

**SIEMENS**

Catalog  
Extract  
LV 10

Edition  
10/2023

SENTRON • SIVACON • ALPHA

# Low-Voltage Power Distribution and Electrical Installation Technology

Molded Case Circuit Breakers

[siemens.com/lowvoltage](https://www.siemens.com/lowvoltage)



# Innovative solutions for industrial controls and power distribution

Reliable components and systems are essential in ensuring smooth power distribution in buildings and industrial plants.

With SIRIUS, SENTRON, SIVACON and ALPHA, we offer an innovative portfolio for standard-compliant and demand-oriented applications.

Efficient engineering tools and innovative cloud-based solutions can be flexibly tailored to individual requirements.

## We are there when you need us

Your personal contact can be found at  
[www.siemens.com/lowvoltage/contact](http://www.siemens.com/lowvoltage/contact)

## Catalog LV 10 · 10/2023

You will find the latest edition and all future editions in SiePortal at [www.siemens.com/lowvoltage/catalogs](http://www.siemens.com/lowvoltage/catalogs)

You can find the current prices in SiePortal at  
[www.siemens.com/lowvoltage/product-catalog](http://www.siemens.com/lowvoltage/product-catalog)



The products and systems described in this catalog are manufactured/distributed under application of a certified quality management system in accordance with EN ISO 9001 (for the Certified Registration Nos., see [www.siemens.com/system-certificates/ep](http://www.siemens.com/system-certificates/ep)).

The certificate is recognized by all IQNet countries.

### Technical specifications

The technical specifications are for general information purposes only. Always heed the operating instructions and notices on individual products during assembly, operation and maintenance.

All illustrations are not binding.

© Siemens 2023

# Low-Voltage Power Distribution and Electrical Installation Technology

|                                     |                                                                         |            |
|-------------------------------------|-------------------------------------------------------------------------|------------|
|                                     | Introduction                                                            | I/2        |
| Protecting                          | Air Circuit Breakers                                                    | 1/1        |
|                                     | <b>Molded Case Circuit Breakers</b>                                     | <b>2/1</b> |
|                                     | Miniature Circuit Breakers                                              | 3/1        |
|                                     | Residual Current Protective Devices/Arc Fault Detection Devices (AFDDs) | 4/1        |
|                                     | Switching Devices                                                       | 5/1        |
|                                     | Overvoltage Protection Devices                                          | 6/1        |
|                                     | Fuse Systems                                                            | 7/1        |
| Protecting, Switching and Isolating | Switch Disconnectors                                                    | 8/1        |
| Switching and Isolating             | Transfer Switching Equipment and Load Transfer Switches                 | 9/1        |
| Measuring and Monitoring            | Measuring Devices, Power Monitoring and Digitalization Solutions        | 10/1       |
|                                     | Monitoring Devices                                                      | 11/1       |
| Distribution                        | Transformers, Power Supply Units and Socket Outlets                     | 12/1       |
|                                     | Busbar Systems                                                          | 13/1       |
|                                     | Terminal Blocks                                                         | 14/1       |
|                                     | Switchboards, Distribution Boards and Small Distribution Boards         | 15/1       |
|                                     | Busbar Trunking Systems                                                 | 16/1       |
|                                     | System Cubicles, System Lighting and System Air-Conditioning            | 17/1       |
|                                     | Appendix                                                                | A/1        |

I

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

A

## One system. For all applications.

Requirements for cost- and energy-efficient operation of electrical power distribution are on the increase. Whether in industrial plants, in infrastructure or in buildings: As a modular, highly adaptable system, the 3VA series of molded case circuit breakers ensures fully reliable protection of personnel and plant, and supports every process phase – from planning to operation of electrical power distribution.

Comprehensively certified. Deployable worldwide.

3VA molded case circuit breakers are available in various ranges with IEC approval; other ranges are available that comply with standard IEC 60947 and standard UL 489. The system is therefore ideally suited for mechanical engineering companies and switchgear manufacturers. The full range of functionalities of molded case circuit breakers can be used for plant and equipment operating in Europe and North America, with absolute standards compliance assured.





