SIEMENS

Data sheet 3RV2011-1GA25

Siemens EcoTech

Circuit breaker size S00 for motor protection, CLASS 10 A-release 4.5...6.3 A N-release 82 A Spring-type terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC

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	7.25 W
• at AC in hot operating state per pole	2.4 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
Weight	0.41 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 %
Environmental footprint	
global warming potential [CO2 eq] total	74.698 kg
global warming potential [CO2 eq] during manufacturing	1.98 kg
global warming potential [CO2 eq] during sales	0.134 kg
global warming potential [CO2 eq] during operation	72.7 kg
global warming potential [CO2 eq] after end of life	-0.116 kg
Siemens Eco Profile (SEP)	Siemens EcoTech
Main circuit	
number of poles for main current circuit	3

adjustable current response value current of the current-dependent overload release	4.5 ... 6.3 A
type of voltage for main current circuit	AC/DC
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	6.3 A
operational current	
● at AC-3 at 400 V rated value	6.3 A
● at AC-3e at 400 V rated value	6.3 A
operating power	
● at AC-3	
— at 230 V rated value	1.5 kW
— at 400 V rated value	2.2 kW
— at 500 V rated value	3 kW
— at 690 V rated value	4 kW
● at AC-3e	
— at 230 V rated value	1.5 kW
— at 400 V rated value	2.2 kW
— at 500 V rated value	3 kW
— at 690 V rated value	4 kW
operating frequency	
● at AC-3 maximum	15 1/h
● at AC-3e maximum	15 1/h
Auxiliary circuit	
design of the auxiliary switch	transverse
type of voltage for auxiliary and control circuit	AC/DC
number of NC contacts for auxiliary contacts	1
number of NO contacts for auxiliary contacts	1
number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15	
● at 24 V	2 A
● at 120 V	0.5 A
● at 125 V	0.5 A
● at 230 V	0.5 A
operational current of auxiliary contacts at DC-13	
● at 24 V	1 A
● at 60 V	0.15 A
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 (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	6 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	4 kA
response value current of instantaneous short-circuit trip unit	82 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
● at 480 V rated value	6.3 A
● at 600 V rated value	6.3 A

yielded mechanical performance [hp]	
● for single-phase AC motor	
— at 110/120 V rated value	0.25 hp
— at 230 V rated value	0.5 hp
● for 3-phase AC motor	
— at 200/208 V rated value	1 hp
— at 220/230 V rated value	1.5 hp
— at 460/480 V rated value	3 hp
— at 575/600 V rated value	5 hp
contact rating of auxiliary contacts according to UL	C300 / R300
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link	
● for short-circuit protection of the auxiliary switch required	Fuse gL/gG: 10 A, miniature circuit breaker C 6 A (short-circuit current Ik < 400 A)
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 35 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	
● with side-by-side mounting at the side	0 mm
● for grounded parts at 400 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
● for live parts at 400 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
● for grounded parts at 500 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
● for live parts at 500 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
● for grounded parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
● for live parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— backwards	0 mm
— at the side	30 mm
— forwards	0 mm
Connections/ Terminals	
type of electrical connection	
● for main current circuit	spring-loaded terminals
● for auxiliary and control 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	2x (0,5 ... 4 mm²)
— finely stranded with core end processing	2x (0.5 ... 2.5 mm²)
— finely stranded without core end processing	2x (0.5 ... 2.5 mm²)
● for AWG cables for main contacts	2x (20 ... 12)
type of connectable conductor cross-sections	
● for auxiliary contacts	
— solid or stranded	2x (0.5 ... 2.5 mm²)
— finely stranded with core end processing	2x (0.5 ... 1.5 mm²)
— finely stranded without core end processing	2x (0.5 ... 1.5 mm²)
● for AWG cables for auxiliary contacts	2x (20 ... 14)
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	
● safety-related switching on	No
● safety-related switching OFF	Yes
service life maximum	10 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
● with low demand rate according to SN 31920	40 %
● 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 31920	50 FIT
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	
● 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

KC


For use in hazardous locations	Test Certificates		Marine / Shipping
 IECEx	Type Test Certificates/Test Report	Special Test Certificate	 ABS
 ATEX			

