

Siemens
EcoTech



Special type Circuit breaker size S00 for motor protection, CLASS 10 A-release
1.1...1.6 A N-release 21 A Spring-type terminal Standard switching capacity
Ambient temperature -50 °C 500 switching cycles

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV2
General technical data	
Product equipment of circuit breaker for motor protection complete unit with protection device	Yes
size of the circuit-breaker	S00
size of contactor can be combined company-specific	S00, S0
product function disconnecter functionality	Yes
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
type of calculation of power loss current-dependent	quadratic
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
maximum permissible voltage for protective separation	
• 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
protection class IP	
• on the front according to IEC 60529	IP20
• on the front	IP20
• of the terminal	IP20
shock resistance according to IEC 60068-2-27	25g / 11 ms
mechanical service life (operating cycles)	
• of the main contacts typical	500
• of auxiliary contacts typical	500
electrical endurance (operating cycles) typical	500
reference code according to IEC 81346-2	Q
continuous current rated value	1.6 A
Substance Prohibitance (day/month/year)	10/01/2009
SVHC substance name	Lead CAS-No. 7439-92-1
Net Weight	366 g
Ambient conditions	

installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-50 ... +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
adjustable current response value current of the current-dependent overload release	1.1 ... 1.6 A
type of voltage for main current circuit	AC
operating voltage	
• 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
operating frequency rated value	50 ... 60 Hz
operational current rated value	1.6 A
operational current	
• at AC-3 at 400 V rated value	1.6 A
• at AC-3e at 400 V rated value	1.6 A
operating power	
• at AC-3	
— at 230 V rated value	0.3 kW
— at 400 V rated value	0.55 kW
— at 500 V rated value	0.8 kW
— at 690 V rated value	1.1 kW
operating frequency	
• at AC-3 maximum	15 1/h
• at AC-3e maximum	15 1/h
Auxiliary circuit	
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
Protective and monitoring functions	
product function	
• ground fault detection	No
• phase failure detection	Yes
trip class	CLASS 10
design of the overload release	thermal
protection function thermal overload protection (ANSI 49)	Yes
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	21 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	

• at 500 V • at 690 V	gG 20 A gG 16 A
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
Mounting method of circuit breaker for Transformer protection, Generator protection and system protection optional standard bar mounting	Yes
height	106 mm
width	45 mm
depth	97 mm
required spacing	
• with side-by-side mounting — forwards — backwards — upwards — downwards — at the side • for grounded parts — forwards — backwards — upwards — at the side — downwards • for live parts — forwards — backwards — upwards — downwards — at the side • 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	0 mm 0 mm 50 mm 50 mm 0 mm 0 mm 0 mm 50 mm 30 mm 50 mm 0 mm 0 mm 50 mm 50 mm 30 mm 30 mm 30 mm 9 mm 30 mm 30 mm 9 mm 30 mm 30 mm 9 mm 50 mm 50 mm 0 mm 30 mm 0 mm 50 mm 50 mm 0 mm 30 mm 0 mm
Connections/ Terminals	

product component removable terminal for auxiliary and control circuit	No
type of electrical connection • for main current circuit	spring-loaded terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections • for main contacts — solid or stranded — finely stranded with core end processing — finely stranded without core end processing	2x (0,5 ... 4 mm ²) 2x (0,5 ... 2,5 mm ²) 2x (0,5 ... 2,5 mm ²)
connectable conductor cross-section for main contacts • solid or stranded • finely stranded with core end processing • finely stranded without core end processing	0,5 ... 4 mm ² 0,5 ... 2,5 mm ² 0,5 ... 2,5 mm ²
design of screwdriver shaft	Diameter 3 mm
size of the screwdriver tip	3,0 x 0,5 mm
IEC 61508	
T1 value • for proof test interval or service life according to IEC 61508	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

Display	
display version for switching status	Handle

Approvals Certificates	
Environmental Product Declaration	
• global warming potential [CO ₂ eq] / during manufacturing	1.98 kg
• global warming potential [CO ₂ eq] / during sales	0.134 kg
• global warming potential [CO ₂ eq] / during operation	72.7 kg
• global warming potential [CO ₂ eq] / after end of life	-0.116 kg
• global warming potential [CO ₂ eq] / total	74.698 kg

Environment	General Product Approval
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[Environmental Con-
firmations](#)

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General Product Approval				Test Certificates	
				Special Test Certificate	Type Test Certificates/Test Report

Maritime application					

other				Railway	
Miscellaneous	Confirmation	Miscellaneous		Confirmation	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=3RV2011-1AA20-0BA0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1AA20-0BA0>

