

CIRCUIT-BREAKER SZ S0, FOR STARTER COMBINATION,
 RATED CURRENT 20A, N-RELEASE 260A, SCREW
 CONNECTION, STANDARD SW. CAPACITY



product brand name	SIRIUS
Product designation	3RV2 circuit breaker
General technical data:	
Size of the circuit-breaker	S0
Size of contactor can be combined company-specific	S0
Product expansion	
• Auxiliary switch	Yes
Active power loss total typical	8 W
Insulation voltage with degree of pollution 3 Rated value	690 V
Surge voltage resistance Rated value	6 kV
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 the 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	
• during operation	-20 ... +60 °C
• during storage	-50 ... +80 °C
• during transport	-50 ... +80 °C
Relative humidity during operation	10 ... 95 %

Main circuit:

Number of poles for main current circuit	3
Operating voltage	
• Rated value	690 V
• at AC-3 Rated value maximum	690 V
Operating frequency Rated value	50 ... 60 Hz
Operating current Rated value	20 A
Operating current	
• at AC-3	
— at 400 V Rated value	20 A
Operating power	
• at AC-3	
— at 230 V Rated value	5 500 W
— at 400 V Rated value	7 500 W
— at 500 V Rated value	11 000 W
— at 690 V Rated value	15 000 W
Operating frequency	
• at AC-3 maximum	15 1/h

Auxiliary circuit:

Number of NC contacts	
• for auxiliary contacts	0
Number of NO contacts	
• for auxiliary contacts	0
Number of CO contacts	
• for auxiliary contacts	0

Protective and monitoring functions:

Operational short-circuit current breaking capacity (Ics) at AC	
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<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 	<p>100 kA</p> <p>25 kA</p> <p>5 kA</p> <p>2 kA</p>
Maximum short-circuit current breaking capacity (I_{cu}) <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 	<p>100 kA</p> <p>55 kA</p> <p>10 kA</p> <p>4 kA</p>
Breaking capacity short-circuit current (I_{cn}) <ul style="list-style-type: none"> • at 1 current path at DC at 150 V Rated value • with 2 current paths in series at DC at 300 V Rated value • with 3 current paths in series at DC at 450 V Rated value 	<p>10 kA</p> <p>10 kA</p> <p>10 kA</p>
Response value current of the instantaneous short-circuit release	<p>260 A</p>

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 	<p>20 A</p> <p>20 A</p>
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 	<p>1.5 hp</p> <p>3 hp</p> <p>5 hp</p> <p>5 hp</p> <p>10 hp</p>

Short-circuit protection

Design of the short-circuit trip	<p>magnetic</p>
Design of the fuse link for IT network for short-circuit protection of the main circuit <ul style="list-style-type: none"> • at 400 V • at 500 V • at 690 V 	<p>gL/gG 63 A</p> <p>gL/gG 50 A</p> <p>gL/gG 50 A</p>

Installation/ mounting/ dimensions:

mounting position	<p>any</p>
Mounting type	<p>screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715</p>
Height	<p>97 mm</p>

Width	45 mm
Depth	96 mm
Required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards 0 mm — Backwards 0 mm — upwards 50 mm — downwards 50 mm — at the side 0 mm • for grounded parts <ul style="list-style-type: none"> — forwards 0 mm — Backwards 0 mm — upwards 50 mm — at the side 30 mm — downwards 50 mm • for live parts <ul style="list-style-type: none"> — forwards 0 mm — Backwards 0 mm — upwards 50 mm — downwards 50 mm — at the side 30 mm 	

Connections/ Terminals:	
Product function	
<ul style="list-style-type: none"> • removable terminal for auxiliary and control circuit 	No
Type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit 	screw-type terminals
Arrangement of electrical connectors for main current circuit	Top and bottom
Type of connectable conductor cross-section	
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — single or multi-stranded 2x (1 ... 2,5 mm²), 2x (2,5 ... 10 mm²) — finely stranded with core end processing 2x (1 ... 2.5 mm²), 2x (2.5 ... 6 mm²), 1x 10 mm² • for AWG conductors for main contacts 2x (16 ... 12), 2x (14 ... 8) 	
Tightening torque	
<ul style="list-style-type: none"> • for main contacts with screw-type terminals 	2 ... 2.5 N·m
Design of screwdriver shaft	Diameter 5 to 6 mm
Design of the thread of the connection screw	
<ul style="list-style-type: none"> • for main contacts 	M4

Safety related data:	
B10 value with high demand rate acc. to SN 31920	50 000

Proportion of dangerous failures	
<ul style="list-style-type: none"> with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920 	40 % 40 %
Failure rate [FIT]	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> for switching status 	Handle

Certificates/ approvals:

General Product Approval	Declaration of Conformity
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[KTL](#)



Test Certificates	Shipping Approval
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[spezielle Prüfbescheinigungen](#)
[Werksbescheinigungen](#)
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Shipping Approval	other
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[Bestätigungen](#)

other	Railway
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[Umweltbestätigung](#)



[Schwingen/Schocke](#)

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Further information

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

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

Industry Mall (Online ordering system)

