## **SIEMENS**

Data sheet 3RV1011-1AA10



Circuit breaker size S00 for motor protection, CLASS 10 A-release 1.1...1.6 A N-release 21 A Screw terminal Standard switching capacity

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV1
General technical data	OTV I
size of the circuit-breaker	\$00
size of contactor can be combined company-specific	S00
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	165
at AC in hot operating state	7.25 W
	7.25 W 2.4 W
at AC in hot operating state per pole  including voltage with degree of pollution 3 at AC reted volume.	690 V
insulation voltage with degree of pollution 3 at AC rated value	
surge voltage resistance rated value	6 kV
mechanical service life (operating cycles)	400,000
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)	01/01/2013
SVHC substance name	Lead - 7439-92-1
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 %
fain 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
operating voltage	
rated value	20 690 V
<ul> <li>at AC-3 rated value maximum</li> </ul>	690 V
• at AC-3e rated value maximum	690 V
operating frequency rated value	50 60 Hz
operating frequency fated value	30 00 HZ
operating frequency fated value	1.6 A
<u> </u>	
operational current rated value	

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	0.8 kW
• at AC-3e	
— 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	0.8 kW
operating frequency	
• at AC-3 maximum	15 1/h
at AC-3e maximum	15 1/h
Auxiliary circuit	
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
	uleilliai
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	2 kA
operating short-circuit current breaking capacity (lcs) at AC	400   4
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	2 kA
response value current of instantaneous short-circuit trip unit	21 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
• at 480 V rated value	1.6 A
at 600 V rated value	1.6 A
yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
— at 230 V rated value	0.1 hp
• for 3-phase AC motor	
— at 460/480 V rated value	1 hp
— at 575/600 V rated value	0.8 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 240 V	none required
• at 400 V	gL/gG 20 A
• at 500 V	gL/gG 20 A
• at 690 V	gL/gG 20 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	90 mm
width	45 mm
depth	75 mm
required spacing	
• for grounded parts at 400 V	
— downwards	20 mm

— upwards	20 mm
— at the side	9 mm
• for live parts at 400 V	
— downwards	20 mm
— upwards	20 mm
— at the side	9 mm
• for grounded parts at 500 V	
— downwards	20 mm
— upwards	20 mm
— at the side	9 mm
• for live parts at 500 V	
— downwards	20 mm
— upwards	20 mm
— at the side	9 mm
• for grounded parts at 690 V	
— downwards	20 mm
— upwards	20 mm
— backwards	0 mm
— at the side	9 mm
— forwards	0 mm
• for live parts at 690 V	
— downwards	20 mm
— downwards — upwards	20 mm
•	0 mm
— backwards	
— at the side	9 mm
— forwards	0 mm
Connections/ Terminals	
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	
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), 2x (1 4 mm²)
finely stranded with core end processing	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
type of connectable conductor cross-sections	
for auxiliary contacts	
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
tightening torque	2X (0.0 1.0 mm ), 2X (0.70 2.0 mm )
tighterining torque	
• for main contacts with screw-type terminals	0.8 1.2 N·m
for main contacts with screw-type terminals     for auxiliary contacts with screw-type terminals	0.8 1.2 N·m
for auxiliary contacts with screw-type terminals	0.8 1.2 N·m
for auxiliary contacts with screw-type terminals     size of the screwdriver tip	
for auxiliary contacts with screw-type terminals     size of the screwdriver tip     design of the thread of the connection screw	0.8 1.2 N·m Pozidriv size 2
for auxiliary contacts with screw-type terminals     size of the screwdriver tip     design of the thread of the connection screw	0.8 1.2 N·m
for auxiliary contacts with screw-type terminals     size of the screwdriver tip     design of the thread of the connection screw	0.8 1.2 N·m Pozidriv size 2
for auxiliary contacts with screw-type terminals     size of the screwdriver tip     design of the thread of the connection screw         • for main contacts  Safety related data proportion of dangerous failures	0.8 1.2 N·m Pozidriv size 2  M3
for auxiliary contacts with screw-type terminals     size of the screwdriver tip     design of the thread of the connection screw         • for main contacts  Safety related data  proportion of dangerous failures         • with low demand rate according to SN 31920	0.8 1.2 N·m Pozidriv size 2  M3  50 %
for auxiliary contacts with screw-type terminals     size of the screwdriver tip     design of the thread of the connection screw         • for main contacts  Safety related data  proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920	0.8 1.2 N·m Pozidriv size 2  M3  50 % 50 %
for auxiliary contacts with screw-type terminals     size of the screwdriver tip  design of the thread of the connection screw         • for main contacts  Safety related data  proportion of dangerous failures         • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920	0.8 1.2 N·m Pozidriv size 2  M3  50 % 50 % 50 00
for auxiliary contacts with screw-type terminals     size of the screwdriver tip  design of the thread of the connection screw         • for main contacts  Safety related data  proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920	0.8 1.2 N·m Pozidriv size 2  M3  50 % 50 %
for auxiliary contacts with screw-type terminals     size of the screwdriver tip  design of the thread of the connection screw         • for main contacts  Safety related data  proportion of dangerous failures         • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN	0.8 1.2 N·m Pozidriv size 2  M3  50 % 50 % 50 00
for auxiliary contacts with screw-type terminals     size of the screwdriver tip  design of the thread of the connection screw         • for main contacts  Safety related data  proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920	0.8 1.2 N·m Pozidriv size 2  M3  50 % 50 % 50 00
for auxiliary contacts with screw-type terminals     size of the screwdriver tip     design of the thread of the connection screw         • for main contacts  Safety related data  proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  Electrical Safety	0.8 1.2 N·m Pozidriv size 2  M3  50 % 50 % 50 00 50 FIT
for auxiliary contacts with screw-type terminals     size of the screwdriver tip     design of the thread of the connection screw         • for main contacts  Safety related data  proportion of dangerous failures         • with low demand rate according to SN 31920  • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  Electrical Safety protection class IP on the front according to IEC 60529	0.8 1.2 N·m Pozidriv size 2  M3  50 % 50 % 5 000 50 FIT
for auxiliary contacts with screw-type terminals     size of the screwdriver tip     design of the thread of the connection screw         • for main contacts  Safety related data  proportion of dangerous failures         • with low demand rate according to SN 31920         • with high demand rate according to SN 31920  B10 value with high demand rate according to SN 31920  failure rate [FIT] with low demand rate according to SN 31920  Electrical Safety protection class IP on the front according to IEC 60529  touch protection on the front according to IEC 60529	0.8 1.2 N·m Pozidriv size 2  M3  50 % 50 % 5 000 50 FIT  IP20 finger-safe, for vertical contact from the front





