## **SIEMENS**

## **Data sheet**

## 3RA2110-1HD16-1AP6



Fuseless motor starter Direct start 600VAC Size S00 5.5-8Amp 220/240VAC 50/60HZ screw connection For snapping onto 60 mm busbar systems Type of coordination 1 1NO (contactor)

product brand name	SIRIUS
product designation	non-fused motor starter 3RA2
design of the product	direct starter
manufacturer's article number	
<ul> <li>of the supplied contactor</li> </ul>	<u>3RT2016-1AP61</u>
<ul> <li>of the supplied circuit-breakers</li> </ul>	3RV2011-1HA10
<ul> <li>of the supplied busbar adapter</li> </ul>	<u>8US1251-5DS10</u>
<ul> <li>of the supplied link module</li> </ul>	3RA1921-1DA00
General technical data	
size of the circuit-breaker	S00
size of load feeder	S00
product extension auxiliary switch	Yes
insulation voltage with degree of pollution 3 at AC rated value	690 V
degree of pollution	3
surge voltage resistance rated value	6 kV
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	1
Ambient conditions	
ambient temperature	
<ul> <li>during operation</li> </ul>	-20 +60 °C
during storage	-50 +80 °C
<ul> <li>during transport</li> </ul>	-55 +80 °C
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	
rated value	690 V
at AC-3 rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current at AC-3 at 400 V rated value	6.5 A
operating power at AC-3	
<ul> <li>at 400 V rated value</li> </ul>	3 000 W
<ul> <li>at 500 V rated value</li> </ul>	4 000 W
at 690 V rated value	5 500 W
Control circuit/ Control	
control supply voltage at AC	
and a supply and a supply and a supply	
• at 50 Hz rated value	220 V

