



Circuit breaker size S00 for motor protection, CLASS 10 A-release 0.45...0.63 A N-release 8.2 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
<b>General technical data</b>	
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	5.5 W
• at AC in hot operating state per pole	1.8 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
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1
Net Weight	280 g
<b>Ambient conditions</b>	
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 %
<b>Environmental footprint</b>	
Environmental Product Declaration(EPD)	Yes
global warming potential [CO2 eq] total	74.698 kg
global warming potential [CO2 eq] during manufacturing	1.98 kg
global warming potential [CO2 eq] during sales	0.134 kg
global warming potential [CO2 eq] during operation	72.7 kg
global warming potential [CO2 eq] after end of life	-0.116 kg

Siemens Eco Profile (SEP)	Siemens EcoTech
<b>Main circuit</b>	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	0.45 ... 0.63 A
type of voltage for main current circuit	AC
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	0.63 A
operational current	
• at AC-3 at 400 V rated value	0.63 A
• at AC-3e at 400 V rated value	0.63 A
operating power	
• at AC-3	
— at 230 V rated value	0.1 kW
— at 400 V rated value	0.18 kW
— at 500 V rated value	0.2 kW
— at 690 V rated value	0.3 kW
• at AC-3e	
— at 230 V rated value	0.1 kW
— at 400 V rated value	0.18 kW
— at 500 V rated value	0.2 kW
— at 690 V rated value	0.3 kW
operating frequency	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h
<b>Auxiliary circuit</b>	
type of voltage for auxiliary and control circuit	AC/DC
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of CO contacts for auxiliary contacts	0
<b>Protective and monitoring functions</b>	
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	100 kA
• at AC at 500 V rated value	100 kA
• at AC at 690 V rated value	100 kA
operating short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value	100 kA
• at 400 V rated value	100 kA
• at 500 V rated value	100 kA
• at 690 V rated value	100 kA
response value current of instantaneous short-circuit trip unit	8.2 A
<b>UL/CSA ratings</b>	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	0.63 A
• at 600 V rated value	0.63 A
Category Control Number (CCN)	E156943 (NKJH, NKJH7)
<b>Short-circuit protection</b>	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic

<b>design of the fuse link for IT network for short-circuit protection of the main circuit</b>		gL/gG 6 A
• at 690 V		
<b>Installation/ mounting/ dimensions</b>		
<b>mounting position</b>	any	
<b>fastening method</b>	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715	
<b>height</b>	97 mm	
<b>width</b>	45 mm	
<b>depth</b>	97 mm	
<b>required spacing</b>		
• 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	
<b>Connections/ Terminals</b>		
<b>type of electrical connection</b>		
• for main current circuit	screw-type terminals	
<b>arrangement of electrical connectors for main current circuit</b>	Top and bottom	
<b>type of connectable conductor cross-sections</b>		
• for main contacts		
— solid or stranded	2x (0.75 ... 2.5 mm <sup>2</sup> ), 2x 4 mm <sup>2</sup>	
— finely stranded with core end processing	2x (0.5 ... 1.5 mm <sup>2</sup> ), 2x (0.75 ... 2.5 mm <sup>2</sup> )	
• for AWG cables for main contacts	2x (18 ... 14), 2x 12	
<b>tightening torque</b>		
• for main contacts with screw-type terminals	0.8 ... 1.2 N·m	
<b>design of screwdriver shaft</b>	Diameter 5 to 6 mm	
<b>size of the screwdriver tip</b>	Pozidriv size 2	
<b>design of the thread of the connection screw</b>		
• for main contacts	M3	
<b>Safety related data</b>		
product function suitable for safety function	Yes	
<b>suitability for use</b>		
• safety-related switching on	No	

• safety-related switching OFF	Yes
<b>service life maximum</b>	10 a
<b>test wear-related service life necessary</b>	Yes
<b>proportion of dangerous failures</b>	
• with low demand rate according to SN 31920	40 %
• with high demand rate according to SN 31920	50 %
<b>B10 value with high demand rate according to SN 31920</b>	5 000
<b>failure rate [FIT] with low demand rate according to SN 31920</b>	50 FIT
ISO 13849	
<b>device type according to ISO 13849-1</b>	3
<b>overdimensioning according to ISO 13849-2 necessary</b>	Yes
IEC 61508	
<b>safety device type according to IEC 61508-2</b>	Type A
<b>T1 value</b>	
• for proof test interval or service life according to IEC 61508	10 a
Electrical Safety	
<b>protection class IP on the front according to IEC 60529</b>	IP20
<b>touch protection on the front according to IEC 60529</b>	finger-safe, for vertical contact from the front
<b>Display</b>	
display version for switching status	Handle
<b>Approvals Certificates</b>	
<b>General Product Approval</b>	



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General Product Approval	For use in hazardous locations	Test Certificates	Maritime application
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Maritime application	other
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[Miscellaneous](#)

[Confirmation](#)

Railway	Environment
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[Special Test Certificate](#)

[Confirmation](#)



**Siemens EcoTech**

[Environmental Confirmations](#)

## Further information

### Information on the packaging

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

### Information for data generation and storage

<https://support.industry.siemens.com/cs/ww/en/view/109995012>

### 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=3RV2011-0GA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-0GA10>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2011-0GA10&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-0GA10&lang=en)

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-0GA10>

Characteristic curves

[https://curves.simaris.siemens.com/curves/<mmp\\_prod\\_noCOMP="HAUPT"></mmp\\_prod\\_no>](https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP=)



