



Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 16...22 A 230 V AC
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	
• of the supplied contactor	3RT2027-2AP00
• of the supplied circuit-breakers	3RV2021-4CA20
• of the supplied busbar adapter	8US1251-5NT11
• of the supplied link module	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	
• at AC in hot operating state per pole	5.8 W
• without load current share typical	9.8 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	1.451 kg
Ambient conditions	
ambient temperature	
• during operation	-20 ... +60 °C
• during storage	-50 ... +80 °C
• during transport	-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	
• rated value	690 V

• at AC-3 rated value maximum	690 V
• at AC-3e rated value maximum	690 V
operating frequency rated value	50 ... 60 Hz
operational current	
• at AC-3 at 400 V rated value	22 A
• at AC-3e at 400 V rated value	22 A
operating power	
• at AC-3 — at 400 V rated value	11 000 W
• at AC-3e — at 400 V rated value	11 000 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
apparent holding power of magnet coil at AC	9.8 VA
• at 50 Hz	9.8 VA
inductive power factor with the holding power of the coil	0.25
• at 50 Hz	0.25
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	for snapping onto 60 mm busbar systems
height	260 mm
width	45 mm
depth	165 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
- for auxiliary and control circuit

spring-loaded terminals

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
- PROFI-safe protocol

No

No

protocol is supported AS-Interface protocol

No

Approvals Certificates

Environment

General Product Approval

[Environmental Confirmations](#)



For use in hazardous locations

Test Certificates

Maritime application



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Maritime application

other



[Confirmation](#)

[Confirmation](#)

other

Railway



[Special Test Certificate](#)

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=3RA2120-4CH27-0AP0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4CH27-0AP0>

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

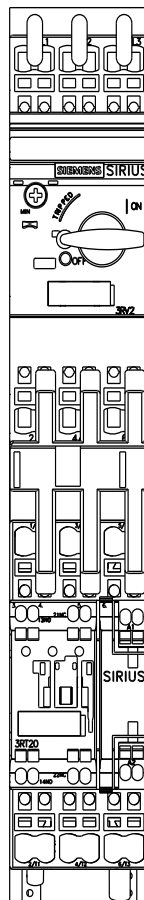
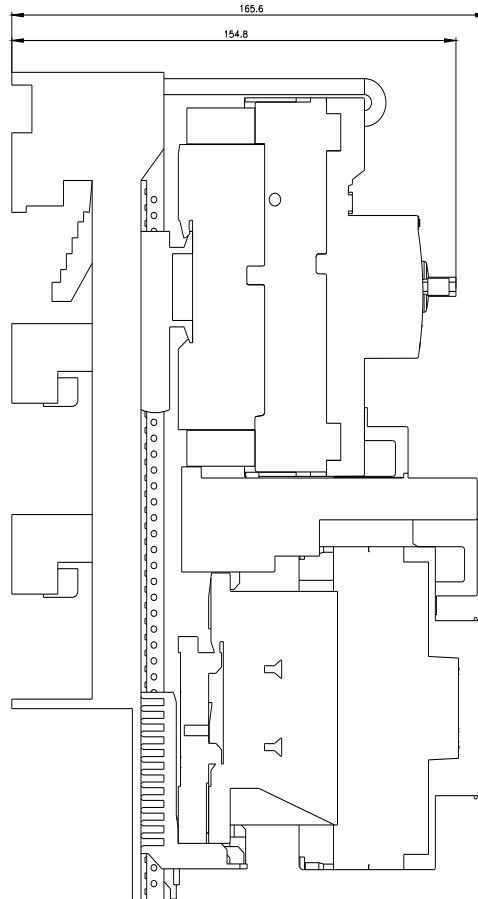
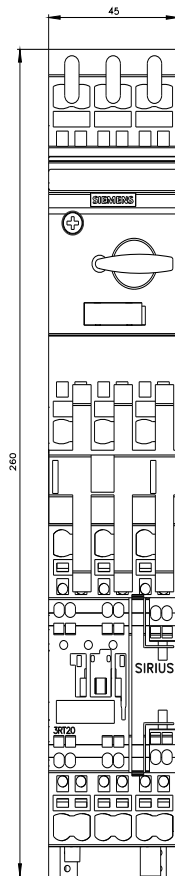
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<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-4CH27-0AP0>

Characteristic curves

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last modified:

4/24/2026 