



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	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
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)	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

<ul style="list-style-type: none"> ● at AC-3e at 400 V rated value 	10 A
operating power	
<ul style="list-style-type: none"> ● at AC-3 <ul style="list-style-type: none"> — at 230 V rated value — at 400 V rated value — at 500 V rated value — at 690 V rated value ● at AC-3e <ul style="list-style-type: none"> — 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	
<ul style="list-style-type: none"> ● at AC-3 maximum ● at AC-3e maximum 	15 1/h 15 1/h

Auxiliary circuit

number of CO contacts for auxiliary contacts	0
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Protective and monitoring functions

product function	
<ul style="list-style-type: none"> ● ground fault detection ● phase failure detection 	No Yes
trip class	CLASS 10
design of the overload release	thermal
maximum short-circuit current breaking capacity (I_{cu})	
<ul style="list-style-type: none"> ● 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 50 kA 3 kA 2 kA
operating short-circuit current breaking capacity (I_{cs}) at AC	
<ul style="list-style-type: none"> ● at 240 V rated value ● at 400 V rated value ● at 500 V rated value ● at 690 V rated value 	100 kA 13 kA 3 kA 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	
<ul style="list-style-type: none"> ● at 480 V rated value ● at 600 V rated value 	10 A 10 A
yielded mechanical performance [hp]	
<ul style="list-style-type: none"> ● for single-phase AC motor <ul style="list-style-type: none"> — at 110/120 V rated value — at 230 V rated value ● for 3-phase AC motor <ul style="list-style-type: none"> — 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 7.5 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	
<ul style="list-style-type: none"> ● at 240 V ● at 400 V ● at 500 V ● at 690 V 	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	
<ul style="list-style-type: none"> ● for grounded parts at 400 V <ul style="list-style-type: none"> — downwards 20 mm — upwards 20 mm — at the side 9 mm ● for live parts at 400 V <ul style="list-style-type: none"> — downwards 20 mm — upwards 20 mm — at the side 9 mm ● for grounded parts at 500 V <ul style="list-style-type: none"> — downwards 20 mm — upwards 20 mm — at the side 9 mm ● for live parts at 500 V <ul style="list-style-type: none"> — downwards 20 mm — upwards 20 mm — at the side 9 mm ● for grounded parts at 690 V <ul style="list-style-type: none"> — downwards 20 mm — upwards 20 mm — backwards 0 mm — at the side 9 mm — forwards 0 mm ● for live parts at 690 V <ul style="list-style-type: none"> — downwards 20 mm — upwards 20 mm — backwards 0 mm — at the side 9 mm — forwards 0 mm 	

Connections/ Terminals

type of electrical connection	
<ul style="list-style-type: none"> ● for main current circuit 	screw-type terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> ● for main contacts <ul style="list-style-type: none"> — solid or stranded 2x (0,5 ... 1,5 mm²), 2x (0,75 ... 2,5 mm²), 2x (1 ... 4 mm²) — finely stranded with core end processing 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) 	
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> ● for auxiliary contacts <ul style="list-style-type: none"> — solid or stranded 2x (0.5 ... 1.5 mm²), 2x (0.75 ... 2.5 mm²) 	
tightening torque	
<ul style="list-style-type: none"> ● for main contacts with screw-type terminals 0.8 ... 1.2 N·m ● for auxiliary contacts with screw-type terminals 0.8 ... 1.2 N·m 	
size of the screwdriver tip	Pozidriv size 2
design of the thread of the connection screw	
<ul style="list-style-type: none"> ● for main contacts M3 	

Safety related data

B10 value	
<ul style="list-style-type: none"> ● with high demand rate according to SN 31920 5 000 	
proportion of dangerous failures	
<ul style="list-style-type: none"> ● with low demand rate according to SN 31920 50 % ● with high demand rate according to SN 31920 50 % 	
failure rate [FIT]	
<ul style="list-style-type: none"> ● 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	finger-safe, for vertical contact from the front
display version for switching status	Rocker switch

Certificates/ approvals

General Product Approval	For use in hazardous locations
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[Confirmation](#)



Declaration of Conformity

Test Certificates

Marine / Shipping



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Marine / Shipping

other



[Miscellaneous](#)

other

Railway

[Confirmation](#)



[Special Test Certificate](#)

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=3RV1011-1JA10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-1JA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1JA10>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-1JA10&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1JA10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV1011-1JA10&objecttype=14&gridview=view1>



