list-style-type: none"> • of instantaneous short-circuit trip unit 	162.5 A

UL/CSA ratings

Full-load current (FLA) for three-phase AC motor	
<ul style="list-style-type: none"> • at 480 V rated value • at 600 V rated value 	11 A 11 A
Yielded mechanical performance [hp]	
<ul style="list-style-type: none"> • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for three-phase AC motor 	0.5 hp 2 hp

— at 200/208 V rated value	3 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	7.5 hp
— at 575/600 V rated value	10 hp

Short-circuit protection

Product function Short circuit protection	Yes
Design of the short-circuit trip	magnetic
Conditional short-circuit current (I_q)	
• at 690 V acc. to IEC 60947-4-1 rated value	4 000 A
• at 400 V acc. to IEC 60947-4-1 rated value	153 000 A
• at 500 V acc. to IEC 60947-4-1 rated value	42 000 A

Installation/ mounting/ dimensions

Mounting position	vertical
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail
Height	193.1 mm
Width	45 mm
Depth	97.1 mm
Required spacing	
• for grounded parts	
— forwards	10 mm
— Backwards	0 mm
— upwards	30 mm
— at the side	9 mm
— downwards	10 mm
• for live parts	
— forwards	10 mm
— Backwards	0 mm
— upwards	30 mm
— downwards	10 mm
— at the side	9 mm

Connections/ Terminals

Type of electrical connection	
• for main current circuit	screw-type terminals
Type of connectable conductor cross-sections	
• for main contacts	
— stranded	1 ... 10 mm ² , 2x (2.5 ... 6 mm ²)
• at AWG conductors for main contacts	2x (16 ... 12), 2x (14 ... 8)
Connectable conductor cross-section for main contacts	
• finely stranded with core end processing	1 ... 6 mm ²

Safety related data

B10 value	
<ul style="list-style-type: none"> with high demand rate acc. to SN 31920 	1 000 000
Proportion of dangerous failures	
<ul style="list-style-type: none"> 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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CSA



UL



ATEX



EG-Konf.

[Miscellaneous](#)

Test Certificates	Marine / Shipping
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



ABS



LRS



PRS



RINA

Marine / Shipping	other	Railway
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RMRS



DNVGL.COM/AF

[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=3RA2120-1KA24-0AK6>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1KA24-0AK6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1KA24-0AK6>

