

Siemens  
EcoTech



circuit breaker frame size S00 for transformer protection with approval circuit breaker UL 489, CSA C22.2 no. 5-02 thermal overload release 12.5 A short-circuit release 260 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	9.25 W
• at AC in hot operating state per pole	3.1 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>	12.5 A
<b>Substance Prohibitance (day/month/year)</b>	10/01/2009
<b>Net Weight</b>	0.519 g
<b>Ambient conditions</b>	
installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	

<ul style="list-style-type: none"> <li>• during operation</li> </ul>	-20 ... +60 °C
<ul style="list-style-type: none"> <li>• during storage</li> </ul>	-50 ... +80 °C
<ul style="list-style-type: none"> <li>• during transport</li> </ul>	-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>	
<ul style="list-style-type: none"> <li>• rated value</li> </ul>	690 V
<ul style="list-style-type: none"> <li>• rated value</li> </ul>	20 ... 690 V
<ul style="list-style-type: none"> <li>• at AC-3 rated value maximum</li> </ul>	690 V
<ul style="list-style-type: none"> <li>• at AC-3e rated value maximum</li> </ul>	690 V
<b>operating frequency rated value</b>	50 ... 60 Hz
<b>operational current rated value</b>	12.5 A
<b>operational current</b>	
<ul style="list-style-type: none"> <li>• at AC-3 at 400 V rated value</li> </ul>	12.5 A
<ul style="list-style-type: none"> <li>• at AC-3e at 400 V rated value</li> </ul>	12.5 A
<b>operating power</b>	
<ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>	3 kW 5.5 kW 7.5 kW 7.5 kW
<ul style="list-style-type: none"> <li>• at AC-3e <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>	3 kW 5.5 kW 7.5 kW 7.5 kW
<b>operating frequency</b>	
<ul style="list-style-type: none"> <li>• at AC-3 maximum</li> </ul>	15 1/h
<ul style="list-style-type: none"> <li>• at AC-3e maximum</li> </ul>	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>	
<ul style="list-style-type: none"> <li>• ground fault detection</li> </ul>	No
<ul style="list-style-type: none"> <li>• phase failure detection</li> </ul>	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>	
<ul style="list-style-type: none"> <li>• at AC at 240 V rated value</li> <li>• at AC at 400 V rated value</li> <li>• at AC at 500 V rated value</li> <li>• at AC at 690 V rated value</li> <li>• at 480 AC Y/277 V according to UL 489 rated value</li> </ul>	100 kA 100 kA 42 kA 6 kA 65 kA
<b>operating short-circuit current breaking capacity (I<sub>cs</sub>) at AC</b>	
<ul style="list-style-type: none"> <li>• at 240 V rated value</li> <li>• at 400 V rated value</li> <li>• at 500 V rated value</li> <li>• at 690 V rated value</li> </ul>	100 kA 100 kA 42 kA 4 kA
response value current of instantaneous short-circuit trip unit	260 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</b>	



<ul style="list-style-type: none"> <li>for main contacts with screw-type terminals</li> </ul>	2.5 ... 3 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>	
<ul style="list-style-type: none"> <li>for main contacts</li> </ul>	M4

**Safety related data**

product function suitable for safety function	Yes
<b>suitability for use</b>	
<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
<b>service life maximum</b>	10 a
<b>test wear-related service life necessary</b>	Yes
<b>proportion of dangerous failures</b>	
<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

<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>	
<ul style="list-style-type: none"> <li>for proof test interval or service life according to IEC 61508</li> </ul>	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

**Display**

display version for switching status	Handle
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**Approvals Certificates**

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

**Environment** **General Product Approval**

[Environmental Conformations](#)



**General Product Approval** **Test Certificates**



**Maritime application** **other**



**Railway**

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=3RV2811-1KD10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2811-1KD10>

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

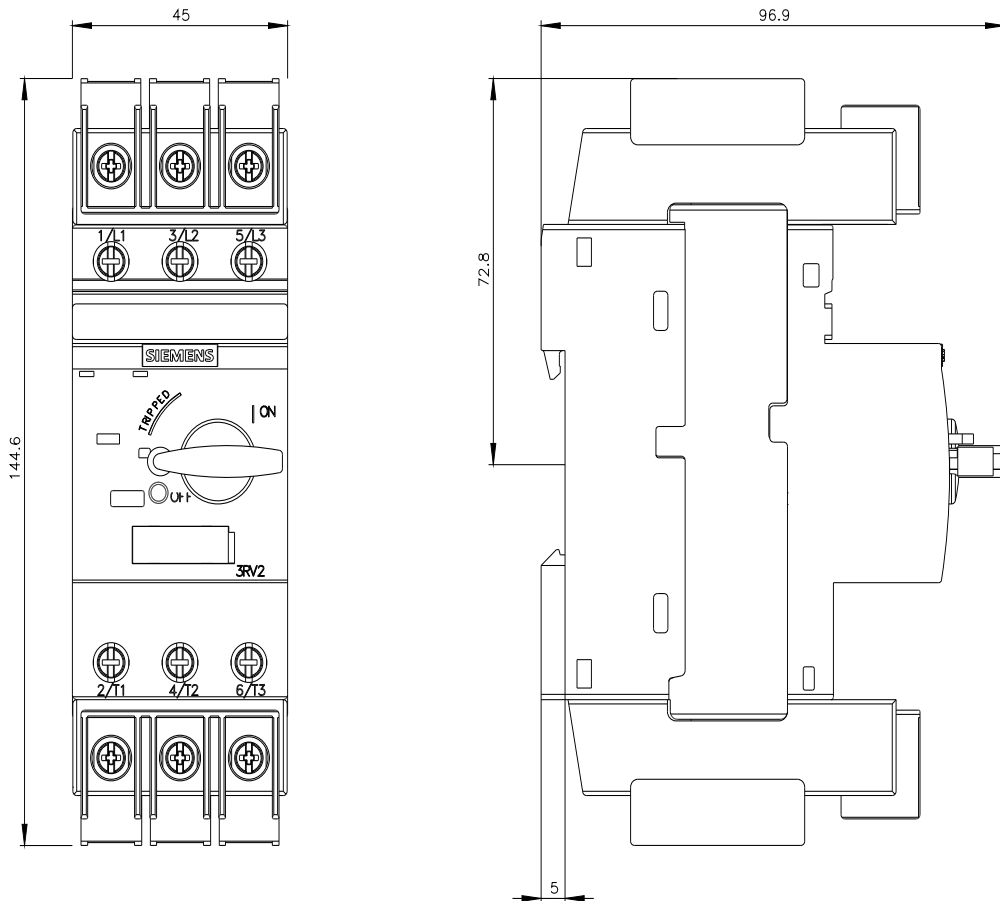
[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2811-1KD10&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2811-1KD10&lang=en)

Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2811-1KD10>

Characteristic curves

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





last modified:

5/5/2026 ↻