



circuit breaker frame size S00 for transformer protection with approval circuit breaker UL 489, CSA C22.2 no. 5-02 thermal overload release 0.5 A short-circuit release 10 A screw terminal standard switching capacity

<b>product brand name</b>	SIRIUS
<b>product designation</b>	Circuit breaker
<b>design of the product</b>	For transformer protection according to UL 489/CSA C22.2 No.5
<b>product type designation</b>	3RV2
<b>General technical data</b>	
<b>Product equipment of circuit breaker for motor protection complete unit with protection device</b>	Yes
<b>size of the circuit-breaker</b>	S00
product function disconnecter functionality	Yes
product extension auxiliary switch	Yes
<b>power loss [W] for rated value of the current</b>	
• at AC in hot operating state	5.5 W
• at AC in hot operating state per pole	1.8 W
<b>type of calculation of power loss current-dependent</b>	quadratic
insulation voltage with degree of pollution 3 at AC rated value	690 V
<b>surge voltage resistance rated value</b>	6 kV
<b>maximum permissible voltage for protective separation</b>	
• in networks with ungrounded star point between main and auxiliary circuit	400 V
• in networks with grounded star point between main and auxiliary circuit	400 V
<b>protection class IP</b>	
• on the front according to IEC 60529	IP20
• on the front	IP20
• of the terminal	IP00
<b>shock resistance according to IEC 60068-2-27</b>	25 g / 11 ms (rectangular impulse and sine pulse)
<b>mechanical service life (operating cycles)</b>	
• of the main contacts typical	100 000
• of auxiliary contacts typical	100 000
electrical endurance (operating cycles) typical	100 000
<b>reference code according to IEC 81346-2</b>	Q
<b>continuous current rated value</b>	0.5 A
<b>Substance Prohibitance (day/month/year)</b>	10/01/2009
<b>SVHC substance name</b>	Lead CAS-No. 7439-92-1
<b>Net Weight</b>	0.442 g
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m

<b>ambient temperature</b>	
• during operation	-20 ... +60 °C
• during storage	-50 ... +80 °C
• during transport	-50 ... +80 °C
<b>temperature compensation</b>	-20 ... +60 °C
relative humidity during operation	10 ... 95 %

#### Main circuit

<b>number of poles for main current circuit</b>	3
<b>type of voltage for main current circuit</b>	AC
<b>operating voltage</b>	
• rated value	690 V
• rated value	20 ... 690 V
• at AC-3 rated value maximum	690 V
• at AC-3e rated value maximum	690 V
<b>operating frequency rated value</b>	50 ... 60 Hz
<b>operational current rated value</b>	0.5 A
<b>operational current</b>	
• at AC-3 at 400 V rated value	0.5 A
• at AC-3e at 400 V rated value	0.5 A
<b>operating power</b>	
• at AC-3	
— at 230 V rated value	0.1 kW
— at 400 V rated value	0.1 kW
— at 500 V rated value	0.1 kW
— at 690 V rated value	0.2 kW
• at AC-3e	
— at 230 V rated value	0.1 kW
— at 400 V rated value	0.1 kW
— at 500 V rated value	0.1 kW
— at 690 V rated value	0.2 kW
<b>operating frequency</b>	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h

#### Auxiliary circuit

<b>type of voltage for auxiliary and control circuit</b>	AC/DC
<b>number of NC contacts for auxiliary contacts</b>	0
<b>number of NO contacts for auxiliary contacts</b>	0
number of CO contacts for auxiliary contacts	0












#### Protective and monitoring functions

<b>product function</b>	
• ground fault detection	No
• phase failure detection	No
<b>design of the overload release</b>	thermal
<b>protection function thermal overload protection (ANSI 49)</b>	Yes
<b>maximum short-circuit current breaking capacity (I<sub>cu</sub>)</b>	
• 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
• at 480 AC Y/277 V according to UL 489 rated value	65 kA
<b>operating short-circuit current breaking capacity (I<sub>cs</sub>) at AC</b>	
• 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	10 A

#### Short-circuit protection

<b>product function short circuit protection</b>	Yes
<b>design of the short-circuit trip</b>	magnetic

<b>design of the fuse link for IT network for short-circuit protection of the main circuit</b> • at 690 V	gG 4 A
<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>Mounting method of circuit breaker for Transformer protection, Generator protection and system protection optional standard bar mounting</b>	Yes
<b>height</b>	144 mm
<b>width</b>	45 mm
<b>depth</b>	97 mm
<b>required spacing</b> • for grounded parts at 400 V — downwards — upwards — at the side • for live parts at 400 V — downwards — upwards — at the side • for grounded parts at 500 V — downwards — upwards — at the side • for live parts at 500 V — downwards — upwards — at the side • for grounded parts at 690 V — downwards — upwards — backwards — at the side — forwards • for live parts at 690 V — downwards — upwards — backwards — at the side — forwards	 30 mm 30 mm 30 mm  30 mm 30 mm 30 mm  30 mm 30 mm 30 mm  70 mm 70 mm 0 mm 30 mm 0 mm  70 mm 70 mm 0 mm 30 mm 0 mm
<b>Connections/ Terminals</b>	
<b>product component removable terminal for auxiliary and control circuit</b>	No
<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 — finely stranded with core end processing • for AWG cables for main contacts	 1 ... 10 mm <sup>2</sup> , max. 2x 10 mm <sup>2</sup> 1 ... 16 mm <sup>2</sup> , max. 6 + 16 mm <sup>2</sup> 2x (14 ... 10)
<b>connectable conductor cross-section for main contacts</b> • solid or stranded • finely stranded with core end processing	 1 ... 10 mm <sup>2</sup> 1 ... 16 mm <sup>2</sup>
<b>AWG number as coded connectable conductor cross section for main contacts</b>	14 ... 10
<b>tightening torque</b> • for main contacts with screw-type terminals	2.5 ... 3 N·m
<b>design of screwdriver shaft</b>	Diameter 5 to 6 mm

