SIEMENS

Data sheet

3RV1011-1KA10



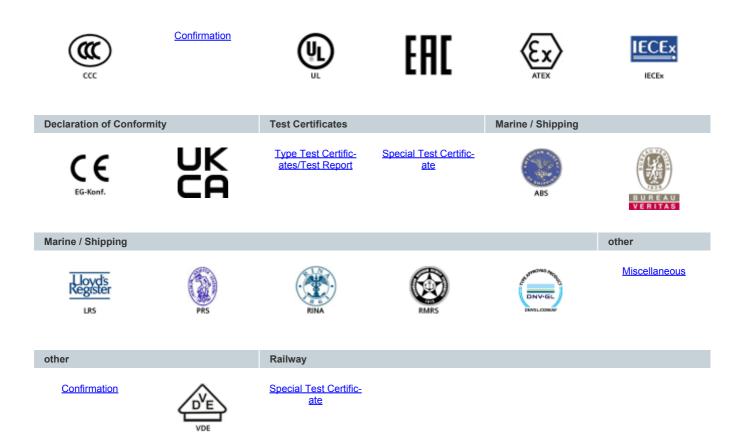
Circuit breaker size S00 for motor protection, CLASS 10 A-release 9...12 A N-release 156 A Screw terminal Standard switching capacity

473 473	
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 	9.25 W
 at AC in hot operating state per pole 	3.1 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
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)	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
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	9 12.5 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	12 A
operational current	
• at AC-3 at 400 V rated value	12 A

• at AC-3e at 400 V rated value	12 A
operating power	
• at AC-3	
— at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	5.5 kW
— at 690 V rated value	7.5 kW
• at AC-3e	7.5 KW
	2 1/1/
- at 230 V rated value	3 kW
— at 400 V rated value	5.5 kW
— at 500 V rated value	5.5 kW
— at 690 V rated value	7.5 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	
 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)	
• at AC at 240 V rated value	100 kA
• at AC at 400 V rated value	50 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 	13 kA
at 500 V rated value	3 kA
at 690 V rated value	2 kA
response value current of instantaneous short-circuit trip unit	156 A
UL/CSA ratings	
 full-load current (FLA) for 3-phase AC motor at 480 V rated value 	12 A
at 400 V rated value at 600 V rated value	12 A 12 A
	12 A
yielded mechanical performance [hp]	
for single-phase AC motor	0.5 kg
— at 110/120 V rated value	0.5 hp
— at 230 V rated value	2 hp
• for 3-phase AC motor	
— at 200/208 V rated value	3 hp
— at 220/230 V rated value	3 hp
— at 460/480 V rated value	8 hp
— at 575/600 V rated value	10 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	gL/gG 80 A
• at 400 V	gL/gG 80 A
• at 500 V	gL/gG 50 A
• at 690 V	gL/gG 50 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 	5 mm
— downwards	20 mm
	20 mm
— upwards	9 mm
— at the side	9 11111
for live parts at 500 V	20 mm
— 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
— 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	Top and bottom
circuit	
type of connectable conductor cross-sections	
• for main contacts	
— solid or stranded	2x (0,5 1,5 mm ²), 2x (0,75 2,5 mm ²), 2x (1 4 mm ²)
- 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 size 2
design of the thread of the connection screw	
● for main 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 low demand rate according to SN 31920 with high demand rate according to SN 31920 	50 % 50 %
-	
• with high demand rate according to SN 31920	
• with high demand rate according to SN 31920 failure rate [FIT]	50 %
 with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 	50 % 50 FIT
with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 protection class IP on the front according to IEC 60529	50 % 50 FIT IP20
with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529	50 % 50 FIT IP20 finger-safe, for vertical contact from the front
with high demand rate according to SN 31920 failure rate [FIT] with low demand rate according to SN 31920 protection class IP on the front according to IEC 60529 touch protection on the front according to IEC 60529 display version for switching status	50 % 50 FIT IP20 finger-safe, for vertical contact from the front

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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=3RV1011-1KA10 Cax online generator http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-1KA10

Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1KA10

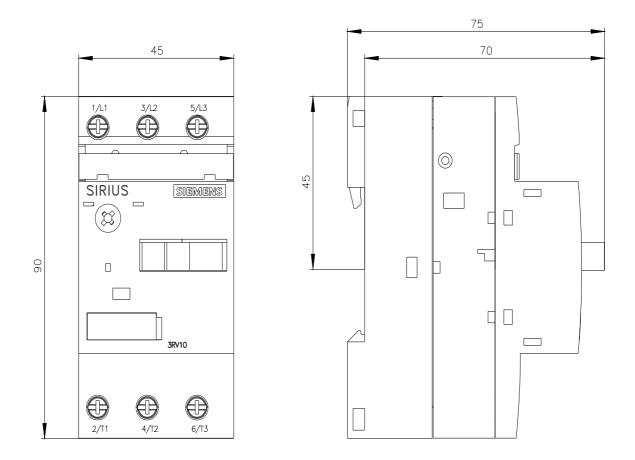
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

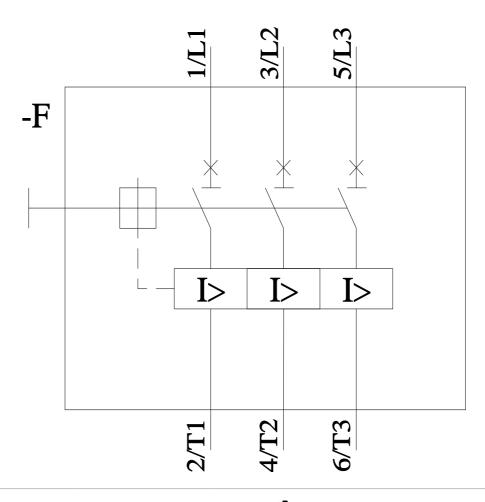
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-1KA10&lang=en

Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1KA10/char

Further characteristics (e.g. electrical endurance, switching frequency) http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV1011-1KA10&objecttype=14&gridview=view1





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