# **SIEMENS**

Data sheet 3RV2311-0JC20





Circuit breaker size S00 for starter combination Rated current 1 A N-release 13 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	
<ul> <li>at AC in hot operating state</li> </ul>	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
Weight	0.365 kg
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul> <li>during operation</li> </ul>	-20 +60 °C
during storage	-50 +80 °C
during transport	-50 +80 °C
relative humidity during operation	10 95 %
Environmental footprint	
Siemens Eco Profile (SEP)	Siemens EcoTech
Main circuit	
number of poles for main current circuit	3
type of voltage for main current circuit	AC/DC
operating voltage	
• rated value	20 690 V
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V

at AC 3a rated value maximum	690 V
at AC-3e rated value maximum	50 60 Hz
operating frequency rated value operational current rated value	1 A
•	TA
operational current	4.0
at AC-3 at 400 V rated value     at AC-3 at 400 V rated value	1.4
at AC-3e at 400 V rated value	1A
operating power	
• at AC-3	0.01114
— at 230 V rated value	0.2 kW
— at 400 V rated value	0.3 kW
— at 500 V rated value	0.4 kW
— at 690 V rated value	0.6 kW
• at AC-3e	
— at 230 V rated value	0.2 kW
— at 400 V rated value	0.3 kW
— at 500 V rated value	0.4 kW
— at 690 V rated value	0.6 kW
operating frequency	45.40
• at AC-3 maximum	15 1/h
at AC-3e maximum	15 1/h
Auxiliary circuit	
type of voltage for auxiliary and control circuit	AC/DC
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	
<ul> <li>ground fault detection</li> </ul>	No
phase failure detection	No
maximum short-circuit current breaking capacity (Icu)	
<ul> <li>at AC at 240 V rated value</li> </ul>	100 kA
<ul> <li>at AC at 400 V rated value</li> </ul>	100 kA
<ul> <li>at AC at 500 V rated value</li> </ul>	100 kA
at AC at 690 V rated value	100 kA
operating short-circuit current breaking capacity (Ics) at AC	
at 240 V rated value	100 kA
at 400 V rated value	100 kA
at 500 V rated value	100 kA
at 690 V rated value	100 kA
response value current of instantaneous short-circuit trip unit	13 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	1 A
• at 600 V rated value	1 A
yielded mechanical performance [hp]	
• for 3-phase AC motor	
— at 575/600 V rated value	0.5 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 500 V	gL/gG 10 A
• at 690 V	gL/gG 10 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	

<ul> <li>with side-by-side mounting at the side</li> </ul>	0 mm
<ul> <li>for grounded parts at 400 V</li> </ul>	
— 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
<ul> <li>for grounded parts at 500 V</li> </ul>	
— 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
<ul> <li>for grounded parts at 690 V</li> </ul>	
— 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	
type of electrical connection	
for main current circuit	spring-loaded terminals
arrangement of electrical connectors for main current	spring-loaded terminals  Top and bottom
arrangement of electrical connectors for main current circuit	
arrangement of electrical connectors for main current circuit type of connectable conductor cross-sections	
arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections  • for main contacts	Top and bottom
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)
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)
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)
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	Top and bottom  2x (0,5 4 mm²)  2x (0.5 2.5 mm²)  2x (0.5 2.5 mm²)  2x (20 12)
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
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)
arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections	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
arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections	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
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
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
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	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
arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections	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
arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections	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
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	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
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 40 %
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	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 %
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
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	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 %
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arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections	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
arrangement of electrical connectors for main current circuit  type of connectable conductor cross-sections	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
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  afety 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	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
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
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  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  40 % 50 % 5 000 50 FIT

10 a • for proof test interval or service life according to IEC 61508 **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 version for switching status Handle Approvals Certificates

# **General Product Approval**











**BIS CRS** 

#### **Test Certificates**

#### Marine / Shipping

Type Test Certificates/Test Report

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









# Marine / Shipping

other

Railway





**Miscellaneous** 

Confirmation



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

#### Railway

#### **Environment**

Siemens **EcoTech** 

Confirmation



**Environmental Confirmations** 

### Further information

Information on the packaging

https://support.industry.sieme

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=3RV2311-0JC20

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2311-0JC20

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2311-0JC20

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

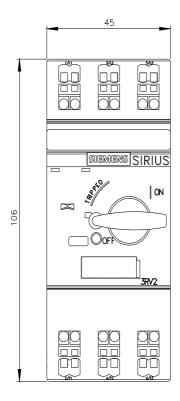
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2311-0JC20&lang=en

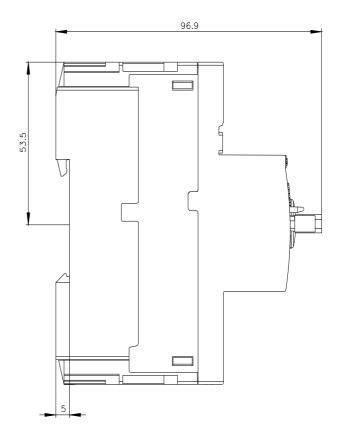
Characteristic: Tripping characteristics, I2t, Let-through current

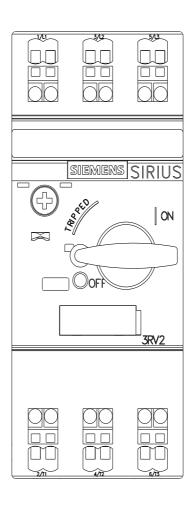
https://support.industry.siemens.com/cs/ww/en/ps/3RV2311-0JC20/

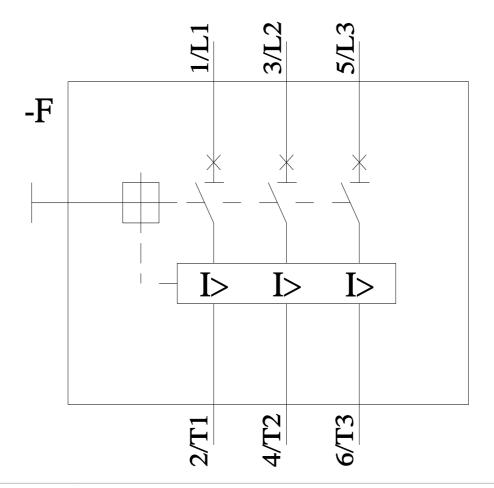
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2311-0JC20&objecttype=14&gridview=view1









last modified: 4/18/2024 🖸

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