SIEMENS

Data sheet 3RV2311-1CC20



Circuit breaker size S00 for starter combination Rated current 2.5 A N-release 33 A Spring-type terminal Standard switching capacity



product brand name	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] for rated value of the current	
 at AC in hot operating state 	7.25 W
at AC in hot operating state per pole	2.4 W
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
shock resistance according to IEC 60068-2-27	25g / 11 ms
mechanical service life (operating cycles)	
 of the main contacts typical 	100 000
of auxiliary contacts typical	100 000
electrical endurance (operating cycles) typical	100 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1
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	20 690 V
 at AC-3 rated value maximum 	690 V
at AC-3e rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current rated value	2.5 A
operational current	

• at AC-3 at 400 V rated value	2.5 A
at AC-3e at 400 V rated value	2.5 A
operating power	
• at AC-3	
— at 230 V rated value	0.4 kW
— at 400 V rated value	0.8 kW
— at 500 V rated value	1.1 kW
— at 690 V rated value	1.5 kW
• at AC-3e	
— at 230 V rated value	0.4 kW
— at 400 V rated value	0.8 kW
— at 500 V rated value	1.1 kW
— at 690 V rated value	1.5 kW
operating frequency	
• at AC-3 maximum	15 1/h
at AC-3e 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	
product function	No
ground fault detection	No
phase failure detection	No
maximum short-circuit current breaking capacity (Icu)	100 kA
at AC at 400 V rated value	
 at AC at 400 V rated value at AC at 500 V rated value 	100 kA 100 kA
at AC at 500 V rated value at AC at 690 V rated value	10 KA
operating short-circuit current breaking capacity (Ics) at AC	10 KA
• at 240 V rated value	100 kA
at 400 V rated value at 400 V rated value	100 KA
at 400 V rated value at 500 V rated value	100 KA
at 690 V rated value at 690 V rated value	10 kA
response value current of instantaneous short-circuit trip unit	33 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	2.5 A
at 600 V rated value	2.5 A
yielded mechanical performance [hp]	2.07.
• for single-phase AC motor	
— at 230 V rated value	0.17 hp
• for 3-phase AC motor	
— at 200/208 V rated value	0.5 hp
— at 220/230 V rated value	0.5 hp
— at 460/480 V rated value	1 hp
— at 575/600 V rated value	1.5 hp
Short-circuit protection	
product function short circuit protection	Yes
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 25 A
• at 500 V	gL/gG 25 A
● at 690 V	gL/gG 20 A
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	106 mm
width	45 mm
depth	97 mm

required spacing	
 with side-by-side mounting at the side 	0 mm
 for grounded parts at 400 V 	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for live parts at 400 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for grounded parts at 500 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for live parts at 500 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for grounded parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
• for live parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
Connections/ Terminals	C IIIII
type of electrical connection	spring-loaded terminals
type of electrical connection • for main current circuit	spring-loaded terminals Top and bottom
type of electrical connection	spring-loaded terminals Top and bottom
type of electrical connection • for main current circuit arrangement of electrical connectors for main current	
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit	
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections	
type of electrical connection	Top and bottom
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded	Top and bottom 2x (0,5 4 mm²)
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²)
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²)
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12)
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • for AWG cables for main contacts design of screwdriver shaft	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • for AWG cables for main contacts design of screwdriver shaft size of the screwdriver tip	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • for AWG cables for main contacts design of screwdriver shaft size of the screwdriver tip Safety related data	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm 3,0 x 0,5 mm
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • for AWG cables for main contacts design of screwdriver shaft size of the screwdriver tip Safety related data product function suitable for safety function	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm 3,0 x 0,5 mm
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • for AWG cables for main contacts design of screwdriver shaft size of the screwdriver tip Safety related data product function suitable for safety function suitability for use	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm 3,0 x 0,5 mm Yes
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • for AWG cables for main contacts design of screwdriver shaft size of the screwdriver tip Safety related data product function suitable for safety function suitability for use • safety-related switching on	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm 3,0 x 0,5 mm Yes
type of electrical connection	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm 3,0 x 0,5 mm Yes No Yes
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing • for AWG cables for main contacts design of screwdriver shaft size of the screwdriver tip Safety related data product function suitable for safety function suitability for use • safety-related switching on • safety-related switching OFF service life maximum	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm 3,0 x 0,5 mm Yes No Yes 10 a
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm 3,0 x 0,5 mm Yes No Yes 10 a
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing • for AWG cables for main contacts design of screwdriver shaft size of the screwdriver tip Safety related data product function suitable for safety function suitability for use • safety-related switching on • safety-related switching OFF service life maximum test wear-related service life necessary proportion of dangerous failures	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm 3,0 x 0,5 mm Yes No Yes 10 a Yes
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — for AWG cables for main contacts design of screwdriver shaft size of the screwdriver tip Safety related data product function suitable for safety function suitability for use • safety-related switching on • safety-related switching OFF service life maximum test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm 3,0 x 0,5 mm Yes No Yes 10 a Yes
type of electrical connection	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm 3,0 x 0,5 mm Yes No Yes 10 a Yes 40 % 50 %
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — for AWG cables for main contacts design of screwdriver shaft size of the screwdriver tip Safety related data product function suitable for safety function suitability for use • safety-related switching on • safety-related switching OFF service life maximum test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm 3,0 x 0,5 mm Yes No Yes 10 a Yes 40 % 50 % 5 000
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — finely stranded without core end processing • for AWG cables for main contacts design of screwdriver shaft size of the screwdriver tip Safety related data product function suitable for safety function suitability for use • safety-related switching on • safety-related switching OFF service life maximum test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm 3,0 x 0,5 mm Yes No Yes 10 a Yes 40 % 50 % 5 000 50 FIT
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm 3,0 x 0,5 mm Yes No Yes 10 a Yes 40 % 50 % 5 000
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — for AWG cables for main contacts design of screwdriver shaft size of the screwdriver tip Safety related data product function suitable for safety function suitability for use • safety-related switching on • safety-related switching OFF service life maximum test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm 3,0 x 0,5 mm Yes No Yes 10 a Yes 40 % 50 % 5 000 50 FIT
type of electrical connection	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm 3,0 x 0,5 mm Yes No Yes 10 a Yes 40 % 50 % 5 000 50 FIT
type of electrical connection • for main current circuit arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing — for AWG cables for main contacts design of screwdriver shaft size of the screwdriver tip Safety related data product function suitable for safety function suitability for use • safety-related switching on • safety-related switching OFF service life maximum test wear-related service life necessary proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary	Top and bottom 2x (0,5 4 mm²) 2x (0.5 2.5 mm²) 2x (0.5 2.5 mm²) 2x (20 12) Diameter 3 mm 3,0 x 0,5 mm Yes No Yes 10 a Yes 40 % 50 % 5 000 50 FIT