# Molded Case Circuit Breakers

2

|                                                                            |      |
|----------------------------------------------------------------------------|------|
| All the information you need                                               | 2/2  |
| Molded case circuit breakers and switch disconnectors for all applications | 2/4  |
| Quick selection guide                                                      | 2/6  |
| Molded case circuit breakers,<br>switch disconnectors and accessories      | 2/6  |
| 3VA1 molded case circuit breakers,<br>switch disconnectors up to 1000 A    | 2/8  |
| 3VA2 molded case circuit breakers up to 1600 A                             | 2/12 |
| Trip units                                                                 | 2/16 |
| Online configurator highlights                                             | 2/18 |
| 3VA10 – 3VA26                                                              | 2/20 |
| System overview                                                            | 2/20 |
| Structure of the article numbers                                           | 2/24 |
| Internal accessories                                                       | 2/28 |
| Manual operators                                                           | 2/30 |
| Motor operators                                                            | 2/36 |
| Connection technology                                                      | 2/38 |
| Plug-in and withdrawable technology                                        | 2/52 |
| Residual current devices RCD                                               | 2/56 |
| Communication                                                              | 2/58 |
| Locking, blocking and interlocking                                         | 2/64 |
| Cover frame and mounting                                                   | 2/66 |
| 3VA27                                                                      | 2/68 |
| System overview                                                            | 2/68 |
| Structure of the article numbers                                           | 2/72 |
| Accessory options                                                          | 2/76 |
| Guide frame                                                                | 2/78 |
| Electronic trip unit ETU and accessories                                   | 2/79 |
| Accessories for connection and insulation                                  | 2/82 |
| Motor operators and manual operators                                       | 2/84 |
| Auxiliary release, closing coil                                            | 2/85 |
| Locking provisions and interlocks                                          | 2/87 |
| 3VL                                                                        | 2/89 |
| 3VL up to 1600 A, IEC                                                      | 2/89 |

# A multitude of additional information ...

## Information + ordering

### All the important things at a glance

For information about molded case circuit breakers, please visit our website [www.siemens.com/3VA](http://www.siemens.com/3VA)

### Your product in detail

The SiePortal platform (knowledge base) provides comprehensive information

[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Quick Selection Guide
  - 3VA molded case circuit breaker (109757591)

The relevant tender specifications can be found at [www.siemens.com/tenderspecifications](http://www.siemens.com/tenderspecifications)

Use our conversion tool for quick and easy conversion to Siemens products [www.siemens.com/conversion-tool](http://www.siemens.com/conversion-tool)

### Siemens YouTube channel

- 3VA molded case circuit breakers (general) [sie.ag/2gSX4K](http://sie.ag/2gSX4K)

### Everything you need for your order

Refer to SiePortal to find an overview of your products (product catalog)

- Molded case circuit breakers [sie.ag/2mmLcAk](http://sie.ag/2mmLcAk)

Direct forwarding to the individual products in SiePortal by clicking on the article number in the catalog or entering this web address incl. article number [www.siemens.com/product\\_catalog\\_SIEP?Article No.](http://www.siemens.com/product_catalog_SIEP?Article No.)

You will find order support in SiePortal under [www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Order Support
  - 3VA molded case circuit breakers – One system. Global use (109765994)

### Configurators

The configurator reduces the time and effort required in the planning and ordering process, and allows for individual adaptations. Configure your 3VA molded case circuit breaker at

[www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)  
[www.siemens.com/lowvoltage/3va27-configurator](http://www.siemens.com/lowvoltage/3va27-configurator)

The following are additionally available for your 3VA molded case circuit breaker:

- 3D views
- CAD data
- Unit wiring diagrams
- Dimension drawings

### The fast track to the experts

#### Contact persons in your region

We offer a comprehensive portfolio of services.

You can find your local contacts at

[www.siemens.com/lowvoltage/components/contact](http://www.siemens.com/lowvoltage/components/contact)

You will find further information on services at

[www.siemens.com/service-offers](http://www.siemens.com/service-offers)

Competent expert advice on technical questions with a wide range of demand-optimized services for all our products and systems.

