## **SIEMENS**

Data sheet 3RV2011-1KA10



Circuit breaker size S00 for motor protection, CLASS 10 A-release 9...12 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
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>	9.25 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	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)	
<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
veference and according to IFC 0424C 2	
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
Substance Prohibitance (Date)	
Substance Prohibitance (Date) Ambient conditions	10/01/2009
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum	10/01/2009
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature	10/01/2009 2 000 m
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation	10/01/2009 2 000 m -20 +60 °C
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage	10/01/2009 2 000 m -20 +60 °C -50 +80 °C
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  • during transport	10/01/2009  2 000 m  -20 +60 °C -50 +80 °C -50 +80 °C
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage • during transport  relative humidity during operation	10/01/2009  2 000 m  -20 +60 °C -50 +80 °C -50 +80 °C
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  • during transport  relative humidity during operation  Main circuit	10/01/2009  2 000 m  -20 +60 °C  -50 +80 °C  -50 +80 °C  10 95 %
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage • during transport  relative humidity during operation  Main circuit  number of poles for main current circuit  adjustable current response value current of the current-	10/01/2009  2 000 m  -20 +60 °C -50 +80 °C -50 +80 °C 10 95 %
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage • during transport  relative humidity during operation  Main circuit  number of poles for main current circuit  adjustable current response value current of the current-dependent overload release	10/01/2009  2 000 m  -20 +60 °C -50 +80 °C -50 +80 °C 10 95 %
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage • during transport  relative humidity during operation  Main circuit  number of poles for main current circuit  adjustable current response value current of the current-dependent overload release  operating voltage	10/01/2009  2 000 m  -20 +60 °C  -50 +80 °C  -50 +80 °C  10 95 %
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation  • during storage  • during transport  relative humidity during operation  Main circuit  number of poles for main current circuit  adjustable current response value current of the current-dependent overload release  operating voltage  • rated value	10/01/2009  2 000 m  -20 +60 °C  -50 +80 °C  -50 +80 °C  10 95 %  3  9 12.5 A
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage • during transport  relative humidity during operation  Main circuit  number of poles for main current circuit  adjustable current response value current of the current-dependent overload release  operating voltage • rated value • at AC-3 rated value maximum	10/01/2009  2 000 m  -20 +60 °C -50 +80 °C -50 +80 °C 10 95 %  3  9 12.5 A
Substance Prohibitance (Date)  Ambient conditions  installation altitude at height above sea level maximum  ambient temperature  • during operation • during storage • during transport  relative humidity during operation  Main circuit  number of poles for main current circuit  adjustable current response value current of the current-dependent overload release  operating voltage  • rated value • at AC-3 rated value maximum • at AC-3e rated value maximum	10/01/2009  2 000 m  -20 +60 °C -50 +80 °C -50 +80 °C 10 95 %  3  9 12.5 A  20 690 V 690 V

<ul> <li>at AC-3 at 400 V rated value</li> </ul>	12.5 A
<ul> <li>at AC-3e at 400 V rated value</li> </ul>	12.5 A
operating power	
• 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	
— 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	
• at AC-3 maximum	15 1/h
at AC-3e maximum	15 1/h
Auxiliary circuit	
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of CO contacts for auxiliary contacts	0
Protective and monitoring functions	
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)	tromai
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 (lcs) at AC	
at 240 V rated value	100 kA
at 400 V rated value	100 kA
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	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	
— at 200/208 V rated value	3 hp
— at 220/230 V rated value	
	3 hp
— at 460/480 V rated value	8 hp
— at 575/600 V rated value	10 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link for IT network for short-circuit	
protection of the main circuit	
	gL/gG 63 A
protection of the main circuit	gL/gG 63 A gL/gG 50 A
protection of the main circuit  • at 400 V	
protection of the main circuit  ■ at 400 V  ■ at 500 V	gL/gG 50 A
protection of the main circuit  • at 400 V  • at 500 V  • at 690 V  Installation/ mounting/ dimensions	gL/gG 50 A
protection of the main circuit  • at 400 V  • at 500 V  • at 690 V	gL/gG 50 A gL/gG 40 A

height	97 mm
width	45 mm
depth	97 mm
required spacing	OF HILL
with side-by-side mounting at the side	0 mm
• for grounded parts at 400 V	O Hilli
— downwards	30 mm
— upwards	30 mm
•	9 mm
— at the side	9 mm
• for live parts at 400 V	00
— 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
<ul><li>for live parts at 500 V</li></ul>	
— 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
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
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
• for AWG cables for main contacts	2x (18 14), 2x 12
tightening torque	
for main 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
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 %
_	50 %
with high demand rate according to SN 31920  failure rate [EIT]	OO 70
failure rate [FIT]	50 EIT
with low demand rate according to SN 31920  T1 value for proof test interval or service life according to IEC 61508	50 FIT 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

## Certificates/ approvals

## **General Product Approval**

For use in hazardous locations



Confirmation



KC





IECEX

For use in hazardous locations

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping







Type Test Certificates/Test Report

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



Marine / Shipping













Confirmation

other

other

Railway



Confirmation

Vibration and Shock

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=3RV2011-1KA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1KA10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1KA10

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

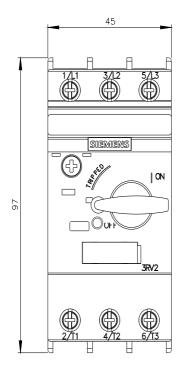
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2011-1KA10&lang=en

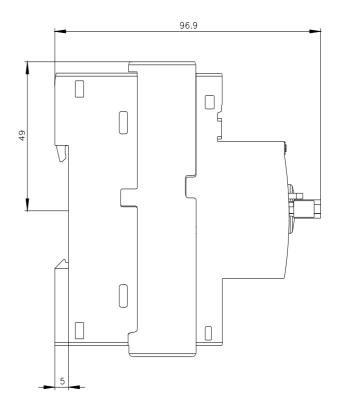
Characteristic: Tripping characteristics, I2t, Let-through current

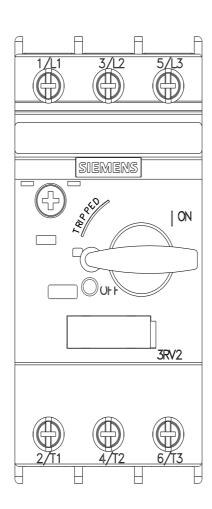
https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1KA10/char

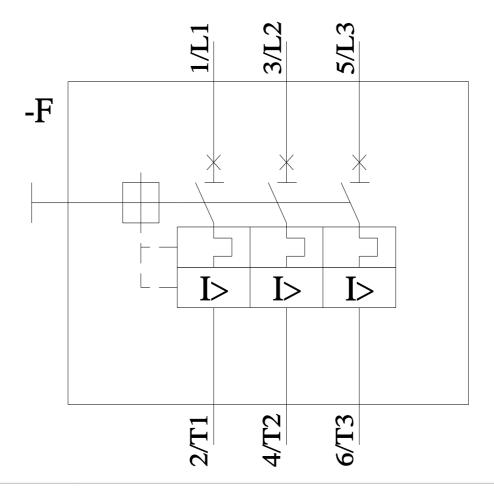
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1KA10&objecttype=14&gridview=view1









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