SIEMENS

Data sheet 3RV2111-1CA10



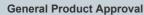
Circuit breaker size S00 for motor protection, CLASS 10 with overload relay function A-release 1.8...2.5 A N-release 33 A screw terminal Standard switching capacity

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection with overload relay function
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 (switching cycles)	
 of the main contacts typical 	100 000
of auxiliary contacts typical	100 000
electrical endurance (switching cycles) typical	100 000
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
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	1.8 2.5 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	2.5 A
operational current	
 at AC-3 at 400 V rated value 	2.5 A

• at AC-3e at 400 V rated value	2.5 A
	2.0 N
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	0.4114
— 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	
design of the auxiliary switch	laterally
number of NC contacts for auxiliary contacts	0
number of NO contacts for auxiliary contacts	0
number of CO contacts for auxiliary contacts	0
operational current of auxiliary contacts at AC-15	
• at 24 V	1.5 A
• at 230 V	1.5 A
operational current of auxiliary contacts at DC-13	
• at 24 V	1 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
breaking capacity maximum short-circuit current (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 	10 kA
breaking capacity operating short-circuit current (lcs)	
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	10 kA
response value current of instantaneous short-circuit trip	33 A
unit	
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
contact rating of auxiliary contacts according to UL	C600 / R300
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic

design of the fuse link	
design of the fuse link	fuse at lace 6.A. quick: 10.A.
 for short-circuit protection of the auxiliary switch required 	fuse gL/gG: 6 A, quick: 10 A
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 20 A
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail
	according to DIN EN 60715
height	97 mm
width	65 mm
depth	97 mm
required spacing	
• for grounded parts at 400 V	
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for live parts at 400 V	00
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for grounded parts at 500 V	20
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for live parts at 500 V	20
— downwards	30 mm 30 mm
— upwards — at the side	
at the side for grounded parts at 690 V	9 mm
— downwards	50 mm
	50 mm
— upwards — backwards	
— at the side	0 mm 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	screw-type terminals
 for auxiliary and control 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 (0,75 2,5 mm²), 2x 4 mm²
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
at AWG cables for main contacts	2x (18 14), 2x 12
type of connectable conductor cross-sections	
for auxiliary contacts	
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 finely stranded with core end processing 	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
 at AWG cables for auxiliary contacts 	2x (20 16), 2x (18 14)
at AVVG cables for auxiliary contacts	

 for main contacts with screw-type terminals 	0.8 1.2 N·m
for auxiliary contacts with screw-type terminals	0.8 1.2 N·m
design of screwdriver shaft	Diameter 5 to 6 mm
size of the screwdriver tip	Pozidriv size 2
design of the thread of the connection screw	
for main contacts	M3
 of the auxiliary and control contacts 	M3
Safety related data	
B10 value	
 with high demand rate according to SN 31920 	5 000
proportion of dangerous failures	
 with low demand rate according to SN 31920 	50 %
with high demand rate according to SN 31920	50 %
failure rate [FIT]	
with low demand rate according to SN 31920	50 FIT
T1 value for proof test interval or service life according to IEC 61508	10 y
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	







Confirmation



<u>KC</u>



Declaration of Conformity

Test Certificates

Marine / Shipping





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

Type Test Certificates/Test Report





Marine / Shipping

other











Confirmation

other

Railway



Confirmation

Vibration and Shock

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=3RV2111-1CA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2111-1CA10

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

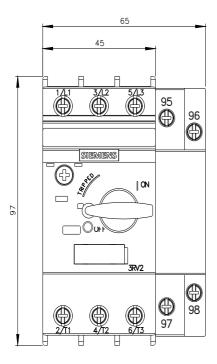
https://support.industry.siemens.com/cs/ww/en/ps/3RV2111-1CA10

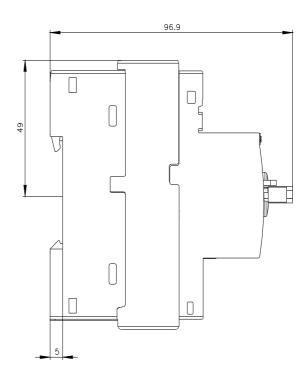
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2111-1CA10&lang=en

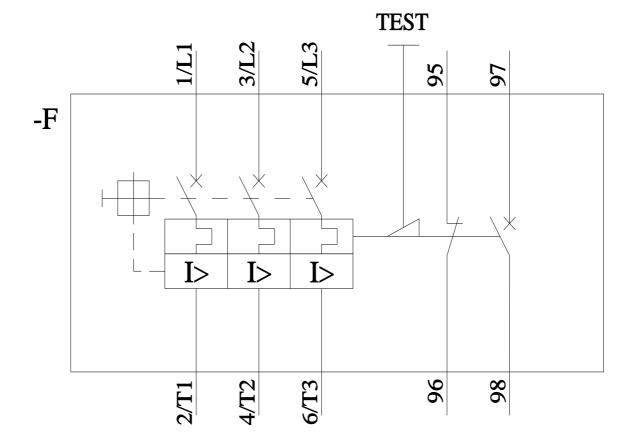
Characteristic: Tripping characteristics, I²t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV2111-1CA10/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2111-1CA10&objecttype=14&gridview=view1







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