

Siemens
EcoTech



Circuit breaker size S00 for motor protection, CLASS 10 A-release 7...10 A N release 130 A Spring-type terminal Standard switching capacity



product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV2
General technical data	
size of the circuit-breaker	S00
size of contactor can be combined company-specific	S00, S0
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
• at AC in hot operating state	9.25 W
• 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
shock resistance according to IEC 60068-2-27	25g / 11 ms
mechanical service life (operating cycles)	
• of the main contacts typical	100 000
• of auxiliary contacts typical	100 000
electrical endurance (operating cycles) typical	100 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1
Weight	0.373 kg
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
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	7 ... 10 A
operating voltage	
• 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	10 A
operational current	
• at AC-3 at 400 V rated value	10 A
• at AC-3e at 400 V rated value	10 A
operating power	
• at AC-3	
— at 230 V rated value	2.2 kW
— at 400 V rated value	4 kW
— at 500 V rated value	5.5 kW
— at 690 V rated value	7.5 kW
• at AC-3e	
— at 230 V rated value	2.2 kW
— at 400 V rated value	4 kW
— at 500 V rated value	5.5 kW
— at 690 V rated value	7.5 kW
operating frequency	
• at AC-3 maximum	15 1/h
• at AC-3e 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	
• ground fault detection	No
• phase failure detection	Yes
trip class	CLASS 10
design of the overload release	thermal
maximum short-circuit current breaking capacity (I_{cu})	
• 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	42 kA
• at AC at 690 V rated value	6 kA
operating short-circuit current breaking capacity (I_{cs}) at AC	
• at 240 V rated value	100 kA
• at 400 V rated value	100 kA
• at 500 V rated value	42 kA
• at 690 V rated value	4 kA
response value current of instantaneous short-circuit trip unit	130 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	10 A
• at 600 V rated value	10 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	0.5 hp
— at 230 V rated value	1.5 hp
• for 3-phase AC motor	
— at 200/208 V rated value	2 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	5 hp
— at 575/600 V rated value	10 hp
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 400 V	gL/gG 50 A
• at 500 V	gL/gG 40 A
• at 690 V	gL/gG 40 A

Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	106 mm
width	45 mm
depth	97 mm
required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting at the side 	0 mm
<ul style="list-style-type: none"> • for grounded parts at 400 V <ul style="list-style-type: none"> — downwards 	30 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — upwards 	30 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — at the side 	9 mm
<ul style="list-style-type: none"> • for live parts at 400 V <ul style="list-style-type: none"> — downwards 	30 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — upwards 	30 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — at the side 	9 mm
<ul style="list-style-type: none"> • for grounded parts at 500 V <ul style="list-style-type: none"> — downwards 	30 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — upwards 	30 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — at the side 	9 mm
<ul style="list-style-type: none"> • for live parts at 500 V <ul style="list-style-type: none"> — downwards 	30 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — upwards 	30 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — at the side 	9 mm
<ul style="list-style-type: none"> • for grounded parts at 690 V <ul style="list-style-type: none"> — downwards 	50 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — upwards 	50 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — backwards 	0 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — at the side 	30 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — forwards 	0 mm
<ul style="list-style-type: none"> • for live parts at 690 V <ul style="list-style-type: none"> — downwards 	50 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — upwards 	50 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — backwards 	0 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — at the side 	30 mm
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — forwards 	0 mm
Connections/ Terminals	
type of electrical connection	
<ul style="list-style-type: none"> • for main current circuit 	spring-loaded terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • for main contacts <ul style="list-style-type: none"> — solid or stranded 	2x (0,5 ... 4 mm ²)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — finely stranded with core end processing 	2x (0,5 ... 2,5 mm ²)
<ul style="list-style-type: none"> <ul style="list-style-type: none"> — finely stranded without core end processing 	2x (0,5 ... 2,5 mm ²)
<ul style="list-style-type: none"> • for AWG cables for main contacts 	2x (20 ... 12)
design of screwdriver shaft	Diameter 3 mm
size of the screwdriver tip	3,0 x 0,5 mm
Safety related data	
product function suitable for safety function	Yes
suitability for use	
<ul style="list-style-type: none"> • safety-related switching on 	No
<ul style="list-style-type: none"> • safety-related switching OFF 	Yes
service life maximum	10 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
<ul style="list-style-type: none"> • with low demand rate according to SN 31920 	40 %
<ul style="list-style-type: none"> • with high demand rate according to SN 31920 	50 %
B10 value with high demand rate according to SN 31920	5 000
failure rate [FIT] with low demand rate according to SN	50 FIT

