



Load feeder fuseless, Direct-on-line starting 400 V AC, Size S0 5.50...8.00 A 24 V DC screw 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 	3RT2024-1BB40 3RV2011-1HA10 3RA2921-1BA00
General technical data	
size of the circuit-breaker	S00
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 	3.4 W 5.9 W
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 (operating cycles) of contactor typical	10 000 000
type of coordination	2
reference code according to IEC 81346-2:2019	Q
Substance Prohibition (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1
Weight	1.005 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	5.5 ... 8 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	
• at AC-3 at 400 V rated value	8 A
• at AC-3e at 400 V rated value	8 A
operating power	
• at AC-3	
— at 400 V rated value	3 000 W
• at AC-3e	
— at 400 V rated value	3 000 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	104 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	8 A
• at 600 V rated value	8 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	0.33 hp
— at 230 V rated value	1 hp
• for 3-phase AC motor	
— at 200/208 V rated value	2 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	5 hp
— at 575/600 V rated value	7.5 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 DIN rail
height	193 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	screw-type terminals
• for auxiliary and control circuit	screw-type 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

General Product Approval	For use in hazardous locations	Test Certificates
--------------------------	--------------------------------	-------------------



[Special Test Certificate](#)

Test Certificates

Type Test Certificates/Test Report					
--	--	--	--	--	--

Maritime application

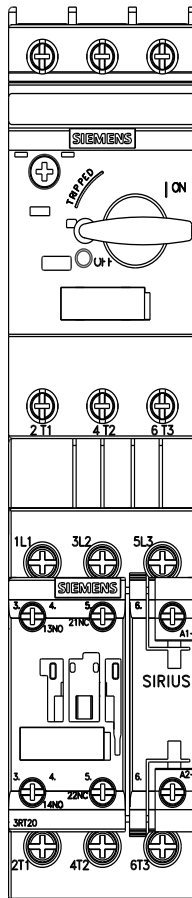
			Confirmation	Special Test Certificate	Transport Information
--	--	--	------------------------------	--	---------------------------------------

Environment

Environmental Confirmations

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=3RA2120-1HA24-0BB4>
 Cax online generator
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2120-1HA24-0BB4>
 Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1HA24-0BB4>
 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2120-1HA24-0BB4&lang=en
 Characteristic: Tripping characteristics, I²t, Let-through current
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2120-1HA24-0BB4/char>
 Further characteristics (e.g. electrical endurance, switching frequency)
<https://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2120-1HA24-0BB4&objecttype=14&gridview=view1>





last modified:

4/1/2025