## SIEMENS

## Data sheet

## 3RV2011-1FA15-Z W97



Circuit breaker size S00 for motor protection, CLASS 10 A-release 3.5...5 A N release 65 A screw terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC Multi-unit packaging Pack = 12 units

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
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
type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD
certificate of suitability according to ATEX directive 2014/34/EU	DMT 02 ATEX F 001
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
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
adjustable current response value current of the current- dependent overload release	3.5 5 A
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	5 A
operational current	

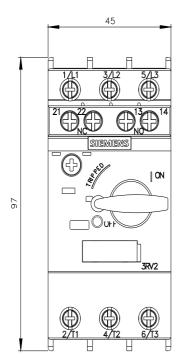
	<b>5</b> A
at AC-3 at 400 V rated value	5 A
at AC-3e at 400 V rated value	5 A
operating power	
• at AC-3	
— at 230 V rated value	1.1 kW
— at 400 V rated value	1.5 kW
— at 500 V rated value	2.2 kW
— at 690 V rated value	4 kW
• at AC-3e	
— at 230 V rated value	1.1 kW
— at 400 V rated value	1.5 kW
— at 500 V rated value	2.2 kW
— at 690 V rated value	4 kW
operating frequency	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h
Auxiliary circuit	
	tranavaraa
design of the auxiliary switch	transverse
number of NC contacts for auxiliary contacts	1
number of NO contacts for auxiliary contacts	1
number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15	
• at 24 V	2 A
• at 120 V	0.5 A
• at 125 V	0.5 A
• at 230 V	0.5 A
operational current of auxiliary contacts at DC-13	
• at 24 V	1 A
• at 60 V	0.15 A
Protective and monitoring functions	
product function	
	No
product function	No Yes
<ul><li>product function</li><li>ground fault detection</li><li>phase failure detection</li></ul>	
product function <ul> <li>ground fault detection</li> <li>phase failure detection</li> </ul> trip class	Yes
product function <ul> <li>ground fault detection</li> <li>phase failure detection</li> </ul> <li>trip class <ul> <li>design of the overload release</li> </ul> </li>	Yes CLASS 10
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (lcu)	Yes CLASS 10 thermal
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value	Yes CLASS 10 thermal 100 kA
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 400 V rated value	Yes CLASS 10 thermal 100 kA 100 kA
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (lcu)         • at AC at 240 V rated value         • at AC at 400 V rated value         • at AC at 500 V rated value	Yes CLASS 10 thermal 100 kA 100 kA
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (lcu)         • at AC at 240 V rated value         • at AC at 400 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value	Yes CLASS 10 thermal 100 kA 100 kA
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 400 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at AC at 690 V rated value	Yes CLASS 10 thermal 100 kA 100 kA 100 kA 6 kA
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 400 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at AC at 690 V rated value         • at 240 V rated value	Yes CLASS 10 thermal 100 kA 100 kA 100 kA 6 kA
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 400 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 400 V rated value	Yes CLASS 10 thermal 100 kA 100 kA 100 kA 100 kA
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (lcu)         • at AC at 240 V rated value         • at AC at 400 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 240 V rated value         • at 240 V rated value         • at 400 V rated value         • at 400 V rated value         • at 400 V rated value         • at 500 V rated value	Yes CLASS 10 thermal 100 kA 100 kA 6 kA 100 kA 100 kA 100 kA
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 400 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 240 V rated value         • at 240 V rated value         • at 400 V rated value         • at 600 V rated value         • at 690 V rated value	Yes CLASS 10 thermal 100 kA 100 kA 6 kA 100 kA 100 kA 100 kA 100 kA 4 kA
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 400 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 240 V rated value         • at 400 V rated value         • at 400 V rated value         • at 400 V rated value         • at 690 V rated value	Yes CLASS 10 thermal 100 kA 100 kA 6 kA 100 kA 100 kA 100 kA
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 400 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 400 V rated value         • at 400 V rated value         • at 690 V rated value	Yes CLASS 10 thermal 100 kA 100 kA 6 kA 100 kA 100 kA 100 kA 100 kA 4 kA
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 400 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 240 V rated value         • at 400 V rated value         • at 400 V rated value         • at 400 V rated value         • at 690 V rated value	Yes CLASS 10 thermal 100 kA 100 kA 6 kA 100 kA 100 kA 100 kA 100 kA 4 kA
