SIEMENS

Data sheet 3RV2011-1FA10



Circuit breaker size S00 for motor protection, CLASS 10 A-release 3.5...5 A N release 65 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
maximum permissible voltage for safe isolation in networks with grounded star point	
 between main and auxiliary circuit 	400 V
between main and auxiliary circuit	400 V
shock resistance acc. 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
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 acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	01.10.2009
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
temperature compensation	-20 +60 °C
relative humidity during operation	10 95 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the	3.5 5 A

current-dependent overload release	
operating voltage	
• rated value	690 V
• rated value	20 690 V
at AC-3 rated value maximum	690 V
operating frequency rated value	50 60 Hz
operational current rated value	5 A
operational current at AC-3 at 400 V rated value	5 A
operating power at AC-3	
at 230 V rated value	1.1 kW
• at 400 V rated value	1.5 kW
at 500 V rated value	2.2 kW
at 690 V rated value	4 kW
operating frequency at AC-3 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
breaking capacity operating short-circuit current (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
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	6 kA
response value current of instantaneous short-circuit trip	65 A
unit	
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
 at 480 V rated value 	5 A
at 600 V rated value	5 A
yielded mechanical performance [hp]	
• for single-phase AC motor	0.471
— at 110/120 V rated value	0.17 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 hp
— at 460/480 V rated value	3 hp
— at 575/600 V rated value	3 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 32 A
• at 500 V	gL/gG 32 A
• at 690 V	gL/gG 25 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	45 mm
depth	97 mm
required spacing	
• for grounded parts at 400 V	20
— downwards	30 mm
— upwards	30 mm
— at the side	9 mm
• for live parts at 400 V	20
— downwards	30 mm
— upwards — at the side	30 mm
	9 mm
• for grounded parts at 500 V	20
— downwards — upwards	30 mm
•	
— at the side	9 mm
for live parts at 500 V— downwards	30 mm
	30 mm
— upwards — at the side	9 mm
at the sidefor grounded parts at 690 V	3 11111
ior grounded parts at 690 v downwards	50 mm
— downwards — upwards	50 mm
— upwards — backwards	0 mm
— at the side	30 mm
— at the side — forwards	0 mm
for live parts at 690 V	O IIIIII
— downwards	50 mm
— upwards	50 mm
— upwards — backwards	0 mm
— at the side	30 mm
— forwards	0 mm
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	No
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 (0,75 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
tightening torque	
 for main 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 2
design of the thread of the connection screw	
for main contacts	M3
Safety related data	
B10 value	
with high demand rate acc. to SN 31920	5 000
proportion of dangerous failures	
 with low demand rate acc. to SN 31920 	50 %
with high demand rate acc. to SN 31920	50 %
failure rate [FIT]	
with low demand rate acc. to SN 31920	50 FIT
T1 value for proof test interval or service life acc. to	10 y

IEC 61508 protection class IP on the front acc. to IEC 60529 IP20 touch protection on the front acc. to IEC 60529 finger-safe, for vertical contact from the front display version for switching status Handle

Certificates/ approvals

General Product Approval



Confirmation





<u>KC</u>



For use in hazardous locations

Declaration of Conformity

Test Certificates







UK Declaration of Conformity

Type Test Certificates/Test Report

Special Test Certific-

Marine / Shipping













Marine / Shipping

other



Confirmation



Vibration and Shock

Railway

Confirmation

Further information

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=3RV2011-1FA10

Cax online generator

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1FA10

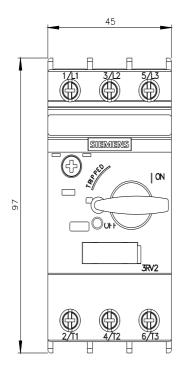
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

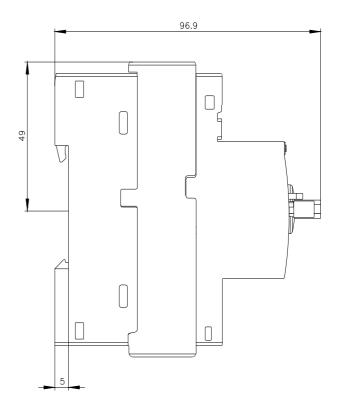
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2011-1FA10&lang=en

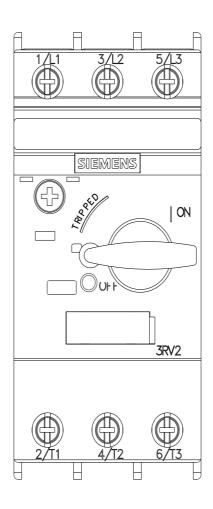
Characteristic: Tripping characteristics, I2t, Let-through current

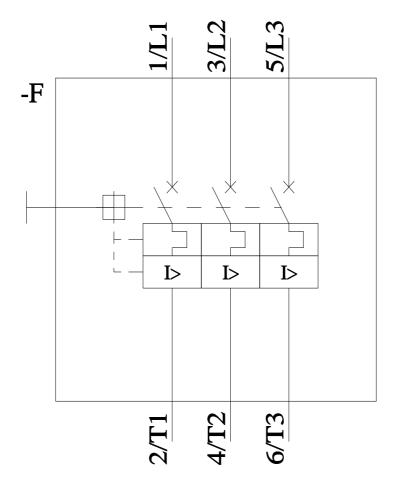
https://support.industry.siemens.com/cs/ww/en/ps/3RV2011-1FA10/char

Further characteristics (e.g. electrical endurance, switching frequency)
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2011-1FA10&objecttype=14&gridview=view1









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