



Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 3.50...5.00 A 110/120 V AC, 50/60 Hz 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	non-fused load feeders 3RA2
design of the product	direct starter
manufacturer's article number	
• of the supplied contactor	3RT2024-1AK60
• of the supplied circuit-breakers	3RV2021-1FA10
• of the supplied link module	3RA2921-1AA00
General technical data	
size of the circuit-breaker	S0
size of load feeder	S0
product extension auxiliary switch	Yes
insulation voltage with degree of pollution 3 at AC rated value	690 V
degree of pollution	3
surge voltage resistance rated value	6 kV
shock resistance acc. to IEC 60068-2-27	6g / 11 ms
mechanical service life (switching cycles) of contactor typical	10 000 000
type of assignment	2
Substance Prohibitance (Date)	01.10.2009 00:00:00
Ambient conditions	
• ambient temperature during operation	-20 ... +60 °C
• ambient temperature during storage	-50 ... +80 °C
• ambient temperature during transport	-50 ... +80 °C
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	3.5 ... 5 A
• operating voltage rated value	690 V
• operating voltage at AC-3 rated value maximum	690 V
operating frequency rated value	50 ... 60 Hz
operational current at AC-3 at 400 V rated value	3.6 A
operating power at AC-3	
• at 400 V rated value	1 500 W
• at 500 V rated value	2 200 W
• at 690 V rated value	3 000 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 	<p>110 V 120 V</p>
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 of instantaneous short-circuit trip unit	65 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
<ul style="list-style-type: none"> ● at 480 V rated value ● at 600 V rated value 	<p>4.8 A 4.55 A</p>
yielded mechanical performance [hp]	
<ul style="list-style-type: none"> ● for single-phase AC motor <ul style="list-style-type: none"> — at 110/120 V rated value — at 230 V rated value ● for 3-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 	<p>0.17 hp 0.5 hp 1 hp 1 hp 3 hp 3 hp</p>
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 690 V acc. to IEC 60947-4-1 rated value ● at 400 V acc. to IEC 60947-4-1 rated value ● at 500 V acc. to IEC 60947-4-1 rated value 	<p>4 000 A 153 000 A 100 000 A</p>
Installation/ mounting/ dimensions	
mounting position	vertical
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail
height	193.1 mm
width	45 mm
depth	97.1 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 	<p>10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 mm 10 mm 9 mm</p>
Connections/ Terminals	
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 stranded ● at AWG cables for main contacts 	<p>1 ... 10 mm², 2x (2.5 ... 6 mm²) 2x (16 ... 12), 2x (14 ... 8)</p>
<ul style="list-style-type: none"> ● 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 acc. to SN 31920	1 000 000
proportion of dangerous failures with high demand rate	73 %

acc. to SN 31920	
protection class IP on the front acc. to IEC 60529	IP20
touch protection on the front acc. to IEC 60529	finger-safe, for vertical contact from the front

Certificates/ approvals

General Product Approval	For use in hazardous locations	Declaration of Conformity
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[Miscellaneous](#)



Test Certificates **Marine / Shipping**

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping **other** **Railway**



[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=3RA2120-1FA24-0AK6>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1FA24-0AK6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1FA24-0AK6>

