



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	
• 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
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
• 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
• 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	10 A

operational current

- at AC-3 at 400 V rated value
- at AC-3e at 400 V rated value

10 A
10 A

operating power

- at AC-3
 - at 230 V rated value
 - at 400 V rated value
 - at 500 V rated value
 - at 690 V rated value
- at AC-3e
 - at 230 V rated value
 - at 400 V rated value
 - at 500 V rated value
 - at 690 V rated value

2.2 kW
4 kW
5.5 kW
7.5 kW

2.2 kW
4 kW
5.5 kW
7.5 kW

operating frequency

- at AC-3 maximum
- at AC-3e maximum

15 1/h
15 1/h

Auxiliary circuit

number of NC contacts for auxiliary contacts
number of NO contacts for auxiliary contacts
number of CO contacts for auxiliary contacts

0
0
0

Protective and monitoring functions**product function**

- ground fault detection
- phase failure detection

No
Yes
CLASS 10
thermal

trip class**design of the overload release****maximum short-circuit current breaking capacity (Icu)**

- at AC at 240 V rated value
- at AC at 400 V rated value
- at AC at 500 V rated value
- at AC at 690 V rated value

100 kA
100 kA
42 kA
6 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
42 kA
4 kA

response value current of instantaneous short-circuit trip unit

130 A

UL/CSA ratings**full-load current (FLA) for 3-phase AC motor**

- at 480 V rated value
- at 600 V rated value

10 A
10 A

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
 - at 220/230 V rated value
 - at 460/480 V rated value
 - at 575/600 V rated value

0.5 hp
1.5 hp

2 hp
3 hp
5 hp
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

gL/gG 50 A
gL/gG 40 A
gL/gG 40 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
— 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	screw-type terminals
• for main current circuit	Top and bottom
arrangement of electrical connectors for main current circuit	
type of connectable conductor cross-sections	
• for main contacts	
— solid or stranded	2x (0,75 ... 2,5 mm ²), 2x 4 mm ²
— finely stranded with core end processing	2x (0,5 ... 1,5 mm ²), 2x (0,75 ... 2,5 mm ²)
• 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

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 %
• with high demand rate according to SN 31920	50 %
failure rate [FIT]	
• with low demand rate according to SN 31920	50 FIT
T1 value for proof test interval or service life according to IEC 61508	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](#)

For use in hazardous locations

Declaration of Conformity

Test Certificates

Marine / Shipping

[Type Test Certificates/Test Report](#)[Special Test Certificate](#)

Marine / Shipping

other

[Confirmation](#)

other

Railway

[Vibration and Shock](#)[Confirmation](#)

Further information

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=3RV2011-1JA10>

Cax online generator

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

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, ...)

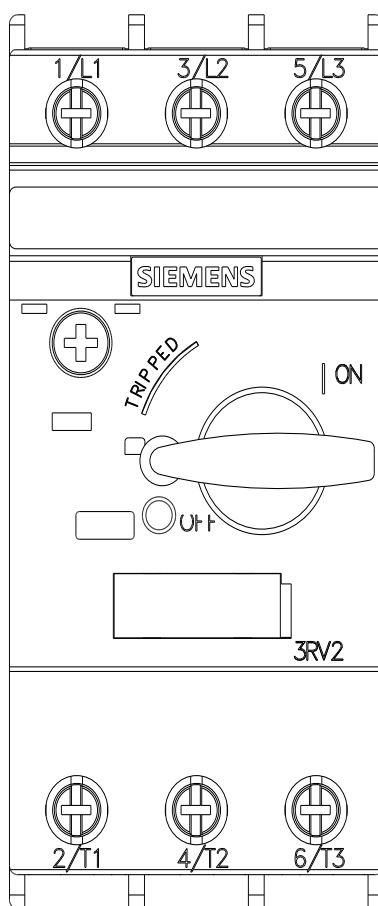
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1JA10&lang=en

Characteristic: Tripping characteristics, I_t, 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>





last modified:

11/21/2022 [↗](#)