



Fuseless motor starter Reversing operation 600VAC Size S0 27-32A
220/240VAC 50/60HZ screw connection For 35 mm rail-mounting Type of
coordination 2 IQ = 150 KA Also full fills type Of coordination 1 1NO+1NC
(per contactor)

product brand name	SIRIUS
product designation	non-fused motor starter 3RA2
design of the product	reversing starter
manufacturer's article number	
<ul style="list-style-type: none"> • of the supplied contactor • of the supplied circuit-breakers • of the supplied RH assembly kit • of the supplied busbar adapter • of the supplied link module • of the supplied standard mounting rail adapter 	3RT2027-1AP60 3RV2021-4EA10 3RA2923-1BB1 3RA2922-1AA00 3RA2921-1AA00 3RA2922-1AA00
General technical data	
size of the circuit-breaker	S0
size of load feeder	S0
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	10 000 000
type of assignment	2
Substance Prohibitance (Date)	03/01/2017
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	27 ... 32 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	29 A
operating power at AC-3	
<ul style="list-style-type: none"> • at 400 V rated value 	15 000 W

<ul style="list-style-type: none"> • at 500 V rated value 	18 500 W
Control circuit/ Control	
control supply voltage at AC	
<ul style="list-style-type: none"> • at 50 Hz rated value 	220 V
<ul style="list-style-type: none"> • at 50 Hz rated value 	176 ... 242 V
<ul style="list-style-type: none"> • at 60 Hz rated value 	240 V
<ul style="list-style-type: none"> • at 60 Hz rated value 	192 ... 264 V
apparent holding power of magnet coil at AC	9.4 VA
inductive power factor with the holding power of the coil	0.28
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	416 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
<ul style="list-style-type: none"> • at 480 V rated value 	27 A
<ul style="list-style-type: none"> • at 600 V rated value 	27 A
yielded mechanical performance [hp]	
<ul style="list-style-type: none"> • for single-phase AC motor <ul style="list-style-type: none"> — at 230 V rated value 	5 hp
<ul style="list-style-type: none"> • 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 	10 hp 10 hp 20 hp 25 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
<ul style="list-style-type: none"> • at 500 V according to IEC 60947-4-1 rated value 	100 000 A
Installation/ mounting/ dimensions	
mounting position	vertical
fastening method	snap-on fastening on 35 mm standard rail
height	265 mm
width	90 mm
depth	120 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 	10 mm 0 mm 30 mm 9 mm 10 mm 10 mm 0 mm 30 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 	1 ... 10 mm ² , 2x (2.5 ... 6 mm ²)
<ul style="list-style-type: none"> • at AWG cables for main contacts 	2x (16 ... 12), 2x (14 ... 8)

connectable conductor cross-section for main contacts finely stranded with core end processing	1 ... 6 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
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Marine / Shipping	other	Railway
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[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=3RA2220-4EB27-0AP6>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2220-4EB27-0AP6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-4EB27-0AP6>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2220-4EB27-0AP6&lang=en

Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2220-4EB27-0AP6/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2220-4EB27-0AP6&objecttype=14&gridview=view1>

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