# **SIEMENS**

Data sheet 3RV2311-1BC20



Circuit breaker size S00 for starter combination Rated current 2 A N-release 26 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
<ul> <li>at AC in hot operating state per pole</li> </ul>	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)	
<ul> <li>of the main contacts typical</li> </ul>	100 000
<ul> <li>of auxiliary contacts typical</li> </ul>	100 000
electrical endurance (operating cycles) typical	100 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
<ul><li>during operation</li></ul>	-20 +60 °C
<ul><li>during storage</li></ul>	-50 +80 °C
<ul> <li>during transport</li> </ul>	-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
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V
<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V
operating frequency rated value	50 60 Hz
operational current rated value	2 A
operational current	
<ul> <li>at AC-3 at 400 V rated value</li> </ul>	2 A
<ul> <li>at AC-3e at 400 V rated value</li> </ul>	2 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	0.8 kW
— at 690 V rated value	1.1 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	0.8 kW
— at 690 V rated value	1.1 kW
operating frequency	
• at AC-3 maximum	15 1/h
at AC-3e maximum	15 1/h
	10 1111
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	
ground fault detection	No
phase failure detection	No
maximum short-circuit current breaking capacity (Icu)	
• at AC at 240 V rated value	100 kA
at AC at 400 V rated value	100 kA
at AC at 400 V rated value     at AC at 500 V rated value	100 KA
at AC at 690 V rated value	10 kA
operating short-circuit current breaking capacity (lcs) at AC	
at 240 V rated value	100 kA
at 400 V rated value	100 kA
at 500 V rated value     at 500 V rated value	100 kA
at 690 V rated value     at 690 V rated value	10 kA
	10.10
response value current of instantaneous short-circuit trip unit	26 A
UL/CSA ratings	
UL/CSA ratings full-load current (FLA) for 3-phase AC motor	
UL/CSA ratings full-load current (FLA) for 3-phase AC motor • at 480 V rated value	2 A
UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value	2 A 2 A
UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  yielded mechanical performance [hp]	
UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  yielded mechanical performance [hp]  • for single-phase AC motor	2 A
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UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  yielded mechanical performance [hp]  • for single-phase AC motor	2 A
UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  yielded mechanical performance [hp]  • for single-phase AC motor  — at 230 V rated value	2 A
UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  yielded mechanical performance [hp]  • for single-phase AC motor  — at 230 V rated value  • for 3-phase AC motor	2 A 0.13 hp
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  yielded mechanical performance [hp]  • for single-phase AC motor  — at 230 V rated value  • for 3-phase AC motor  — at 460/480 V rated value  — at 575/600 V rated value	2 A 0.13 hp 1 hp
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  yielded mechanical performance [hp]  • for single-phase AC motor  — at 230 V rated value  • for 3-phase AC motor  — at 460/480 V rated value  — at 575/600 V rated value  Short-circuit protection	2 A 0.13 hp 1 hp
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full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value  yielded mechanical performance [hp] • for single-phase AC motor — at 230 V rated value • for 3-phase AC motor — at 460/480 V rated value — at 575/600 V rated value  Short-circuit protection  product function short circuit protection	2 A  0.13 hp  1 hp 1 hp
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full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value  yielded mechanical performance [hp] • for single-phase AC motor — at 230 V rated value • for 3-phase AC motor — at 460/480 V rated value — at 575/600 V rated value  Short-circuit protection  product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 400 V	2 A  0.13 hp  1 hp 1 hp Tyes magnetic  gL/gG 25 A gL/gG 25 A
full-load current (FLA) for 3-phase AC motor  at 480 V rated value at 600 V rated value yielded mechanical performance [hp] for single-phase AC motor — at 230 V rated value for 3-phase AC motor — at 460/480 V rated value — at 575/600 V rated value  Short-circuit protection  product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit at 400 V at 500 V at 690 V	2 A  0.13 hp  1 hp 1 hp Yes magnetic  gL/gG 25 A
full-load current (FLA) for 3-phase AC motor  at 480 V rated value at 600 V rated value yielded mechanical performance [hp]  for single-phase AC motor — at 230 V rated value for 3-phase AC motor — at 460/480 V rated value — at 575/600 V rated value  Short-circuit protection  product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit at 400 V at 500 V at 690 V  Installation/ mounting/ dimensions	2 A  0.13 hp  1 hp 1 hp Yes magnetic  gL/gG 25 A gL/gG 25 A gL/gG 20 A