31920	
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"> 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	
General Product Approval	



[Confirmation](#)



[KC](#)

General Product Approval	For use in hazardous locations	Test Certificates	Marine / Shipping
		Type Test Certificates/Test Report	Special Test Certificate

Marine / Shipping	other
	Miscellaneous

other	Railway	Environment
Confirmation		
	Special Test Certificate	

Environment
Environmental Confirmations

Further information
<p>Information on the packaging https://support.industry.siemens.com/cs/ww/en/view/109813875</p> <p>Information- and Downloadcenter (Catalogs, Brochures,...) https://www.siemens.com/ic10</p> <p>Industry Mall (Online ordering system) https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2011-1JA20</p> <p>Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1JA20</p> <p>Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1JA20</p> <p>Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)</p>

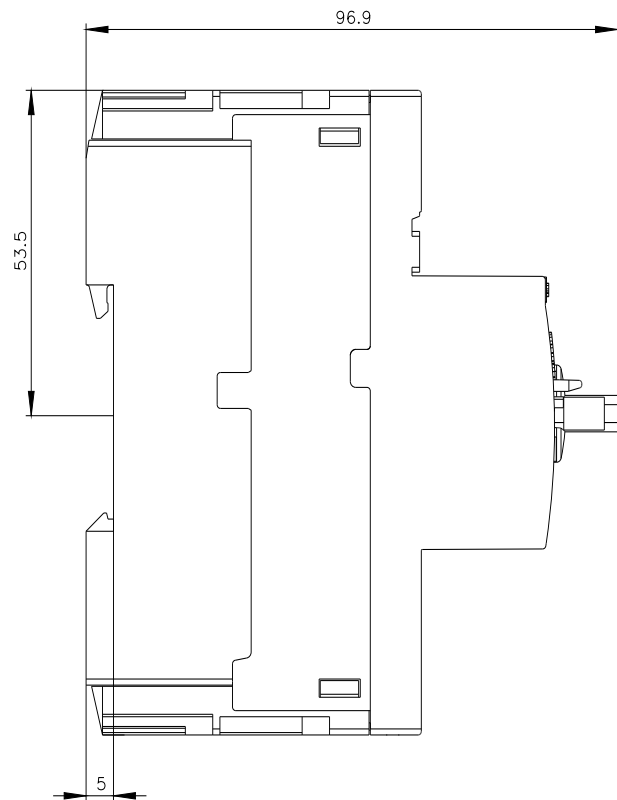
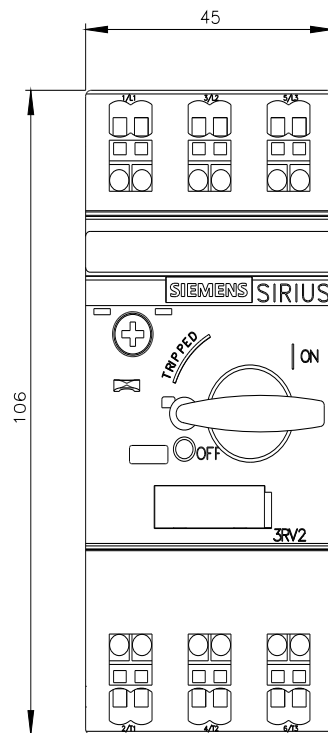
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1JA20&lang=en