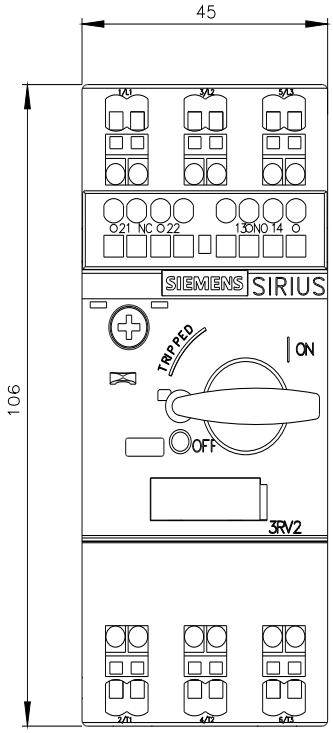
Marine / Shipping	other

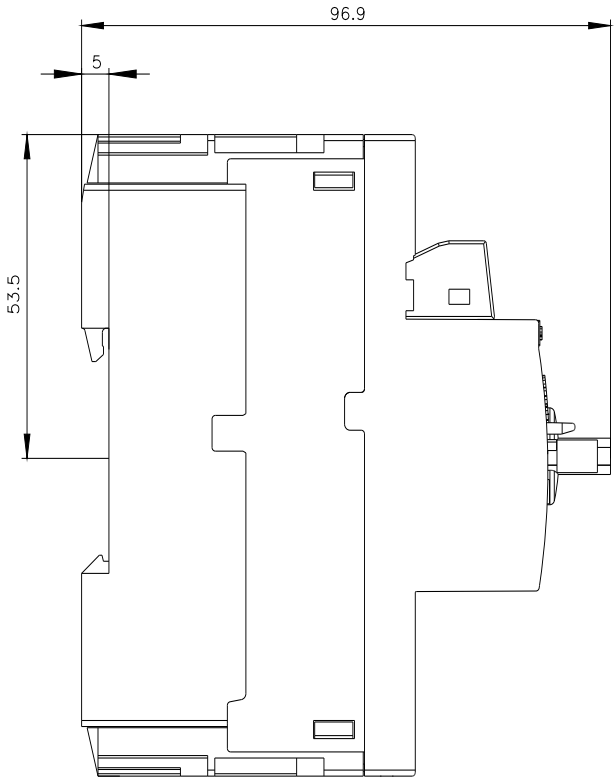
Miscellaneous Confirmation

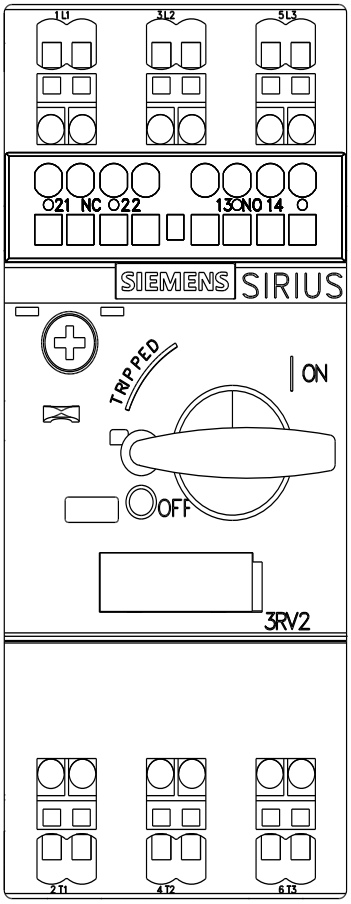
other	Railway		Environment		
	Special Test Certificate	Confirmation			Environmental Confirmations

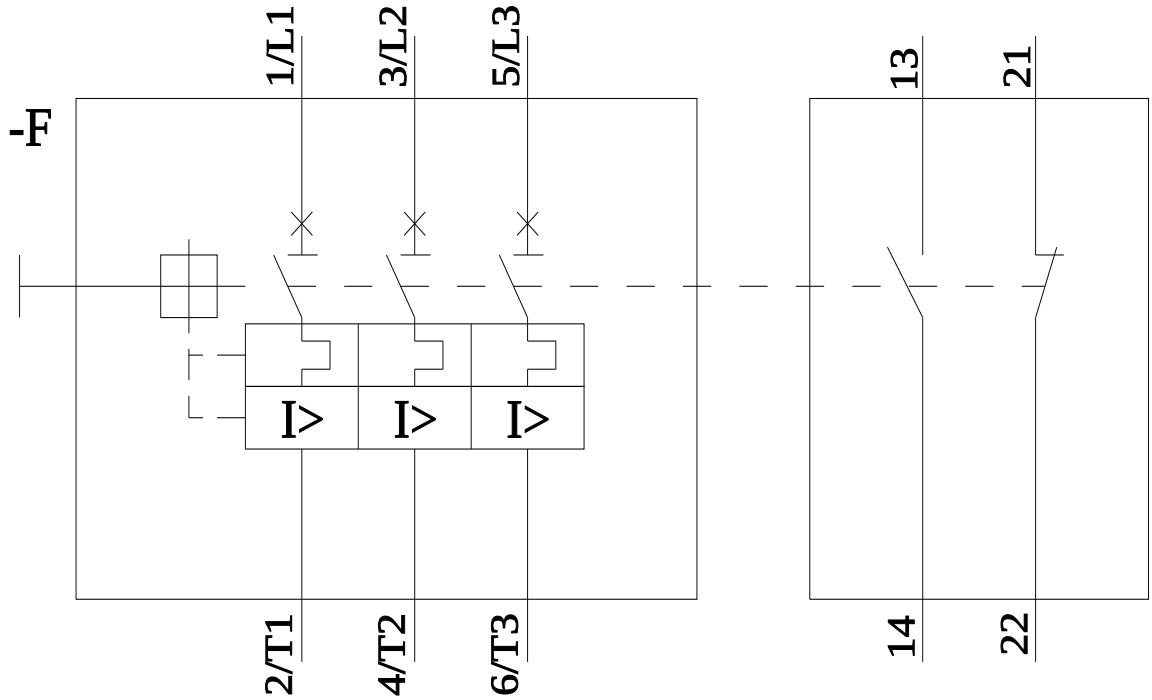
Further information

Information on the packaging
https://support.industry.siemens.com/cs/ww/en/view/109813875
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=3RV2011-1GA25
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2011-1GA25
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1GA25
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1GA25&lang=en
Characteristic: Tripping characteristics, I²t, Let-through current
https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1GA25/char
Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1GA25&objecttype=14&gridview=view1









last modified: 11/6/2024

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Siemens:

3RV20111GA25