## **SIEMENS**

Data sheet 3RV2011-1JA10



Circuit breaker size S00 for motor protection, CLASS 10 A-release 7...10 A N release 130 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	
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 (switching cycles)		
<ul> <li>of the main contacts typical</li> </ul>	100 000	
of auxiliary contacts typical	100 000	
electrical endurance (switching 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		
<ul> <li>during operation</li> </ul>	-20 +60 °C	
<ul> <li>during storage</li> </ul>	-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	7 10 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	10 A
operational current	
at AC-3 at 400 V rated value	10 A
at AC-3e at 400 V rated value	10 A
operating power	
• at AC-3	
— at 230 V rated value	2.2 kW
— at 400 V rated value	4 kW
— at 500 V rated value	5.5 kW
— at 690 V rated value	7.5 kW
at AC-3e	7.5 KVV
— at 230 V rated value	2.2 kW
	4 kW
— at 400 V rated value	
— at 500 V rated value	5.5 kW
— at 690 V rated value	7.5 kW
operating frequency	4.5.40
• 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
breaking capacity maximum short-circuit current (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	42 kA
at AC at 690 V rated value	6 kA
breaking capacity operating short-circuit current (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     at 690 V rated value	4 kA
response value current of instantaneous short-circuit trip	130 A
unit	100 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	10 A
at 600 V rated value     at 600 V rated value	10 A
yielded mechanical performance [hp]	IVA
for single-phase AC motor	
— at 110/120 V rated value	0.5 hp
— at 110/120 v rated value  — at 230 V rated value	0.5 hp
	1.5 hp
• for 3-phase AC motor	2 hn
— at 200/208 V rated value	2 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	5 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	

at 400 V     at 500 V     at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method  any  screw and snap-on mounting onto 35 mm standard mount according to DIN EN 60715  height  97 mm	ting rail
● at 690 V  Installation/ mounting/ dimensions  mounting position  fastening method  gL/gG 40 A  any  screw and snap-on mounting onto 35 mm standard mount according to DIN EN 60715	ting rail
mounting position  fastening method  screw and snap-on mounting onto 35 mm standard mount according to DIN EN 60715	ting rail
mounting position  fastening method  screw and snap-on mounting onto 35 mm standard mount according to DIN EN 60715	ting rail
fastening method screw and snap-on mounting onto 35 mm standard mount according to DIN EN 60715	ting rail
height 97 mm	
width 45 mm	
depth 97 mm	
required spacing	
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	
arrangement of electrical connectors for main current	
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 (0.75 2,5 mm²) 2x (0.75 2.5 mm²)	
• at 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	
■ with high demand rate according to SN 31920 5 000	
proportion of dangerous failures  • with low demand rate according to SN 31920  50 %	
with low demand rate according to SN 31920  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 IEC 61508	10 y
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 hazardous locations

**Declaration of Conformity** 

**Test Certificates** 







Type Test Certificates/Test Report

Special Test Certificate

## Marine / Shipping













Marine / Shipping

other

Railway



Confirmation



Vibration and Shock

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=3RV2011-1JA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1JA10

 ${\bf Service \& Support \ (Manuals, \ Certificates, \ Characteristics, \ FAQs, ...)}$ 

https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1JA10

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

http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2011-1JA10&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1JA10/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1JA10&objecttype=14&gridview=view1

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