

FUSELESS MOTOR STARTER REVERSING OPERATION 600V AC SZ S0 17-22A 110/120V AC 50/60HZ SCREW CONNECTION FOR SNAPPING ONTO 60 MM BUSBAR SYSTEMS TYPE OF COORDINATION 2 IQ = 50 KA ALSO FULFILLS TYPE OF COORDINATION 1 1NO+1NC (MSP) 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 RS assembly kit • of the supplied busbar adapter • of the supplied link module 	3RT2027-1AK60 3RV2021-4CA15 3RA2923-1DB1 8US1251-5NT10 3RA2921-1AA00

General technical data

Size of the circuit-breaker	S0
Size of load feeder	S0
Product extension	
<ul style="list-style-type: none"> • Auxiliary switch 	Yes
Insulation voltage	
<ul style="list-style-type: none"> • with degree of pollution 3 at AC rated value 	690 V
Degree of pollution	3
Surge voltage resistance rated value	6 kV
Protection class IP	
<ul style="list-style-type: none"> • on the front • of the terminal 	IP20 IP00
Shock resistance	
<ul style="list-style-type: none"> • acc. to IEC 60068-2-27 	6g / 11 ms
Mechanical service life (switching cycles)	
<ul style="list-style-type: none"> • of contactor typical 	10 000 000
Type of assignment	2

Main circuit

Number of poles for main current circuit	3
Design of the switching contact	electromechanical
Adjustable pick-up value current of the current-dependent overload release	17 ... 22 A
Operating voltage	

<ul style="list-style-type: none"> • rated value 	690 V
<ul style="list-style-type: none"> • at AC-3 rated value maximum 	690 V
Operating frequency rated value	50 ... 60 Hz
Operating current	
<ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value 	22 A
Operating power	
<ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value — at 500 V rated value 	11 000 W 11 000 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 	88 ... 121 V
<ul style="list-style-type: none"> • at 60 Hz rated value 	120 V
<ul style="list-style-type: none"> • at 60 Hz rated value 	96 ... 132 V
Apparent holding power of magnet coil at AC	9.4 V·A
Inductive power factor with the holding power of the coil	0.28

Auxiliary circuit

Number of NC contacts for auxiliary contacts	3
Number of NO contacts for auxiliary contacts	3

Protective and monitoring functions

Trip class	CLASS 10
Design of the overload release	thermal (bimetallic)
Response value current	
<ul style="list-style-type: none"> • of instantaneous short-circuit trip unit 	286 A

UL/CSA ratings

Full-load current (FLA) for three-phase AC motor	
<ul style="list-style-type: none"> • at 480 V rated value 	22 A
<ul style="list-style-type: none"> • at 600 V rated value 	21.9 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 	1.5 hp 3 hp
<ul style="list-style-type: none"> • for three-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 	5 hp 7.5 hp 15 hp 20 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 acc. to IEC 60947-4-1 rated value • at 500 V acc. to IEC 60947-4-1 rated value 	153 000 A 100 000 A

Installation/ mounting/ dimensions	
Mounting position	vertical
Mounting type	for snapping onto 60 mm busbar systems
Height	260 mm
Width	90 mm
Depth	155 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	
<ul style="list-style-type: none"> • for main current circuit 	screw-type terminals
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — stranded • at AWG conductors for main contacts 	1 ... 10 mm ² , 2x (2.5 ... 6 mm ²) 2x (16 ... 12), 2x (14 ... 8)
Connectable conductor cross-section for main contacts	
<ul style="list-style-type: none"> • finely stranded with core end processing 	1 ... 6 mm ²

Safety related data	
B10 value	
<ul style="list-style-type: none"> • with high demand rate acc. to SN 31920 	1 000 000
Proportion of dangerous failures	
<ul style="list-style-type: none"> • with high demand rate acc. to SN 31920 	73 %

Certificates/ approvals

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



UL



ATEX



EG-Konf.

[Miscellaneous](#)

Test Certificates	Marine / Shipping
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[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



ABS



LRS



PRS



RINA

Marine / Shipping	other	Railway
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RMRS



DNVGL.COM/AF

[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=3RA2225-4CD27-0AK6>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2225-4CD27-0AK6>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2225-4CD27-0AK6>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2225-4CD27-0AK6&lang=en

Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2225-4CD27-0AK6/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2225-4CD27-0AK6&objecttype=14&gridview=view1>

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