## **SIEMENS**

Data sheet 3RV2011-1FA15



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

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	
at AC in hot operating state	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)	
<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	
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
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
at AC-3e rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current rated value	5 A
operational current	

• 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	
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 24 V	0.5 A
• at 125 V	0.5 A
• at 125 V	0.5 A
	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	
product function	
ground fault detection	No
ground fault detection     phase failure detection	Yes
ground fault detection     phase failure detection  trip class	Yes CLASS 10
ground fault detection     phase failure detection  trip class design of the overload release	Yes
ground fault detection     phase failure detection  trip class  design of the overload release  maximum short-circuit current breaking capacity (Icu)	Yes CLASS 10 thermal
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
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
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	Yes CLASS 10 thermal  100 kA 100 kA
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	Yes CLASS 10 thermal  100 kA 100 kA
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  operating short-circuit current breaking capacity (Ics) at AC	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA
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  operating short-circuit current breaking capacity (Ics) at AC     at 240 V rated value	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA
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 operating short-circuit current breaking capacity (Ics) at AC at 240 V rated value at 400 V rated value	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA
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  operating short-circuit current breaking capacity (Ics) at AC     at 240 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 100 kA 6 kA
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 operating short-circuit current breaking capacity (Ics) at AC 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 690 V rated value	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA
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  operating short-circuit current breaking capacity (Ics) at AC at 240 V rated value at 400 V rated value at 400 V rated value at 690 V rated value at 690 V rated value response value current of instantaneous short-circuit trip unit	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA
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 operating short-circuit current breaking capacity (Ics) at AC 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 690 V rated value	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 4 kA
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  operating short-circuit current breaking capacity (Ics) at AC at 240 V rated value at 400 V rated value at 400 V rated value at 690 V rated value at 690 V rated value response value current of instantaneous short-circuit trip unit	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 4 kA
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 500 V rated value at AC at 690 V rated value operating short-circuit current breaking capacity (Ics) at AC at 240 V rated value at 400 V rated value at 500 V rated value at 690 V rated value at 690 V rated value response value current of instantaneous short-circuit trip unit	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 4 kA
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 500 V rated value at AC at 690 V rated value operating short-circuit current breaking capacity (Ics) at AC at 240 V rated value at 400 V rated value at 500 V rated value at 690 V rated value at 690 V rated value response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 4 kA 65 A
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 500 V rated value at AC at 690 V rated value operating short-circuit current breaking capacity (Ics) at AC at 240 V rated value at 400 V rated value at 500 V rated value at 500 V rated value at 690 V rated value response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 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
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 500 V rated value at AC at 690 V rated value operating short-circuit current breaking capacity (Ics) at AC at 240 V rated value at 400 V rated value at 500 V rated value at 500 V rated value at 690 V rated value at 690 V rated value at 690 V rated value response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value at 600 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 100 kA 100 kA
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 operating short-circuit current breaking capacity (Ics) at AC at 240 V rated value at 400 V rated value at 500 V rated value at 690 V rated value at 690 V rated value fesponse value current of instantaneous short-circuit trip unit 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]	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 100 kA 100 kA
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 500 V rated value  at AC at 690 V rated value  operating short-circuit current breaking capacity (Ics) at AC  at 240 V rated value  at 400 V rated value  at 500 V rated value  at 690 V rated value  at 690 V rated value  tesponse value current of instantaneous short-circuit trip unit  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  at 480 V rated value  at 600 V rated value  for single-phase AC motor	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 100 kA 5 A 5 A
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 500 V rated value  at AC at 690 V rated value  operating short-circuit current breaking capacity (Ics) at AC  at 240 V rated value  at 400 V rated value  at 500 V rated value  at 500 V rated value  at 690 V rated value  response value current of instantaneous short-circuit trip unit  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  at 480 V rated value  at 600 V rated value  for single-phase AC motor  at 110/120 V rated value	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 100 kA 5 A 65 A
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 500 V rated value  at AC at 690 V rated value  operating short-circuit current breaking capacity (Ics) at AC  at 240 V rated value  at 400 V rated value  at 500 V rated value  at 500 V rated value  at 690 V rated value  response value current of instantaneous short-circuit trip unit  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  at 480 V rated value  for single-phase AC motor  at 110/120 V rated value  at 230 V rated value  at 230 V rated value	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 100 kA 5 A 65 A
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 operating short-circuit current breaking capacity (Ics) at AC at 240 V rated value at 400 V rated value at 500 V rated value at 500 V rated value at 690 V rated value response value current of instantaneous short-circuit trip unit UL/CSA ratings full-load current (FLA) for 3-phase AC motor at 480 V rated value for 3-phase AC motor — at 110/120 V rated value — at 230 V rated value  for 3-phase AC motor  for 3-phase AC motor	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 100 kA 5 A  5 A 5 A  0.17 hp 0.5 hp
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 500 V rated value at AC at 690 V rated value  operating short-circuit current breaking capacity (Ics) at AC at 240 V rated value at 400 V rated value at 500 V rated value at 690 V rated value at 690 V rated value  response value current of instantaneous short-circuit trip unit  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor at 480 V rated value 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  for 3-phase AC motor at 200/208 V rated value	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 100 kA 4 kA 65 A  5 A 5 A  0.17 hp 0.5 hp  1 hp 1 hp
• 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  operating short-circuit current breaking capacity (Ics) at AC  • at 240 V rated value  • at 400 V rated value  • at 690 V rated value  • at 690 V rated value  response value current of instantaneous short-circuit trip unit  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  • at 480 V rated value  • at 600 V rated value  value  • at 600 V rated value  • at 600 V rated value  • at 230 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	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 100 kA 5 A 5 A 5 A  5 A 5 h  1 hp 1 hp 1 hp 3 hp
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  operating short-circuit current breaking capacity (Ics) at AC  at 240 V rated value  at 500 V rated value  at 500 V rated value  at 690 V rated value  response value current of instantaneous short-circuit trip unit  UL/CSA ratings  full-load current (FLA) for 3-phase AC motor  at 480 V rated value  for 3-phase AC motor  at 110/120 V rated value  for 3-phase AC motor  at 230 V rated value  for 3-phase AC motor  at 200/208 V rated value  at 220/230 V rated value  at 220/230 V rated value  at 220/230 V rated value	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 4 kA 65 A  5 A 5 A  0.17 hp 0.5 hp  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	ag.iou	
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 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		
with side-by-side mounting at the side	0 mm	
• for grounded parts at 400 V		
— 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	
• for grounded parts at 500 V	5 min	
— downwards	30 mm	
— upwards	30 mm	
— at the side	9 mm	
• for live parts at 500 V	5 min	
— downwards	30 mm	
— upwards	30 mm	
— at the side	9 mm	
• for grounded parts at 690 V	311111	
— downwards	50 mm	
— upwards	50 mm	
— backwards	0 mm	
— at the side	30 mm	
— at the side — forwards	0 mm	
for live parts at 690 V	Villi	
— downwards	50 mm	
— upwards	50 mm	
— upwards — backwards	0 mm	
— at the side	30 mm	
— at the side — forwards	0 mm	
— lorwards  Connections/ Terminals	Viiiii	
type of electrical connection  • for main current circuit	ecraw type terminals	
	screw type terminals	
for auxiliary and control circuit  arrangement of electrical connectors for main current	screw-type terminals  Top and bottom	
arrangement of electrical connectors for main current circuit	Top and bottom	
type of connectable conductor cross-sections		
• for main contacts	2v (0.75 2.5 mm²) 2v 4 mm²	
— solid or stranded	2x (0,75 2,5 mm²), 2x 4 mm²	
— finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)	
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	
<ul> <li>for main contacts</li> </ul>	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	
<ul> <li>with low demand rate according to SN 31920</li> </ul>	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	