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

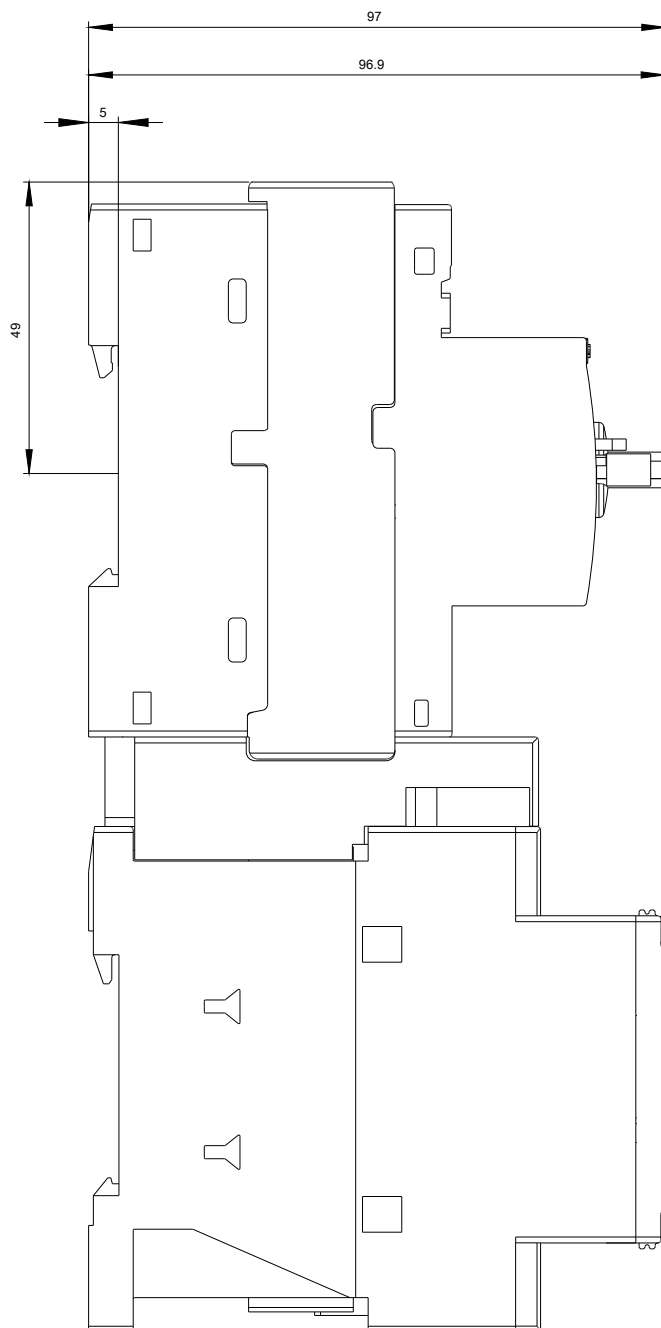
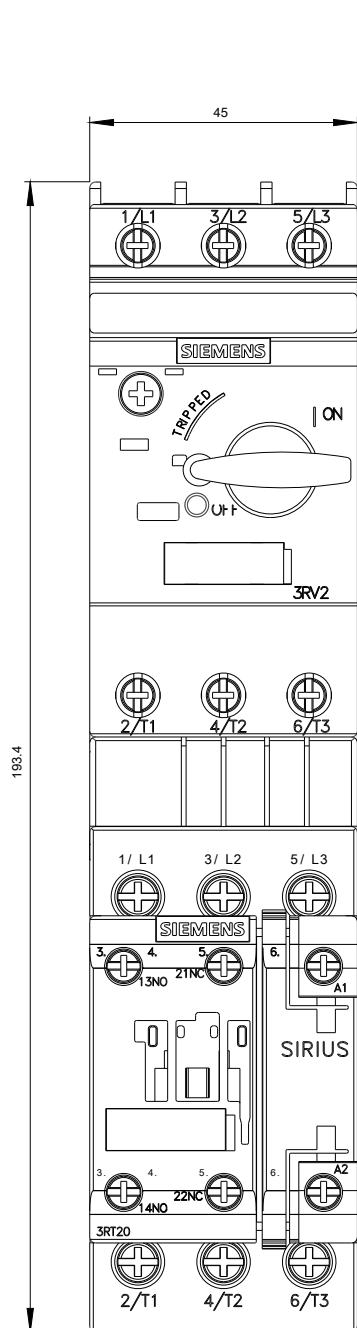
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1KA24-0AK6&lang=en

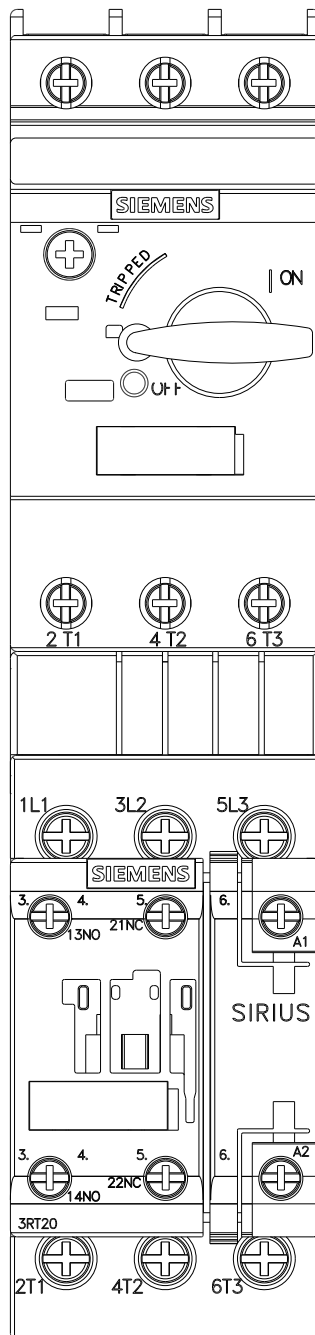
Characteristic: Tripping characteristics, I^t, Let-through current