at 50 Hz rated value	187 242 V
at 60 Hz rated value	240 V
at 60 Hz rated value	192 264 V
apparent holding power of magnet coil at AC	4.8 VA
inductive power factor with the holding power of the coil	0.25
Auxiliary circuit	
number of NO contacts for auxiliary contacts	1
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	
<ul> <li>at 480 V rated value</li> </ul>	7.6 A
at 600 V rated value	6.33 A
yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
— 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	2 hp
— at 460/480 V rated value	5 hp
— at 575/600 V rated value	5 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
conditional short-circuit current (Iq)	
<ul> <li>at 400 V according to IEC 60947-4-1 rated value</li> </ul>	153 000 A
Installation/ mounting/ dimensions	
mounting position	vertical
a promon	vertical
fastening method	for snapping onto 60 mm busbar systems
fastening method	for snapping onto 60 mm busbar systems
fastening method height	for snapping onto 60 mm busbar systems 200 mm
fastening method height width	for snapping onto 60 mm busbar systems 200 mm 45 mm
fastening method height width depth	for snapping onto 60 mm busbar systems 200 mm 45 mm
fastening method height width depth required spacing	for snapping onto 60 mm busbar systems 200 mm 45 mm
fastening method height width depth required spacing • for grounded parts	for snapping onto 60 mm busbar systems 200 mm 45 mm 155.1 mm
fastening method height width depth required spacing  • for grounded parts — forwards	for snapping onto 60 mm busbar systems 200 mm 45 mm 155.1 mm
fastening method height width depth required spacing  • for grounded parts — forwards — backwards	for snapping onto 60 mm busbar systems 200 mm 45 mm 155.1 mm 0 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards	for snapping onto 60 mm busbar systems 200 mm 45 mm 155.1 mm 0 mm 0 mm 20 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side	for snapping onto 60 mm busbar systems 200 mm 45 mm 155.1 mm  0 mm 0 mm 20 mm 9 mm
fastening method height width depth required spacing  • for grounded parts — forwards — backwards — upwards — at the side — downwards	for snapping onto 60 mm busbar systems 200 mm 45 mm 155.1 mm  0 mm 0 mm 20 mm 9 mm
fastening method height width depth required spacing  • for grounded parts — forwards — backwards — upwards — at the side — downwards  • for live parts	for snapping onto 60 mm busbar systems 200 mm 45 mm 155.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm
fastening method height width depth required spacing  • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards	for snapping onto 60 mm busbar systems 200 mm 45 mm 155.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — backwards	for snapping onto 60 mm busbar systems 200 mm 45 mm 155.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm
fastening method height width depth required spacing  • for grounded parts  — forwards  — backwards  — upwards  — at the side  — downwards  • for live parts  — forwards  — backwards  — upwards	for snapping onto 60 mm busbar systems  200 mm  45 mm  155.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm 0 mm 0 mm
fastening method height width depth required spacing  • for grounded parts — forwards — backwards — upwards — at the side — downwards  • for live parts — forwards — backwards — upwards — downwards — downwards — forwards — backwards — backwards — upwards — downwards	for snapping onto 60 mm busbar systems  200 mm  45 mm  155.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm 0 mm 20 mm
fastening method height width depth required spacing  • for grounded parts — forwards — backwards — upwards — at the side — downwards  • for live parts — forwards — backwards — at we side — downwards — towards — forwards — backwards — backwards — backwards — upwards — downwards — at the side	for snapping onto 60 mm busbar systems  200 mm  45 mm  155.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm 0 mm 20 mm
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 — forwards — torwards — backwards — upwards — at the side Connections/ Terminals	for snapping onto 60 mm busbar systems 200 mm 45 mm 155.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm 0 mm 0 mm 9 mm 10 mm 9 mm 9 mm
fastening method height width depth required spacing  • for grounded parts — forwards — backwards — upwards — at the side — downwards  • for live parts — forwards — backwards — upwards — the side — downwards — the side — downwards — backwards — backwards — upwards — at the side  Connections/ Terminals  type of electrical connection for main current circuit type of connectable conductor cross-sections for main contacts	for snapping onto 60 mm busbar systems  200 mm  45 mm  155.1 mm  0 mm 0 mm 20 mm 10 mm 10 mm 0 mm 20 mm 9 mm 10 mm 9 mm 20 mm 9 mm 20 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — torwards — backwards — backwards — upwards — at the side Connections/ Terminals  type of electrical connection for main current circuit type of connectable conductor cross-sections for main contacts stranded connectable conductor cross-section for main contacts finely	for snapping onto 60 mm busbar systems 200 mm 45 mm 155.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm 0 mm 0 mm 20 mm 9 mm 10 mm 5 mm 5 mm 5 mm 5 mm 6 mm 7 mm 7 mm 8 mm 9 mm 9 mm 9 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — torwards — backwards — backwards — upwards — at the side Connections/ Terminals type of electrical connection for main current circuit type of connectable conductor cross-sections for main contacts stranded connectable conductor cross-section for main contacts finely stranded with core end processing	for snapping onto 60 mm busbar systems 200 mm 45 mm 155.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm 0 mm 0 mm 20 mm 9 mm 10 mm 5 mm 5 mm 5 mm 5 mm 6 mm 7 mm 7 mm 8 mm 9 mm 9 mm 9 mm
fastening method height width depth required spacing  • for grounded parts — forwards — backwards — upwards — at the side — downwards  • for live parts — forwards — backwards — upwards — backwards — upwards — towards — backwards — upwards — downwards — at the side  Connections/ Terminals  type of electrical connection for main current circuit type of connectable conductor cross-sections for main contacts stranded connectable conductor cross-section for main contacts finely stranded with core end processing  Safety related data	for snapping onto 60 mm busbar systems  200 mm  45 mm  155.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm 0 mm 20 mm 9 mm 10 mm 5 mm 20 mm 10 mm 10 mm 9 mm 10 mm 9 mm
fastening method height width depth required spacing  • for grounded parts — forwards — backwards — upwards — at the side — downwards  • for live parts — forwards — backwards — upwards — backwards — upwards — townwards — backwards — upwards — at the side  Connections/ Terminals  type of electrical connection for main current circuit type of connectable conductor cross-sections for main contacts stranded connectable conductor cross-section for main contacts finely stranded with core end processing  Safety related data  B10 value with high demand rate according to SN 31920 proportion of dangerous failures with high demand rate	for snapping onto 60 mm busbar systems 200 mm 45 mm 155.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm 0 mm 20 mm 9 mm 10 mm 0 mm 20 mm 10 mm 20 mm 10 mm 10 mm 9 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — backwards — upwards — the side — downwards — backwards — upwards — the side  Connections/ Terminals  type of electrical connection for main current circuit type of connectable conductor cross-sections for main contacts stranded connectable conductor cross-section for main contacts finely stranded with core end processing  Safety related data  B10 value with high demand rate according to SN 31920 proportion of dangerous failures with high demand rate according to SN 31920	for snapping onto 60 mm busbar systems 200 mm 45 mm 155.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm 0 mm 20 mm 9 mm 10 mm 0 mm 20 mm 10 mm 20 mm 10 mm 10 mm 9 mm
fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — backwards — upwards — the side Connections/ Terminals  type of electrical connection for main current circuit type of connectable conductor cross-sections for main contacts stranded connectable conductor cross-section for main contacts finely stranded with core end processing  Safety related data  B10 value with high demand rate according to SN 31920 proportion of dangerous failures with high demand rate according to SN 31920 protection class IP on the front according to IEC 60529	for snapping onto 60 mm busbar systems 200 mm 45 mm 155.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm 0 mm 20 mm 9 mm 10 mm 0 mm 20 mm 10 mm 20 mm 10 mm 10 mm 9 mm

