3RV2011-1GA15-0BA0

### **Data sheet**





Special type Circuit breaker size S00 for motor protection, CLASS 10 A-release 4.5...6.3 A N-release 82 A screw terminal Standard switching capacity with transverse auxiliary switches 1 NO+1 NC Ambient temperature -50  $^{\circ}$ C 500 switching cycles



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	
<ul> <li>at AC in hot operating state</li> </ul>	7.25 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	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	500
of auxiliary contacts typical	500
electrical endurance (operating cycles) typical	500
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
SVHC substance name	Lead - 7439-92-1
Weight	0.368 kg
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
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	

SIRIUS

number of poles for main current circuit	3
adjustable current response value current of the current- dependent overload release	4.5 6.3 A
operating voltage  • rated value	20 690 V
at AC-3 rated value maximum	690 V
	50 60 Hz
operating frequency rated value	
operational current rated value	6.3 A
operational current	
at AC-3 at 400 V rated value	6.3 A
operating power	
• at AC-3	4.5.1311
— 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	45 4 lb
at AC-3 maximum	15 1/h
Auxiliary circuit	
design of the auxiliary switch	transverse
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	
	No
product function	No Yes
product function • ground fault detection	
product function  • ground fault detection  • phase failure detection	Yes
product function	Yes CLASS 10 thermal
product function	Yes CLASS 10 thermal
product function	Yes CLASS 10 thermal
product function	Yes CLASS 10 thermal
product function	Yes CLASS 10 thermal  100 kA 100 kA
product function	Yes CLASS 10 thermal  100 kA 100 kA
product function  • ground fault detection  • phase failure detection  trip class  design of the overload release  maximum short-circuit current breaking capacity (Icu)  • at AC at 240 V rated value  • at AC at 500 V rated value  • at AC at 690 V rated value	Yes CLASS 10 thermal  100 kA 100 kA
product function	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA
product function	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 100 kA
product function	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA
product function	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA
product function  • ground fault detection  • phase failure detection  trip class  design of the overload release  maximum short-circuit current breaking capacity (Icu)  • at AC at 240 V rated value  • at AC at 500 V rated value  • at AC at 690 V rated value  operating short-circuit current breaking capacity (Ics) at AC  • at 240 V rated value  • at 400 V rated value  • at 500 V rated value  • at 500 V rated value  • at 690 V rated value  • at 690 V rated value  • at 690 V rated value	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 4 kA
product function	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 4 kA
product function  • ground fault detection  • phase failure detection  trip class  design of the overload release  maximum short-circuit current breaking capacity (Icu)  • 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  operating short-circuit current breaking capacity (Ics) at AC  • at 240 V rated value  • at 400 V rated value  • at 500 V rated value  • at 690 V rated value  • at 690 V rated value  response value current of instantaneous short-circuit trip unit  Short-circuit protection	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 100 kA 100 kA
product function	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 100 kA 100 kA 100 kA
product function	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 100 kA 100 kA 100 kA
product function	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 100 kA 100 kA 100 kA 100 kA 100 kA 100 kA
product function	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 100 kA 100 kA 100 kA 100 kA 100 kA 100 kA
product function	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 10
product function	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 100 kA 6 kA  100 kA 10
product function	Yes CLASS 10 thermal  100 kA 4 kA 82 A  Yes magnetic  fuse gG: 10 A, miniature circuit breaker C 6 A (short-circuit current lk < 400 A)  gG 50 A gG 40 A
product function	Yes CLASS 10 thermal  100 kA 4 kA 82 A  Yes magnetic  fuse gG: 10 A, miniature circuit breaker C 6 A (short-circuit current lk < 400 A)  gG 50 A gG 40 A
product function	Yes CLASS 10 thermal  100 kA 100 kA 100 kA 6 kA  100 kA 100 kA 100 kA 100 kA 4 kA 82 A  Yes magnetic  fuse gG: 10 A, miniature circuit breaker C 6 A (short-circuit current lk < 400 A)  gG 50 A gG 40 A gG 35 A