Assistance with technical queries is provided at

[www.siemens.com/support-request](http://www.siemens.com/support-request)



# ... can be found in our online services

## Commissioning + operation



### SENTRON Powerconfig

The combined commissioning and service tool SENTRON Powerconfig for communication-capable measuring devices, circuit protection devices and circuit breakers.

Free download SENTRON Powerconfig  
[www.siemens.com/powerconfig](http://www.siemens.com/powerconfig)

Free download SENTRON Powerconfig mobile via  
[App Store](#) and [Play Store](#)



### Your product in detail

The SiePortal platform (knowledge base) provides detailed technical information  
[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support)

- Operating instructions
- Characteristic curves
- Certificates

Online Support app available for download from the  
[App Store](#) and [Play Store](#)

You will find further information at  
[www.siemens.com/support-app](http://www.siemens.com/support-app)

Provision of 3D data (step and u3d data formats)

- SiePortal (product catalog)  
[www.siemens.com/lowvoltage/product-catalog](http://www.siemens.com/lowvoltage/product-catalog)
- Image database  
[www.siemens.com/lowvoltage/picturedb](http://www.siemens.com/lowvoltage/picturedb)

Engineering data for CAD or CAE systems are available in the CAx Download Manager at  
[www.siemens.com/cax](http://www.siemens.com/cax)



### Manuals

Manuals can be found in SiePortal at  
[www.siemens.com/lowvoltage/manuals](http://www.siemens.com/lowvoltage/manuals)

- Configuration Manual
  - 3VA selectivity ([109743975](#))
- Communication Manual
  - 3VA molded case circuit breakers with IEC and UL certification ([98746267](#))
  - 3WL10 air circuit breakers & 3VA27 molded case circuit breakers ([109760220](#))
- Equipment Manual
  - 3VA molded case circuit breakers with IEC certificate ([90318775](#))
  - 3VA27 molded case circuit breakers & 3WL10 air circuit breakers ([109753821](#))



### Face-to-face or online training

Our training courses can be found at  
[www.siemens.com/sitrain-lowvoltage](http://www.siemens.com/sitrain-lowvoltage)

- 3VA molded case circuit breaker (WT-LVA3VA)
- Protection systems in low-voltage power distribution (WT-LVAPS)



## Technical overview – Molded case circuit breakers



### The fast way to get you to our online services

This page provides you with comprehensive information and links on molded case circuit breakers  
[www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) ([109767421](#))

# Molded case circuit breakers and switch disconnectors for all applications

2



3VA10 ... 3VA15 molded case circuit breakers

## *Setting standards for standard applications*

The 3VA1 molded case circuit breaker is ideally suited for your standard applications in infrastructure and industrial facilities. It is equipped with a thermal-magnetic trip unit, and offers reliable protection for plants and generators.

With its compact dimensions and depth of just 70 mm, the 3VA1 molded case circuit breaker can even fit into locations where space is limited. Thanks to its cover size of 45 mm, it is also ideally suited for use in distribution boards up to 250 A.

### Special features

- Compact design
- AC/DC applications
- No derating up to +50 °C
- Optimized for distribution boards (45 mm cover size)
- Universal platform of accessories
- 1, 2, 3 or 4-pole versions
- Rated current range of 1 ... 1000 A



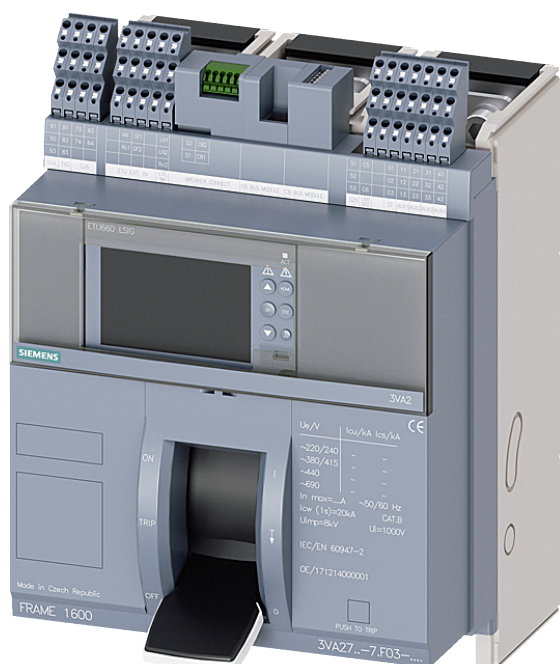
3VA20 ... 3VA26 molded case circuit breakers

