

Circuit breaker size S00 for transformer protection with approval
circuit breaker UL 489, CSA C22.2 No.5-02 A-release 8 A N-release
163 A screw terminal Standard switching capacity



product brand name	SIRIUS
Product designation	Circuit breaker
Design of the product	For transformer protection according to UL 489/CSA C22.2 No.5
Product type designation	3RV2

General technical data	
Size of the circuit-breaker	S00
Product extension	
<ul style="list-style-type: none"> Auxiliary switch 	Yes
Power loss [W] for rated value of the current	
<ul style="list-style-type: none"> at AC in hot operating state 	9.25 W
<ul style="list-style-type: none"> 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
maximum permissible voltage for safe isolation	
<ul style="list-style-type: none"> in networks with grounded star point between main and auxiliary circuit 	400 V
<ul style="list-style-type: none"> in networks with grounded star point between main and auxiliary circuit 	400 V

<ul style="list-style-type: none"> • protection class IP on the front • Protection class IP of the terminal 	<p>IP20</p> <p>IP00</p>
Shock resistance <ul style="list-style-type: none"> • acc. to IEC 60068-2-27 	25g / 11 ms
Mechanical service life (switching cycles) <ul style="list-style-type: none"> • of the main contacts typical • of auxiliary contacts typical 	<p>100 000</p> <p>100 000</p>
Electrical endurance (switching cycles) <ul style="list-style-type: none"> • typical 	100 000
Reference code acc. to DIN EN 81346-2	Q

Ambient conditions

Installation altitude at height above sea level <ul style="list-style-type: none"> • maximum 	2 000 m
Ambient temperature <ul style="list-style-type: none"> • during operation • during storage • during transport 	<p>-20 ... +60 °C</p> <p>-50 ... +80 °C</p> <p>-50 ... +80 °C</p>
Temperature compensation	-20 ... +60 °C
Relative humidity during operation	10 ... 95 %

Main circuit

Number of poles for main current circuit	3
Operating voltage <ul style="list-style-type: none"> • rated value • at AC-3 rated value maximum 	<p>690 V</p> <p>690 V</p>
Operating frequency rated value	50 ... 60 Hz
Operating current rated value	8 A
Operating current <ul style="list-style-type: none"> • at AC-3 <ul style="list-style-type: none"> — at 400 V rated value 	8 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 	<p>1 500 W</p> <p>3 000 W</p> <p>4 000 W</p> <p>5 500 W</p>
Operating frequency <ul style="list-style-type: none"> • at AC-3 maximum 	15 1/h

Auxiliary circuit

Number of NC contacts for auxiliary contacts	0
Number of NO contacts for auxiliary contacts	0
Number of CO contacts	

- for auxiliary contacts

0

Protective and monitoring functions

Product function	
<ul style="list-style-type: none"> • Ground fault detection • Phase failure detection 	No
Design of the overload release	thermal
Operational short-circuit current breaking capacity (Ics) 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 100 kA 42 kA 4 kA
Maximum short-circuit current breaking capacity (Icu)	
<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 • at 480 AC Y/277 V acc. to UL 489 rated value 	100 kA 100 kA 42 kA 6 kA 65 000 A
Response value current	
<ul style="list-style-type: none"> • of instantaneous short-circuit trip unit 	163 A

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 400 V • at 500 V • at 690 V 	gL/gG 50 A gL/gG 40 A gL/gG 35 A

Installation/ mounting/ dimensions

<ul style="list-style-type: none"> • mounting position 	any
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
Height	144 mm
Width	45 mm
Depth	97 mm
Required spacing	
<ul style="list-style-type: none"> • for grounded parts at 400 V <ul style="list-style-type: none"> — downwards — upwards — Backwards — at the side 	30 mm 30 mm 0 mm 30 mm

