# **SIEMENS**

### **Data sheet**

## 3RA2115-1HA16-1AK6



Fuseless motor starter Direct start 600VAC Size S00 5.5-8Amp 110/120VAC 50/60HZ screw connection For screw mounting Or 35 mm rail-mounting Type of coordination 1 1NO+1NC (MSP) 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>	3RT2016-1AK61
<ul> <li>of the supplied circuit-breakers</li> </ul>	3RV2011-1HA15
<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
Weight	0.58 kg
Ambient conditions	
ambient temperature	
<ul> <li>during operation</li> </ul>	-20 +60 °C
during storage	-50 +80 °C
during transport	-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	
• at 400 V rated value	3 000 W
• at 500 V rated value	4 000 W
at 690 V rated value	5 500 W
Control circuit/ Control	
control supply voltage at AC	
• at 50 Hz rated value	110 V

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• at 50 Hz rated value	93.5 121 V
• at 60 Hz rated value	120 V
at 60 Hz rated value	96 132 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 NC contacts for auxiliary contacts	1
number of NO contacts for auxiliary contacts	2
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	7.6 A
at 600 V rated value	6.33 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 200/206 V rated value  — 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)	
at 400 V according to IEC 60947-4-1 rated value	153 000 A
Installation/ mounting/ dimensions	
Installation/ mounting/ dimensions mounting position	vertical
	vertical Snap-mounted to DIN rail or screw-mounted with additional push-in lug
mounting position	
mounting position fastening method	Snap-mounted to DIN rail or screw-mounted with additional push-in lug
mounting position fastening method height	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm
mounting position fastening method height width	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm
mounting position fastening method height width depth	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm
mounting position fastening method height width depth required spacing	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm
mounting position fastening method height width depth required spacing • for grounded parts	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm 97.1 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm 97.1 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm 97.1 mm 0 mm
mounting position fastening method height width depth required spacing  • for grounded parts — forwards — backwards — upwards	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm 97.1 mm  0 mm 0 mm 20 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm 97.1 mm  0 mm 0 mm 20 mm 9 mm
mounting position fastening method height width depth required spacing • for grounded parts — forwards — backwards — upwards — at the side — downwards	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm 97.1 mm  0 mm 0 mm 20 mm 9 mm
mounting position fastening method height width depth required spacing  • for grounded parts  — forwards  — backwards  — upwards  — at the side  — downwards  • for live parts	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm 97.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm
mounting position fastening method height width depth required spacing  • for grounded parts — forwards — backwards — upwards — at the side — downwards  • for live parts — forwards	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm 97.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm
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	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm 97.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm
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 — upwards	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm 97.1 mm  0 mm 0 mm 20 mm 10 mm 0 mm 20 mm
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 — downwards • for live parts — forwards — backwards — backwards — upwards — downwards	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm 97.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm 0 mm 0 mm
mounting position fastening method height width depth required spacing  • for grounded parts — forwards — backwards — upwards — at the side — downwards  • for live parts — forwards — backwards — at the side — downwards  • for live parts — forwards — backwards — upwards — backwards — upwards — at the side Connections/ Terminals	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm 97.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm 10 mm 0 mm 9 mm 10 mm 9 mm 10 mm 9 mm
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 • for live parts — forwards — backwards — upwards — at the side Connections/ Terminals type of electrical connection for main current circuit	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm 97.1 mm  0 mm 0 mm 20 mm 10 mm 10 mm 0 mm 20 mm 9 mm 10 mm 20 mm 20 mm 9 mm 20 mm
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 Connections/ Terminals  type of electrical connection for main current circuit type of connectable conductor cross-sections for main contacts stranded	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm 97.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm 10 mm 0 mm 9 mm 10 mm 9 mm 10 mm 9 mm
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  • for live parts — forwards — 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	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm 97.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm 0 mm 0 mm 0 mm screw-type terminals 0.5 4 mm², 2x (0.75 2.5 mm²)
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 — torwards — 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	Snap-mounted to DIN rail or screw-mounted with additional push-in lug 167.2 mm 45 mm 97.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm 0 mm 0 mm 0 mm screw-type terminals 0.5 4 mm², 2x (0.75 2.5 mm²)
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 — a 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 proportion of dangerous failures with high demand rate according to SN 31920	Snap-mounted to DIN rail or screw-mounted with additional push-in lug  167.2 mm  45 mm  97.1 mm  0 mm 0 mm 20 mm 9 mm 10 mm 0 mm 20 mm 9 mm 10 mm 20 mm 10 mm 20 mm 10 mm 9 mm
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#### 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





Confirmation

other

Special Test Certificate

Railway

Environmental Confirmations

**Environment** 

**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)

 $\underline{https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RA2115-1HA16-1AK6}$ 

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2115-1HA16-1AK6

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

https://support.industry.siemens.com/cs/ww/en/ps/3RA2115-1HA16-1AK6

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

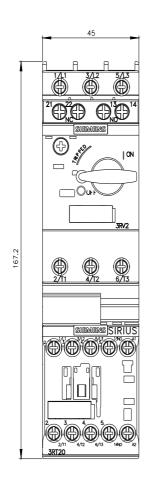
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RA2115-1HA16-1AK6\&lang=en}}$ 

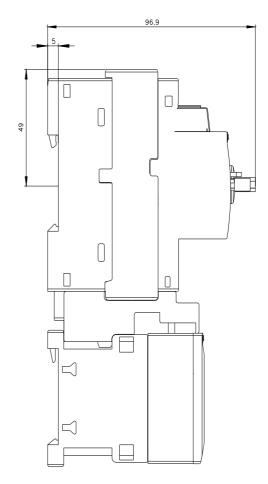
Characteristic: Tripping characteristics,  $I^2t$ , Let-through current

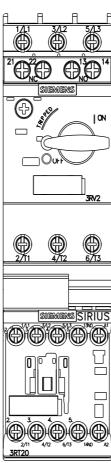
https://support.industry.siemens.com/cs/ww/en/ps/3RA2115-1HA16-1AK6/char

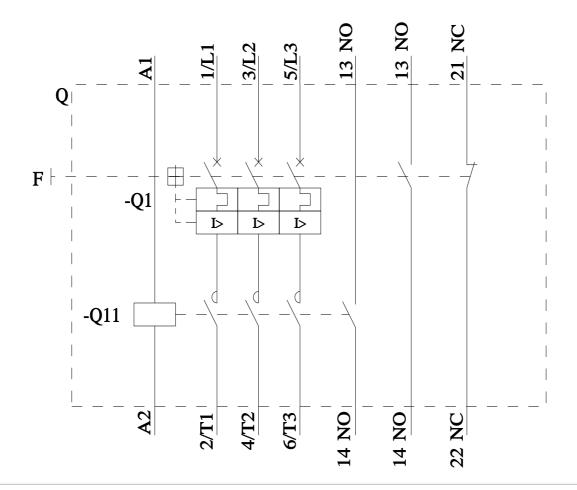
Further characteristics (e.g. electrical endurance, switching frequency)

 $\underline{\text{http://www.automation.siemens.com/bilddb/index.aspx?view=Search\&mlfb=3RA2115-1HA16-1AK6\&objecttype=14\&gridview=view1}$ 









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