## The power to deliver in demanding applications

If you are looking for a solution that lets you handle your most technically demanding projects in industrial and infrastructure applications with ease, the 3VA2 molded case circuit breaker has the special capabilities you need. It combines high breaking capacity, a range of electronic trip units (ETUs), very good selectivity properties, and various additional functionalities.

### Special features

- Very good selective protection response
- AC applications
- No derating up to +50 °C
- Integrated metering function
- Connection to a communications system
- Rated current range of 25 ... 1250 A



3VA27 molded case circuit breaker

Depending on the application, the 3VA27 molded case circuit breaker handles line/motor and starter protection for low-voltage electrical power distribution, and supplements the existing IEC portfolio with a rated current of 1600 A.

### Special features

- Choice between two ranges of electronic trip units with a number of equipment versions
- Variable and versatile connections
- Connection to a communications system
- Can be used as a platform circuit breaker with the 3WL10 ACB, with an extensive range of common accessories
- Rated current range of 800 ... 1600 A



# Molded case circuit breakers, switch disconnectors and accessories

2



## Protective functions

|                                                                     | 3VA10 | 3VA11 | 3VA12 | 3VA13 | 3VA14 | 3VA15  |
|---------------------------------------------------------------------|-------|-------|-------|-------|-------|--------|
| Size                                                                | 100 A | 160 A | 250 A | 400 A | 630 A | 1000 A |
| Switch disconnectors                                                |       |       |       |       |       |        |
| No protection                                                       | –     | ■     | ■     | ■     | ■     | –      |
| Thermal-magnetic                                                    |       |       |       |       |       |        |
| Line protection                                                     | ■     | ■     | ■     | ■     | ■     | ■      |
| Starter protection                                                  | –     | ■     | ■     | ■     | ■     | ■      |
| Electronic                                                          |       |       |       |       |       |        |
| Line protection                                                     | –     | –     | –     | –     | –     | –      |
| Line and generator protection                                       | –     | –     | –     | –     | –     | –      |
| Line and generator protection, with display                         | –     | –     | –     | –     | –     | –      |
| Line and generator protection, with display, with metering function | –     | –     | –     | –     | –     | –      |
| Motor protection                                                    | –     | –     | –     | –     | –     | –      |
| Motor protection, with display                                      | –     | –     | –     | –     | –     | –      |
| Motor protection, with display, with metering function              | –     | –     | –     | –     | –     | –      |
| Starter protection                                                  | –     | –     | –     | –     | –     | –      |

## Accessories

| Size                                               | 100 A | 160 A | 250 A | 400 A | 630 A | 1000 A |
|----------------------------------------------------|-------|-------|-------|-------|-------|--------|
| Accessories                                        |       |       |       |       |       |        |
| Auxiliary switches and signaling switches          | ■     | ■     | ■     | ■     | ■     | ■      |
| Auxiliary releases                                 | ■     | ■     | ■     | ■     | ■     | ■      |
| Connection technology                              | ■     | ■     | ■     | ■     | ■     | ■      |
| Plug-in version                                    | –     | ■     | ■     | ■     | ■     | ■      |
| Withdrawable version                               | –     | –     | ■     | ■     | ■     | –      |
| Front mounted rotary operator                      | ■     | ■     | ■     | ■     | ■     | ■      |
| Door mounted rotary operator                       | ■     | ■     | ■     | ■     | ■     | ■      |
| Side wall mounted rotary operator                  | ■     | ■     | ■     | ■     | ■     | –      |
| MO310 motor operator (mounted onto the side)       | –     | ■     | –     | –     | –     | –      |
| MO320 motor operator (mounted onto the front)      | –     | ■     | ■     | ■     | ■     | –      |
| Motor operator with SEO520 stored energy mechanism | –     | –     | –     | ■     | ■     | –      |
| Motor operator (MO), integrable                    | –     | –     | –     | –     | –     | –      |
| Locking, blocking and interlocking                 | ■     | ■     | ■     | ■     | ■     | ■      |
| Residual current device (mounted onto the side)    | –     | ■     | ■     | –     | –     | –      |
| Residual current device (mounted underneath)       | –     | ■     | ■     | –     | –     | –      |
| Communications interface                           | –     | –     | –     | –     | –     | –      |
| EFB300                                             | –     | –     | –     | –     | –     | –      |
| Testing and commissioning devices                  | –     | –     | –     | –     | –     | –      |
| Cover frame                                        | ■     | ■     | ■     | ■     | ■     | ■      |
| DIN-rail adapter                                   | ■     | ■     | –     | –     | –     | –      |
| Busbar adapter                                     | ■     | ■     | ■     | ■     | ■     | –      |