For use in hazardous locations

**Declaration of Conformity** 

Confirmation











**Test Certificates** 

Marine / Shipping

Special Test Certificate

Type Test Certificates/Test Report









Marine / Shipping



Confirmation

other

Vibration and Shock

Railway

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RA2110-1HD16-1AP6

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2110-1HD16-1AP6

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2110-1HD16-1AP6

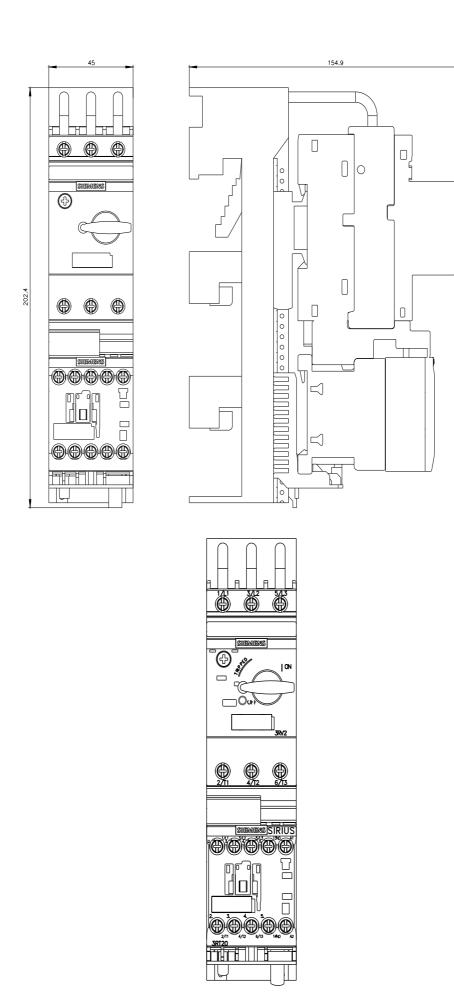
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

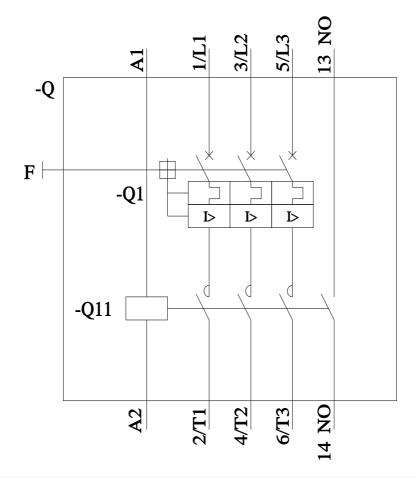
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA2110-1HD16-1AP6&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RA2110-1HD16-1AP6/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2110-1HD16-1AP6&objecttype=14&gridview=view1





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