# **SIEMENS**

### **Data sheet**

## 3RA2110-1CA15-1BB4



Load feeder fuseless, Direct-on-line starting 400 V AC, Size S00 1.80...2.50 A 24 V DC screw terminal for installation on standard mounting rail (also fulfills type of coordination 1) Type of coordination 2, Iq = 150 kA 1 NO (contactor)

product brand name	SIRIUS
product designation	Direct (on-line) starter
design of the product	for standard rail or screw mounting
product type designation	3RA21
manufacturer's article number	
of the supplied contactor	3RT2015-1BB41
of the supplied circuit-breakers	3RV2011-1CA10
of the supplied link module	3RA1921-1DA00
General technical data	
size of the circuit-breaker	S00
size of load feeder	S00
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state per pole</li> </ul>	2.6 W
<ul> <li>without load current share typical</li> </ul>	4 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	30 000 000
type of assignment	2
reference code according to IEC 81346-2:2019	Q
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1
Ambient conditions	
ambient temperature	
<ul> <li>during operation</li> </ul>	-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	1.8 2.5 A
operating voltage	
• rated value	690 V
<ul> <li>at AC-3 rated value maximum</li> </ul>	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	2.5 A
at AC-3e at 400 V rated value	2.5 A
operating power	
• at AC-3	
— at 400 V rated value	750 W
• at AC-3e	
— at 400 V rated value	750 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	4 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	33 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	2.5 A
at 600 V rated value	2.5 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	0.1 hp
— at 230 V rated value	0.25 hp
for 3-phase AC motor	0.25 Hp
— at 200/208 V rated value	0.5 hp
— at 220/230 V rated value	0.75 hp
— at 220/200 V Tated Value	0.75 Hp
at 460/480 V rated value	1.5 hp
— at 460/480 V rated value	1.5 hp
— at 575/600 V rated value	1.5 hp 2 hp
— at 575/600 V rated value Short-circuit protection	2 hp
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection	2 hp Yes
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip	2 hp
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)	Yes magnetic
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value	2 hp Yes
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions	Yes magnetic 150 000 A
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position	2 hp  Yes magnetic  150 000 A  vertical
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method  height	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail 167 mm
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method  height  width	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail 167 mm 45 mm
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail 167 mm
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail 167 mm 45 mm
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail 167 mm 45 mm 97 mm
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts  — forwards	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail 167 mm 45 mm 97 mm
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts  — forwards  — backwards	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail 167 mm 45 mm 97 mm  20 mm 0 mm
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts  — forwards  — backwards — upwards	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail 167 mm 45 mm 97 mm  20 mm 0 mm 50 mm
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts  — forwards  — backwards  — upwards  — at the side	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail 167 mm 45 mm 97 mm  20 mm 0 mm 50 mm 20 mm
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts  — forwards  — backwards  — upwards  — at the side  — downwards	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail 167 mm 45 mm 97 mm  20 mm 0 mm 50 mm
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts  — forwards  — backwards  — upwards  — at the side  — downwards  • for live parts	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail 167 mm 45 mm 97 mm  20 mm 0 mm 50 mm 20 mm 10 mm
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts  — forwards  — backwards — upwards — at the side — downwards  • for live parts — forwards  • forwards	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail 167 mm 45 mm 97 mm  20 mm 0 mm 50 mm 20 mm 10 mm
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts  — forwards  — backwards  — upwards  — at the side  — downwards  • for live parts  — forwards  — backwards  — backwards  — backwards  — forwards	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail 167 mm 45 mm 97 mm  20 mm 0 mm 10 mm 10 mm 20 mm 0 mm
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts  — forwards  — backwards — upwards — at the side — downwards  • for live parts — forwards  • forwards	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail 167 mm 45 mm 97 mm  20 mm 0 mm 50 mm 20 mm 10 mm
— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts  — forwards  — backwards  — upwards  — at the side  — downwards  • for live parts  — forwards  — backwards  — backwards  — upwards  — torwards  — torwards  — downwards  — torwards  — backwards  — upwards  — downwards  — downwards  — downwards  — downwards	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail 167 mm 45 mm 97 mm  20 mm 0 mm 50 mm 10 mm 50 mm 0 mm 50 mm 10 mm
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— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit trip  conditional short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts  — forwards  — backwards  — upwards  — at the side  — downwards  • for live parts  — forwards  — backwards  — backwards  — upwards  — torwards  — torwards  — downwards  — torwards  — backwards  — upwards  — downwards  — downwards  — downwards  — downwards	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail 167 mm 45 mm 97 mm  20 mm 0 mm 50 mm 10 mm 50 mm 0 mm 50 mm 10 mm
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— at 575/600 V rated value  Short-circuit protection  product function short circuit protection  design of the short-circuit current (Iq)  • at 400 V according to IEC 60947-4-1 rated value  Installation/ mounting/ dimensions  mounting position  fastening method  height  width  depth  required spacing  • for grounded parts  — forwards  — backwards  — upwards  — at the side  — downwards  • for live parts  — forwards  — backwards  — upwards  — at the side  — downwards  — backwards  — upwards  — at the side  — downwards  — backwards  — upwards  — at the side  Connections/ Terminals  type of electrical connection	Yes magnetic  150 000 A  vertical screw and snap-on mounting onto 35 mm DIN rail 167 mm 45 mm 97 mm  20 mm 0 mm 50 mm 10 mm 0 mm 50 mm 10 mm 20 mm

