

Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 13...20 A 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	3RT2027-2AV00
• of the supplied circuit-breakers	3RV2021-4BA20
• 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
SVHC substance name	Lead CAS-No. 7439-92-1
Net Weight	1.432 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	13 ... 20 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	20 A
• at AC-3e at 400 V rated value	20 A
operating power	
• at AC-3	
— at 400 V rated value	7 500 W

• at AC-3e — at 400 V rated value	7 500 W
Control circuit/ Control	
type of voltage of the control supply voltage	AC
control supply voltage at AC	
• at 50 Hz rated value	400 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	260 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value • at 600 V rated value	20 A 20 A
yielded mechanical performance [hp]	
• for single-phase AC motor — at 110/120 V rated value — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value	1.5 hp 3 hp 7.5 hp 7.5 hp 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 — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — downwards — at the side	20 mm 0 mm 50 mm 20 mm 10 mm 20 mm 0 mm 50 mm 10 mm 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		No			
• PROFIsafe protocol		No			
protocol is supported AS-Interface protocol		No			
Approvals Certificates					
Environment	General Product Approval	For use in hazardous locations			
Environmental Confirmations					
Test Certificates		Maritime application			
Type Test Certificates/Test Report	Special Test Certificate				
Maritime application		other			
			Confirmation	Confirmation	
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=3RA2120-4BH27-0AV0					
Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-4BH27-0AV0					
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-4BH27-0AV0&lang=en					
Cax online generator https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-4BH27-0AV0					
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