



Circuit breaker size S2 for motor protection, CLASS 10 A-release 62...73 A  
N-release 949 A screw terminal increased 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	29.5 W
• at AC in hot operating state per pole	9.8 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	20 000
• of auxiliary contacts typical	20 000
electrical endurance (operating cycles) typical	20 000
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)	03/01/2017

### 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	62 ... 73 A
operating voltage	
• rated value	20 ... 690 V
• at AC-3 rated value maximum	690 V
operating frequency rated value	50 ... 60 Hz
operational current rated value	73 A
operational current	

<ul style="list-style-type: none"> <li>• at AC-3 at 400 V rated value</li> </ul>	73 A
<b>operating power</b>	
<ul style="list-style-type: none"> <li>• at AC-3 <ul style="list-style-type: none"> <li>— at 230 V rated value</li> <li>— at 400 V rated value</li> <li>— at 500 V rated value</li> <li>— at 690 V rated value</li> </ul> </li> </ul>	22 kW 37 kW 45 kW 55 kW
<b>operating frequency</b>	
<ul style="list-style-type: none"> <li>• at AC-3 maximum</li> </ul>	15 1/h
<b>Protective and monitoring functions</b>	
<b>product function</b>	
<ul style="list-style-type: none"> <li>• ground fault detection</li> <li>• phase failure detection</li> </ul>	No Yes
<b>trip class</b>	CLASS 10
<b>design of the overload release</b>	thermal
<b>maximum short-circuit current breaking capacity (Icu)</b>	
<ul style="list-style-type: none"> <li>• at AC at 240 V rated value</li> <li>• at AC at 400 V rated value</li> <li>• at AC at 500 V rated value</li> <li>• at AC at 690 V rated value</li> </ul>	100 kA 100 kA 10 kA 6 kA
<b>operating short-circuit current breaking capacity (Ics) at AC</b>	
<ul style="list-style-type: none"> <li>• at 240 V rated value</li> <li>• at 400 V rated value</li> <li>• at 500 V rated value</li> <li>• at 690 V rated value</li> </ul>	100 kA 50 kA 8 kA 4 kA
response value current of instantaneous short-circuit trip unit	949 A
<b>UL/CSA ratings</b>	
<b>full-load current (FLA) for 3-phase AC motor</b>	
<ul style="list-style-type: none"> <li>• at 480 V rated value</li> <li>• at 600 V rated value</li> </ul>	65 A 62 A
<b>yielded mechanical performance [hp]</b>	
<ul style="list-style-type: none"> <li>• for 3-phase AC motor <ul style="list-style-type: none"> <li>— at 200/208 V rated value</li> <li>— at 220/230 V rated value</li> <li>— at 460/480 V rated value</li> <li>— at 575/600 V rated value</li> </ul> </li> </ul>	20 hp 25 hp 50 hp 60 hp
<b>Short-circuit protection</b>	
<b>product function short circuit protection</b>	Yes
<b>design of the short-circuit trip</b>	magnetic
<b>design of the fuse link for IT network for short-circuit protection of the main circuit</b>	
<ul style="list-style-type: none"> <li>• at 240 V</li> <li>• at 400 V</li> <li>• at 500 V</li> <li>• at 690 V</li> </ul>	none required 160 125 100
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>fastening method</b>	screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 60715
<b>height</b>	140 mm
<b>width</b>	55 mm
<b>depth</b>	149 mm
<b>required spacing</b>	
<ul style="list-style-type: none"> <li>• with side-by-side mounting at the side</li> <li>• for grounded parts at 400 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> <li>• for live parts at 400 V <ul style="list-style-type: none"> <li>— downwards</li> <li>— upwards</li> <li>— at the side</li> </ul> </li> </ul>	0 mm 50 mm 50 mm 10 mm 50 mm 50 mm 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

- 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 or stranded
  - finely stranded with core end processing
- at AWG cables for main contacts

2x (1 ... 35 mm<sup>2</sup>), 1x (1 ... 50 mm<sup>2</sup>)

2x (1 ... 25 mm<sup>2</sup>), 1x (1 ... 35 mm<sup>2</sup>)

2x (18 ... 2), 1x (18 ... 1)

### tightening torque

- for main contacts with screw-type terminals

3 ... 4.5 N·m

### 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

- with high demand rate according to SN 31920

5 000

### proportion of dangerous failures

- with low demand rate according to SN 31920
- with high demand rate according to SN 31920

50 %

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

display version for switching status

finger-safe, for vertical contact from the front

Handle

## Certificates/ approvals

### General Product Approval



[Confirmation](#)



[KC](#)



### For use in hazardous locations

### Declaration of Conformity

### Test Certificates



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



[Confirmation](#)



[Vibration and Shock](#)

[Confirmation](#)

## 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=3RV2032-4KA10>

### Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2032-4KA10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2032-4KA10>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV2032-4KA10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2032-4KA10&lang=en)

### Characteristic: Tripping characteristics, I<sub>t</sub>, Let-through current

<https://support.industry.siemens.com/cs/ww/en/ps/3RV2032-4KA10/char>

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

<http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2032-4KA10&objecttype=14&gridview=view1>



