



Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 13...20 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) with diode combination plugged in at the front

product brand name	SIRIUS
product designation	Direct (on-line) starter
design of the product	for DIN-rail or screw mounting
product type designation	3RA21
manufacturer's article number	
<ul style="list-style-type: none"> • of the supplied contactor • of the supplied circuit-breakers • of the supplied link module 	3RT2027-1FB40 3RV2021-4BA10 3RA2921-1BA00
General technical data	
size of the circuit-breaker	S0
size of load feeder	S0
power loss [W] for rated value of the current	
<ul style="list-style-type: none"> • at AC in hot operating state per pole • without load current share typical 	5.8 W 5.9 W
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 coordination	2
reference code according to IEC 81346-2:2019	Q
SVHC substance name	Lead - 7439-92-1
Weight	1.037 kg
Ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage • during transport 	-20 ... +60 °C -50 ... +80 °C -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	13 ... 20 A
operating voltage	
<ul style="list-style-type: none"> • rated value • at AC-3 rated value maximum • at AC-3e rated value maximum 	690 V 690 V 690 V
operating frequency rated value	50 ... 60 Hz

operational current	
<ul style="list-style-type: none"> ● at AC-3 at 400 V rated value ● at AC-3e at 400 V rated value 	<p>20 A</p> <p>20 A</p>
operating power	
<ul style="list-style-type: none"> ● at AC-3 <ul style="list-style-type: none"> — at 400 V rated value ● at AC-3e <ul style="list-style-type: none"> — at 400 V rated value 	<p>7 500 W</p> <p>7 500 W</p>
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)
response value current of instantaneous short-circuit trip unit	260 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>20 A</p> <p>20 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 	<p>1.5 hp</p> <p>3 hp</p> <p>7.5 hp</p> <p>7.5 hp</p> <p>15 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 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	
<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>20 mm</p> <p>0 mm</p> <p>50 mm</p> <p>20 mm</p> <p>10 mm</p> <p>20 mm</p> <p>0 mm</p> <p>50 mm</p> <p>10 mm</p> <p>20 mm</p>
Connections/ Terminals	
type of electrical connection	
<ul style="list-style-type: none"> ● for main current circuit ● for auxiliary and control circuit 	<p>screw-type terminals</p> <p>screw-type terminals</p>
Safety related data	
product function suitable for safety function	Yes

Electrical Safety

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	No
• PROFIsafe protocol	No
protocol is supported AS-Interface protocol	No

Approvals Certificates

General Product Approval	For use in hazardous locations	Test Certificates
    		Type Test Certificates/Test Report