Confirmation







For use in hazardous locations

**Test Certificates** 

Marine / Shipping





Type Test Certificates/Test Report

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





Marine / Shipping









Confirmation

other

other

Railway

**Miscellaneous** 



Special Test Certificate

## 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=3RV1011-1AA10

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RV1011-1AA10}$ 

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1AA10

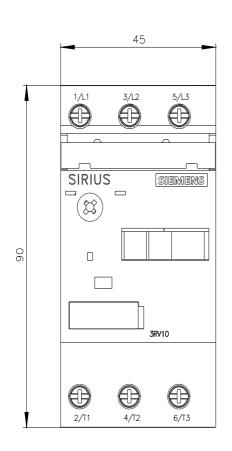
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

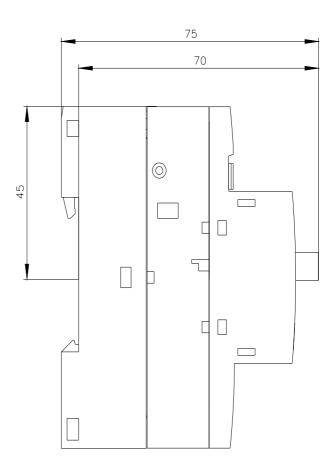
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV1011-1AA10&lang=en

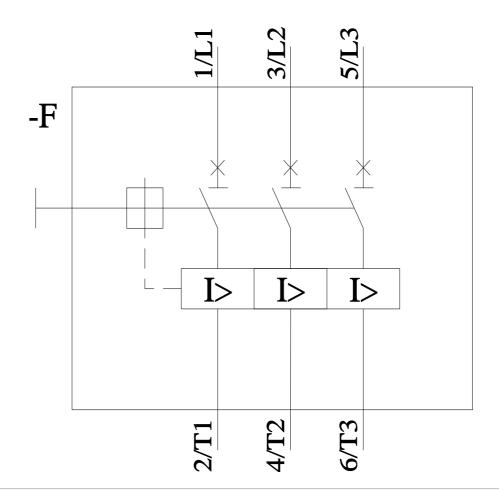
Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1AA10/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV1011-1AA10&objecttype=14&gridview=view1







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