

Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 16...22 A 24 V DC 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 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 	3RT2027-2BB40 3RV2021-4CA20 3RA2921-2AA00
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
type of calculation of power loss current-dependent	quadratic
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	6 g / 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
Substance Prohibitance (day/month/year)	10/01/2009
Net Weight	1.164 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	16 ... 22 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 	22 A 22 A
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 	11 000 W 11 000 W

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	286 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	22 A
• at 600 V rated value	22 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	1.5 hp
— at 230 V rated value	3 hp
• for 3-phase AC motor	
— at 200/208 V rated value	7.5 hp
— at 220/230 V rated value	7.5 hp
— at 460/480 V rated value	15 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	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	
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
• PROFI-safe protocol	No

protocol is supported AS-Interface protocol	No
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Approvals Certificates

Environment	General Product Approval	For use in hazardous locations
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[Environmental Confirmations](#)



Test Certificates	Maritime application
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Maritime application	other
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[Confirmation](#)

[Confirmation](#)



Railway	Dangerous goods
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[Special Test Certificate](#)

[Transport Information](#)

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=3RA2120-4CE27-0BB4>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4CE27-0BB4>
- Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-4CE27-0BB4&lang=en
- Cax online generator
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-4CE27-0BB4>
- Characteristic curves
https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>





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