Test Certificates

Maritime application					
Special Test Certificate					

Maritime application **other** **Railway** **Dangerous goods**

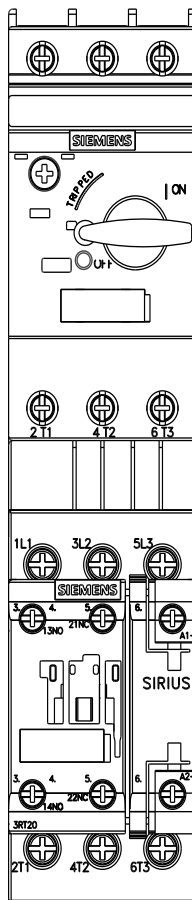
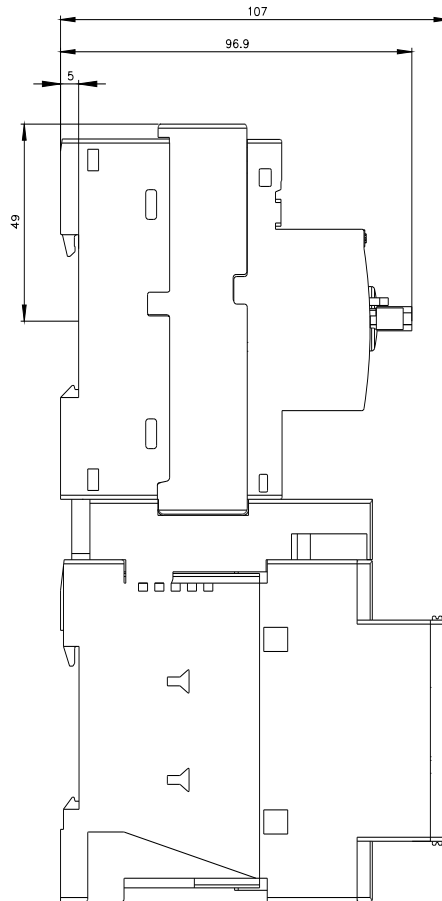
			Confirmation	Special Test Certificate	Transport Information
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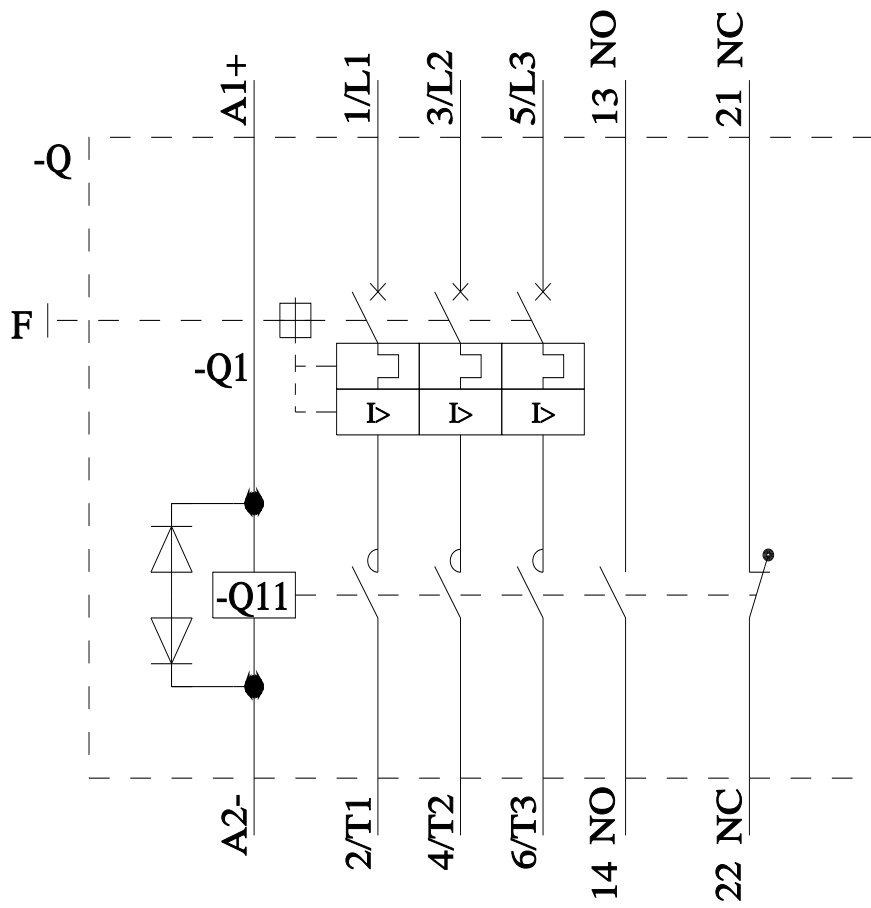
Environment

[Environmental Conformations](#)

Further information

Information on the packaging
<https://support.industry.siemens.com/cs/ww/en/view/109813875>
Information for data generation and storage
<https://support.industry.siemens.com/cs/ww/en/view/109995012>
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=3RA2120-4BA27-0FB4>
Cax online generator
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-4BA27-0FB4>
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4BA27-0FB4>
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-4BA27-0FB4&lang=en
Characteristic: Tripping characteristics, I²t, Let-through current
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4BA27-0FB4/char>
Further characteristics (e.g. electrical endurance, switching frequency)
<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-4BA27-0FB4&objecttype=14&gridview=view1>





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4/1/2025 