

Siemens
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Circuit breaker size S3 for system protection with approval circuit breaker UL 489, CSA C22.2 No.5-02 A-release 25 A N-release 325 A screw terminal



product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For system protection according to UL 489/CSA C22.2 No. 5
product type designation	3RV2
General technical data	
size of the circuit-breaker	S3
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
• at AC in hot operating state	14 W
• at AC in hot operating state per pole	4.7 W
insulation voltage with degree of pollution 3 at AC rated value	1 000 V
surge voltage resistance rated value	8 kV
shock resistance according to IEC 60068-2-27	25 g / 11 ms (rectangular impulse and sine pulse)
mechanical service life (operating cycles)	
• of the main contacts typical	25 000
• of auxiliary contacts typical	25 000
electrical endurance (operating cycles) typical	25 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	03/01/2017
SVHC substance name	Lead - 7439-92-1
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
operating voltage	
• rated value	20 ... 600 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	25 A
Protective and monitoring functions	
product function	
• ground fault detection	No
• phase failure detection	No

design of the overload release	thermal
maximum short-circuit current breaking capacity (I_{cu})	
• at AC at 240 V rated value	100 kA
• at AC at 400 V rated value	100 kA
• at 480 AC Y/277 V according to UL 489 rated value	65 kA
• at 480 V AC according to UL 489 rated value	65 kA
operating short-circuit current breaking capacity (I_{cs}) at AC	
• at 240 V rated value	100 kA
• at 400 V rated value	50 kA
response value current of instantaneous short-circuit trip unit	325 A
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
height	170 mm
width	70 mm
depth	176 mm
required spacing	
• for grounded parts at 400 V	
— downwards	90 mm
— upwards	90 mm
— at the side	10 mm
• for live parts at 400 V	
— downwards	90 mm
— upwards	90 mm
— at the side	10 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	2x (2.5 ... 16 mm ²)
— solid or stranded	2x (2,5 ... 50 mm ²), 1x (10 ... 70 mm ²)
— finely stranded with core end processing	2x (2.5 ... 35 mm ²), 1x (2.5 ... 50 mm ²)
— finely stranded without core end processing	2x (10 ... 35 mm ²), 1x (10 ... 50 mm ²)
• for AWG cables for main contacts	10 only front clamping point
• for AWG cables for main contacts for box terminal using the front clamping point	10 only front clamping point
tightening torque	
• for main contacts with screw-type terminals	4.5 ... 6 N·m
design of screwdriver shaft	Hexagonal socket
size of the screwdriver tip	4 mm
design of the thread of the connection screw	
• for main contacts	M8
Safety related data	
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 31920	50 FIT

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
T1 value	10 a
• for proof test interval or service life according to IEC 61508	
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	Handle
Approvals Certificates	
General Product Approval	



[Confirmation](#)



[KC](#)

General Product Approval	Test Certificates	Marine / Shipping	other
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



[Miscellaneous](#)

[Confirmation](#)

other	Environment
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[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=3RV2742-5DD10>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2742-5DD10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2742-5DD10>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2742-5DD10&lang=en

Characteristic: Tripping characteristics, I²t, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2742-5DD10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2742-5DD10&objecttype=14&gridview=view1>