■ Available

– Not available/not present



|  | 100 A | 160 A | 250 A | 400 A | 630 A | 1000 A | 1250 A | 1600 A |
|--|-------|-------|-------|-------|-------|--------|--------|--------|
|  | ■     | ■     | ■     | ■     | ■     | ■      | ■      | ■      |
|  | ■     | ■     | ■     | ■     | ■     | ■      | ■      | ■      |
|  | ■     | ■     | ■     | ■     | ■     | ■      | ■      | ■      |
|  | ■     | ■     | ■     | ■     | ■     | ■      | ■      | —      |
|  | ■     | ■     | ■     | ■     | ■     | —      | —      | ■      |
|  | ■     | ■     | ■     | ■     | ■     | ■      | ■      | ■      |
|  | ■     | ■     | ■     | ■     | ■     | ■      | ■      | ■      |
|  | ■     | ■     | ■     | ■     | ■     | —      | —      | —      |
|  | —     | —     | —     | —     | —     | —      | —      | —      |
|  | ■     | ■     | ■     | ■     | ■     | —      | —      | —      |
|  | ■     | ■     | ■     | ■     | ■     | —      | —      | —      |
|  | —     | —     | —     | —     | —     | —      | —      | ■      |
|  | ■     | ■     | ■     | ■     | ■     | ■      | ■      | ■      |
|  | —     | —     | —     | —     | —     | —      | —      | —      |
|  | ■     | ■     | ■     | ■     | ■     | —      | —      | —      |
|  | ■     | ■     | ■     | ■     | ■     | ■      | ■      | ■      |
|  | ■     | ■     | ■     | ■     | ■     | ■      | ■      | ■      |
|  | ■     | ■     | ■     | ■     | ■     | ■      | ■      | ■      |
|  | ■     | ■     | ■     | ■     | ■     | ■      | ■      | ■      |
|  | —     | —     | —     | —     | —     | —      | —      | —      |
|  | ■     | ■     | ■     | ■     | ■     | —      | —      | —      |

# 3VA1 molded case circuit breakers, switch disconnectors up to 1000 A

## Technical specifications

2



3VA10

3VA11

3VA11

### Electrical characteristics according to IEC 60947-2

|                                                                        |    | 3VA10      | 3VA11      | 3VA11      |
|------------------------------------------------------------------------|----|------------|------------|------------|
| Number of poles                                                        |    | 3/4-pole   | 1-pole     | 2-pole     |
| Size                                                                   | A  | 100        | 160        | 160        |
| Rated current $I_n$ at 50 °C ambient temperature                       | A  | 16 ... 100 | 16 ... 160 | 16 ... 160 |
| Rated operational voltage $U_e$ 50/60 Hz AC                            | V  | 690        | 415        | 415        |
| Rated insulation voltage $U_i$                                         | V  | 800        | 500        | 500        |
| Rated impulse withstand voltage $U_{imp}$                              | kV | 8          | 8          | 8          |
| Use in IT networks<br>(breaking capacity acc. to IEC 60947-2, annex H) | V  | ■          | ■          | ■          |
| Frequency                                                              | Hz | 0 ... 400  | 0 ... 400  | 0 ... 400  |

