

CIRCUIT-BREAKER N-RELEASE 416 A, SIZE S2 STARTER PROTECTION, 50 KA SCREW CONNECTION STANDARD BREAKING CAPACITY

<b>Product brand name</b>	SIRIUS
<b>Product designation</b>	circuit breaker
<b>Design of the product</b>	for starter combinations

### General technical data

<b>Product extension</b>	
<ul style="list-style-type: none"> <li>Auxiliary switch</li> </ul>	Yes
<b>Power loss [W] total typical</b>	15 W
<b>Surge voltage resistance rated value</b>	6 000 V
<b>Protection class IP</b>	
<ul style="list-style-type: none"> <li>on the front</li> </ul>	IP20
<b>Shock resistance</b>	25g / 11 ms
<b>Mechanical service life (switching cycles)</b>	
<ul style="list-style-type: none"> <li>of the main contacts typical</li> </ul>	50 000
<b>Continuous current rated value</b>	32 A

### Ambient conditions

<b>Installation altitude at height above sea level</b>	
<ul style="list-style-type: none"> <li>maximum</li> </ul>	2 000 m
<b>Ambient temperature</b>	
<ul style="list-style-type: none"> <li>during operation</li> </ul>	-20 ... +60 °C
<ul style="list-style-type: none"> <li>during storage</li> </ul>	-50 ... +80 °C
<ul style="list-style-type: none"> <li>during transport</li> </ul>	-50 ... +80 °C

### Main circuit

<b>Number of poles for main current circuit</b>	3
<b>Operating voltage</b>	
<ul style="list-style-type: none"> <li>rated value</li> </ul>	690 V
<ul style="list-style-type: none"> <li>at AC-3 rated value maximum</li> </ul>	690 V
<b>Operating current</b>	
<ul style="list-style-type: none"> <li>at AC-3</li> </ul>	
<ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul>	32 A
<b>Operating power</b>	
<ul style="list-style-type: none"> <li>at AC-3</li> </ul>	
<ul style="list-style-type: none"> <li>— at 400 V rated value</li> </ul>	15 kW
<b>Operating frequency</b>	
<ul style="list-style-type: none"> <li>at AC-3 maximum</li> </ul>	15 1/h

## Auxiliary circuit

### Number of CO contacts

- for auxiliary contacts

0

## Protective and monitoring functions

### Product function

- Ground fault detection
- Phase failure detection

No

No

### Maximum short-circuit current breaking capacity (I<sub>cu</sub>)

- at AC at 240 V rated value
- at AC at 400 V rated value
- at AC at 500 V rated value
- at AC at 690 V rated value

100 kA

50 kA

10 kA

4 kA

## Short-circuit protection

### Design of the overcurrent release and short-circuit release

magnetic

## Installation/ mounting/ dimensions

### Mounting position

any

### Mounting type

screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 50022

### Height

140 mm

### Width

55 mm

### Depth

149 mm

### Required spacing

- with side-by-side mounting
  - Backwards
  - at the side

0 mm

0 mm

## Connections/Terminals

### Product function

- removable terminal for auxiliary and control circuit

No

### Type of electrical connection

- for main current circuit
- for auxiliary and control current circuit

screw-type terminals with box terminals

screw-type terminals

### Arrangement of electrical connectors for main current circuit

front side

### Type of connectable conductor cross-sections

- for main contacts
  - solid
  - stranded
  - finely stranded with core end processing
- at AWG conductors for main contacts

2x (0.75 ... 16 mm<sup>2</sup>)

2x (0.75 ... 25 mm<sup>2</sup>), 1x (0.75 ... 35 mm<sup>2</sup>)

2x (0.75 ... 16 mm<sup>2</sup>), 0.75 ... 25 mm<sup>2</sup>

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

## Certificates/approvals

General Product Approval	Declaration of Conformity	Test Certificates
--------------------------	---------------------------	-------------------



CCC



CSA



UL



EG-Konf.

[Special Test Certificate](#)

Marine / Shipping	other
-------------------	-------



ABS



BUREAU  
VERITAS



RMRS



DNV-GL  
DNVGL.COM/AF

[Miscellaneous](#)

[Environmental Confirmations](#)

other
-------

[Confirmation](#)



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=3RV1331-4EC10>

**Cax online generator**

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV1331-4EC10>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3RV1331-4EC10>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3RV1331-4EC10&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV1331-4EC10&lang=en)

last modified:

10/13/2017