height	97 mm
width	45 mm
depth	97 mm
required spacing	V. 11111
with side-by-side mounting at the side	0 mm
• for grounded parts at 400 V	V 11111
— 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
<ul> <li>for live parts at 690 V</li> </ul>	
— 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	screw-type terminals
for auxiliary and control circuit	screw-type terminals
arrangement of electrical connectors for main current	
circuit	Top and bottom
circuit	Top and bottom
	Top and bottom
type of connectable conductor cross-sections	2x (0,75 2,5 mm²), 2x 4 mm²
type of connectable conductor cross-sections  • for main contacts	
type of connectable conductor cross-sections  • for main contacts  — solid or stranded	2x (0,75 2,5 mm²), 2x 4 mm²
type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing	2x (0,75 2,5 mm²), 2x 4 mm²
type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing  type of connectable conductor cross-sections	2x (0,75 2,5 mm²), 2x 4 mm²
type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary contacts	2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary contacts  — solid or stranded	2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary contacts  — solid or stranded  — finely stranded with core end processing	2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary contacts  — solid or stranded  — finely stranded with core end processing  tightening torque  • for main contacts with screw-type terminals  • for auxiliary contacts with screw-type terminals	2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
type of connectable conductor cross-sections  • for main contacts  — solid or stranded — finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary contacts — solid or stranded — finely stranded with core end processing  tightening torque  • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals design of screwdriver shaft	2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  0.8 1.2 N·m  0.8 1.2 N·m  Diameter 5 to 6 mm
type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary contacts  — solid or stranded  — finely stranded with core end processing  tightening torque  • for main contacts with screw-type terminals  • for auxiliary contacts with screw-type terminals  design of screwdriver shaft  size of the screwdriver tip	2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²) 0.8 1.2 N·m 0.8 1.2 N·m
type of connectable conductor cross-sections  • for main contacts  — solid or stranded — finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary contacts — solid or stranded — finely stranded with core end processing  tightening torque  • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals  • for auxiliary contacts with screw-type terminals  design of screwdriver shaft  size of the screwdriver tip  design of the thread of the connection screw	2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  0.8 1.2 N·m  0.8 1.2 N·m  Diameter 5 to 6 mm  Pozidriv size 2
type of connectable conductor cross-sections  • for main contacts  — solid or stranded — finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary contacts — solid or stranded — finely stranded with core end processing  tightening torque  • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals  • for auxiliary contacts with screw-type terminals  design of screwdriver shaft  size of the screwdriver tip  design of the thread of the connection screw • for main contacts	2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  0.8 1.2 N·m  0.8 1.2 N·m  Diameter 5 to 6 mm  Pozidriv size 2
type of connectable conductor cross-sections  • for main contacts  — solid or stranded — finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary contacts — solid or stranded — finely stranded with core end processing  tightening torque  • for main contacts with screw-type terminals • for auxiliary contacts with screw-type terminals  design of screwdriver shaft  size of the screwdriver tip  design of the thread of the connection screw • for main contacts • of the auxiliary and control contacts	2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  0.8 1.2 N·m  0.8 1.2 N·m  Diameter 5 to 6 mm  Pozidriv size 2
type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary contacts  — solid or stranded  — finely stranded with core end processing  tightening torque  • for main contacts with screw-type terminals  • for auxiliary contacts with screw-type terminals  design of screwdriver shaft  size of the screwdriver tip  design of the thread of the connection screw  • for main contacts  • of the auxiliary and control contacts	2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  0.8 1.2 N·m  0.8 1.2 N·m  Diameter 5 to 6 mm  Pozidriv size 2
type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary contacts  — solid or stranded  — finely stranded with core end processing  tightening torque  • for main contacts with screw-type terminals  • for auxiliary contacts with screw-type terminals  design of screwdriver shaft  size of the screwdriver tip  design of the thread of the connection screw  • for main contacts  • of the auxiliary and control contacts  IEC 61508  T1 value	2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  0.8 1.2 N·m  0.8 1.2 N·m  Diameter 5 to 6 mm  Pozidriv size 2  M3  M3
type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary contacts  — solid or stranded  — finely stranded with core end processing  tightening torque  • for main contacts with screw-type terminals  • for auxiliary contacts with screw-type terminals  design of screwdriver shaft  size of the screwdriver tip  design of the thread of the connection screw  • for main contacts  • of the auxiliary and control contacts  IEC 61508  T1 value  • for proof test interval or service life according to IEC	2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  0.8 1.2 N·m  0.8 1.2 N·m  Diameter 5 to 6 mm  Pozidriv size 2
type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary contacts  — solid or stranded  — finely stranded with core end processing  tightening torque  • for main contacts with screw-type terminals  • for auxiliary contacts with screw-type terminals  design of screwdriver shaft  size of the screwdriver tip  design of the thread of the connection screw  • for main contacts  • of the auxiliary and control contacts  IEC 61508  T1 value	2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  0.8 1.2 N·m  0.8 1.2 N·m  Diameter 5 to 6 mm  Pozidriv size 2  M3  M3
type of connectable conductor cross-sections  • for main contacts  — solid or stranded  — finely stranded with core end processing  type of connectable conductor cross-sections  • for auxiliary contacts  — solid or stranded  — finely stranded with core end processing  tightening torque  • for main contacts with screw-type terminals  • for auxiliary contacts with screw-type terminals  design of screwdriver shaft  size of the screwdriver tip  design of the thread of the connection screw  • for main contacts  • of the auxiliary and control contacts  IEC 61508  T1 value  • for proof test interval or service life according to IEC 61508	2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)  0.8 1.2 N·m  0.8 1.2 N·m  Diameter 5 to 6 mm  Pozidriv size 2  M3  M3