Safety related data		
proportion of dangerous failures		
<ul> <li>with high demand rate according to SN 31920</li> </ul>	73 %	
B10 value with high demand rate according to SN 31920	1 000 000	
Electrical Safety		
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front	
Communication/ Protocol		
protocol is supported		
<ul> <li>PROFINET IO protocol</li> </ul>	No	
PROFIsafe protocol	No	
protocol is supported AS-Interface protocol	No	
Approvals Certificates		

General Product Approval

For use in hazardous locations





Confirmation







**Test Certificates** 

Marine / Shipping

Type Test Certificates/Test Report

Special Test Certificate









Marine / Shipping

other

Railway

**Dangerous Good** 







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- 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=3RA2110-1CA15-1BB4

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2110-1CA15-1BB4

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2110-1CA15-1BB4

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

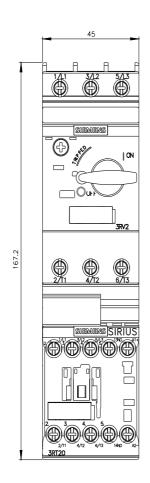
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA2110-1CA15-1BB4&lang=en

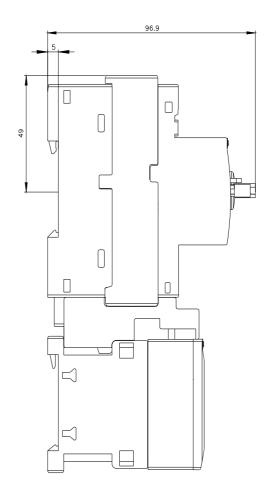
Characteristic: Tripping characteristics, I2t, Let-through current

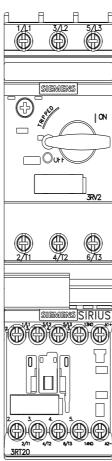
https://support.industry.siemens.com/cs/ww/en/ps/3RA2110-1CA15-1BB4/char

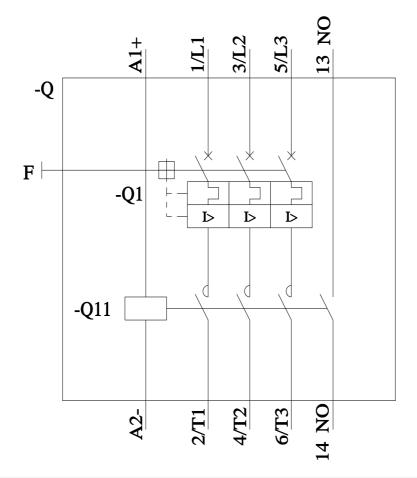
Further characteristics (e.g. electrical endurance, switching frequency)

 $\underline{\text{http://www.automation.siemens.com/bilddb/index.aspx?view=Search\&mlfb=3RA2110-1CA15-1BB4\&objecttype=14\&gridview=view1}$ 









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