



Circuit breaker size S00 for motor protection, CLASS 10 A-release 7...10 A
N release 130 A Screw terminal Standard switching capacity with
transverse auxiliary switch 1 NO+1 NC

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV1

General technical data

size of the circuit-breaker	S00
size of contactor can be combined company-specific	S00
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
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 Prohibition (Date)	01/01/2013

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	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	
— 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
operating frequency	
● at AC-3 maximum	15 1/h
● at AC-3e maximum	15 1/h
Auxiliary circuit	
design of the auxiliary switch	transverse
number of NC contacts for auxiliary contacts	1
● note	1
number of NO contacts for auxiliary contacts	1
● note	1
number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15	
● at 24 V	2 A
● at 110 V	2 A
● at 120 V	2 A
● at 125 V	2 A
● at 230 V	0.5 A
operational current of auxiliary contacts at DC-13	
● at 24 V	1 A
● at 60 V	0.15 A
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)	
● at AC at 240 V rated value	100 kA
● at AC at 400 V rated value	50 kA
● at AC at 500 V rated value	3 kA
● at AC at 690 V rated value	2 kA
operating short-circuit current breaking capacity (Ics) at AC	
● at 240 V rated value	100 kA
● at 400 V rated value	13 kA
● at 500 V rated value	3 kA
● at 690 V rated value	2 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	10 A
● at 600 V rated value	10 A
yielded mechanical performance [hp]	
● for single-phase AC motor	
— at 110/120 V rated value	0.5 hp
— at 230 V rated value	1.5 hp
● for 3-phase AC motor	
— 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	7.5 hp
contact rating of auxiliary contacts according to UL	C300 / R300
Short-circuit protection	
product function short circuit protection	Yes

design of the short-circuit trip**design of the fuse link**

- for short-circuit protection of the auxiliary switch required

design of the fuse link for IT network for short-circuit protection of the main circuit

- at 240 V
- at 400 V
- at 500 V
- at 690 V

magnetic

fuse gG: 10 A, miniature circuit breaker C 6 A (short-circuit current $I_k < 400$ A)

gL/gG 80 A

gL/gG 63 A

gL/gG 50 A

gL/gG 50 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

90 mm

width

45 mm

depth

75 mm

required spacing

- for grounded parts at 400 V
 - downwards 20 mm
 - upwards 20 mm
 - at the side 9 mm
- for live parts at 400 V
 - downwards 20 mm
 - upwards 20 mm
 - at the side 9 mm
- for grounded parts at 500 V
 - downwards 20 mm
 - upwards 20 mm
 - at the side 9 mm
- for live parts at 500 V
 - downwards 20 mm
 - upwards 20 mm
 - at the side 9 mm
- for grounded parts at 690 V
 - downwards 20 mm
 - upwards 20 mm
 - backwards 0 mm
 - at the side 9 mm
 - forwards 0 mm
- for live parts at 690 V
 - downwards 20 mm
 - upwards 20 mm
 - backwards 0 mm
 - at the side 9 mm
 - forwards 0 mm

Connections/ Terminals**type of electrical connection**

- for main current circuit
- for auxiliary and control circuit

screw-type terminals

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
 - finely stranded with core end processing

2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x (1 ... 4 mm²)2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²)**type of connectable conductor cross-sections**

- for auxiliary contacts
 - solid or stranded

2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²)**tightening torque**

- for main contacts with screw-type terminals
- for auxiliary contacts with screw-type terminals

0,8 ... 1,2 N·m

0,8 ... 1,2 N·m

size of the screwdriver tip

Pozidriv size 2

design of the thread of the connection screw

- for main contacts
- of the auxiliary and control contacts

M3
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
- with high demand rate according to SN 31920

50 %
50 %

failure rate [FIT]

- with low demand rate according to SN 31920

50 FIT

protection class IP on the front according to IEC 60529

IP20

touch protection on the front according to IEC 60529 display version for switching status

finger-safe, for vertical contact from the front
Rocker switch

Certificates/ approvals

General Product Approval

For use in hazardous locations

[Confirmation](#)



Declaration of Conformity

Test Certificates

Marine / Shipping



[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)



Marine / Shipping

other



[Confirmation](#)

other

Railway

[Miscellaneous](#)



[Special Test Certificate](#)

Further information

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=3RV1011-1JA15>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-1JA15>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1JA15>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-1JA15&lang=en

Characteristic: Tripping characteristics, I_t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1JA15/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV1011-1JA15&objecttype=14&gridview=view1>



