

Circuit breaker size S00 for transformer protection with approval
circuit breaker UL 489, CSA C22.2 No.5-02 A-release 5 A N-release
104 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	
• Auxiliary switch	Yes
Power loss [W] for rated value of the current	
• at AC in hot operating state	7.25 W
• at AC in hot operating state per pole	2.4 W
Insulation voltage with degree of pollution 3 rated value	690 V
Surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation	
• in networks with grounded star point between main and auxiliary circuit	400 V
• in networks with grounded star point between main and auxiliary circuit	400 V

Protection class IP	
• on the front	IP20
• of the terminal	IP00
Shock resistance	
• acc. to IEC 60068-2-27	25g / 11 ms
Mechanical service life (switching cycles)	
• of the main contacts typical	100 000
• of auxiliary contacts typical	100 000
Electrical endurance (switching cycles)	
• typical	100 000
Reference code acc. to DIN EN 81346-2	Q

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
Temperature compensation	-20 ... +60 °C
Relative humidity during operation	10 ... 95 %

Main circuit

Number of poles for main current circuit	3
Operating voltage	
• rated value	690 V
• at AC-3 rated value maximum	690 V
Operating frequency rated value	50 ... 60 Hz
Operating current rated value	5 A
Operating current	
• at AC-3	
— at 400 V rated value	5 A
Operating power	
• at AC-3	
— at 230 V rated value	1 100 W
— at 400 V rated value	1 500 W
— at 500 V rated value	2 200 W
— at 690 V rated value	4 000 W
Operating frequency	
• 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	
<ul style="list-style-type: none"> • for auxiliary contacts 	0
Protective and monitoring functions	
Product function	
<ul style="list-style-type: none"> • Ground fault detection 	No
<ul style="list-style-type: none"> • 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 	100 kA
<ul style="list-style-type: none"> • at 400 V rated value 	100 kA
<ul style="list-style-type: none"> • at 500 V rated value 	100 kA
<ul style="list-style-type: none"> • at 690 V rated value 	4 kA
Maximum short-circuit current breaking capacity (Icu)	
<ul style="list-style-type: none"> • at AC at 240 V rated value 	100 kA
<ul style="list-style-type: none"> • at AC at 400 V rated value 	100 kA
<ul style="list-style-type: none"> • at AC at 500 V rated value 	100 kA
<ul style="list-style-type: none"> • at AC at 690 V rated value 	6 kA
<ul style="list-style-type: none"> • at 480 AC Y/277 V acc. to UL 489 rated value 	65 000 A
Response value current	
<ul style="list-style-type: none"> • of instantaneous short-circuit trip unit 	104 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 	gL/gG 32 A
<ul style="list-style-type: none"> • at 500 V 	gL/gG 32 A
<ul style="list-style-type: none"> • at 690 V 	gL/gG 25 A
Installation/ mounting/ dimensions	
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"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — Backwards — upwards 	0 mm 0 mm 50 mm

— downwards	50 mm
— at the side	0 mm
• for grounded parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	50 mm
— at the side	30 mm
— downwards	50 mm
• for live parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	50 mm
— downwards	50 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
— finely stranded with core end processing	1 ... 16 mm ² , max. 6 + 16 mm ²
• at AWG conductors for main contacts	2x (14 ... 10)
Tightening torque	
• 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	
• for main contacts	M4




Safety related data

B10 value	
• with high demand rate acc. to SN 31920	5 000
Proportion of dangerous failures	
• with low demand rate acc. to SN 31920	50 %
• with high demand rate acc. to SN 31920	50 %
Failure rate [FIT]	
• 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	Handle
<ul style="list-style-type: none"> for switching status 	

Certificates/ approvals

General Product Approval	Declaration of Conformity	Test Certificates
 CSA  UL  EAC  EG-Konf.	Miscellaneous	Type Test Certificates/Test Report

Test Certificates	Marine / Shipping	other
Special Test Certificate	 BUREAU VERITAS  LRS  RMRS	Confirmation  VDE

Railway

[Vibration and Shock](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

www.siemens.com/sirius/catalogs

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2811-1FD10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2811-1FD10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2811-1FD10>

