



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	
• of the supplied contactor	3RT2024-1BB40
• of the supplied circuit-breakers	3RV2011-1KA10
• of the supplied link module	3RA2921-1BA00

General technical data

size of the circuit-breaker	S00
size of load feeder	S0
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
degree of protection NEMA rating	other
shock resistance according to IEC 60068-2-27	6g / 11 ms
mechanical service life (operating 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
Substance Prohibitance (Date)	10/01/2009

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 current response 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
• at AC-3e rated value maximum	690 V
operating frequency rated value	50 ... 60 Hz
operational current	

• at AC-3 at 400 V rated value • at AC-3e at 400 V rated value	11.5 A
operating power	11.5 A
• at AC-3 — at 400 V rated value • at AC-3e — at 400 V rated value	5 500 W
	5 500 kW
Control circuit/ Control	
type of voltage of the control supply voltage	DC
control supply voltage at DC	
• rated value • rated value	24 V
	24 ... 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 3-phase AC motor	
• at 480 V rated value	11 A
yielded mechanical performance [hp]	
• for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value	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)	
• at 400 V according to IEC 60947-4-1 rated value	150 000 A
Installation/ mounting/ dimensions	
mounting position	vertical
fastening method	screw and snap-on mounting onto 35 mm DIN rail
height	193 mm
width	45 mm
depth	107 mm
required spacing	
• for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — downwards — at the side	20 mm
	0 mm
	50 mm
	20 mm
	10 mm
	20 mm
	0 mm
	50 mm
	10 mm
	20 mm
Connections/ Terminals	
type of electrical connection	
• for main current circuit • for auxiliary and control circuit	screw-type terminals
	screw-type terminals
type of connectable conductor cross-sections	
• for main contacts — stranded • at AWG cables for main contacts	1 ... 10 mm ² , 2x (2.5 ... 6 mm ²)
	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 with high demand rate according to SN 31920

1 000 000

proportion of dangerous failures

- with high demand rate according to SN 31920

73 %

touch protection on the front according to IEC 60529

finger-safe, for vertical contact from the front

Communication/ Protocol

protocol is supported

- PROFINET IO protocol
- PROIsafe protocol

No

No

protocol is supported AS-Interface protocol

No

Certificates/ approvals

General Product Approval

For use in hazard-
ous locations

Declaration of
Conformity



[Confirmation](#)



EG-Konf.

Declaration of
Conformity

Test Certificates

Marine / Shipping



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



LRS

Marine / Shipping

other

Railway



[Confirmation](#)

[Vibration and Shock](#)

Dangerous Good

[Transport Information](#)

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, ...)

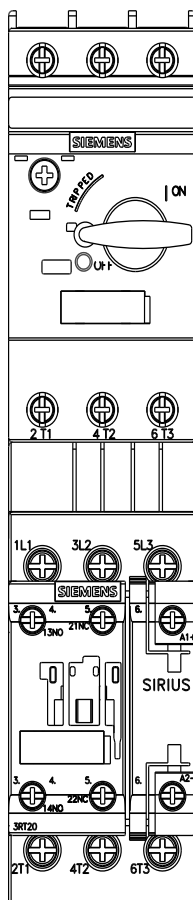
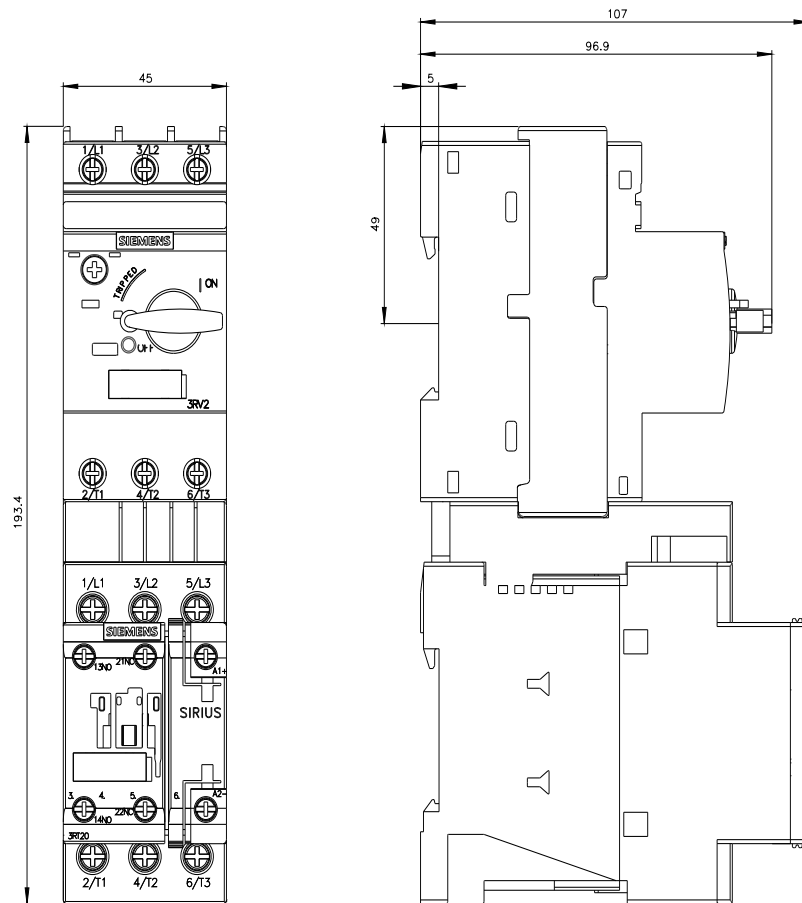
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1KA24-0BB4&lang=en