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

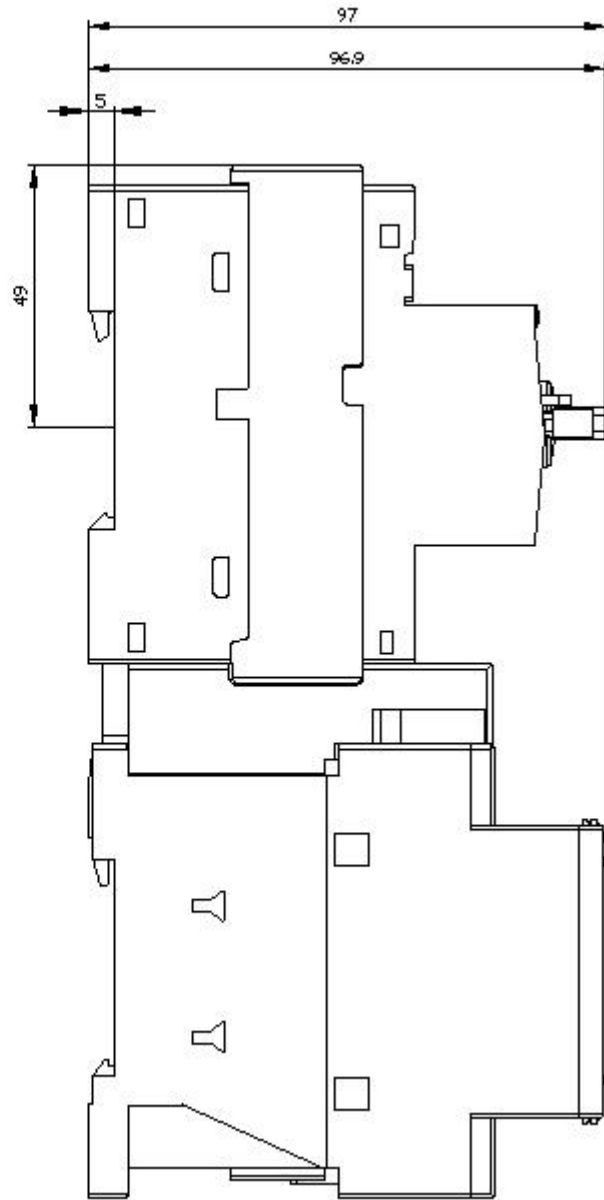
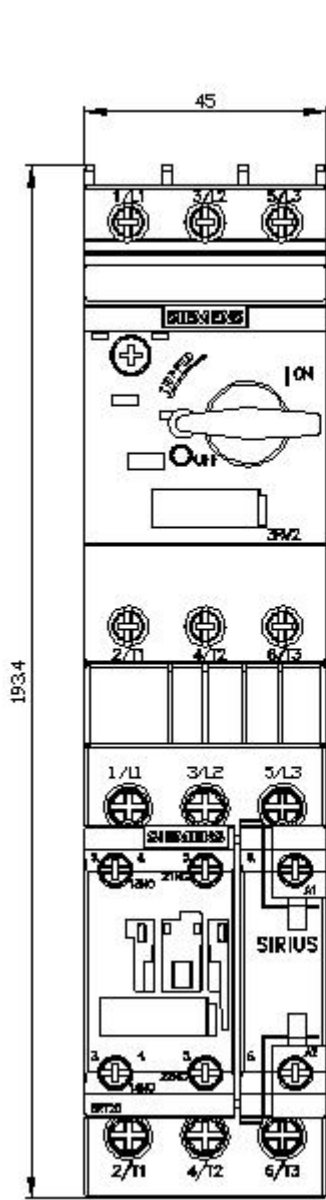
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1FA24-0AK6&lang=en

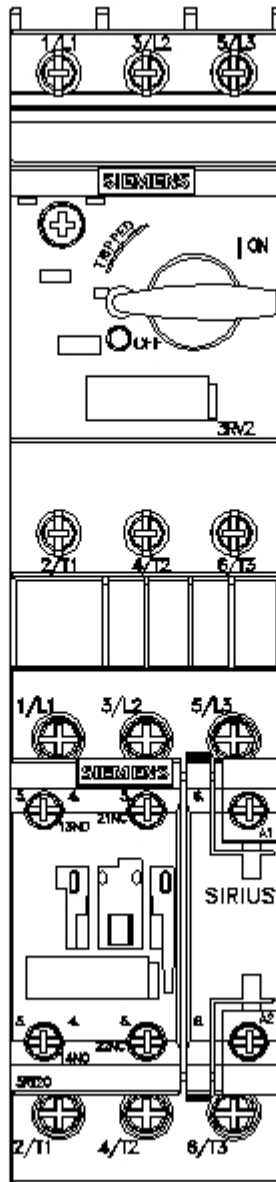
Characteristic: Tripping characteristics, I²t, Let-through current

