



**THE DATASHEET OF
3RA21154AA181AK6**





Fuseless motor starter Direct start 600VAC Size S00 11-16Amp
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 style="list-style-type: none"> • of the supplied contactor • of the supplied circuit-breakers • of the supplied link module 	3RT2018-1AK61 3RV2011-4AA15 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 (switching cycles) of contactor typical	30 000 000
type of assignment	1
Ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> • during operation • during storage • during transport 	-20 ... +60 °C -50 ... +80 °C -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	11 ... 16 A
operating voltage	
<ul style="list-style-type: none"> • rated value • at AC-3 rated value maximum 	690 V 690 V
operating frequency rated value	50 ... 60 Hz
operational current at AC-3 at 400 V rated value	15.5 A
operating power at AC-3	
<ul style="list-style-type: none"> • at 400 V rated value • at 500 V rated value 	7 500 W 7 500 W
Control circuit/ Control	
control supply voltage at AC	
<ul style="list-style-type: none"> • at 50 Hz rated value 	110 V

<ul style="list-style-type: none"> • at 50 Hz rated value • at 60 Hz rated value • at 60 Hz rated value 	93.5 ... 121 V 120 V 96 ... 132 V
apparent holding power of magnet coil at AC	6.5 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	208 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
<ul style="list-style-type: none"> • at 480 V rated value • at 600 V rated value 	14 A 11 A
yielded mechanical performance [hp]	
<ul style="list-style-type: none"> • for single-phase AC motor <ul style="list-style-type: none"> — at 110/120 V rated value — at 230 V rated value • for 3-phase AC motor <ul style="list-style-type: none"> — at 200/208 V rated value — at 220/230 V rated value — at 460/480 V rated value — at 575/600 V rated value 	1 hp 2 hp 3 hp 5 hp 10 hp 10 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
conditional short-circuit current (I_q)	
<ul style="list-style-type: none"> • at 400 V according to IEC 60947-4-1 rated value 	153 000 A
Installation/ mounting/ dimensions	
mounting position	vertical
fastening method	Snap-mounted to DIN rail or screw-mounted with additional push-in lug
height	167.2 mm
width	45 mm
depth	97.1 mm
required spacing	
<ul style="list-style-type: none"> • for grounded parts <ul style="list-style-type: none"> — forwards — backwards — upwards — at the side — downwards • for live parts <ul style="list-style-type: none"> — forwards — backwards — upwards — downwards — at the side 	0 mm 0 mm 20 mm 9 mm 10 mm 0 mm 0 mm 20 mm 10 mm 9 mm
Connections/ Terminals	
type of electrical connection for main current circuit	screw-type terminals
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for main contacts stranded • at AWG cables for main contacts 	0.5 ... 4 mm ² , 2x (0.75 ... 2.5 mm ²) 2x (20 ... 16), only for contactor 2x (18 ... 14), 2x 12
connectable conductor cross-section for main contacts finely stranded with core end processing	0.5 ... 2.5 mm ²
Safety related data	
B10 value with high demand rate according to SN 31920	1 000 000

proportion of dangerous failures with high demand rate according to SN 31920	73 %
protection class IP on the front according to IEC 60529	IP20
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front

Certificates/ approvals

General Product Approval	For use in hazardous locations	Declaration of Conformity
 Confirmation		
		
		

Declaration of Conformity	Test Certificates	Marine / Shipping
	Type Test Certificates/Test Report	Special Test Certificate
		
		
		

Marine / Shipping	other	Railway
		
		
	Confirmation	Vibration and Shock



Further information

- 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=3RA2115-4AA18-1AK6>
- Cax online generator
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2115-4AA18-1AK6>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2115-4AA18-1AK6>
- Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2115-4AA18-1AK6&lang=en
- Characteristic: Tripping characteristics, I_t, Let-through current
<https://support.industry.siemens.com/cs/ww/en/ps/3RA2115-4AA18-1AK6/char>
- Further characteristics (e.g. electrical endurance, switching frequency)
<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2115-4AA18-1AK6&objecttype=14&gridview=view1>

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