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full-load current (FLA) for 3-phase AC motor  at 480 V rated value at 600 V rated value yielded mechanical performance [hp]  for single-phase AC motor — at 230 V rated value for 3-phase AC motor — at 460/480 V rated value — at 575/600 V rated value  Short-circuit protection  product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit at 400 V at 500 V at 690 V  Installation/ mounting/ dimensions	2 A  0.13 hp  1 hp 1 hp Yes magnetic  gL/gG 25 A gL/gG 25 A gL/gG 20 A
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full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value  yielded mechanical performance [hp] • for single-phase AC motor — at 230 V rated value • for 3-phase AC motor — at 460/480 V rated value — at 575/600 V rated value  Short-circuit protection  product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 400 V • at 500 V • at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height	2 A  0.13 hp  1 hp 1 hp 1 hp  Yes magnetic  gL/gG 25 A gL/gG 25 A gL/gG 20 A  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 106 mm
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value  yielded mechanical performance [hp] • for single-phase AC motor — at 230 V rated value • for 3-phase AC motor — at 460/480 V rated value — at 575/600 V rated value  Short-circuit protection  product function short circuit protection design of the short-circuit trip design of the main circuit • at 400 V • at 500 V • at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height width	2 A  0.13 hp  1 hp 1 hp 1 hp  Yes magnetic  gL/gG 25 A gL/gG 25 A gL/gG 20 A  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 106 mm 45 mm
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value  yielded mechanical performance [hp] • for single-phase AC motor — at 230 V rated value • for 3-phase AC motor — at 460/480 V rated value — at 575/600 V rated value  Short-circuit protection  product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 400 V • at 500 V • at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height width depth	2 A  0.13 hp  1 hp 1 hp 1 hp  Yes magnetic  gL/gG 25 A gL/gG 25 A gL/gG 20 A  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 106 mm
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor — at 230 V rated value • for 3-phase AC motor — at 460/480 V rated value — at 575/600 V rated value Short-circuit protection product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 400 V • at 500 V • at 690 V  Installation/ mounting/ dimensions mounting position fastening method  height width depth required spacing	2 A  0.13 hp  1 hp 1 hp 1 hp 2 M  Yes Magnetic  gL/gG 25 A  gL/gG 25 A  gL/gG 20 A  any Screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 106 mm 45 mm 97 mm
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value  yielded mechanical performance [hp] • for single-phase AC motor — at 230 V rated value • for 3-phase AC motor — at 460/480 V rated value — at 575/600 V rated value  Short-circuit protection  product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 400 V • at 500 V • at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing • with side-by-side mounting at the side	2 A  0.13 hp  1 hp 1 hp 1 hp  Yes magnetic  gL/gG 25 A gL/gG 25 A gL/gG 20 A  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 106 mm 45 mm
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor — at 230 V rated value • for 3-phase AC motor — at 460/480 V rated value — at 575/600 V rated value Short-circuit protection  product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 400 V • at 500 V • at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V	2 A  0.13 hp  1 hp 1 hp 1 hp  Yes magnetic  gL/gG 25 A gL/gG 25 A gL/gG 20 A  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 106 mm 45 mm 97 mm 0 mm
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor — at 230 V rated value • for 3-phase AC motor — at 460/480 V rated value — at 575/600 V rated value Short-circuit protection  product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 400 V • at 500 V • at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V — downwards	2 A  0.13 hp  1 hp 1 hp 1 hp  Yes magnetic  gL/gG 25 A gL/gG 25 A gL/gG 20 A  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 106 mm 45 mm 97 mm 0 mm 30 mm
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value • at 600 V rated value yielded mechanical performance [hp] • for single-phase AC motor — at 230 V rated value • for 3-phase AC motor — at 460/480 V rated value — at 575/600 V rated value Short-circuit protection  product function short circuit protection design of the short-circuit trip design of the fuse link for IT network for short-circuit protection of the main circuit • at 400 V • at 500 V • at 690 V  Installation/ mounting/ dimensions  mounting position fastening method  height width depth required spacing • with side-by-side mounting at the side • for grounded parts at 400 V	2 A  0.13 hp  1 hp 1 hp 1 hp  Yes magnetic  gL/gG 25 A gL/gG 25 A gL/gG 20 A  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 106 mm 45 mm 97 mm 0 mm