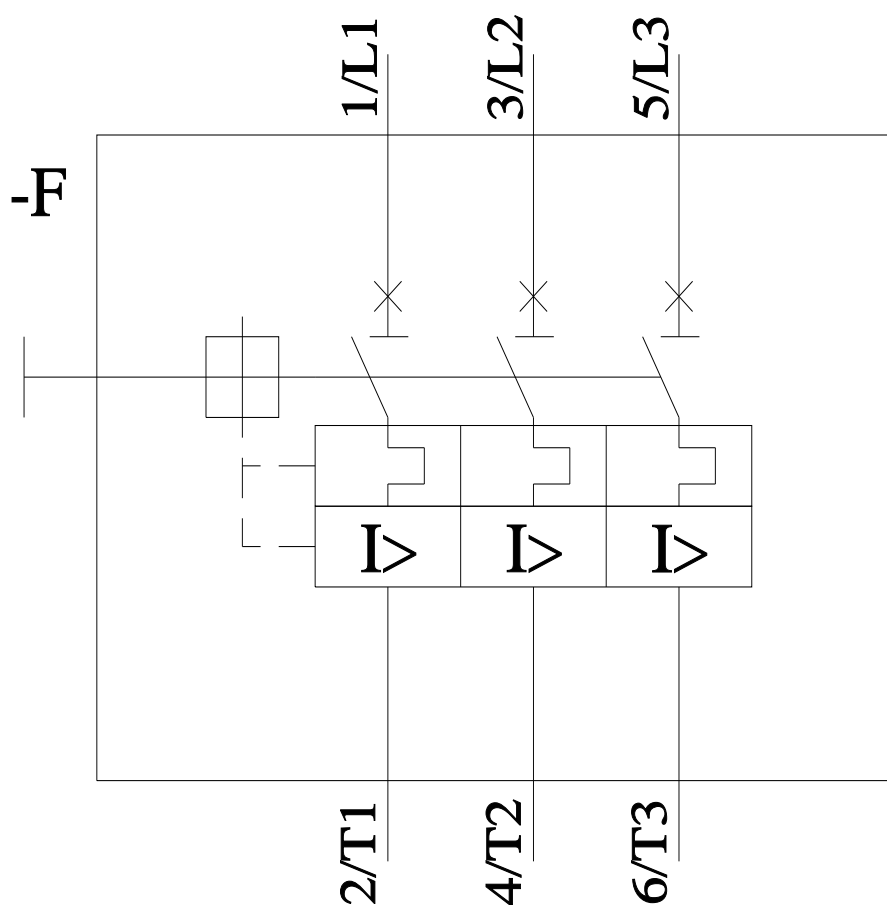
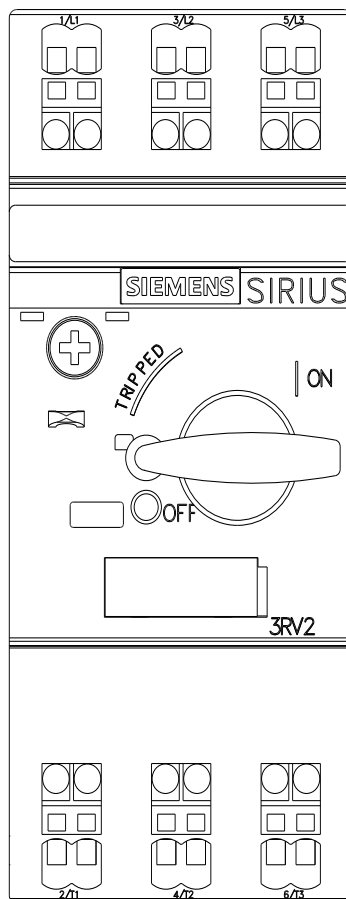
Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1JA20/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1JA20&objecttype=14&gridview=view1>





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