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

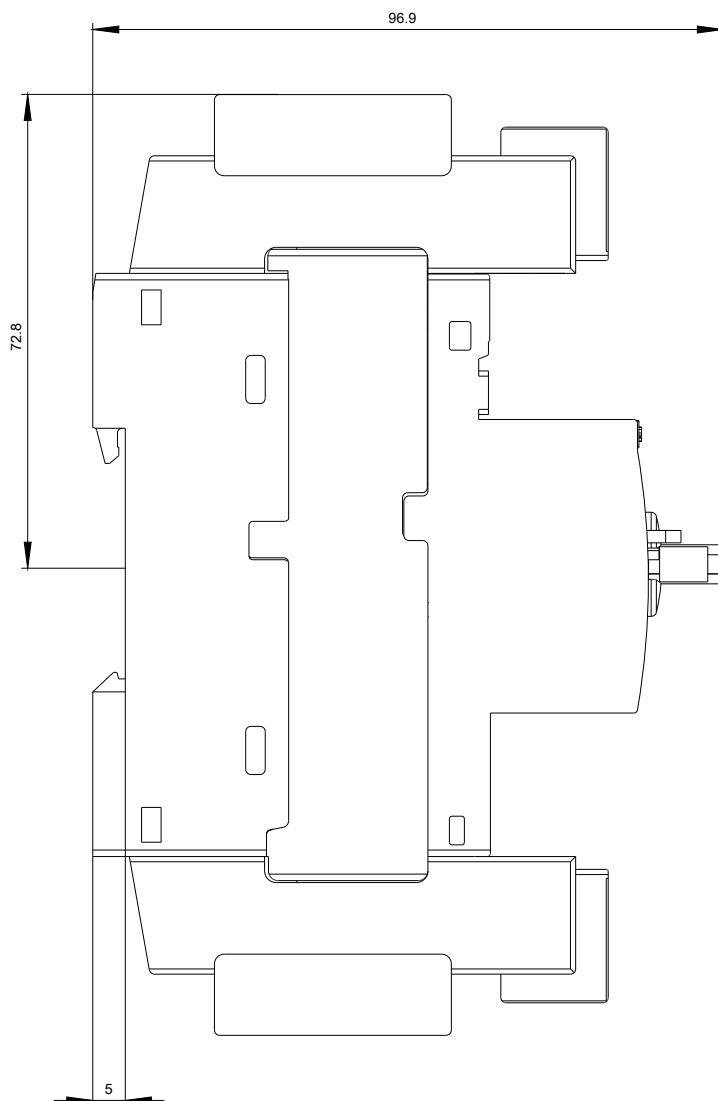
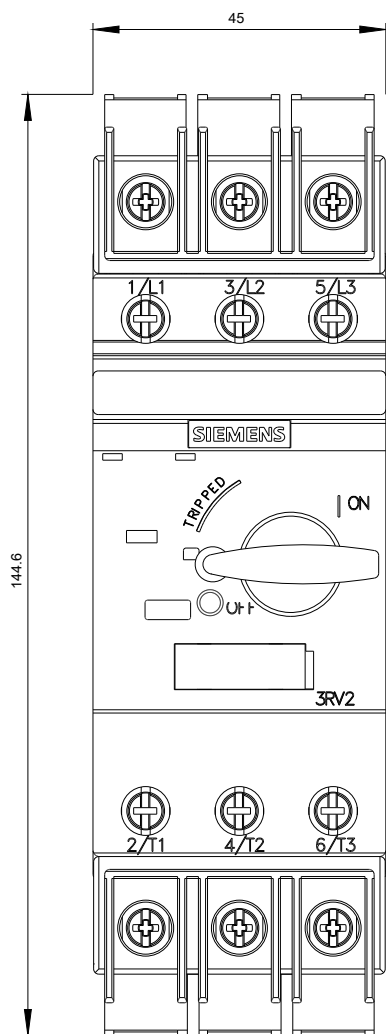
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2811-1FD10&lang=en

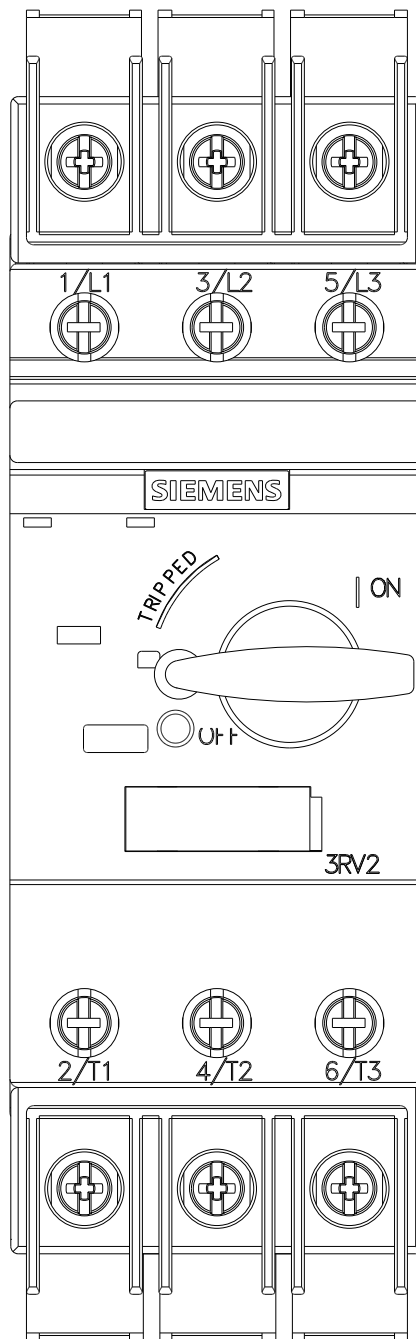
Characteristic: Tripping characteristics, I²t, Let-through current

