## **SIEMENS**

Data sheet 3RV2031-4SA10

CIRCUIT BREAKER, SIZE S2, FOR MOTOR PROTECTION, CLASS 10, A-RELEASE 9.5...14 A, N-RELEASE 208A, SCREW TERMINAL, STANDARD BREAKING CAPACITY



Figure similar

product brand name	SIRIUS
Product designation	3RV2 circuit breaker

General technical data:	
Size of the circuit-breaker	S2
Size of contactor can be combined company-specific	S2
Product expansion	
Auxiliary switch	Yes
Active power loss total typical	10 W
Insulation voltage with degree of pollution 3 Rated value	690 V
Surge voltage resistance Rated value	6 kV
Protection class IP	
• on the front	IP20
• of the terminal	IP00
Shock resistance	
● acc. to IEC 60068-2-27	25g / 11 ms Sinus
Mechanical service life (switching cycles)	
<ul> <li>of the main contacts typical</li> </ul>	50 000
<ul> <li>of the auxiliary contacts typical</li> </ul>	50 000

Electrical endurance (switching cycles)	
• typical	50 000
Protection against electrical shock	finger-safe when touched vertically from front acc. to IEC 60529
Equipment marking acc. to DIN EN 81346-2	Q
Ambient conditions:	
Installation altitude at height above sea level	2 000 m
maximum	
Ambient temperature	
<ul><li>during operation</li></ul>	-20 +60 °C
during storage	-50 +80 °C
<ul> <li>during transport</li> </ul>	-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 response value current of the current-	9.5 14 A
dependent overload release	
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	14 A
Operating current	
• at AC-3	
— at 400 V Rated value	14 A
Operating power	
• at AC-3	
— at 230 V Rated value	3 000 W
— at 400 V Rated value	5 500 W
— at 500 V Rated value	7 500 W
— at 690 V Rated value	11 000 W
Operating frequency	
• at AC-3 maximum	15 1/h
Protective and monitoring functions:	
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 A
● at 400 V Rated value	30 kA
● at 500 V Rated value	6 kA
• at 690 V Rated value	3 kA

Maximum short-circuit current breaking capacity (Icu)	
• at AC at 240 V Rated value	100 kA
• at AC at 400 V Rated value	65 kA
• at AC at 500 V Rated value	12 kA
• at AC at 690 V Rated value	5 kA
Response value current of the instantaneous short- circuit release	208 A

UL/CSA ratings:	
Full-load current (FLA) for three-phase AC motor	
● at 480 V Rated value	14 A
• at 600 V Rated value	14 A
yielded mechanical performance [hp]	
<ul> <li>for single-phase AC motor</li> </ul>	
— at 110/120 V Rated value	1.5 hp
— at 230 V Rated value	3 hp
• for three-phase AC motor	
— at 200/208 V Rated value	5 hp
— at 220/230 V Rated value	5 hp
— at 460/480 V Rated value	10 hp
— at 575/600 V Rated value	15 hp

Short-circuit protection	
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	100
● at 500 V	80
● at 690 V	63

nstallation/ mounting/ dimensions:	
mounting position	any
Mounting type	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
Height	140 mm
Width	55 mm
Depth	149 mm
Required spacing	
<ul><li>with side-by-side mounting</li></ul>	
— forwards	0 mm
— Backwards	0 mm
— upwards	50 mm
— downwards	50 mm

— at the side	0 mm
• for grounded parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	50 mm
— at the side	10 mm
— downwards	50 mm
• for live parts	
— forwards	0 mm
— Backwards	0 mm
— upwards	50 mm
— downwards	50 mm
— at the side	10 mm

Connections/ Terminals:	
Product function	
<ul> <li>removable terminal for auxiliary and control</li> </ul>	No
circuit	
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-section	
• for main contacts	
<ul> <li>single or multi-stranded</li> </ul>	2x (1 25 mm²), 1x (1 35 mm²)
<ul> <li>finely stranded with core end processing</li> </ul>	2x (1 16 mm²), 1x (1 25 mm²)
<ul> <li>for AWG conductors for main contacts</li> </ul>	2x (18 3), 1x (18 2)
Tightening torque	
<ul> <li>for main contacts with screw-type terminals</li> </ul>	3 4.5 N·m
Design of screwdriver shaft	Diameter 5 to 6 mm
Design of the thread of the connection screw	
• for main contacts	M6

Safety related data:	
T1 value for proof test interval or service life acc. to	10 y
IEC 61508	
Display version	
• for switching status	Handle

## Certificates/ approvals:

General Product Approval Declaration of Test other
Conformity Certificates







spezielle Prüfbescheinigunge n Bestätigungen

Umweltbestätigung

## Railway

Bestätigungen

## Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

http://www.siemens.com/industrial-controls/catalogs

Industry Mall (Online ordering system)

http://www.siemens.com/industrymall

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV20314SA10

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

https://support.industry.siemens.com/cs/ww/en/ps/3RV20314SA10

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RV20314SA10&lang=en