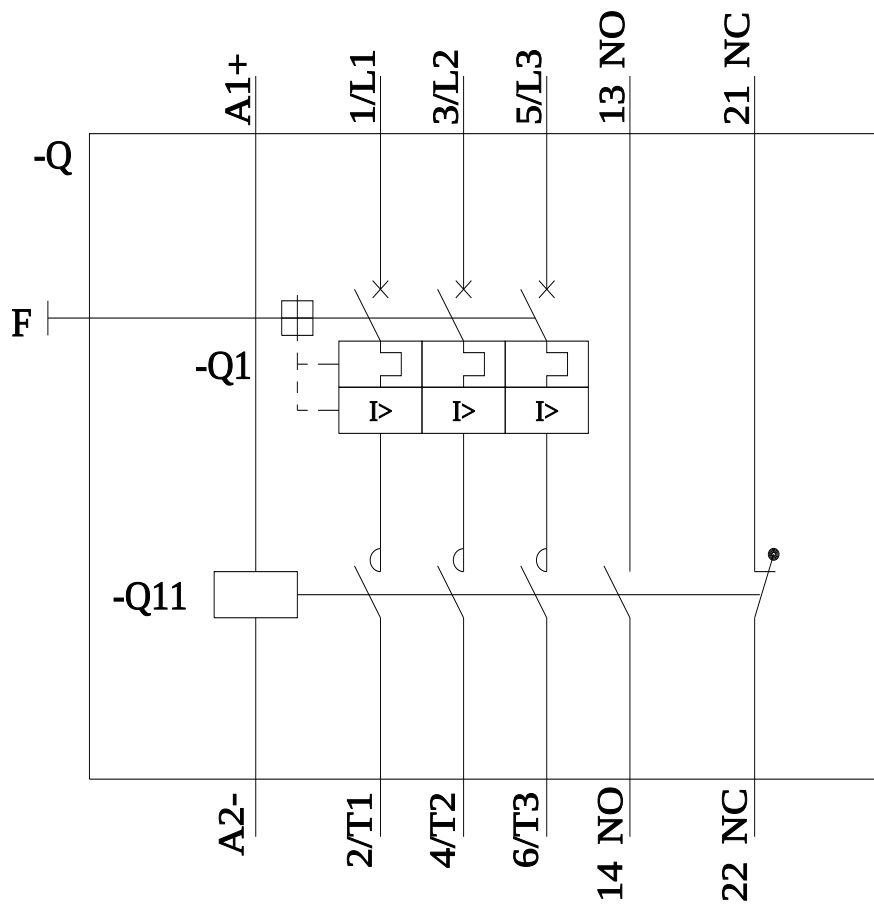
Characteristic: Tripping characteristics, I²t, Let-through current

<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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