SIEMENS

Data sheet 3RV1011-1EA15

	CIRCUIT-BREAKER SIZE S00, FOR MOTOR PROTECTION, CLASS 10, A-REL. 2.8...4A, N-REL. 52A, SCREW TERMINAL, STANDARD SWITCHING CAPACITY, W. TRANSV. AUX. SWITCH 1NO+1NC
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] total typical	6 W
Insulation voltage with degree of pollution 3 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
• in networks with grounded star point between main and auxiliary circuit	400 V
Protection class IP	
• on the front	IP20
• of the terminal	IP00
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	Increased safety
Protection against electrical shock	finger-safe
Equipment marking acc. to DIN EN 81346-2	Q

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 pick-up value current of the current-dependent overload release	2.8 ... 4 A
Operating voltage	
• rated value	690 V
• at AC-3 rated value maximum	690 V
Operating frequency rated value	50 ... 60 Hz
Operating current rated value	4 A
Operating current	
• at AC-3	
— at 400 V rated value	4 A
Operating power	
• at AC-3	
— at 230 V rated value	750 W
— at 400 V rated value	1 500 W
— at 500 V rated value	2 200 W
— at 690 V rated value	3 000 W
Operating frequency	
• at AC-3 maximum	15 1/h

Auxiliary circuit

Design of the auxiliary switch	transverse
Number of NC contacts	
• for auxiliary contacts	1
— Note	1
Number of NO contacts	
• for auxiliary contacts	1
— Note	1
Number of CO contacts	
• for auxiliary contacts	0
Operating current of auxiliary contacts at AC-15	
• at 24 V	2 A
• at 110 V	2 A
• at 120 V	2 A
• at 125 V	2 A
• at 230 V	0.5 A
Operating current of auxiliary contacts at DC-13	

• at 24 V	1 A
• at 60 V	0.15 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
Operational short-circuit current breaking capacity (Ics) at AC	
• at 240 V rated value	100 000 A
• at 400 V rated value	100 000 A
• at 500 V rated value	3 000 A
• at 690 V rated value	2 000 A
Maximum short-circuit current breaking capacity (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	3 kA
• at AC at 690 V rated value	2 kA
Breaking capacity short-circuit current (Icn)	
• at 1 current path at DC at 150 V rated value	10 kA
• with 2 current paths in series at DC at 300 V rated value	10 kA
• with 3 current paths in series at DC at 450 V rated value	10 kA
Response value current	
• of instantaneous short-circuit trip unit	52 A

UL/CSA ratings

Full-load current (FLA) for three-phase AC motor	
• at 480 V rated value	4 A
• at 600 V rated value	4 A
Yielded mechanical performance [hp]	
• for single-phase AC motor	
— at 110/120 V rated value	0.125 hp
— at 230 V rated value	0.33 hp
• for three-phase AC motor	
— at 200/208 V rated value	0.75 hp
— at 220/230 V rated value	0.75 hp
— at 460/480 V rated value	2 hp
— at 575/600 V rated value	3 hp
Contact rating of auxiliary contacts according to UL	C300 / R300

Short-circuit protection	
Product function Short circuit protection	Yes
Design of the short-circuit trip	magnetic
Design of the fuse link	
• for short-circuit protection of the auxiliary switch required	fuse gG: 10 A, miniature circuit breaker C 6 A (short-circuit current Ik < 400 A)
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 40 A
• at 500 V	gL/gG 35 A
• at 690 V	gL/gG 35 A

Installation/ mounting/ dimensions	
Mounting position	any
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
Height	90 mm
Width	45 mm
Depth	81 mm

Connections/Terminals	
Product function	
• removable terminal for auxiliary and control circuit	No
Type of electrical connection	
• for main current circuit	screw-type terminals
• for auxiliary and control 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	
— single or multi-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	
— single or multi-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	
• for main contacts	M3
• of the auxiliary and control 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
Display version	
• for switching status	Rocker switch

Certificates/approvals

General Product Approval | **For use in hazardous locations**

CCC, CSA, UL, EAC, ATEX, IECEx

Declaration of Conformity | **Test Certificates** | **Marine / Shipping**

EG-Konf. | Special Test Certificate | ABS, BUREAU VERITAS, LRS, RINA

Marine / Shipping | **other**

RMRS, DNV·GL | Confirmation | Miscellaneous | Environmental Confirmations | VDE

Further information

Information- and Downloadcenter (Catalogs, Brochures,…)
http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV1011-1EA15

Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1011-1EA15

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3RV1011-1EA15

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1011-1EA15&lang=en

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