## **SIEMENS**

Data sheet 3RV2311-1DC20



Circuit breaker size S00 for starter combination Rated current 3.2 A N release 42 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	
<ul><li>rated value</li></ul>	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	3.2 A
operational current	
<ul> <li>at AC-3 at 400 V rated value</li> </ul>	3.2 A
<ul> <li>at AC-3e at 400 V rated value</li> </ul>	3.2 A
operating power	
• at AC-3	
— at 230 V rated value	0.6 kW

— at 400 V rated value	1.1 kW
— at 500 V rated value	1.5 kW
— at 690 V rated value	2.2 kW
• at AC-3e	
— at 230 V rated value	0.6 kW
— at 400 V rated value	1.1 kW
— at 500 V rated value	1.5 kW
— at 690 V rated value	2.2 kW
operating frequency	
at AC-3 maximum	15 1/h
at AC-3e maximum	15 1/h
Auxiliary circuit	
	0
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
<ul> <li>phase failure detection</li> </ul>	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	10 kA
operating short-circuit current breaking capacity (lcs)	
at AC	
at 240 V rated value	100 kA
<ul> <li>at 400 V rated value</li> </ul>	100 kA
at 500 V rated value	100 kA
at 690 V rated value	10 kA
response value current of instantaneous short-circuit trip	42 A
unit	
UL/CSA ratings	
UL/CSA ratings full-load current (FLA) for 3-phase AC motor	
full-load current (FLA) for 3-phase AC motor	3.2 A
full-load current (FLA) for 3-phase AC motor • at 480 V rated value	3.2 A 3.2 A
full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value	3.2 A 3.2 A
full-load current (FLA) for 3-phase AC motor • at 480 V rated value • at 600 V rated value yielded mechanical performance [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	3.2 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 110/120 V rated value	3.2 A 0.1 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 110/120 V rated value  — at 230 V rated value	3.2 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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor	3.2 A  0.1 hp  0.25 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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value	3.2 A  0.1 hp 0.25 hp  0.5 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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value	3.2 A  0.1 hp 0.25 hp  0.5 hp 0.75 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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value	3.2 A  0.1 hp 0.25 hp  0.5 hp 0.75 hp 2 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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — at 575/600 V rated value	3.2 A  0.1 hp 0.25 hp  0.5 hp 0.75 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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value	3.2 A  0.1 hp 0.25 hp  0.5 hp 0.75 hp 2 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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — at 460/480 V rated value  — at 575/600 V rated value  Short-circuit protection	3.2 A  0.1 hp 0.25 hp  0.5 hp 0.75 hp 2 hp 2 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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — 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	3.2 A  0.1 hp 0.25 hp 0.5 hp 0.75 hp 2 hp 2 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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — 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	3.2 A  0.1 hp 0.25 hp 0.5 hp 0.75 hp 2 hp 2 hp 2 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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — 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	3.2 A  0.1 hp 0.25 hp 0.5 hp 0.75 hp 2 hp 2 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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — 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	3.2 A  0.1 hp 0.25 hp 0.5 hp 0.75 hp 2 hp 2 hp 2 hp  Yes magnetic  gL/gG 25 A gL/gG 32 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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — 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	3.2 A  0.1 hp 0.25 hp 0.5 hp 0.75 hp 2 hp 2 hp 2 hp Tyes 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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — 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	3.2 A  0.1 hp 0.25 hp 0.5 hp 0.75 hp 2 hp 2 hp 2 hp  Yes magnetic  gL/gG 25 A gL/gG 32 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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — 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	3.2 A  0.1 hp 0.25 hp 0.5 hp 0.75 hp 2 hp 2 hp 2 hp 2 hp 4 magnetic  gL/gG 25 A gL/gG 32 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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — 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	3.2 A  0.1 hp 0.25 hp 0.5 hp 0.75 hp 2 hp 2 hp 2 hp 2 hp 4 magnetic  gL/gG 25 A gL/gG 32 A gL/gG 25 A any
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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — 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	3.2 A  0.1 hp 0.25 hp 0.5 hp 0.75 hp 2 hp 2 hp 2 hp 2 hp 4 magnetic  gL/gG 25 A gL/gG 32 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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — 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	3.2 A  0.1 hp 0.25 hp 0.5 hp 0.75 hp 2 hp 2 hp 2 hp 2 hp 4 magnetic  gL/gG 25 A gL/gG 32 A gL/gG 25 A gL/gG 25 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN
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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — 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	3.2 A  0.1 hp 0.25 hp 0.5 hp 0.75 hp 2 hp 2 hp 2 hp  Yes magnetic  gL/gG 25 A gL/gG 32 A gL/gG 25 A gL/gG 25 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
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 110/120 V rated value  — at 230 V rated value  • for 3-phase AC motor  — at 200/208 V rated value  — at 220/230 V rated value  — 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	3.2 A  0.1 hp 0.25 hp 0.5 hp 0.75 hp 2 hp 2 hp 2 hp Yes magnetic  gL/gG 25 A gL/gG 32 A gL/gG 25 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 110/120 V rated value — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — 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	3.2 A  0.1 hp 0.25 hp 0.5 hp 0.75 hp 2 hp 2 hp 2 hp 2 hp 2 hp  Yes magnetic  gL/gG 25 A gL/gG 32 A gL/gG 25 A 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 110/120 V rated value — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — 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	3.2 A  0.1 hp 0.25 hp 0.5 hp 0.75 hp 2 hp 2 hp 2 hp 2 hp 2 hp  Yes magnetic  gL/gG 25 A gL/gG 32 A gL/gG 25 A 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 110/120 V rated value — at 230 V rated value • for 3-phase AC motor — at 200/208 V rated value — at 220/230 V rated value — 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	3.2 A  0.1 hp 0.25 hp 0.5 hp 0.75 hp 2 hp 2 hp 2 hp Yes magnetic  gL/gG 25 A gL/gG 32 A gL/gG 32 A gL/gG 25 A  any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 106 mm 45 mm 97 mm

— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
<ul> <li>for live parts at 400 V</li> </ul>	
— 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
<ul> <li>for live parts at 500 V</li> </ul>	
— 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
<ul> <li>for live parts at 690 V</li> </ul>	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
Connections/ Terminals	
type of electrical connection	
<ul> <li>for main current circuit</li> </ul>	spring-loaded terminals
arrangement of electrical connectors for main current	Top and bottom
circuit	
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 3.0 x 0.5 mm
size of the screwdriver tip	3,0 x 0,5 IIIII
Safety related data	
B10 value	5,000
with high demand rate according to SN 31920	5 000
proportion of dangerous failures	FO 0/
<ul> <li>with low demand rate according to SN 31920</li> <li>with high demand rate according to SN 31920</li> </ul>	50 % 50 %
	30 %
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
IEC 61508	10 a
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
Certificates/ approvals	
General Product Approval	Declaration of Conformity
<u>Confirmation</u>	ene co IIV











**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=3RV2311-1DC20

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2311-1DC20

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2311-1DC20

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

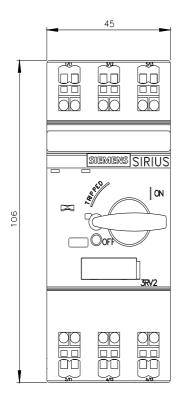
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2311-1DC20&lang=en

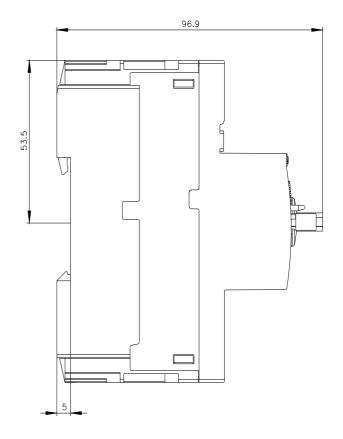
Characteristic: Tripping characteristics, I²t, Let-through current

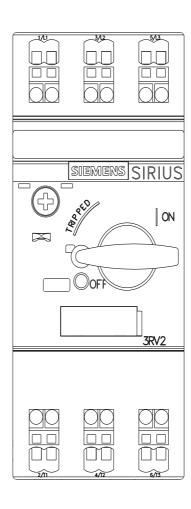
https://support.industry.siemens.com/cs/ww/en/ps/3RV2311-1DC20/char

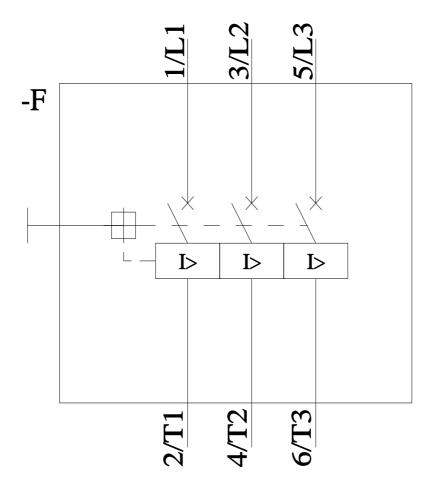
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2311-1DC20&objecttype=14&gridview=view1









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