— forwards	0 mm
• for live parts at 400 V	
— downwards	30 mm
— upwards	30 mm
— Backwards	0 mm
— at the side	30 mm
— forwards	0 mm
• for grounded parts at 500 V	
— downwards	30 mm
— upwards	30 mm
— Backwards	0 mm
— at the side	30 mm
— forwards	0 mm
• for live parts at 500 V	
— downwards	30 mm
— upwards	30 mm
— Backwards	0 mm
— at the side	30 mm
— forwards	0 mm
• for grounded parts at 690 V	
— downwards	70 mm
— upwards	70 mm
— Backwards	0 mm
— at the side	30 mm
— forwards	0 mm
• for live parts at 690 V	
— downwards	70 mm
— upwards	70 mm
— Backwards	0 mm
— at the side	30 mm

Connections/ Terminals

Product function	
• removable terminal for auxiliary and control circuit	No
• Type of electrical connection for main current circuit	screw-type terminals
Arrangement of electrical connectors for main current circuit	Top and bottom
Type of connectable conductor cross-sections	
• for main contacts	
— single or multi-stranded	1 ... 10 mm ² , max. 2x 10 mm ²

<ul style="list-style-type: none"> — finely stranded with core end processing • at AWG conductors for main contacts 	1 ... 16 mm ² , max. 6 + 16 mm ² 2x (14 ... 10)
Tightening torque <ul style="list-style-type: none"> • for main contacts with screw-type terminals 	2.5 ... 3 N·m
Design of screwdriver shaft	Diameter 5 to 6 mm
Size of the screwdriver tip	Pozidriv 2
Design of the thread of the connection screw <ul style="list-style-type: none"> • for main contacts 	M4

Safety related data

B10 value <ul style="list-style-type: none"> • with high demand rate acc. to SN 31920 	5 000
Proportion of dangerous failures <ul style="list-style-type: none"> • with low demand rate acc. to SN 31920 • with high demand rate acc. to SN 31920 	50 % 50 %
Failure rate [FIT] <ul style="list-style-type: none"> • with low demand rate acc. to SN 31920 	50 FIT
T1 value for proof test interval or service life acc. to IEC 61508	10 y
Display version <ul style="list-style-type: none"> • for switching status 	Handle

Certificates/ approvals

General Product Approval	Declaration of Conformity	Test Certificates
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[Miscellaneous](#)

[Special Test Certificate](#)

Test Certificates	Marine / Shipping	other
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[Type Test Certificates/Test Report](#)



LRS



RMRS

[Confirmation](#)



VDE

Railway

[Vibration and Shock](#)

Further information

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=3RV2811-1HD10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2811-1HD10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2811-1HD10>