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

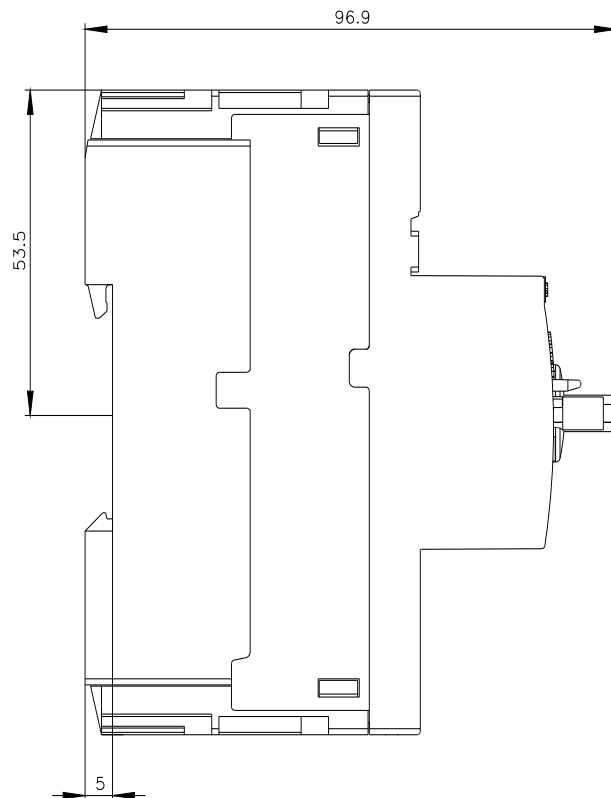
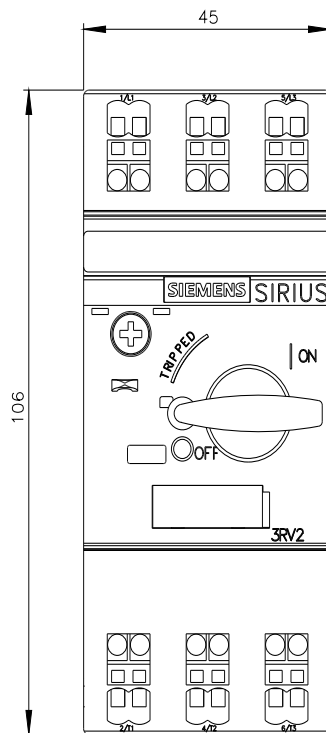
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1AA20-0BA0&lang=en

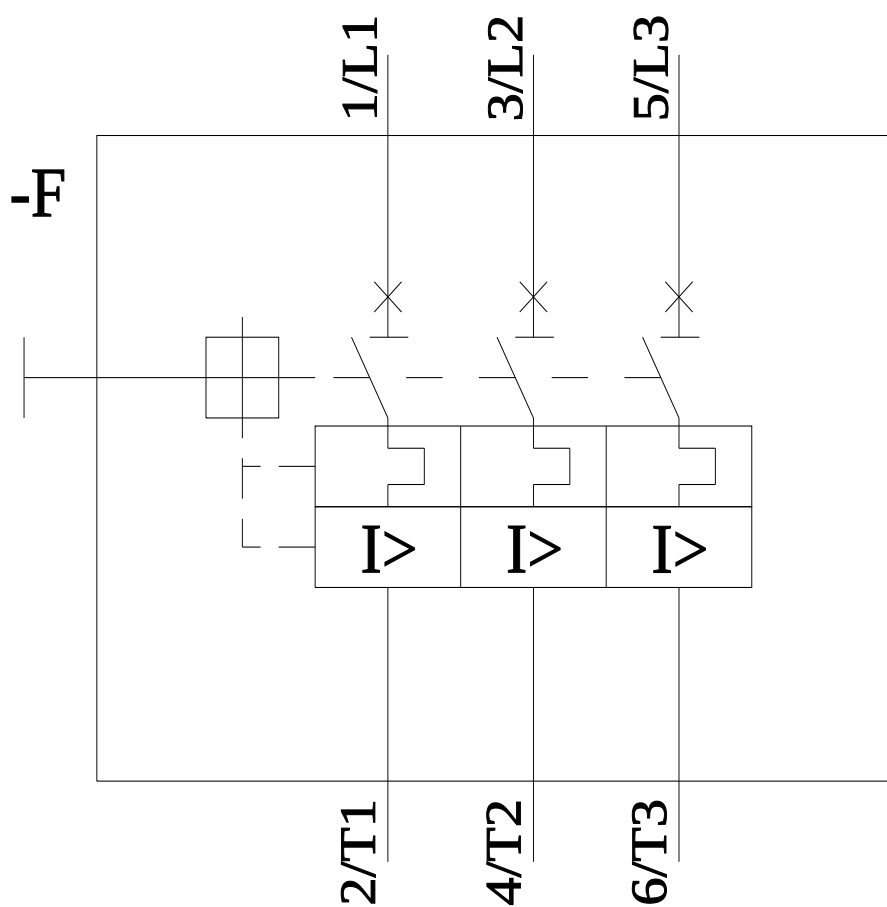
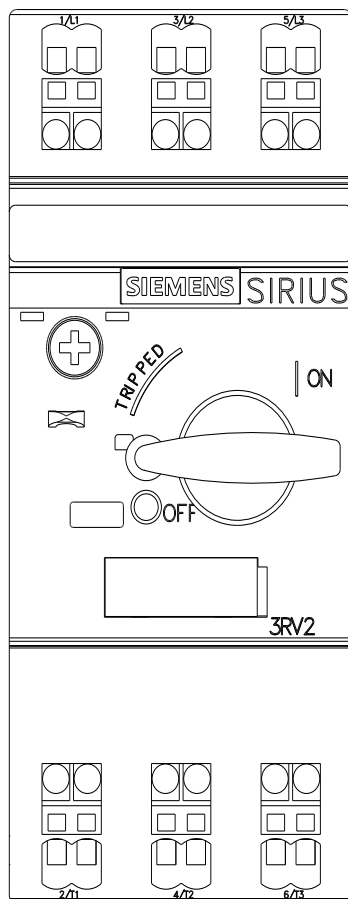
Cax online generator

<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1AA20-0BA0>

Characteristic curves

https://curves.simaris.siemens.com/curves/<mmp_prod_noCOMP='HAUPT'></mmp_prod_no>





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