

CIRCUIT-BREAKER SZ S00, FOR STARTER COMBINATION,
RATED CURRENT 12.5A, N-RELEASE 163A, SCREW
CONNECTION, STANDARD SW. CAPACITY

product brandname	SIRIUS
Product designation	Circuit breaker
Design of the product	For starter combinations
Product type designation	3RV2

General technical data

Size of the circuit-breaker	S00
Size of contactor can be combined company-specific	S00, S0
Product extension	
• Auxiliary switch	Yes
Power loss [W] total typical	7 W
Insulation voltage with degree of pollution 3 rated value	690 V
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
• in networks with grounded star point between main and auxiliary circuit	400 V
• in networks with grounded star point between main and auxiliary circuit	400 V
Protection class IP	
• on the front	IP20
• of the terminal	IP20
Shock resistance	
• acc. to IEC 60068-2-27	25g / 11 ms
Mechanical service life (switching cycles)	
• of the main contacts typical	100 000
• of auxiliary contacts typical	100 000
Electrical endurance (switching cycles)	
• typical	100 000
Certificate of suitability relating to ATEX	on request
Protection against electrical shock	finger-safe
Equipment marking acc. to DIN EN 81346-2	Q

Ambient conditions

Installation altitude at height above sea level maximum	2 000 m
Ambient temperature	

<ul style="list-style-type: none"> • during operation 	-20 ... +60 °C
<ul style="list-style-type: none"> • during storage 	-50 ... +80 °C
<ul style="list-style-type: none"> • during transport 	-50 ... +80 °C
Relative humidity during operation	10 ... 95 %

Main circuit

Number of poles for main current circuit	3
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 rated value	12.5 A
Operating current	
<ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value 	12.5 A
Operating power	
<ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value 	3 000 W 5 500 W 7 500 W 7 500 W
Operating frequency	
<ul style="list-style-type: none"> • at AC-3 maximum 	15 1/h

Auxiliary circuit

Number of NC contacts	
<ul style="list-style-type: none"> • for auxiliary contacts 	0
Number of NO contacts	
<ul style="list-style-type: none"> • for auxiliary contacts 	0
Number of CO contacts	
<ul style="list-style-type: none"> • for auxiliary contacts 	0

Protective and monitoring functions

Operational short-circuit current breaking capacity (Ics) at AC	
<ul style="list-style-type: none"> • at 240 V rated value • at 400 V rated value • at 500 V rated value • at 690 V rated value 	100 kA 100 kA 42 kA 4 kA
Maximum short-circuit current breaking capacity (Icu)	
<ul style="list-style-type: none"> • at AC at 240 V rated value • at AC at 400 V rated value • at AC at 500 V rated value • at AC at 690 V rated value 	100 kA 100 kA 42 kA 6 kA

Breaking capacity short-circuit current (Icn)	
• at 1 current path at DC at 150 V rated value	10 kA
• with 2 current paths in series at DC at 300 V rated value	10 kA
• with 3 current paths in series at DC at 450 V rated value	10 kA

UL/CSA ratings

Full-load current (FLA) for three-phase AC motor	
• at 480 V rated value	12.5 A
• at 600 V rated value	12.5 A
Yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	0.5 hp
— at 230 V rated value	2 hp
• for three-phase AC motor	
— at 200/208 V rated value	3 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	7.5 hp
— at 575/600 V rated value	10 hp

Short-circuit protection

Design of the short-circuit trip	magnetic
Design of the fuse link for IT network for short-circuit protection of the main circuit	
• at 400 V	gL/gG 63 A
• at 500 V	gL/gG 50 A
• at 690 V	gL/gG 40 A

Installation/ mounting/ dimensions

Mounting position	any
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
Height	97 mm
Width	45 mm
Depth	96 mm
Required spacing	
• with side-by-side mounting	
— forwards	0 mm
— Backwards	0 mm
— upwards	50 mm
— downwards	50 mm
— at the side	0 mm
• for grounded parts	

— forwards	0 mm
— Backwards	0 mm
— upwards	50 mm
— at the side	30 mm
— downwards	50 mm
• for live parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	50 mm
— downwards	50 mm
— at the side	30 mm

Connections/Terminals

Product function	
• removable terminal for auxiliary and control circuit	No
Type of electrical connection	
• for main current circuit	screw-type terminals
Arrangement of electrical connectors for main current circuit	Top and bottom
Type of connectable conductor cross-sections	
• for main contacts	
— single or multi-stranded	2x (0,75 ... 2,5 mm ²), 2x 4 mm ²
— finely stranded with core end processing	2x (0.5 ... 1.5 mm ²), 2x (0.75 ... 2.5 mm ²)
• at AWG conductors for main contacts	2x (18 ... 14), 2x 12
Tightening torque	
• for main contacts with screw-type terminals	0.8 ... 1.2 N·m
Design of screwdriver shaft	Diameter 5 to 6 mm
Design of the thread of the connection screw	
• for main contacts	M3

Safety related data

B10 value	
• with high demand rate acc. to SN 31920	5 000
Proportion of dangerous failures	
• with low demand rate acc. to SN 31920	50 %
• with high demand rate acc. to SN 31920	50 %
Failure rate [FIT]	
• with low demand rate acc. to SN 31920	50 FIT
T1 value for proof test interval or service life acc. to IEC 61508	10 y
Display version	
• for switching status	Handle

Certificates/approvals

General Product Approval

Declaration of Conformity



[KTL](#)



Test Certificates

Shipping Approval

[spezielle Prüfbescheinigung](#)
[n](#)

[Typprüfbescheinigung/Werkszeugnis](#)



Shipping Approval

other



[Umweltbestätigung](#)

[Bestätigungen](#)



[sonstig](#)

Railway

[Schwingen/Schocke](#)
[n](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2311-1KC10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2311-1KC10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2311-1KC10>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2311-1KC10&lang=en

last modified:

11/24/2016