• for live parts at 400 V - downwards 30 mm - upwards 30 mm - at the side 9 mm • for grounded parts at 500 V 30 mm - downwards - 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 50 mm downwards - upwards 50 mm - backwards 0 mm — at the side 30 mm - forwards 0 mm • for live parts at 690 V - downwards 50 mm 50 mm - upwards - backwards 0 mm - at the side 30 mm - forwards  $0 \, \text{mm}$ type of electrical connection • for main current circuit spring-loaded terminals arrangement of electrical connectors for main current Top and bottom type of connectable conductor cross-sections for main contacts solid or stranded 2x (0,5 ... 4 mm²) - finely stranded with core end processing 2x (0.5 ... 2.5 mm²) - finely stranded without core end processing 2x (0.5 ... 2.5 mm²) • at AWG cables for main contacts 2x (20 ... 12) design of screwdriver shaft Diameter 3 mm size of the screwdriver tip 3.0 x 0.5 mm Safety related data • with high demand rate according to SN 31920 5 000 proportion of dangerous failures 50 % • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 50 % failure rate [FIT] • with low demand rate according to SN 31920 50 FIT T1 value for proof test interval or service life according to 10 a

B10 value

IEC 61508

protection class IP on the front according to IEC 60529

touch protection on the front according to IEC 60529

display version for switching status

finger-safe, for vertical contact from the front

Handle

IP20

# Certificates/ approvals

**General Product Approval** 



**Declaration of Conformity** 



Confirmation







**Test Certificates** 

Marine / Shipping

Type Test Certificates/Test Report

Special Test Certificate









Marine / Shipping

other

Railway







Confirmation



Vibration and Shock

## Railway

Confirmation

## **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=3RV2311-1BC20

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RV2311-1BC20}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2311-1BC20

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

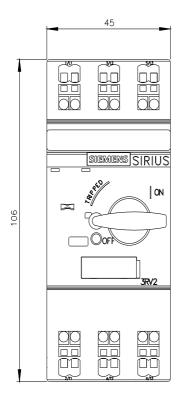
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2311-1BC20&lang=en

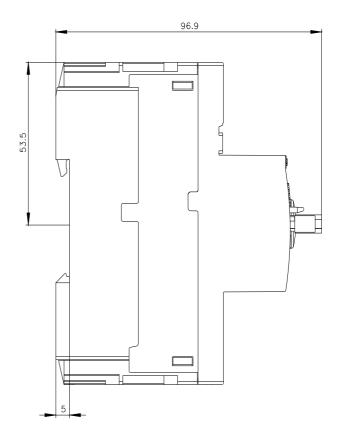
Characteristic: Tripping characteristics, I2t, Let-through current

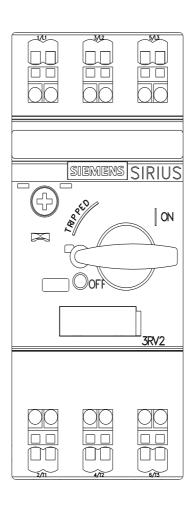
https://support.industry.siemens.com/cs/ww/en/ps/3RV2311-1BC20/char

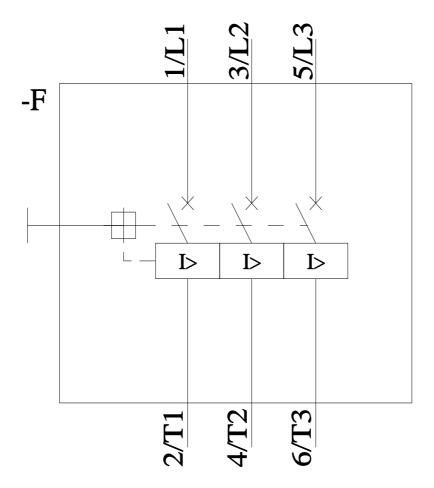
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2311-1BC20&objecttype=14&gridview=view1









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