

FUSELESS MOTOR STARTER DIRECT START 600V AC SZ S0
 17-22A 24V DC 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 (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 	3RT2027-1BB40
<ul style="list-style-type: none"> • of the supplied circuit-breakers 	3RV2021-4CA15
<ul style="list-style-type: none"> • of the supplied busbar adapter 	8US1251-5NT10
<ul style="list-style-type: none"> • of the supplied link module 	3RA2921-1BA00

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 	IP20
<ul style="list-style-type: none"> • of the terminal 	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 DC	
<ul style="list-style-type: none"> • rated value 	24 V
Holding power of magnet coil at DC	5.9 W

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	
<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 • at 600 V rated value 	22 A 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 • 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 	1.5 hp 3 hp 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	45 mm
Depth	165 mm
Required spacing	
<ul style="list-style-type: none"> • for grounded parts <ul style="list-style-type: none"> — forwards 10 mm — Backwards 0 mm — upwards 30 mm — at the side 9 mm — downwards 10 mm • for live parts <ul style="list-style-type: none"> — forwards 10 mm — Backwards 0 mm — upwards 30 mm — downwards 10 mm — at the side 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 1 ... 10 mm², 2x (2.5 ... 6 mm²) • at AWG conductors for main contacts 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 mm² 	

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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[Miscellaneous](#)

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

[Type Test Certificates/Test Report](#)



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=3RA2125-4CD27-0BB4>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RA2125-4CD27-0BB4>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2125-4CD27-0BB4>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RA2125-4CD27-0BB4&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RA2125-4CD27-0BB4/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RA2125-4CD27-0BB4&objecttype=14&gridview=view1>

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