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

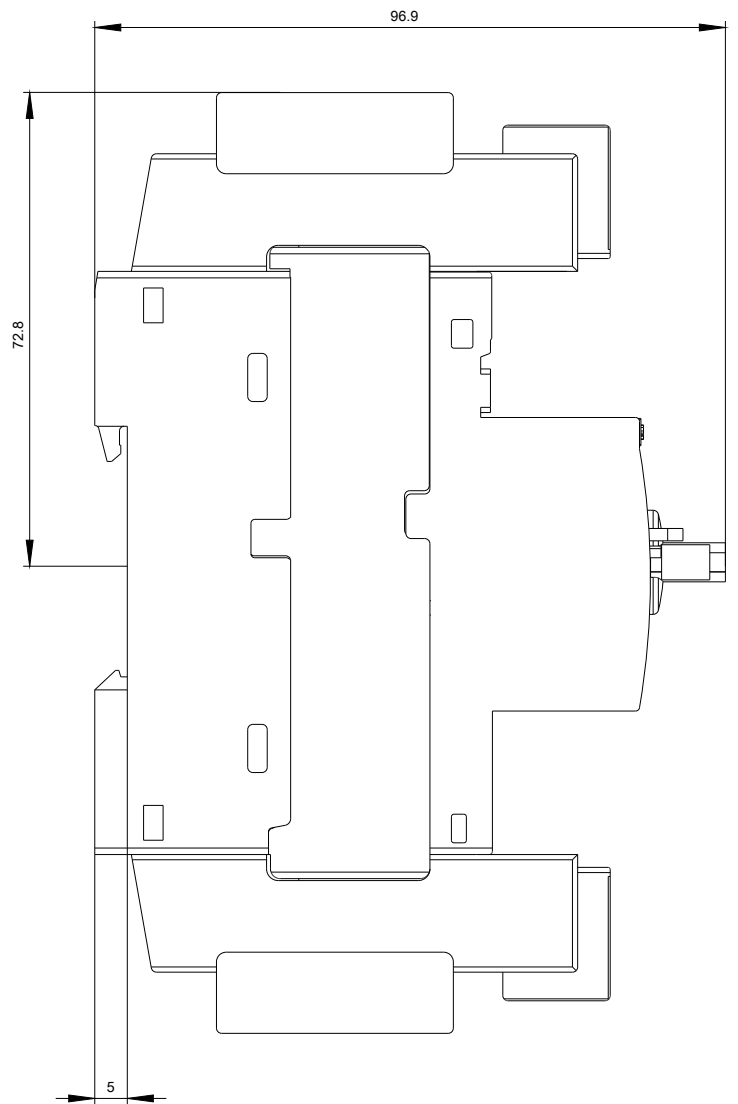
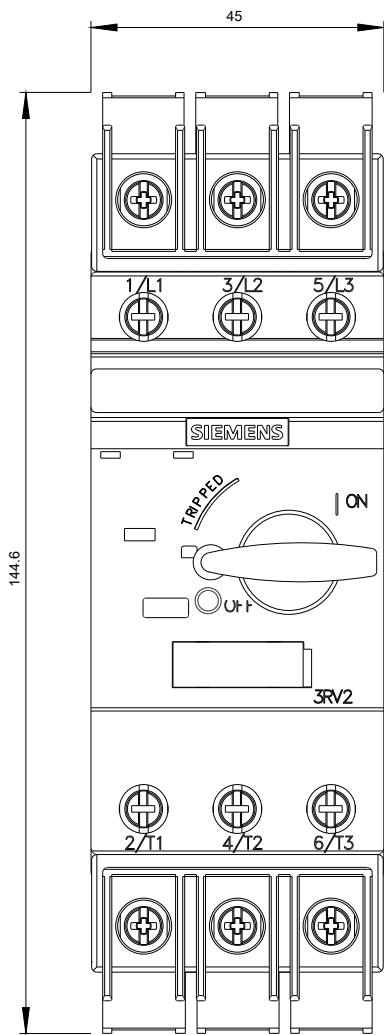
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2811-1HD10&lang=en

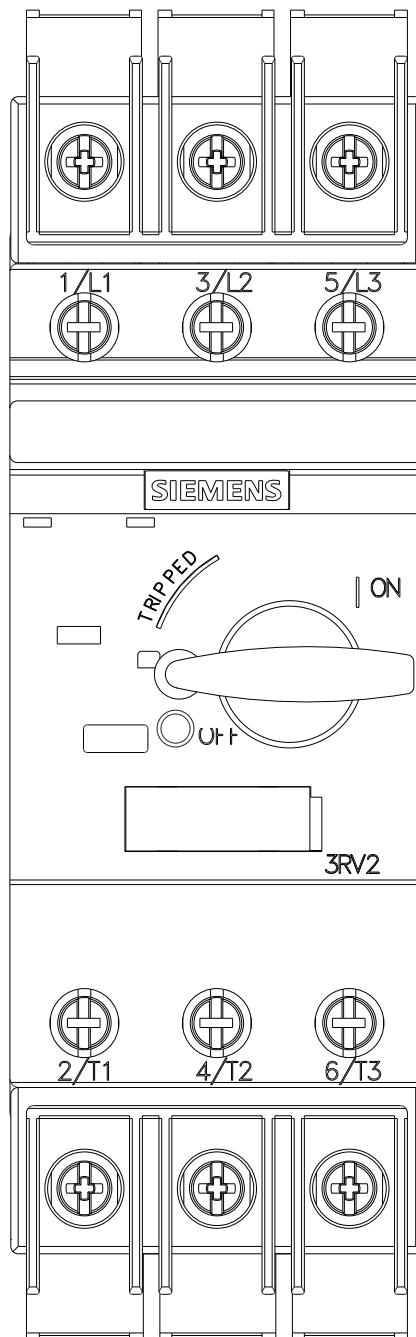
Characteristic: Tripping characteristics, I²t, Let-through current