finger-safe, for vertical contact from the front touch protection on the front according to IEC 60529 display version for switching status Handle Approvals Certificates

**General Product Approval** 

**Test Certificates** 





Confirmation

Type Test Certificates/Test Report

**Test Certificates** 

Marine / Shipping

Special Test Certific-<u>ate</u>



**Miscellaneous** 





<u>KC</u>





Marine / Shipping

other

Confirmation



Confirmation

Railway

Special Test Certific-<u>ate</u>

#### Environment



Siemens **EcoTech** 



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=3RV2011-1GA15-0BA0

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RV2011-1GA15-0BA0}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1GA15-0BA0

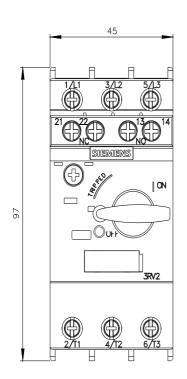
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

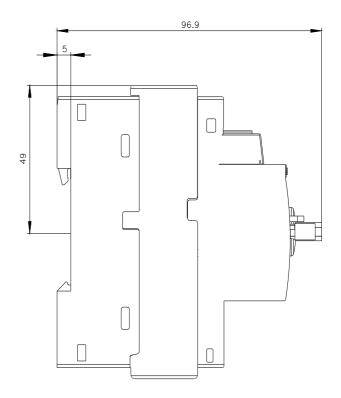
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV2011-1GA15-0BA0&lang=en

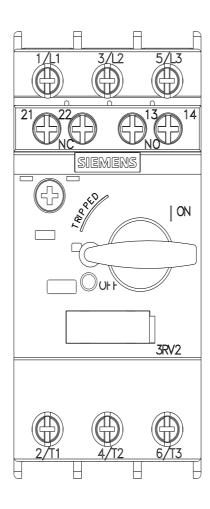
Characteristic: Tripping characteristics, I2t, Let-through current

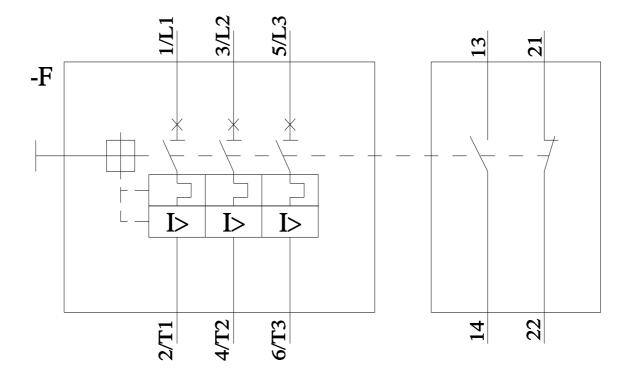
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1GA15-0BA0&objecttype=14&gridview=view1









last modified: 11/6/2024 🖸

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