T1 value	
 for proof test interval or service life according to IEC 61508 	10 a
Electrical Safety	
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
Display	
display version for switching status	Handle
Approvals Certificates	
General Product Approval	

General Product Approval







Confirmation





Test Certificates

Marine / Shipping

Type Test Certificates/Test Report

Special Test Certificate









Marine / Shipping

other

Railway





Miscellaneous

Confirmation



Special Test Certific-<u>ate</u>

Railway

Environment

Confirmation



Siemens EcoTech



Environmental Confirmations

Further information

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

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=3RV2311-1CC20

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2311-1CC20

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2311-1CC20

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

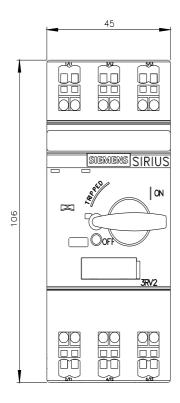
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2311-1CC20&lang=en

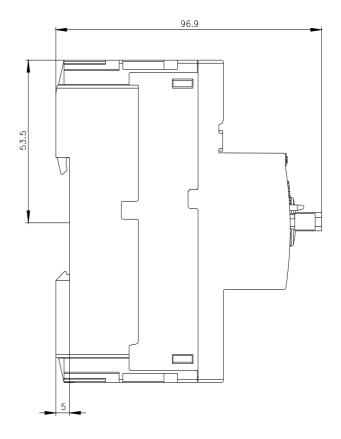
Characteristic: Tripping characteristics, I²t, Let-through current

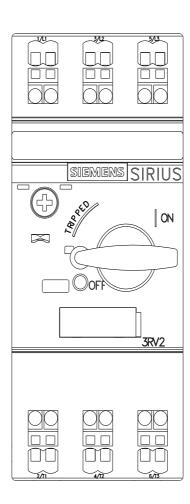
https://support.industry.siemens.com/cs/ww/en/ps/3RV2311-1CC20/char

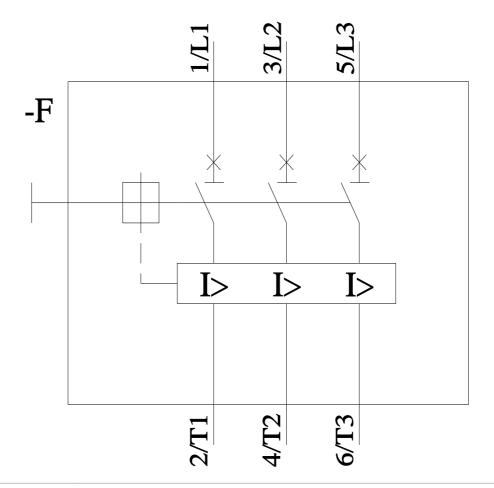
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2311-1CC20&objecttype=14&gridview=view1









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