### Breaking capacity (line protection)

|                                                         |                      |    | B  | N  | S  | N  | S  | M  | N  | S  | M  |
|---------------------------------------------------------|----------------------|----|----|----|----|----|----|----|----|----|----|
| Rated ultimate short-circuit breaking capacity $I_{cu}$ |                      |    |    |    |    |    |    |    |    |    |    |
| 50/60 Hz AC                                             | 220 ... 240 V        | kA | 25 | 36 | 55 | 25 | 36 | 55 | 36 | 55 | 85 |
|                                                         | 380 ... 415 V        | kA | 16 | 25 | 36 | 5  | 6  | 6  | 25 | 36 | 55 |
|                                                         | 440 V                | kA | 8  | 16 | 25 | –  | –  | –  | –  | –  | –  |
|                                                         | 500 V                | kA | 5  | 5  | 7  | –  | –  | –  | –  | –  | –  |
|                                                         | 690 V                | kA | 5  | 5  | 7  | –  | –  | –  | –  | –  | –  |
| DC <sup>1)</sup>                                        | 125 V                | kA | 16 | 25 | 30 | 16 | 25 | 30 | 16 | 25 | 30 |
|                                                         | 250 V                | kA | 25 | 36 | 55 | –  | –  | –  | 36 | 55 | 85 |
|                                                         | 500 V                | kA | 25 | 36 | 55 | –  | –  | –  | –  | –  | –  |
|                                                         | 600 V                | kA | 8  | 16 | 25 | –  | –  | –  | –  | –  | –  |
|                                                         | 750 V                | kA | –  | –  | –  | –  | –  | –  | –  | –  | –  |
|                                                         | 1000 V <sup>2)</sup> | kA | –  | –  | –  | –  | –  | –  | –  | –  | –  |

### Rated service short-circuit breaking capacity $I_{cs}$

|             |                      |    |    |    |    |    |    |    |    |    |    |
|-------------|----------------------|----|----|----|----|----|----|----|----|----|----|
| 50/60 Hz AC | 220 ... 240 V        | kA | 25 | 36 | 55 | 25 | 35 | 55 | 36 | 55 | 85 |
|             | 380 ... 415 V        | kA | 16 | 25 | 36 | 5  | 6  | 6  | 25 | 36 | 55 |
|             | 440 V                | kA | 8  | 16 | 25 | –  | –  | –  | –  | –  | –  |
|             | 500 V                | kA | 5  | 5  | 5  | –  | –  | –  | –  | –  | –  |
|             | 690 V                | kA | 5  | 5  | 5  | –  | –  | –  | –  | –  | –  |
| DC          | 125 V                | kA | 16 | 25 | 30 | 16 | 25 | 30 | 16 | 25 | 30 |
|             | 250 V                | kA | 25 | 36 | 55 | –  | –  | –  | 36 | 55 | 85 |
|             | 500 V                | kA | 25 | 36 | 55 | –  | –  | –  | –  | –  | –  |
|             | 600 V                | kA | 8  | 16 | 25 | –  | –  | –  | –  | –  | –  |
|             | 750 V                | kA | –  | –  | –  | –  | –  | –  | –  | –  | –  |
|             | 1000 V <sup>2)</sup> | kA | –  | –  | –  | –  | –  | –  | –  | –  | –  |

### Dimensions

|  |   |    |                        |  |      |  |      |  |
|--|---|----|------------------------|--|------|--|------|--|
|  | A | mm | 76.2 (3P)   101.6 (4P) |  | 25.4 |  | 50.8 |  |
|  | B | mm | 130                    |  | 130  |  | 130  |  |
|  | C | mm | 70                     |  | 70   |  | 70   |  |
|  | D | mm | 88                     |  | 88   |  | 88   |  |

<sup>1)</sup> For detailed data on DC breaking capacity, number of switching poles and circuit diagrams, see FAQ [www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) (109779932)

