



Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 23.0...28.0 A 24 V DC Spring-type terminal for 60 mm busbar systems (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 60 mm busbars
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 busbar adapter • of the supplied link module 	3RT2027-2BB40 3RV2021-4NA20 8US1251-5NT11 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 	6.7 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 Prohibition (day/month/year)	10/01/2009
Net Weight	1.603 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	23 ... 28 A
operating voltage	
<ul style="list-style-type: none"> • rated value 	690 V

<ul style="list-style-type: none"> • at AC-3 rated value maximum 	690 V
<ul style="list-style-type: none"> • at AC-3e rated value maximum 	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 	28 A
<ul style="list-style-type: none"> • at AC-3e at 400 V rated value 	28 A
operating power	
<ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value 	15 000 W
<ul style="list-style-type: none"> • at AC-3e <ul style="list-style-type: none"> — at 400 V rated value 	15 000 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	364 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
<ul style="list-style-type: none"> • at 480 V rated value 	27 A
<ul style="list-style-type: none"> • at 600 V rated value 	27 A
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 	2 hp
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — at 230 V rated value 	5 hp
<ul style="list-style-type: none"> • for 3-phase AC motor <ul style="list-style-type: none"> — at 200/208 V rated value 	7.5 hp
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — at 220/230 V rated value 	10 hp
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — at 460/480 V rated value 	20 hp
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	for snapping onto 60 mm busbar systems
height	260 mm
width	45 mm
depth	165 mm
required spacing	
<ul style="list-style-type: none"> • for grounded parts <ul style="list-style-type: none"> — forwards 	20 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — backwards 	0 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — upwards 	50 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — at the side 	20 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — downwards 	10 mm
<ul style="list-style-type: none"> • for live parts <ul style="list-style-type: none"> — forwards 	20 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — backwards 	0 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — upwards 	50 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — downwards 	10 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — at the side 	20 mm
Connections/ Terminals	

type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit • for auxiliary and control circuit 	spring-loaded terminals spring-loaded terminals

Safety related data

product function suitable for safety function	Yes
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Electrical Safety

touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
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Communication/ Protocol

protocol is supported	
<ul style="list-style-type: none"> • PROFINET IO protocol • PROFI-safe protocol 	No
protocol is supported AS-Interface protocol	No

Approvals Certificates




Environment	General Product Approval	For use in hazardous locations	Test Certificates
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Environmental Confirmations		 EG-Konf.		 ATEX	Type Test Certificates/Test Report
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Test Certificates

Special Test Certificate					
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Maritime application	other	Railway
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		Confirmation	Confirmation		Special Test Certificate
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Dangerous goods

[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=3RA2120-4NH27-0BB4>
 Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4NH27-0BB4>
 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-4NH27-0BB4&lang=en
 Cax online generator
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-4NH27-0BB4>
 Characteristic curves
[https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP="HAUPT"></mmp_prod_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)

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