



Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 5.50...8.00 A 230 V AC Spring-type 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 • of the supplied circuit-breakers • of the supplied link module 	3RT2024-2AP00 3RV2021-1HA20 3RA2921-2AA00
General technical data	
size of the circuit-breaker	S0
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 (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
Substance Prohibitation (Date)	03/01/2017
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	5.5 ... 8 A
operating voltage	
<ul style="list-style-type: none"> • rated value • at AC-3 rated value maximum 	690 V 690 V
operating frequency rated value	50 ... 60 Hz

operational current at AC-3 at 400 V rated value	6.5 A
operating power at AC-3	
• at 400 V rated value	3 000 W
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
• at 50 Hz rated value	230 V
• at 50 Hz rated value	230 ... 230 V
apparent holding power of magnet coil at AC	8.5 VA
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	8 A
yielded mechanical performance [hp]	
• for 3-phase AC motor	
— at 220/230 V rated value	2 hp
— at 460/480 V rated value	5 hp
— at 575/600 V rated value	5 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 standard mounting rail
height	243 mm
width	45 mm
depth	107 mm
required spacing	
• for grounded parts	
— forwards	20 mm
— backwards	0 mm
— upwards	50 mm
— at the side	20 mm
— downwards	10 mm
• for live parts	
— forwards	20 mm
— backwards	0 mm
— upwards	50 mm
— downwards	10 mm
— at the side	20 mm
Connections/ Terminals	
type of electrical connection	
• for main current circuit	spring-loaded terminals
• for auxiliary and control circuit	spring-loaded terminals
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	No
• PROFIsafe protocol	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](#)



ABS



BUREAU
VERITAS



LRS

Marine / Shipping

other



PRS



RINA



RMRS



DNV-GIL

[Confirmation](#)

[Environmental Confirmations](#)

Railway

[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=3RA2120-1HE24-0AP0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1HE24-0AP0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1HE24-0AP0>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1HE24-0AP0&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1HE24-0AP0/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-1HE24-0AP0&objecttype=14&gridview=view1>

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