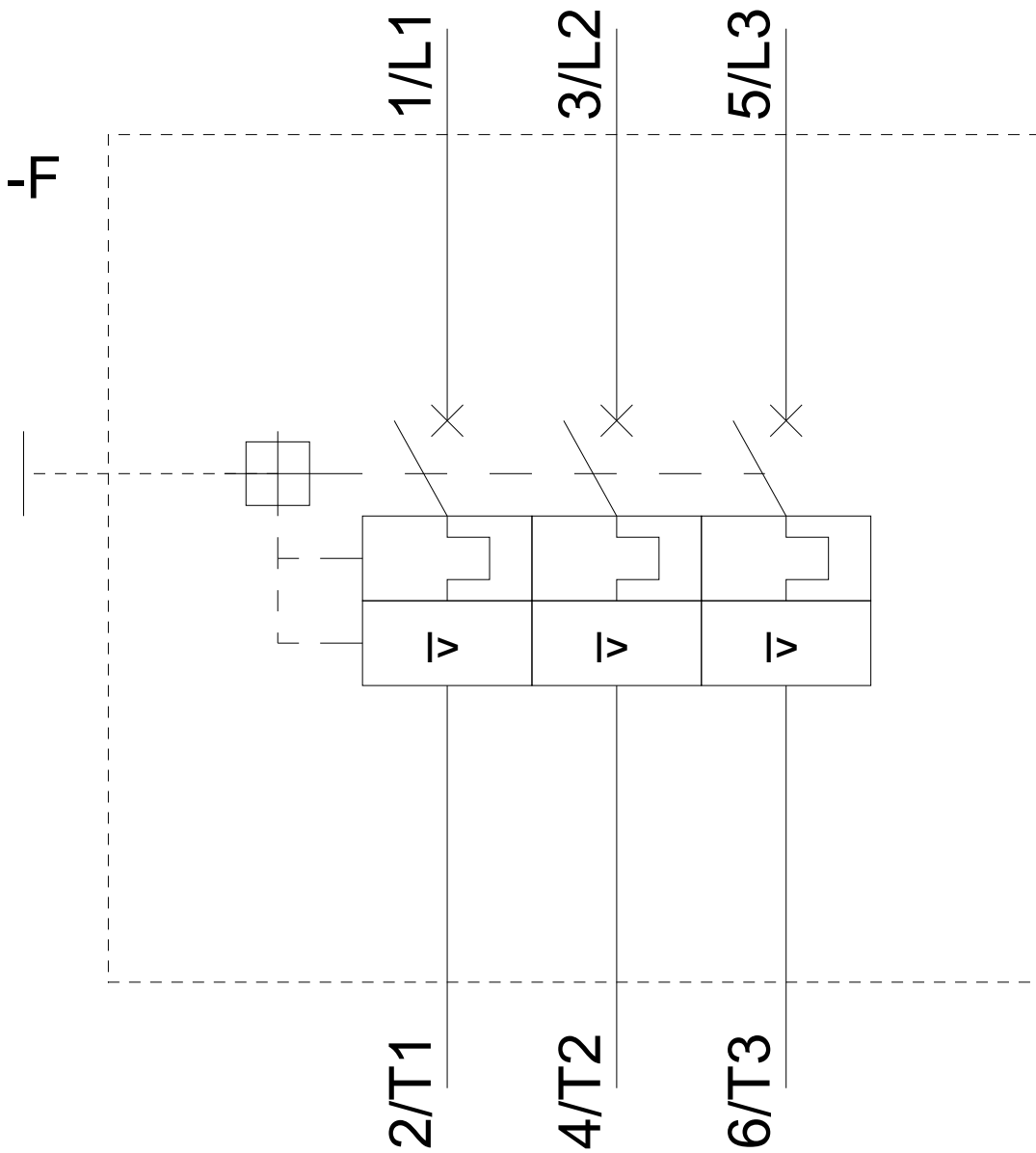
<https://support.industry.siemens.com/cs/ww/en/ps/3RV2811-1FD10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2811-1FD10&objecttype=14&gridview=view1>







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