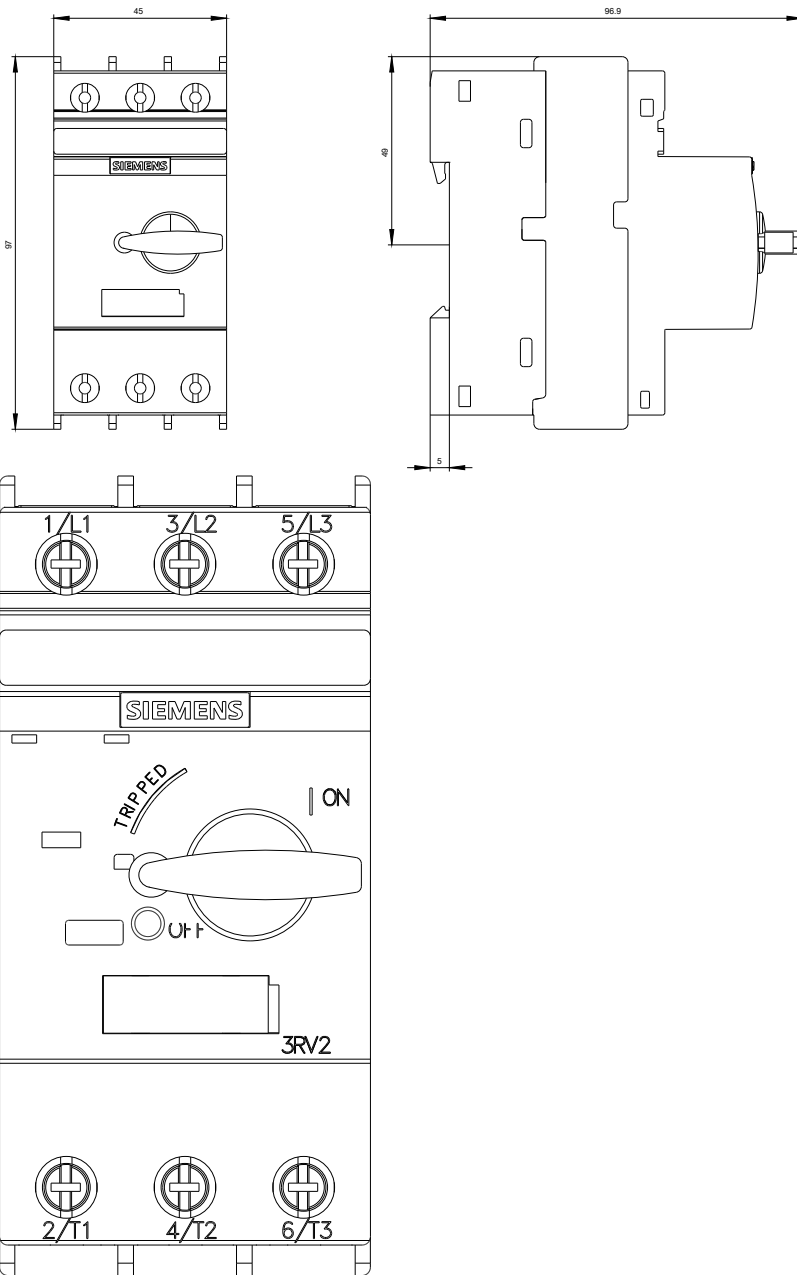
<http://www.siemens.com/industrymall>

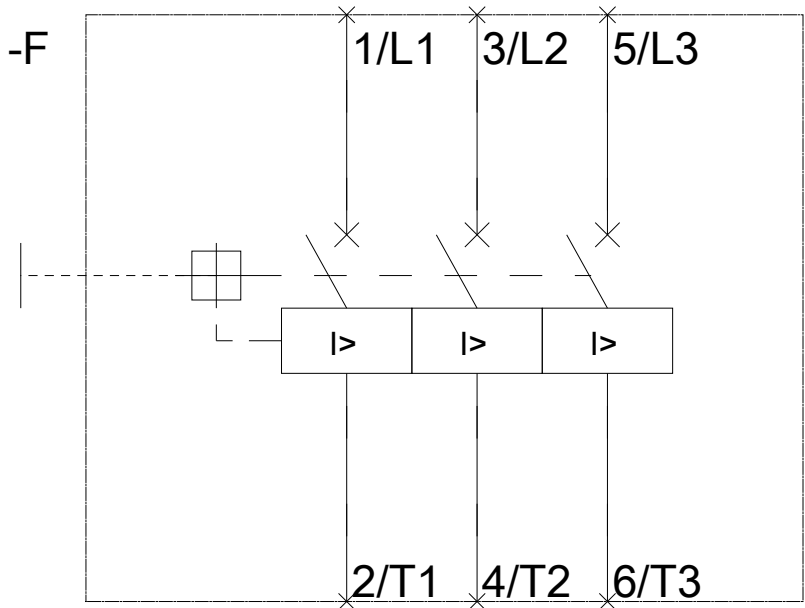
Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3RV23214BC10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV23214BC10>





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