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
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
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	01/01/2013
SVHC substance name	Lead - 7439-92-1
Ambient conditions	
	2 000 m
Ambient conditions	
Ambient conditions installation altitude at height above sea level maximum	
Ambient conditions installation altitude at height above sea level maximum ambient temperature	2 000 m
Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation	2 000 m -20 +60 °C
Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage	2 000 m -20 +60 °C -50 +80 °C
Ambient conditions installation altitude at height above sea level maximum ambient temperature	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C
Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C
Ambient conditions installation altitude at height above sea level maximum ambient temperature • during operation • during storage • during transport relative humidity during operation Main circuit	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 %
Ambient conditions installation altitude at height above sea level maximum 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-	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 %
Ambient conditions installation altitude at height above sea level maximum ambient temperature	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 %
Ambient conditions installation altitude at height above sea level maximum 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	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 4.5 6.3 A
Ambient conditions installation altitude at height above sea level maximum 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	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 4.5 6.3 A
Ambient conditions installation altitude at height above sea level maximum 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	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 4.5 6.3 A
installation altitude at height above sea level maximum 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	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 4.5 6.3 A 20 690 V 690 V
installation altitude at height above sea level maximum 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 operating frequency rated value	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 4.5 6.3 A 20 690 V 690 V 690 V 50 60 Hz
installation altitude at height above sea level maximum 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 operating frequency rated value operational current rated value	2 000 m -20 +60 °C -50 +80 °C -50 +80 °C 10 95 % 3 4.5 6.3 A 20 690 V 690 V 690 V 50 60 Hz

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
• at AC-3e	
— 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
at AC-3e maximum	15 1/h
Auxiliary circuit	
number of CO contacts for auxiliary contacts	0
Protective and monitoring functions	
product function	No
ground fault detection phase failure detection	No Voc
phase failure detection Trip class	Yes
trip class	CLASS 10
design of the overload release	thermal
maximum short-circuit current breaking capacity (Icu)	400 l-4
• 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	3 kA
at AC at 690 V rated value	2 kA
operating short-circuit current breaking capacity (Ics) at AC	
at 240 V rated value	100 kA
at 400 V rated value	100 kA
at 500 V rated value	3 kA
at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip unit	82 A
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 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
— upwards	20 mm
— upwards — backwards	0 mm
— 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	ZX (0.0 1.0 mm), ZX (0.70 2.0 mm)
• for auxiliary contacts	
— solid or stranded	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)
	2x (0.5 1.5 mm), 2x (0.75 2.5 mm)
tightening torque	0.8 1.2 N·m
for main contacts with screw-type terminals for auxiliany contacts with screw type terminals	0.8 1.2 N·m
for auxiliary contacts with screw-type terminals circ of the screwdriver tip	
size of the screwdriver tip	Pozidriv size 2
design of the thread of the connection screw	MO
• for main contacts	M3
Safety related data	V
product function suitable for safety function	Yes
suitability for use	
safety-related switching on	No
safety-related switching OFF	Yes
service life maximum	10 a
test wear-related service life necessary	Yes
proportion of dangerous failures	
 with low demand rate according to SN 31920 	40 %
with high demand rate according to SN 31920	50 %
B10 value with high demand rate according to SN 31920	5 000
failure rate [FIT] with low demand rate according to SN	50 FIT
43 W 70	
31920 ISO 13849	

device type according to ISO 13849-1	3
overdimensioning according to ISO 13849-2 necessary	Yes
IEC 61508	
safety device type according to IEC 61508-2	Type A
Electrical Safety	
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	
display version for switching status	Rocker switch
Approvals Certificates	
General Product Approval	







Confirmation



<u>KC</u>

General Product Approval

For use in hazardous locations

Test Certificates

Marine / Shipping







Type Test Certificates/Test Report

Special Test Certific-



Marine / Shipping













other Railway **Environment**

Miscellaneous

Confirmation



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

Environmental Confirmations

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=3RV1011-1GA10

Cax online generator

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

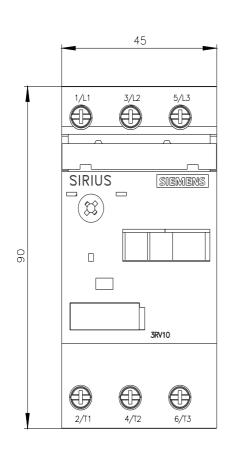
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

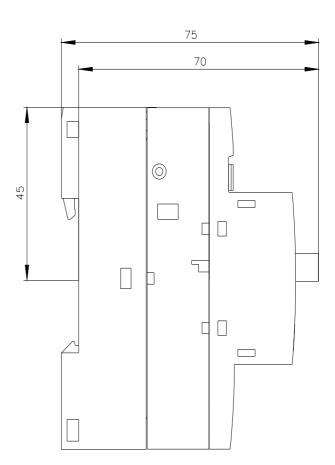
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-1GA10&lang=en

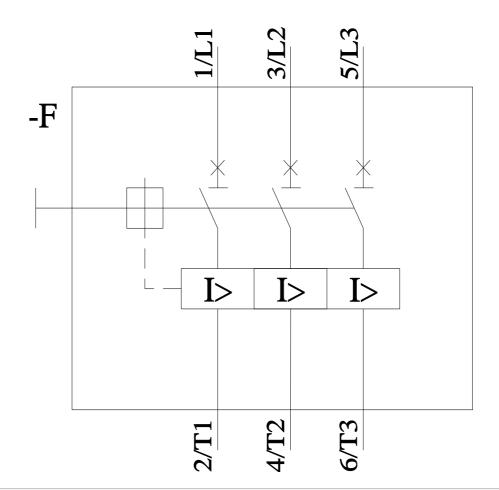
Characteristic: Tripping characteristics, I2t, Let-through current

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







last modified: 4/12/2024 🖸

