SIEMENS

Data sheet 3RV2311-1HC20



Circuit breaker size S00 for starter combination Rated current 8 A N-release 104 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	OTTE
size of the circuit-breaker	\$00
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	9.25 W
at AC in hot operating state per pole	3.1 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
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
	8 A
operational current rated value	
operational current rated value operational current	
·	8 A
operational current	8 A 8 A
operational current • at AC-3 at 400 V rated value	

— at 230 V rated value	1.5 kW
— at 400 V rated value	3 kW
— at 500 V rated value	4 kW
— at 690 V rated value	5.5 kW
• at AC-3e	
— at 230 V rated value	1.5 kW
— at 400 V rated value	3 kW
— at 500 V rated value	4 kW
— at 690 V rated value	5.5 kW
	3.5 KVV
operating frequency	AE AIL
• 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	
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 500 V rated value at AC at 500 V rated value	42 kA
at AC at 690 V rated value	6 kA
	0 M
operating short-circuit current breaking capacity (Ics) at AC	400 1-4
• at 240 V rated value	100 kA
at 400 V rated value	100 kA
at 500 V rated value	42 kA
at 690 V rated value	4 kA
response value current of instantaneous short-circuit trip unit	104 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
full-load current (FLA) for 3-phase AC motor • at 480 V rated value	8 A
	8 A 8 A
• at 480 V rated value	
at 480 V rated valueat 600 V rated value	
at 480 V rated value at 600 V rated value yielded mechanical performance [hp]	
 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 	8 A 0.33 hp
 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 	8 A
 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 	8 A 0.33 hp 1 hp
 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 	8 A 0.33 hp 1 hp 2 hp
 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 	8 A 0.33 hp 1 hp 2 hp 2 hp
 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 	8 A 0.33 hp 1 hp 2 hp 2 hp 5 hp
 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 	8 A 0.33 hp 1 hp 2 hp 2 hp
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 460/480 V rated value at 575/600 V rated value Short-circuit protection	8 A 0.33 hp 1 hp 2 hp 2 hp 5 hp 5 hp
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	8 A 0.33 hp 1 hp 2 hp 2 hp 5 hp 5 hp
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	8 A 0.33 hp 1 hp 2 hp 2 hp 5 hp 5 hp
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	8 A 0.33 hp 1 hp 2 hp 2 hp 5 hp 5 hp
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	8 A 0.33 hp 1 hp 2 hp 2 hp 5 hp 5 hp
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	8 A 0.33 hp 1 hp 2 hp 2 hp 5 hp 5 hp 5 magnetic
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	8 A 0.33 hp 1 hp 2 hp 2 hp 5 hp 5 hp Tyes magnetic gL/gG 50 A
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	8 A 0.33 hp 1 hp 2 hp 2 hp 5 hp 5 hp 5 hp Yes magnetic gL/gG 50 A gL/gG 40 A
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	8 A 0.33 hp 1 hp 2 hp 2 hp 5 hp 5 hp 5 hp Yes magnetic gL/gG 50 A gL/gG 40 A
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 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	8 A 0.33 hp 1 hp 2 hp 2 hp 5 hp 5 hp 5 hp Yes magnetic gL/gG 50 A gL/gG 40 A gL/gG 35 A any
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 Installation/ mounting/ dimensions mounting position fastening method	8 A 0.33 hp 1 hp 2 hp 2 hp 5 hp 5 hp Yes magnetic gL/gG 50 A gL/gG 40 A gL/gG 35 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
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 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	8 A 0.33 hp 1 hp 2 hp 2 hp 5 hp 5 hp 5 hp Yes magnetic gL/gG 50 A gL/gG 40 A gL/gG 35 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 106 mm
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 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	8 A 0.33 hp 1 hp 2 hp 2 hp 5 hp 5 hp 5 hp Yes magnetic gL/gG 50 A gL/gG 40 A gL/gG 35 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 106 mm 45 mm
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 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	8 A 0.33 hp 1 hp 2 hp 2 hp 5 hp 5 hp 5 hp Yes magnetic gL/gG 50 A gL/gG 40 A gL/gG 35 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 106 mm
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	8 A 0.33 hp 1 hp 2 hp 2 hp 5 hp 5 hp 5 hp Yes magnetic gL/gG 50 A gL/gG 40 A gL/gG 35 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 106 mm 45 mm 97 mm
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 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	8 A 0.33 hp 1 hp 2 hp 2 hp 5 hp 5 hp 5 hp Yes magnetic gL/gG 50 A gL/gG 40 A gL/gG 35 A any screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715 106 mm 45 mm