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 400 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 400 V rated value         • at 400 V rated value         • at 690 V rated value	Yes CLASS 10 thermal 100 kA 100 kA 6 kA 100 kA 100 kA 100 kA 100 kA 4 kA
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 400 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 400 V rated value         • at 400 V rated value         • at 400 V rated value         • at 690 V rated value	Yes CLASS 10 thermal 100 kA 100 kA 100 kA 6 kA 100 kA 100 kA 100 kA 100 kA 100 kA
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (lcu)         • at AC at 240 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 240 V rated value         • at 240 V rated value         • at 400 V rated value         • at 690 V rated value         • at 400 V rated value         • at 690 V rated value         • at 480 V rated value         • at 480 V rated value	Yes CLASS 10 thermal 100 kA 100 kA 100 kA 6 kA 100 kA 100 kA 100 kA 5 A
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 240 V rated value         • at 240 V rated value         • at 400 V rated value         • at 500 V rated value         • at 400 V rated value         • at 500 V rated value         • at 690 V rated value         • at 690 V rated value         • at 400 V rated value         • at 690 V rated value	Yes CLASS 10 thermal 100 kA 100 kA 100 kA 6 kA 100 kA 100 kA 100 kA 5 A
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 240 V rated value         • at 240 V rated value         • at 400 V rated value         • at 500 V rated value         • at 690 V rated value         • at 600 V rated value         • at 480 V rated value         • at 600 V rated value	Yes CLASS 10 thermal 100 kA 100 kA 100 kA 6 kA 100 kA 100 kA 100 kA 5 A
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 240 V rated value         • at 240 V rated value         • at 400 V rated value         • at 690 V rated value         • at 600 V rated value         • at 480 V rated value         • at 480 V rated value         • at 600 V rated value	Yes CLASS 10 thermal 100 kA 100 kA 100 kA 100 kA 100 kA 100 kA 4 kA 65 A 5 A 5 A
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 400 V rated value         • at 690 V rated value         • at 600 V rated value         • at 480 V rated value         • at 600 V rated value	Yes CLASS 10 thermal 100 kA 100 kA 100 kA 6 kA 100 kA 100 kA 100 kA 4 kA 65 A 5 A 5 A
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (lcu)         • at AC at 240 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 400 V rated value         • at 690 V rated value         • at 600 V rated value	Yes CLASS 10 thermal 100 kA 100 kA 100 kA 6 kA 100 kA 100 kA 100 kA 4 kA 65 A 5 A 5 A 5 A 5 A
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 240 V rated value         • at 400 V rated value         • at 400 V rated value         • at 500 V rated value         • at 690 V rated value         • at 600 V rated value         • at 230 V rated value         • for single-phase AC motor         - at 230 V	Yes CLASS 10 thermal 100 kA 100 kA 100 kA 6 kA 100 kA 100 kA 100 kA 4 kA 65 A 5 A 5 A 5 A 1 hp
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 240 V rated value         • at 400 V rated value         • at 690 V rated value         • at 600 V rated value         • at 200 V rated value         • at 600 V rated value         • at 200 V rate	Yes CLASS 10 thermal 100 kA 100 kA 100 kA 6 kA 100 kA 100 kA 100 kA 4 kA 65 A 5 A 5 A 5 A 1 hp 1 hp
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at AC at 690 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 600 V rated value         • at 480 V rated value         • at 600 V rated value         • at 600 V rated value         • at 480 V rated value         • at 300 V rated value         • at 230 V rated value         • at 230 V rated value         • for 3-phase AC motor         - at 200/208 V rated value         • for 3-phase AC motor         - at 220/230 V rated value         - at 460/480 V rated value <td>Yes CLASS 10 thermal 100 kA 100 kA 100 kA 6 kA 100 kA 100 kA 100 kA 4 kA 65 A 5 A 5 A 5 A 5 A 107 hp 0.5 hp 1 hp 1 hp 3 hp</td>	Yes CLASS 10 thermal 100 kA 100 kA 100 kA 6 kA 100 kA 100 kA 100 kA 4 kA 65 A 5 A 5 A 5 A 5 A 107 hp 0.5 hp 1 hp 1 hp 3 hp
product function         • ground fault detection         • phase failure detection         trip class         design of the overload release         maximum short-circuit current breaking capacity (Icu)         • at AC at 240 V rated value         • at AC at 500 V rated value         • at AC at 690 V rated value         • at 240 V rated value         • at 240 V rated value         • at 240 V rated value         • at 400 V rated value         • at 690 V rated value         • at 600 V rated value         • at 230 V rated value         • for single-phase AC motor         - at 230 V rated value         • for 3-phase AC motor         - at 200/208 V rated value         • for	Yes CLASS 10 thermal 100 kA 100 kA 100 kA 6 kA 100 kA 100 kA 100 kA 4 kA 65 A 5 A 5 A 5 A 1 hp 1 hp

