SIEMENS

Data sheet 3RV2011-1BA15



Circuit breaker size S00 for motor protection, CLASS 10 A-release 1.4...2 A N-release 26 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)	
 of the main contacts typical 	100 000
of auxiliary contacts typical	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	1.4 2 A
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
operational current rated value	2 A
operational current	

• at AC-3 at 400 V rated value	2 A
• at AC-3e at 400 V rated value	2 A
operating power	
• at AC-3	
— at 230 V rated value	0.4 kW
— at 400 V rated value	0.75 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	0.75 kW
— at 500 V rated value	0.8 kW
— at 690 V rated value	1.1 kW
operating frequency	1.1 KVV
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	
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	
nuclicat franction	
product function	
•	No
ground fault detection	No Yes
ground fault detection phase failure detection	
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 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	Yes CLASS 10 thermal 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 400 V rated value	Yes CLASS 10 thermal 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 400 V rated value at 400 V rated value at 500 V rated value	Yes CLASS 10 thermal 100 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 500 V rated value at 690 V rated value at 690 V rated value at 690 V rated value	Yes CLASS 10 thermal 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 st 690 V rated value at 690 V rated value	Yes CLASS 10 thermal 100 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 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
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 st 690 V rated value at 690 V rated value	Yes CLASS 10 thermal 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 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
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 240 V rated value at 400 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	Yes CLASS 10 thermal 100 kA 100 kA 100 kA 100 kA 100 kA 10 kA 100 kA 26 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 400 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 100 kA 100 kA 100 kA 20 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 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	Yes CLASS 10 thermal 100 kA 100 kA 100 kA 100 kA 100 kA 100 kA 20 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 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 valued mechanical performance [hp]	Yes CLASS 10 thermal 100 kA 100 kA 100 kA 100 kA 100 kA 100 kA 20 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 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	Yes CLASS 10 thermal 100 kA 26 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 240 V rated value at 400 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 for single-phase AC motor at 230 V rated value	Yes CLASS 10 thermal 100 kA 26 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 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 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 230 V rated value for 3-phase AC motor	Yes CLASS 10 thermal 100 kA 26 A 0.13 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 400 V rated value • at 690 V rated value • at 690 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 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	Yes CLASS 10 thermal 100 kA 26 A 2 A 2 A 2 A 0.13 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 at 240 V rated value at 240 V rated value operating short-circuit current breaking capacity (Ics) at AC at 240 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 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 contact rating of auxiliary contacts according to UL	Yes CLASS 10 thermal 100 kA 26 A 2 A 2 A 2 A 0.13 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 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 pat 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 230 V rated value for 3-phase AC motor — at 460/480 V rated value at 575/600 V rated value contact rating of auxiliary contacts according to UL Short-circuit protection	Yes CLASS 10 thermal 100 kA 26 A 2 A 2 A 2 A 2 A 2 A 2 D 10 A 2 A 2 A 2 A 2 A 2 A 2 A 2 A 2 A 2 A 2
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 operating short-circuit current breaking capacity (Ics) at AC at 240 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 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 contact rating of auxiliary contacts according to UL	Yes CLASS 10 thermal 100 kA 26 A 2 A 2 A 2 A 0.13 hp 1 hp 1 hp

design of the fuce link	
design of the fuse link • 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-order 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 25 A
● at 500 V	gL/gG 25 A
• at 690 V	gL/gG 20 A
nstallation/ 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	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for live parts at 500 V	3 11111
— downwards	30 mm
	30 mm
— upwards — at the side	9 mm
for grounded parts at 690 V	9 11111
— downwards	50 mm
	50 mm
— upwards	
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
• for live parts at 690 V	F0
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
onnections/ Terminals	
type of electrical connection	
for main current circuit	screw-type terminals
for auxiliary and control circuit	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 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)
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 for AWG cables for auxiliary contacts 	2x (20 16), 2x (18 14)
tightening torque	

 for main contacts with screw-type terminals 	0.8 1.2 N·m
 for auxiliary contacts with screw-type terminals 	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
 of the auxiliary and control contacts 	M3
Safety related data	
B10 value	
 with high demand rate according to SN 31920 	5 000
proportion of dangerous failures	
 with low demand rate according to SN 31920 	50 %
 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 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

Confirmation





<u>KC</u>





For use in hazard-

ous locations

For use in hazardous locations

Declaration of Conformity

Test Certificates

Marine / Shipping







Type Test Certificates/Test Report

Special Test Certificate



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=3RV2011-1BA15

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1BA15

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1BA

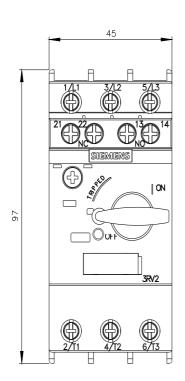
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax de.aspx?mlfb=3RV2011-1BA15&lang=en

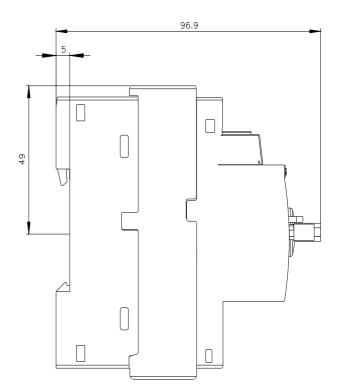
Characteristic: Tripping characteristics, I2t, Let-through current

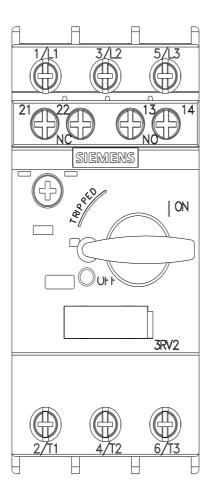
https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1BA15/char

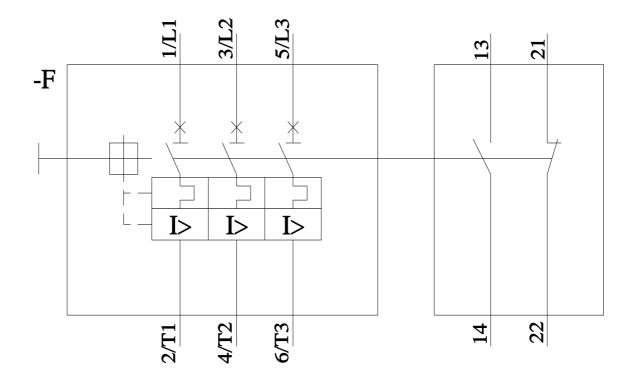
Further characteristics (e.g. electrical endurance, switching frequency)

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