Confirmation

**General Product Approval** 





<u>KC</u>





For use in hazard-

ous locations

IECEx

For use in hazardous locations

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping







Special Test Certificate

Type Test Certificates/Test Report



Marine / Shipping











Confirmation

other

other

Railway



Confirmation

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=3RV2011-1FA15

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RV2011-1FA15}$ 

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

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

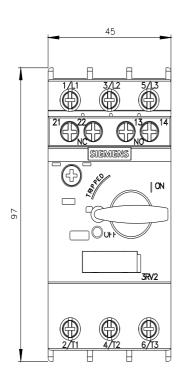
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

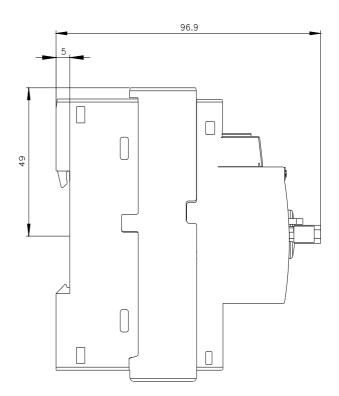
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2011-1FA15&lang=en

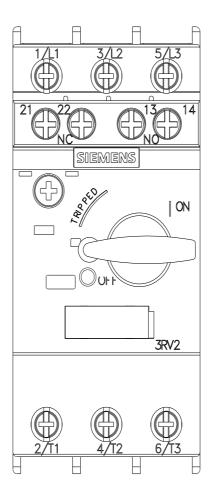
Characteristic: Tripping characteristics, I²t, Let-through current

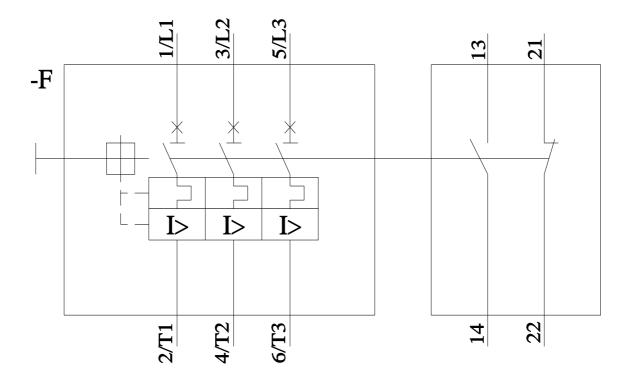
https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1FA15/char

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









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