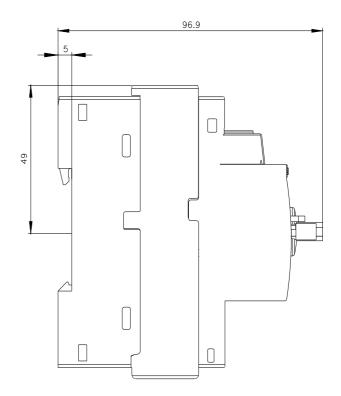
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link	magnetic
for short-circuit protection of the auxiliary switch required	Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current lk < 400
• for short-circuit protection of the auxiliary switch required	A)
design of the fuse link for IT network for short-circuit protection of the main circuit	
• at 400 V	gL/gG 32 A
● at 500 V	gL/gG 32 A
• at 690 V	gL/gG 25 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	97 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	screw-type terminals
<ul> <li>for auxiliary and control circuit</li> </ul>	screw-type terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections	
for main contacts	
— solid or stranded	2x (0,75 2,5 mm²), 2x 4 mm²
— finely stranded with core end processing	2x (0.5 1.5 mm <sup>2</sup> ), 2x (0.75 2.5 mm <sup>2</sup> )
for AWG cables for main contacts	2x (18 14), 2x 12
type of connectable conductor cross-sections	
for auxiliary contacts	
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)

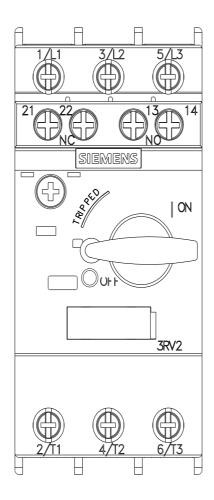
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)	
<ul> <li>for AWG cables for auxiliary contacts</li> </ul>	2x (20 16), 2x (18 14)	
tightening torque		
<ul> <li>for main contacts with screw-type terminals</li> </ul>	0.8 1.2 N·m	
<ul> <li>for auxiliary contacts with screw-type terminals</li> </ul>	0.8 1.2 N·m	
design of screwdriver shaft	Diameter 5 to 6 mm	
size of the screwdriver tip	Pozidriv size 2	
design of the thread of the connection screw		
for main contacts	M3	
<ul> <li>of the auxiliary and control contacts</li> </ul>	M3	
Safety related data		
B10 value		
<ul> <li>with high demand rate according to SN 31920</li> </ul>	5 000	
proportion of dangerous failures		
with low demand rate according to SN 31920	50 %	
<ul> <li>with high demand rate according to SN 31920</li> </ul>	50 %	
failure rate [FIT]		
<ul> <li>with low demand rate according to SN 31920</li> </ul>	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		
Further information		
Siemens has decided to exit the Russian market (see here).		
https://press.siemens.com/global/en/pressrelease/siemens-wind-c		
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=3RV2011-1FA15-Z W97		
Cax online generator		
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1FA15-Z W97 Service&Support (Manuals, Certificates, Characteristics, FAQs,)		
https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1FA15-Z W97		
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros,) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1FA15-Z W97⟨=en		
Characteristic: Tripping characteristics, I <sup>2</sup> t, Let-through curre		

https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1FA15-Z W97/char

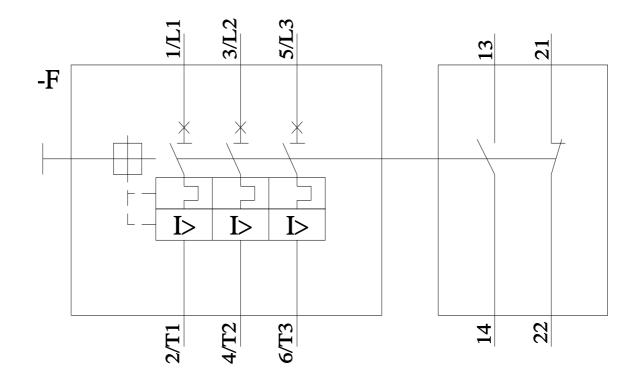
Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1FA15-Z W97&objecttype=14&gridview=view1







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