# **SIEMENS**

Data sheet 3RV2011-1HA10



Circuit breaker size S00 for motor protection, CLASS 10 A-release 5.5...8 A N-release 104 A screw terminal Standard switching capacity

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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
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
<ul> <li>during transport</li> </ul>	-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	5.5 8 A
operating voltage	
rated value	20 690 V
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V
<ul> <li>at AC-3e rated value maximum</li> </ul>	690 V
operating frequency rated value	50 60 Hz
operational current rated value	8 A
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operational current	0.4
• at AC-3 at 400 V rated value	8 A
• at AC-3e at 400 V rated value	8 A
operating power  ● at AC-3	
■ at AC-3  — at 230 V rated value	1.5 kW
— at 400 V rated value	3 kW
— at 500 V rated value	4 kW
— at 690 V rated value	5.5 kW
• at AC-3e	3.3 KW
— at 230 V rated value	1.5 kW
— at 400 V rated value	3 kW
— at 500 V rated value	4 kW
— at 690 V rated value	5.5 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)	Tiorina
• 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	
<ul> <li>at 240 V rated value</li> </ul>	100 kA
<ul> <li>at 400 V rated value</li> </ul>	100 kA
<ul> <li>at 500 V rated value</li> </ul>	42 kA
<ul> <li>at 690 V rated value</li> </ul>	4 kA
response value current of instantaneous short-circuit trip unit	104 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
at 480 V rated value	8 A
at 600 V rated value	8 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	0.33 hp
— at 230 V rated value	1 hp
<ul> <li>for 3-phase AC motor</li> </ul>	
— at 200/208 V rated value	2 hp
<ul> <li>at 220/230 V rated value</li> </ul>	2 hp
<ul> <li>at 460/480 V rated value</li> </ul>	5 hp
— at 575/600 V rated value	5 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	
• at 400 V	gL/gG 50 A
• at 500 V	gL/gG 40 A
● at 690 V	gL/gG 35 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
— upwards — at the side	9 mm
	9 111111
• for live parts at 400 V	22
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
<ul> <li>for grounded parts at 500 V</li> </ul>	
— 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
• for grounded parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— at the side — forwards	0 mm
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• for live parts at 690 V	F0
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
Connections/ Terminals	
type of electrical connection	
<ul> <li>for main current circuit</li> </ul>	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)
at AWG cables for main contacts	2x (18 14), 2x 12
tightening torque	LA (10 17), LA 12
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	M2
• for main contacts	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	10 y
IEC 61508	
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**



Confirmation





**KC** 



For use in hazardous locations

**Declaration of Conformity** 

**Test Certificates** 









Special Test Certificate Type Test Certificates/Test Report

## Marine / Shipping













Marine / Shipping

other

Confirmation



Vibration and Shock

Railway

Confirmation

### **Further information**

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=3RV2011-1HA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1HA10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1HA10

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

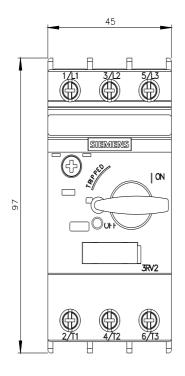
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2011-1HA10&lang=en

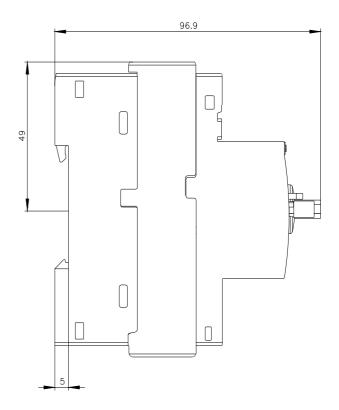
Characteristic: Tripping characteristics, I2t, Let-through current

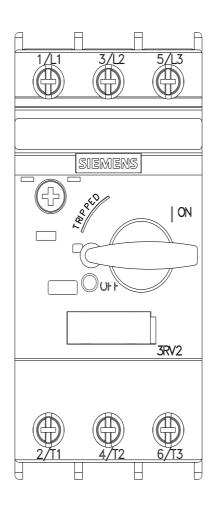
https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1HA10/char

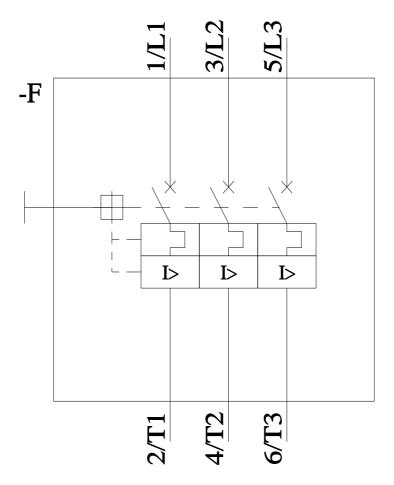
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1HA10&objecttype=14&gridview=view1









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