SIEMENS

Data sheet 3RV2011-1CA10



Circuit breaker size S00 for motor protection, CLASS 10 A-release 1.8...2.5 A N-release 33 A screw 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 	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
type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD
certificate of suitability according to ATEX directive 2014/34/EU	DMT 02 ATEX F 001
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	10/01/2009
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
inotaliation dilitado de noighe abovo oca lovol maximum	2 000 111
ambient temperature	2 000 III
	-20 +60 °C
ambient temperature	
ambient temperature • during operation	-20 +60 °C
ambient temperatureduring operationduring storage	-20 +60 °C -50 +80 °C
ambient temperature • during operation • during storage • during transport	-20 +60 °C -50 +80 °C -50 +80 °C
ambient temperature	-20 +60 °C -50 +80 °C -50 +80 °C
ambient temperature	-20 +60 °C -50 +80 °C -50 +80 °C 10 95 %
ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-	-20 +60 °C -50 +80 °C -50 +80 °C 10 95 %
ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release	-20 +60 °C -50 +80 °C -50 +80 °C 10 95 %
ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage	-20 +60 °C -50 +80 °C -50 +80 °C 10 95 %
ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value	-20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 1.8 2.5 A
ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3 rated value maximum	-20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 1.8 2.5 A
ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit number of poles for main current circuit adjustable current response value current of the current-dependent overload release operating voltage • rated value • at AC-3 rated value maximum • at AC-3e rated value maximum	-20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 1.8 2.5 A 20 690 V 690 V

 at AC-3 at 400 V rated value 	2.5 A
at AC-3e at 400 V rated value	2.5 A
operating power	
• at AC-3	
— at 230 V rated value	0.4 kW
— at 400 V rated value	0.75 kW
— at 500 V rated value	1.1 kW
— at 690 V rated value	1.5 kW
• at AC-3e	
— at 230 V rated value	0.4 kW
— at 400 V rated value	0.75 kW
— at 500 V rated value	1.1 kW
— at 690 V rated value	1.5 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 (Icu)	ulcillai
at AC at 240 V rated value	100 kA
at AC at 240 V rated value 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	10 kA
operating short-circuit current breaking capacity (Ics) at AC • at 240 V rated value	400 kA
	100 kA
• at 400 V rated value	100 kA
• at 500 V rated value	100 kA
at 690 V rated value	10 kA
response value current of instantaneous short-circuit trip unit	33 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
 at 480 V rated value 	2.5 A
at 600 V rated value	2.5 A
yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 230 V rated value	0.17 hp
 ◆ for 3-phase AC motor 	
— at 200/208 V rated value	0.5 hp
— at 220/230 V rated value	0.5 hp
— at 460/480 V rated value	1 hp
— at 575/600 V rated value	1.5 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 25 A
● at 500 V	
	gL/gG 25 A
• at 690 V	gL/gG 25 A gL/gG 20 A
• at 690 V Installation/ mounting/ dimensions	
Installation/ mounting/ dimensions	
	gL/gG 20 A

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	311111
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for grounded parts at 500 V	311111
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for live parts at 500 V	3 (1111)
— downwards	30 mm
— downwards — upwards	30 mm
— upwards — at the side	9 mm
	3 11111
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	F0
— 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 arrangement of electrical connectors for main current arrangement of electrical connectors for main current	screw-type terminals Top and bottom
time of connectable conductor cross sections	
type of connectable conductor cross-sections • for main contacts	
solid or stranded	2v (0.75 2.5 mm²) 2v 4 mm²
	2x (0,75 2,5 mm²), 2x 4 mm² 2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
— finely stranded with core end processing	
• for AWG cables for main contacts	2x (18 14), 2x 12
for main contacts with screw type terminals	0.8 1.2 N·m
for main contacts with screw-type terminals design of screwdriver shaft	Diameter 5 to 6 mm
size of the screwdriver tip	Pozidriv size 2
<u> </u>	FOZIUTIV SIZE Z
design of the thread of the connection screw • for main contacts	M3
Safety related data	ino
B10 value	
	5 000
with high demand rate according to SN 31920 proportion of dangerous failures	0 000
with low demand rate according to SN 31920	50 %
with high demand rate according to SN 31920 with high demand rate according to SN 31920	50 %
failure rate [FIT]	OU 70
	EO EIT
with low demand rate according to SN 31920 T1 value for proof test interval or convice life according to IEC.	50 FIT
T1 value for proof test interval or service life according to IEC 61508	10 a
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 version for switching status	Handle

Certificates/ approvals

General Product Approval

For use in hazardous locations



Confirmation



KC





For use in hazardous locations

Declaration of Conformity

Test Certificates

Marine / Shipping







Special Test Certificate

Type Test Certificates/Test Report



Marine / Shipping











Confirmation

other

other

Railway



Confirmation

Vibration and Shock

Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3RV2011-1CA10

Cax online generator

 $\underline{\text{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RV2011-1CA10}\\$

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1CA10

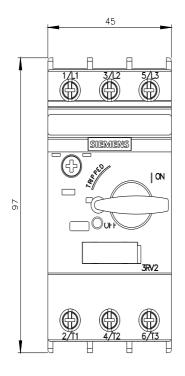
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

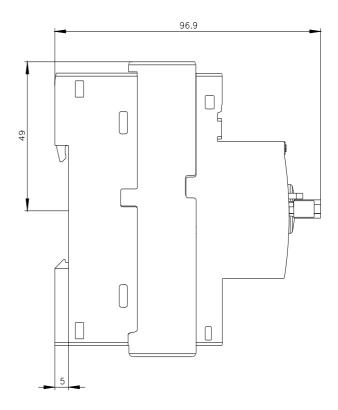
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1CA10&lang=en

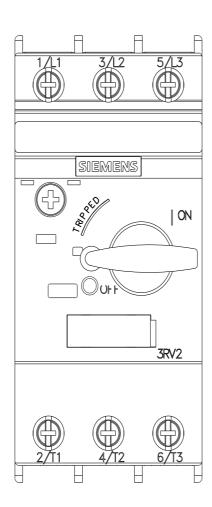
Characteristic: Tripping characteristics, I2t, Let-through current

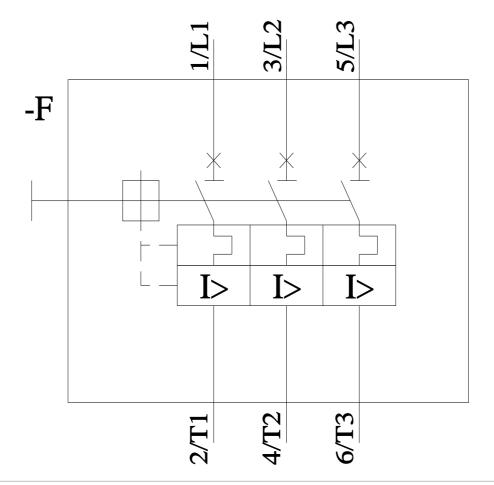
https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1CA10/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1CA10&objecttype=14&gridview=view1









last modified: 11/21/2022 🖸

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