SIEMENS

Data sheet 3RV2011-1EA15





Circuit breaker size S00 for motor protection, CLASS 10 A-release 2.8...4 A N release 52 A screw terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC



	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
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1
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	2.8 4 A
operating voltage	
operating voltage • rated value	20 690 V
	20 690 V 690 V
rated value	

operational current rated value	4 A
operational current	
at AC-3 at 400 V rated value	4 A
at AC-3e at 400 V rated value	4 A
operating power	
• at AC-3	
— at 230 V rated value	0.8 kW
— at 400 V rated value	1.5 kW
— at 500 V rated value	2.2 kW
— at 690 V rated value	3 kW
• at AC-3e	O NVV
— at 230 V rated value	0.8 kW
— at 400 V rated value	1.5 kW
— at 500 V rated value	2.2 kW
— at 690 V rated value	3 kW
operating frequency	O RVV
at AC-3 maximum	15 1/h
at AC-3 maximum at AC-3e maximum	15 1/h
Auxiliary circuit	10 1111
design of the auxiliary switch	transverse
number of NC contacts for auxiliary contacts	
-	1
number of NO contacts for auxiliary contacts	0
number of CO contacts for auxiliary contacts	U
operational current of auxiliary contacts at AC-15	2.4
• 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	4.0
• at 24 V	1.4
• at 60 V	0.15 A
Protective and monitoring functions	
product function	No
ground fault detection	No
phase failure detection	Yes
trip class	CLASS 10
design of the overload release	thermal
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	100 kA
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at AC at 690 V rated value	6 kA
operating short-circuit current breaking capacity (Ics) at AC	
operating short-circuit current breaking capacity (Ics) at AC • at 240 V rated value	100 kA
 operating short-circuit current breaking capacity (Ics) at AC at 240 V rated value at 400 V rated value 	100 kA 100 kA
operating short-circuit current breaking capacity (Ics) at AC • at 240 V rated value • at 400 V rated value • at 500 V rated value	100 kA 100 kA 100 kA
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	100 kA 100 kA 100 kA 4 kA
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	100 kA 100 kA 100 kA
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	100 kA 100 kA 100 kA 4 kA
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	100 kA 100 kA 100 kA 4 kA
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	100 kA 100 kA 100 kA 4 kA
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	100 kA 100 kA 100 kA 4 kA 52 A
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	100 kA 100 kA 100 kA 4 kA 52 A
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	100 kA 100 kA 100 kA 4 kA 52 A
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 yielded mechanical performance [hp]	100 kA 100 kA 100 kA 4 kA 52 A
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 yielded mechanical performance [hp] • for single-phase AC motor	100 kA 100 kA 100 kA 4 kA 52 A
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 yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value	100 kA 100 kA 100 kA 4 kA 52 A
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 yielded mechanical performance [hp] • for single-phase AC motor — at 110/120 V rated value — at 230 V rated value	100 kA 100 kA 100 kA 4 kA 52 A
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 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	100 kA 100 kA 100 kA 4 kA 52 A 4 A 4 A 0.13 hp 0.33 hp
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 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	100 kA 100 kA 100 kA 4 kA 52 A 4 A 4 A 0.13 hp 0.33 hp

— at 575/600 V rated value	3 hp	
contact rating of auxiliary contacts according to UL	C300 / R300	
hort-circuit protection		
product function short circuit protection	Yes	
design of the short-circuit trip	magnetic	
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 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	
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 111111	
— downwards	30 mm	
	30 mm	
— upwards		
— at the side	9 mm	
for grounded parts at 690 V	F0	
— 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	
 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	
	, , , , , ,	

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	1 OEIGIN OLO E
• for main contacts	M3
of the auxiliary and control contacts	M3
Safety related data	
product function suitable for safety function	Yes
suitability for use	
safety-related switching on	No
safety-related switching OFF	Yes
service life maximum	10 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
with low demand rate according to SN 31920	40 %
with high demand rate according to SN 31920	50 %
B10 value with high demand rate according to SN 31920	5 000
failure rate [FIT] with low demand rate according to SN 31920	50 FIT
ISO 13849	
device type according to ISO 13849-1	3
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
safety device type according to IEC 61508-2	Type A
T1 value	
 for proof test interval or service life according to IEC 61508 	10 a
Electrical Safety	
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	
display version for switching status	Handle
Approvals Certificates	
General Product Approval	

General Product Approval

Confirmation









<u>KC</u>

General Product Approval

For use in hazardous locations

Test Certificates

Marine / Shipping







Special Test Certificate

Type Test Certificates/Test Report



Marine / Shipping











Miscellaneous

other Railway **Environment**

Confirmation



Special Test Certific-<u>ate</u>

Confirmation







Environment

Environmental Confirmations

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=3RV2011-1EA15

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1EA15

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1EA15

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

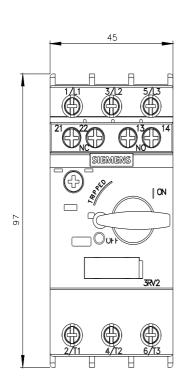
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1EA15&lang=en

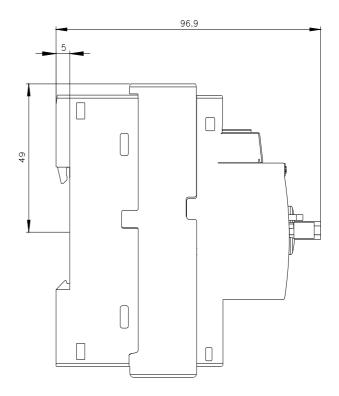
Characteristic: Tripping characteristics, I2t, Let-through current

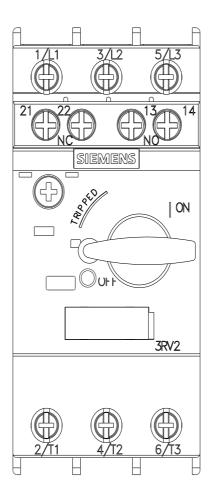
https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1EA15/char

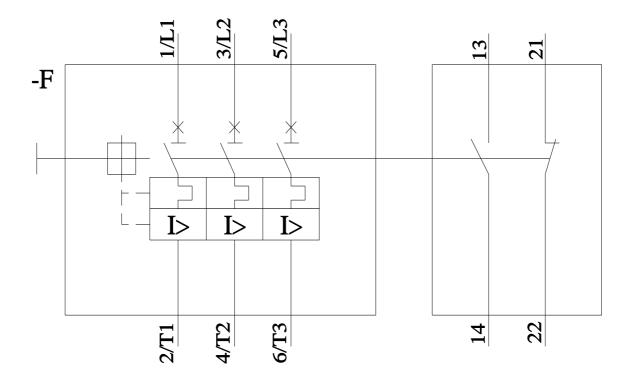
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1EA15&objecttype=14&gridview=view1









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