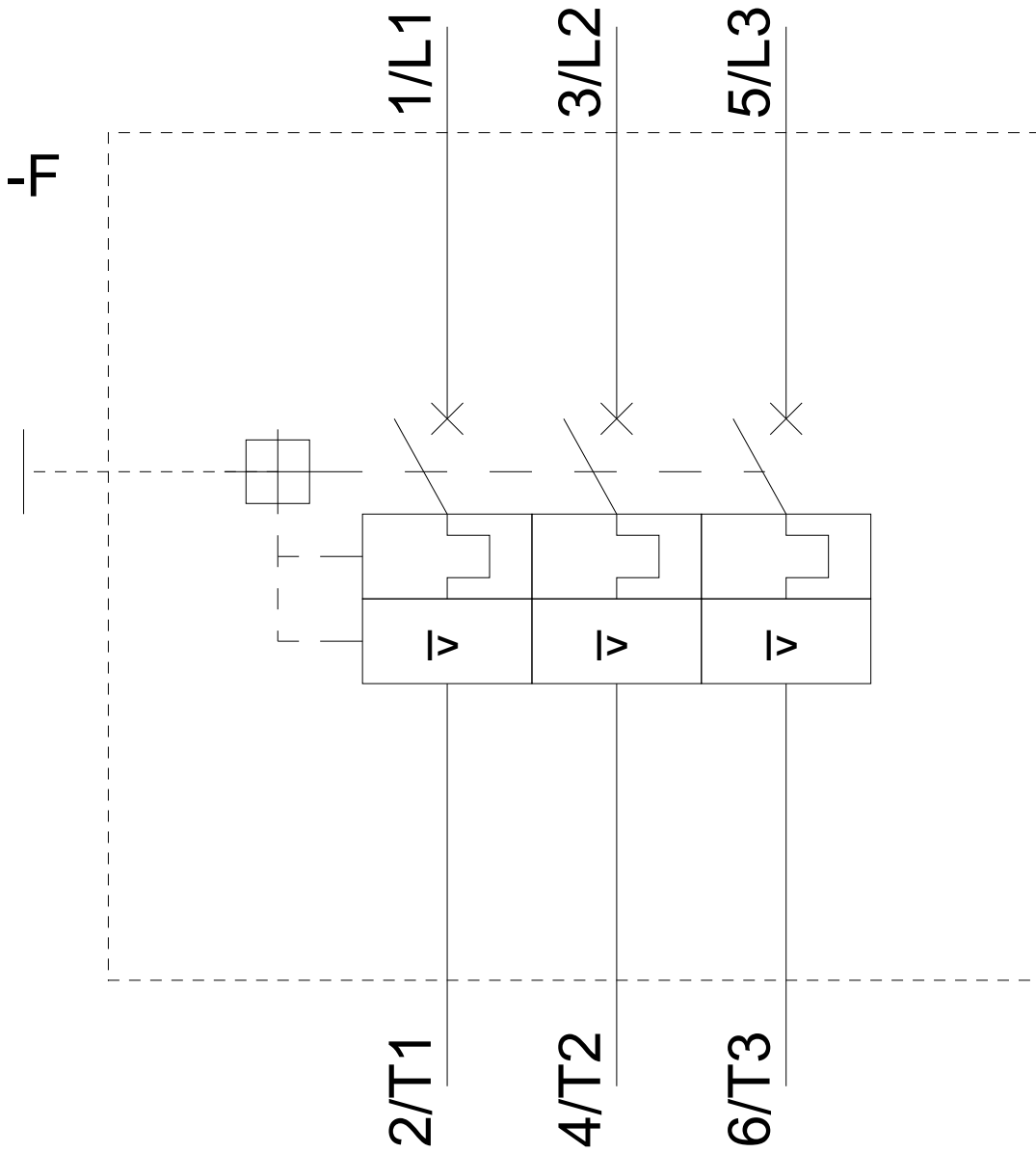
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2811-1HD10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2811-1HD10&objecttype=14&gridview=view1>







last modified:

08/13/2020