size of the screwdriver tip	Pozidriv size 2
design of the thread of the connection screw	
<ul style="list-style-type: none"> <li>for main contacts</li> </ul>	M4
<b>Safety related data</b>	
product function suitable for safety function	Yes
suitability for use	
<ul style="list-style-type: none"> <li>safety-related switching on</li> </ul>	No
<ul style="list-style-type: none"> <li>safety-related switching OFF</li> </ul>	Yes
service life maximum	10 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
<ul style="list-style-type: none"> <li>with low demand rate according to SN 31920</li> </ul>	40 %
<ul style="list-style-type: none"> <li>with high demand rate according to SN 31920</li> </ul>	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	
device type according to ISO 13849-1	3
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
safety device type according to IEC 61508-2	Type A
T1 value	
<ul style="list-style-type: none"> <li>for proof test interval or service life according to IEC 61508</li> </ul>	10 a
Electrical Safety	
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
<b>Display</b>	
display version for switching status	Handle
<b>Approvals Certificates</b>	
Environmental Product Declaration	
<ul style="list-style-type: none"> <li>global warming potential [CO2 eq] / during manufacturing</li> </ul>	1.98 kg
<ul style="list-style-type: none"> <li>global warming potential [CO2 eq] / during sales</li> </ul>	0.134 kg
<ul style="list-style-type: none"> <li>global warming potential [CO2 eq] / during operation</li> </ul>	72.7 kg
<ul style="list-style-type: none"> <li>global warming potential [CO2 eq] / after end of life</li> </ul>	-0.116 kg
<ul style="list-style-type: none"> <li>global warming potential [CO2 eq] / total</li> </ul>	74.698 kg
<b>Environment</b>	<b>General Product Approval</b>
<a href="#">Environmental Confirmations</a>	    
<b>General Product Approval</b>	<b>Test Certificates</b>
   	<a href="#">Type Test Certificates/Test Report</a> <a href="#">Special Test Certificate</a>
<b>Maritime application</b>	<b>other</b>
 	<a href="#">Confirmation</a> <a href="#">Miscellaneous</a> <a href="#">Confirmation</a> <a href="#">Miscellaneous</a>
<b>other</b>	<b>Railway</b>



[Special Test Certificate](#)

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=3RV2811-0FD10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2811-0FD10>

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

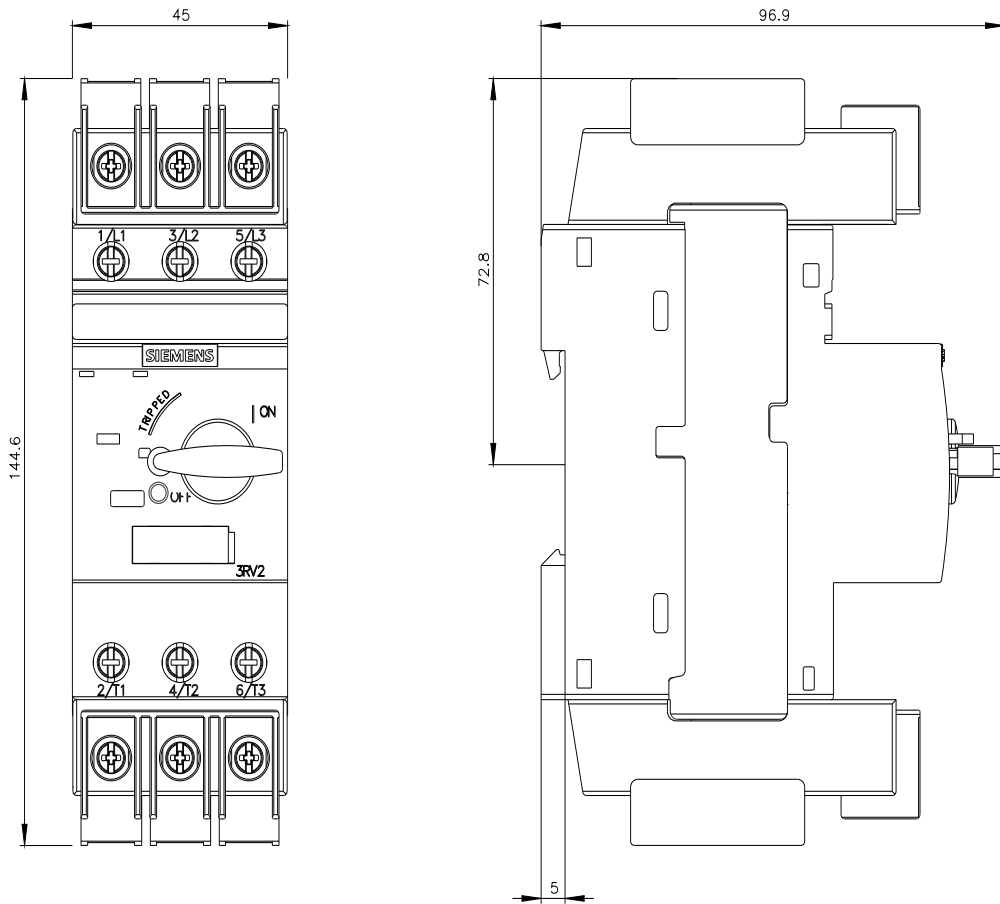
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2811-0FD10&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2811-0FD10&lang=en)

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2811-0FD10>

Characteristic curves

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





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