SIEMENS

Data sheet 3RV2111-1KA10





Circuit breaker size S00 for motor protection, CLASS 10 with overload relay function A-release 9...12.5 A N-release 163 A screw terminal Standard switching capacity



product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection with overload relay function
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	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
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	9 12.5 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	12.5 A
operational current	
at AC-3 at 400 V rated value	12.5 A
at AC-3e at 400 V rated value	12.5 A
operating power	12.071
• at AC-3	
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	7.5 kW
• at AC-3e	7.5 KVV
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	7.5 kW
— at 690 V rated value	7.5 kW
operating frequency	7.5 KVV
at AC-3 maximum	15 1/h
at AC-3 maximum at AC-3e maximum	15 1/h
at AC-se maximum Auxiliary circuit	13 1/11
design of the auxiliary switch	laterally
number of NC contacts for auxiliary contacts	0
-	0
number of NO contacts for auxiliary contacts number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15 • at 24 ∨	1.5 A
• at 24 v	
	1.5 A
operational current of auxiliary contacts at DC-13	4.0
at 24 V Protective and monitoring functions	1A
product function	
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)	uicillai
• 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	42 kA
at AC at 690 V rated value	6 kA
operating short-circuit current breaking capacity (Ics) at AC	
at 240 V rated value	100 kA
at 400 V rated value at 400 V rated value	100 kA
at 500 V rated value at 500 V rated value	42 kA
at 690 V rated value	4 kA
response value current of instantaneous short-circuit trip unit	163 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	12.5 A
at 600 V rated value at 600 V rated value	12.5 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	0.5 hp
— at 230 V rated value	2 hp
• for 3-phase AC motor	
- 101 0 phage / to motor	3 hp
— at 200/208 V rated value	
— at 200/208 V rated value	
— at 220/230 V rated value	3 hp
— at 220/230 V rated value— at 460/480 V rated value	3 hp 8 hp
— at 220/230 V rated value	3 hp

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: 6 A, quick: 10 A
design of the fuse link for IT network for short-circuit protection of the main circuit	
● at 400 V	gL/gG 63 A
● at 500 V	gL/gG 50 A
● at 690 V	gL/gG 40 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	65 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	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for grounded parts at 690 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	screw-type terminals
for main current circuit for auxiliary and control circuit	screw-type terminals screw-type terminals
arrangement of electrical connectors for main current	Top and bottom
circuit	TOP AND DOLLOTT
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	
•	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 — solid or stranded 	
— solid of stranded — finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)

product function suitable for safety function suitability for use • safety-related switching on • safety-related switching OFF Yes service life maximum 10 a test wear-related service life necessary Proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 SO 13849 device type according to ISO 13849-1 overdimensioning according to ISO 13849-2 necessary IEC 61508 safety device type according to IEC 61508-2 T1 value • for proof test interval or service life according to IEC 61508 Electrical Safety protection class IP on the front according to IEC 60529 tlouch protection on the front according to IEC 60529 display version for switching status Handle		
For auxiliary contacts with screw-type terminals O.S1.2 N·m	tightening torque	
design of screwdriver shaft size of the screwdriver tip design of the thread of the connection screw of or main contacts of the auxiliary and control contacts is a first protect data product function suitable for safety function strately related switching on safety-related switching or safety-related switching OFF service life maximum 10 a safety-related service life necessary with low demand rate according to SN 31920 with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 foverdimensioning according to ISO 13849-1 device type according to ISO 13849-2 necessary lEC 61508 safety device type according to IEC 61508-2 T1 value of or proof test interval or service life according to IEC 60529 finger-safe, for vertical contact from the front according to IEC 60529 display version for switching status Handle Handle	 for main contacts with screw-type terminals 	0.8 1.2 N·m
size of the screwdriver tip design of the thread of the connection screw • for main contacts • of the auxiliary and control contacts **Getex related data** **product function suitable for safety function	 for auxiliary contacts with screw-type terminals 	0.8 1.2 N·m
efor main contacts • for main contacts • of the auxiliary and control contacts product function suitable for safety function suitability for use • safety-related switching on • safety-related switching OFF service life maximum test wear-related service life necessary yes proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 solution with high demand rate according to SN 31920 solution to demand r	design of screwdriver shaft	Diameter 5 to 6 mm
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suitability for use • safety-related switching on • safety-related switching OFF Yes service life maximum 10 a test wear-related service life necessary Proportion of dangerous failures • with low demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 • with high demand rate according to SN 31920 50 % B10 value with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 ISO 13849 device type according to ISO 13849-1 3 overdimensioning according to ISO 13849-2 necessary 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 Electrical Safety protection class IP on the front according to IEC 60529 finger-safe, for vertical contact from the front loss play version for switching status Handle **poprovals Certificates*	Safety related data	
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Type A Type A Type A To value • for proof test interval or service life according to IEC 61508 Electrical Safety protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 display display version for switching status Approvals Certificates	overdimensioning according to ISO 13849-2 necessary	Yes
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display Version for switching status Handle Approvals Certificates	protection class IP on the front according to IEC 60529	IP20
display version for switching status Approvals Certificates	touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front
Approvals Certificates	Display	
	display version for switching status	Handle
General Product Approval	Approvals Certificates	
	General Product Approval	

