








Fuseless motor starter Direct start 600VAC Size S2 49-59A 110/120VAC 50/60HZ screw connection For screw mounting Or 35 mm rail-mounting Type of coordination 2 IQ = 100 KA Also full fills type Of coordination 1 1NO+1NC (MSP) 1NO+1NC (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 	3RT2037-1AK60 3RV2031-4XA15 3RA2931-1AA00
General technical data	
size of the circuit-breaker	S2
size of load feeder	S2
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	10 000 000
type of assignment	2
Weight	3.04 kg
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	49 ... 59 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	55 A
operating power at AC-3	
<ul style="list-style-type: none"> • at 400 V rated value 	30 000 W
Control circuit/ Control	
control supply voltage at AC	
<ul style="list-style-type: none"> • at 50 Hz rated value • at 50 Hz rated value • at 60 Hz rated value • at 60 Hz rated value 	110 V 88 ... 121 V 120 V 96 ... 132 V
apparent holding power of magnet coil at AC	16 VA
inductive power factor with the holding power of the coil	0.37
Auxiliary circuit	
number of NC contacts for auxiliary contacts	2
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	767 A

UL/CSA ratings		
full-load current (FLA) for 3-phase AC motor		
• at 600 V rated value		52 A
yielded mechanical performance [hp]		
• for single-phase AC motor		
— at 110/120 V rated value		5 hp
— at 230 V rated value		10 hp
• for 3-phase AC motor		
— at 220/230 V rated value		20 hp
— at 575/600 V rated value		50 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		100 000 A
Installation/ mounting/ dimensions		
mounting position		vertical
fastening method		Snap-mounted to DIN rail or screw-mounted with additional push-in lug
height		274 mm
width		55 mm
depth		150 mm
required spacing		
• for grounded parts		
— forwards		0 mm
— backwards		0 mm
— upwards		50 mm
— at the side		10 mm
— downwards		10 mm
• for live parts		
— forwards		0 mm
— backwards		0 mm
— upwards		50 mm
— downwards		10 mm
— at the side		10 mm
Connections/ Terminals		
type of electrical connection for main current circuit		screw-type terminals
type of connectable conductor cross-sections for main contacts stranded		1 ... 50 mm ² , 2x (1 ... 25 mm ²)
connectable conductor cross-section for main contacts finely stranded with core end processing		1 ... 35 mm ²
Safety related data		
proportion of dangerous failures with high demand rate according to SN 31920		73 %
B10 value with high demand rate according to SN 31920		1 000 000
Electrical Safety		
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
Approvals Certificates		
General Product Approval	For use in hazardous locations	Test Certificates
	 EG-Konf.	
		 ATEX
		Special Test Certificate
Test Certificates	Marine / Shipping	

[Type Test Certificates/Test Report](#)



Marine / Shipping	other	Railway	Dangerous goods	Environment	
 RINA	 RMRS	Confirmation	Special Test Certificate	Transport Information	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=3RA2135-4XA37-0AK6>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2135-4XA37-0AK6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2135-4XA37-0AK6>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2135-4XA37-0AK6&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2135-4XA37-0AK6/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2135-4XA37-0AK6&objecttype=14&gridview=view1>

last modified:

12/15/2020 