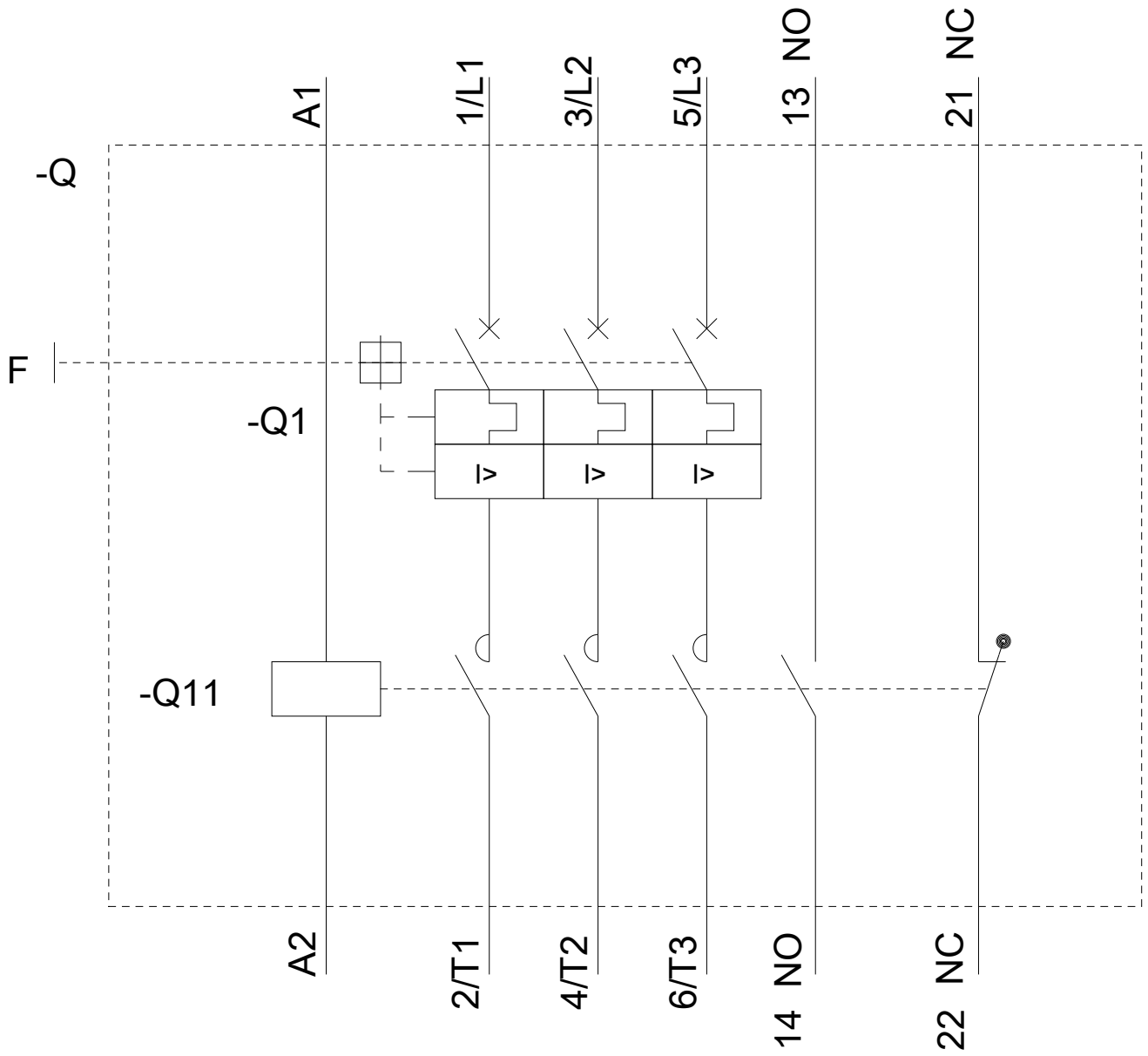
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1KA24-0AK6/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-1KA24-0AK6&objecttype=14&gridview=view1>







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03/16/2020