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Confirmation



<u>KC</u>

General Product Approval

Test Certificates

Marine / Shipping



Special Test Certificate

Type Test Certificates/Test Report







Marine / Shipping

RINA

Miscellaneous

other

Confirmation



Railway

Environment







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=3RV2111-1KA10

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RV2111-1KA10}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2111-1KA10

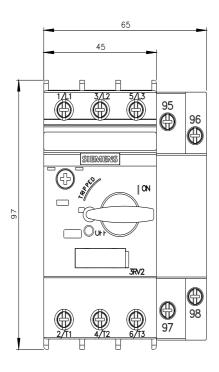
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

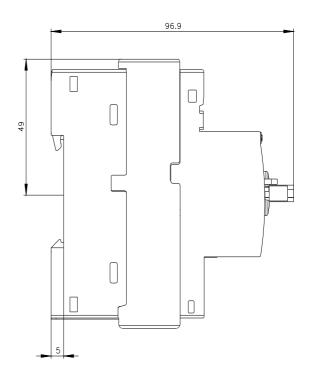
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2111-1KA10&lang=en

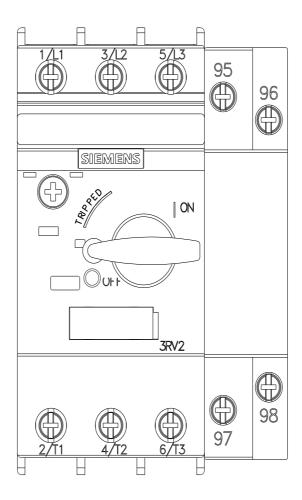
Characteristic: Tripping characteristics, I2t, Let-through current https://support.industry.siemens.com/cs/ww/en/ps/3RV2111-1KA10/char

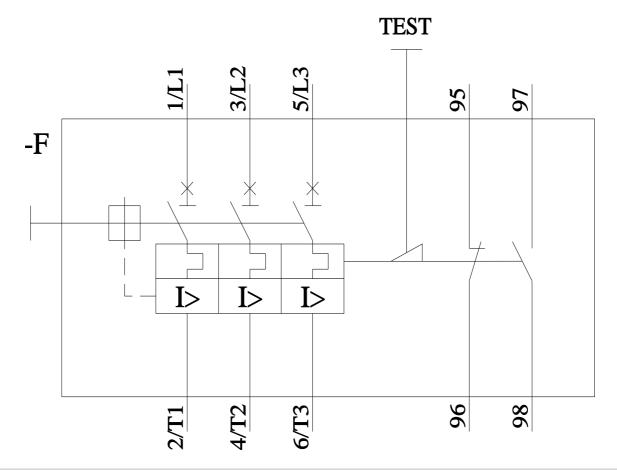
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2111-1KA10&objecttype=14&gridview=view1









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