



Circuit breaker size S2 for motor protection, CLASS 10 A-release 14...20 A
N-release 260 A screw terminal Standard switching capacity

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV2
General technical data	
size of the circuit-breaker	S2
size of contactor can be combined company-specific	S2
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
• at AC in hot operating state	14.5 W
• at AC in hot operating state per pole	4.8 W
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
shock resistance according to IEC 60068-2-27	25g / 11 ms Sinus
mechanical service life (operating cycles)	
• of the main contacts typical	50 000
• of auxiliary contacts typical	50 000
electrical endurance (operating cycles) typical	50 000
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 Prohibition (Date)	10/15/2014
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	14 ... 20 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	20 A

operational current		
• at AC-3 at 400 V rated value	20 A	
• at AC-3e at 400 V rated value	20 A	
operating power		
• at AC-3		
— at 230 V rated value	5.5 kW	
— at 400 V rated value	7.5 kW	
— at 500 V rated value	11 kW	
— at 690 V rated value	15 kW	
• at AC-3e		
— at 230 V rated value	5.5 kW	
— at 400 V rated value	7.5 kW	
— at 500 V rated value	11 kW	
— at 690 V rated value	15 kW	
operating frequency		
• at AC-3 maximum	15 1/h	
• at AC-3e maximum	15 1/h	
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	65 kA	
• at AC at 500 V rated value	12 kA	
• at AC at 690 V rated value	5 kA	
operating short-circuit current breaking capacity (Ics) at AC		
• at 240 V rated value	100 kA	
• at 400 V rated value	30 kA	
• at 500 V rated value	6 kA	
• at 690 V rated value	3 kA	
response value current of instantaneous short-circuit trip unit	260 A	
UL/CSA ratings		
full-load current (FLA) for 3-phase AC motor		
• at 480 V rated value	20 A	
• at 600 V rated value	20 A	
yielded mechanical performance [hp]		
• for single-phase AC motor		
— at 110/120 V rated value	1.5 hp	
— at 230 V rated value	3 hp	
• for 3-phase AC motor		
— at 200/208 V rated value	7.5 hp	
— at 220/230 V rated value	7.5 hp	
— at 460/480 V rated value	15 hp	
— at 575/600 V rated value	20 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	100	
• at 500 V	80	
• at 690 V	63	
Installation/ mounting/ dimensions		
mounting position	any	
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715	
height	140 mm	
width	55 mm	

depth	149 mm
required spacing	
• with side-by-side mounting at the side	0 mm
• for grounded parts at 400 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for live parts at 400 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for grounded parts at 500 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for live parts at 500 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for grounded parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for live parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm

Connections/ Terminals

type of electrical connection	screw-type terminals
• for main current circuit	Top and bottom
arrangement of electrical connectors for main current circuit	
type of connectable conductor cross-sections	
• for main contacts	
— solid or stranded	2x (1 ... 25 mm ²), 1x (1 ... 35 mm ²)
— finely stranded with core end processing	2x (1 ... 16 mm ²), 1x (1 ... 25 mm ²)
• at AWG cables for main contacts	2x (18 ... 3), 1x (18 ... 2)
tightening torque	3 ... 4.5 N·m
• for main contacts with screw-type terminals	
design of screwdriver shaft	Diameter 5 to 6 mm
size of the screwdriver tip	Pozidriv size 2
design of the thread of the connection screw	
• for main contacts	M6

Safety related data

B10 value	5 000
• with high demand rate according to SN 31920	
proportion of dangerous failures	
• with low demand rate according to SN 31920	50 %
• with high demand rate according to SN 31920	50 %
failure rate [FIT]	
• with low demand rate according to SN 31920	50 FIT
T1 value for proof test interval or service life according to IEC 61508	10 a
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 version for switching status	Handle

Certificates/ approvals

General Product Approval

[Confirmation](#)[KC](#)

For use in hazardous locations	Declaration of Conformity	Test Certificates
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IECEx



ATEX



EG-Konf.

[Type Test Certificates/Test Report](#)[Special Test Certificate](#)

Marine / Shipping



ABS

BUREAU
VERITAS

DNV



LRS



PRIS



RINA

other	Railway
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[Confirmation](#)

VDE

[Confirmation](#)[Vibration and Shock](#)

Further information

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=3RV2031-4BA10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2031-4BA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4BA10>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2031-4BA10&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2031-4BA10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2031-4BA10&objecttype=14&gridview=view1>