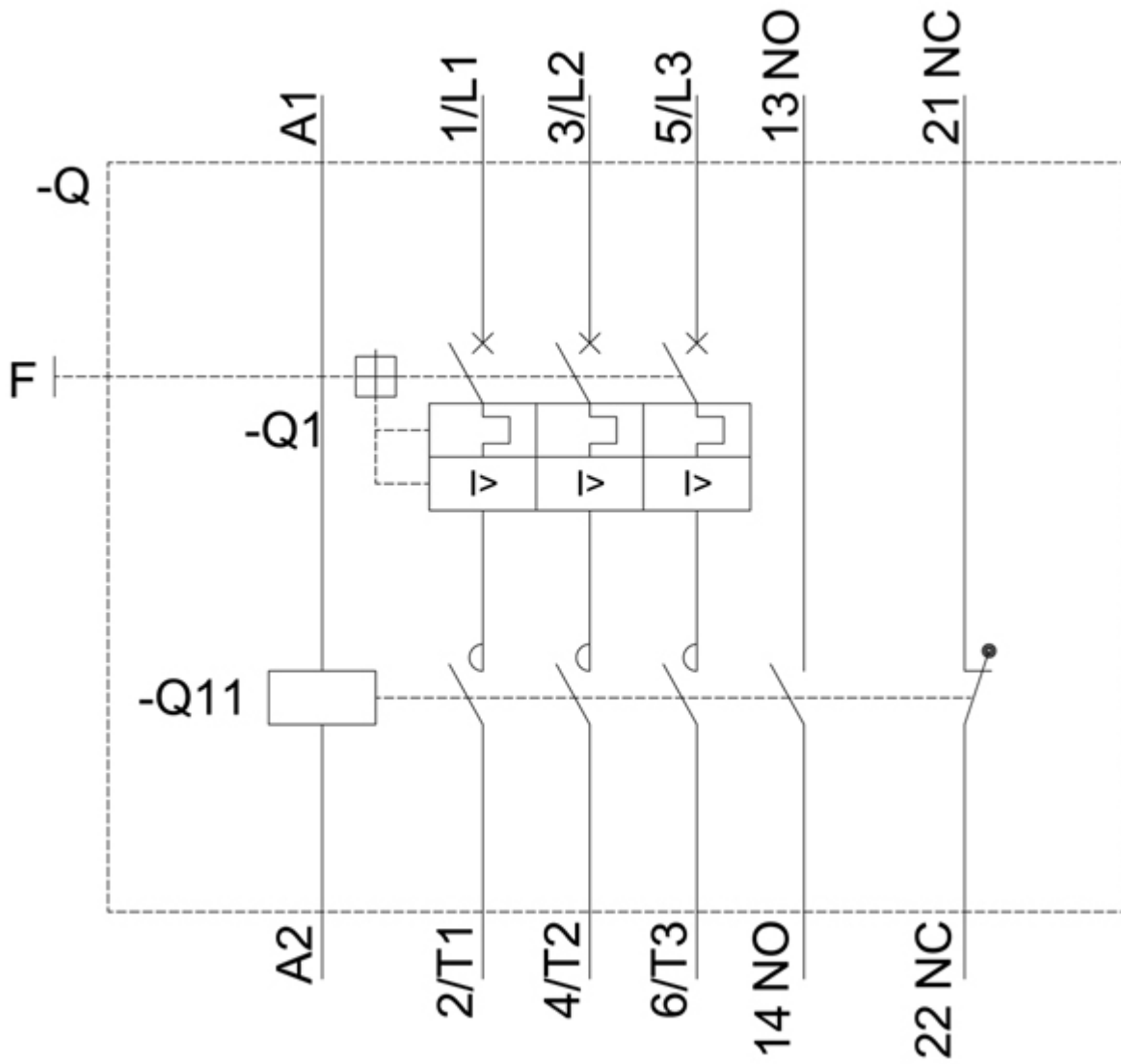
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1FA24-0AK6/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-1FA24-0AK6&objecttype=14&gridview=view1>







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