SIEMENS

Data sheet 3RV1011-1GA10



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

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV1
General technical data	
size of the circuit-breaker	S00
size of contactor can be combined company-specific	S00
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
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)	01.01.2013
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 current-dependent overload release	4.5 6.3 A

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	6.3 A
operational current at AC-3 at 400 V rated value	6.3 A
operating power at AC-3	
 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	5.5 kW
operating frequency at AC-3 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
breaking capacity operating short-circuit current (Ics) at AC	
at 240 V rated value	100 kA
at 400 V rated value at 400 V rated value	100 kA
at 500 V rated value at 500 V rated value	3 kA
at 690 V rated value at 690 V rated value	2 kA
breaking capacity maximum short-circuit current (Icu)	Z M
• 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 at AC at 500 V rated value	3 kA
at AC at 690 V rated value at AC at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip	82 A
unit	
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
 at 480 V rated value 	6.3 A
at 600 V rated value	6.3 A
yielded mechanical performance [hp]	
 for single-phase AC motor 	
 — at 110/120 V rated value 	0.25 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 	1.5 hp
 at 460/480 V rated value 	3 hp
— at 575/600 V rated value	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 240 V	none required
• at 400 V	gL/gG 50 A
• at 500 V	gL/gG 40 A
• at 690 V	gL/gG 40 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

haight	90 mm
height width	90 mm 45 mm
depth	45 mm 75 mm
required spacing	73 111111
• for grounded parts at 400 V	
— downwards	20 mm
	20 mm
— upwards — at the side	9 mm
	9 111111
for live parts at 400 V— downwards	20 mm
— upwards	20 mm
— at the side	9 mm
for grounded parts at 500 V	9 111111
— downwards	20 mm
— upwards	20 mm
— at the side	9 mm
• for live parts at 500 V	3 111111
— downwards	20 mm
— downwards — upwards	20 mm
— at the side	9 mm
for grounded parts at 690 V	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
— upwards	20 mm
— backwards	0 mm
— at the side	9 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 (0,5 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	
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
size of the screwdriver tip	Pozidriv 2
design of the thread of the connection screw	No
• for main contacts	M3
Safety related data	
B10 value	5.000
with high demand rate acc. to SN 31920	5 000
proportion of dangerous failures	E0 9/
with low demand rate acc. to SN 31920	50 %
= With high demand rate acc. to SN 31030	50 %
with high demand rate acc. to SN 31920 failure rate [EIT]	
failure rate [FIT] • with low demand rate acc. to SN 31920	50 FIT

protection class IP on the front acc. to IEC 60529

touch protection on the front acc. to IEC 60529

display version for switching status

IP20

finger-safe, for vertical contact from the front

Rocker switch

Certificates/ approvals

General Product Approval

For use in hazardous locations





Confirmation







For use in hazardous locations

Declaration of Conformity

Test Certificates

Marine / Shipping



UK Declaration of Conformity



Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping











Miscellaneous

other

other

Railway

Confirmation



Special Test Certificate

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=3RV1011-1GA10

Cax online generator

 $\underline{http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en\&mlfb=3RV1011-1GA10}$

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1GA10

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

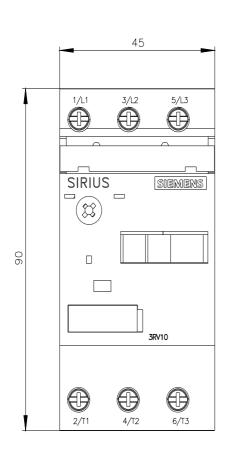
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-1GA10&lang=en

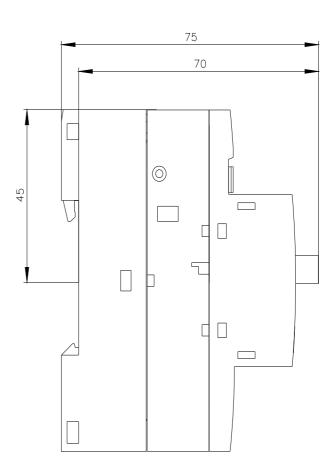
Characteristic: Tripping characteristics, I^2t , Let-through current

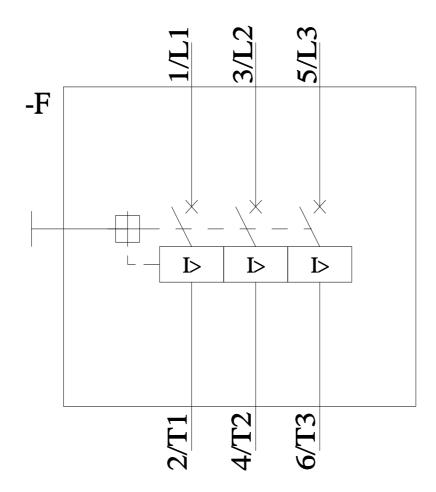
https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1GA10/char

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

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV1011-1GA10&objecttype=14&gridview=view1







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