doorwoods	20
— downwards	30 mm 30 mm
— upwards — at the side	9 mm
• for live parts at 400 V	5 11111
— downwards	30 mm
— upwards	30 mm
— upwards — at the side	9 mm
for grounded parts at 500 V	9 111111
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for live parts at 500 V	3 11111
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
for grounded parts at 690 V	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	
type of electrical connection	
for main current circuit	spring-loaded terminals
arrangement of electrical connectors for main current	Top and bottom
circuit	
type of connectable conductor cross-sections	
• for main contacts	0(0.5 4
— 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)
for 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	
B10 value	5,000
with high demand rate according to SN 31920 Proportion of degraphs failures	5 000
proportion of dangerous failures	E0 0/
with low demand rate according to SN 31920 with high demand rate according to SN 31920	50 %
with high demand rate according to SN 31920 failure rate (EIT)	50 %
failure rate [FIT]	50 EIT
with low demand rate according to SN 31920 T1 value for proof test interval or service life according to IEC.	50 FIT
T1 value for proof test interval or service life according to 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
Confirmation	
(WC) (VL)	FAL CE

Declaration of Conformity

Test Certificates

Marine / Shipping



Special Test Certificate

Type Test Certificates/Test Report







Marine / Shipping

other

Railway







Confirmation



Confirmation

Railway

Vibration and Shock

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RV2311-1HC20

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2311-1HC20

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2311-1HC20

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

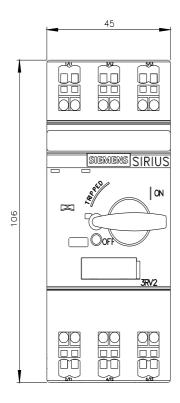
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2311-1HC20&lang=en

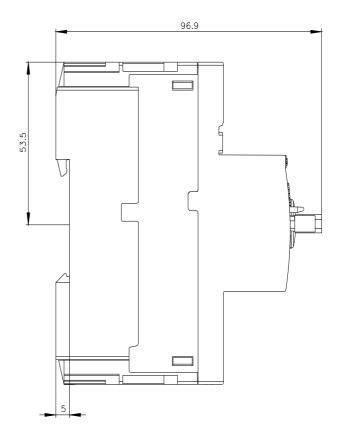
Characteristic: Tripping characteristics, I^2t , Let-through current

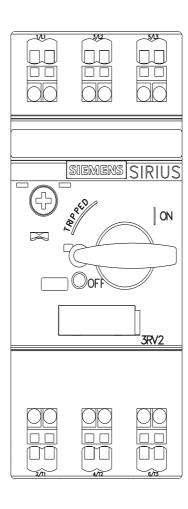
https://support.industry.siemens.com/cs/ww/en/ps/3RV2311-1HC20/char

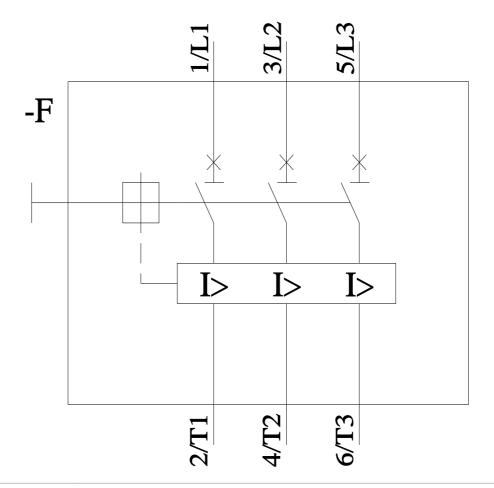
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2311-1HC20&objecttype=14&gridview=view1









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