<sup>2)</sup> For  $I_n = 630$  A/800 A

<sup>3)</sup>  $I_n$  125 A, 160 A:  $I_{cu}/I_{cs} = 36$  kA/36 kA

■ Available

– Not available/not present

**3VA11****3VA12****3VA13****3VA14****3VA15**

3/4-pole

3/4-pole

3/4-pole

3/4-pole

3/4-pole

160

250

400

630

1000

16 ... 160

160 ... 250

320 ... 400

500 ... 630

630 ... 1000

690

690

690

690

690

800

800

800

800

800

8

8

8

8

8

■

■

■

■

≤ 500

0 ... 400

0 ... 400

0 ... 400

0 ... 400

0 ... 400

| N  | S  | M  | H                | S  | M  | H   | S  | M  | H   | C   | S  | M  | H   | C   | M  | H   | C   |
|----|----|----|------------------|----|----|-----|----|----|-----|-----|----|----|-----|-----|----|-----|-----|
| 36 | 55 | 85 | 100              | 55 | 85 | 100 | 55 | 85 | 100 | 200 | 55 | 85 | 100 | 200 | 85 | 110 | 200 |
| 25 | 36 | 55 | 70               | 36 | 55 | 70  | 36 | 55 | 70  | 110 | 36 | 55 | 70  | 110 | 55 | 70  | 110 |
| 16 | 25 | 36 | 55 <sup>3)</sup> | 25 | 36 | 36  | 36 | 55 | 70  | 110 | 36 | 55 | 70  | 110 | 55 | 70  | 110 |
| 7  | 7  | 10 | 10               | 10 | 15 | 15  | 25 | 36 | 55  | 70  | 25 | 36 | 55  | 70  | 36 | 55  | 70  |
| 7  | 7  | 10 | 10               | 7  | 10 | 10  | 7  | 7  | 10  | 10  | 7  | 7  | 10  | 10  | 25 | 35  | 35  |
| 16 | 25 | 30 | 30               | 55 | 85 | 100 | 8  | 16 | 25  | 25  | 8  | 16 | 25  | 25  | –  | –   | –   |
| 36 | 55 | 85 | 100              | 55 | 85 | 100 | 8  | 16 | 25  | 25  | 8  | 16 | 25  | 25  | 35 | 50  | 100 |
| 36 | 55 | 85 | 100              | 55 | 85 | 100 | 8  | 16 | 25  | 25  | 8  | 16 | 25  | 25  | 35 | 50  | 100 |
| 16 | 25 | 36 | 55               | 25 | 36 | 55  | 8  | 16 | 25  | 25  | 8  | 16 | 25  | 25  | –  | –   | –   |
| –  | –  | –  | –                | –  | –  | –   | –  | –  | –   | –   | –  | –  | –   | –   | 35 | 50  | 100 |
| –  | –  | –  | –                | –  | –  | –   | –  | –  | –   | –   | –  | –  | –   | –   | 25 | 35  | 50  |
| 36 | 55 | 85 | 100              | 55 | 85 | 100 | 55 | 85 | 100 | 200 | 55 | 85 | 100 | 200 | 85 | 100 | 150 |
| 25 | 36 | 55 | 70               | 36 | 55 | 70  | 36 | 55 | 70  | 110 | 36 | 55 | 70  | 110 | 55 | 70  | 85  |
| 16 | 25 | 36 | 40 <sup>3)</sup> | 25 | 36 | 36  | 36 | 55 | 70  | 110 | 36 | 55 | 70  | 110 | 55 | 70  | 70  |
| 5  | 5  | 5  | 5                | 10 | 10 | 10  | 25 | 36 | 55  | 70  | 25 | 36 | 55  | 70  | 36 | 55  | 65  |
| 5  | 5  | 5  | 5                | 5  | 5  | 5   | 5  | 5  | 6   | 6   | 5  | 5  | 6   | 6   | 19 | 19  | 19  |
| 16 | 25 | 30 | 30               | 55 | 85 | 100 | 8  | 16 | 25  | 25  | 8  | 16 | 25  | 25  | –  | –   | –   |
| 36 | 55 | 85 | 100              | 55 | 85 | 100 | 8  | 16 | 25  | 25  | 8  | 16 | 25  | 25  | 35 | 50  | 100 |
| 36 | 55 | 85 | 100              | 55 | 85 | 100 | 8  | 16 | 25  | 25  | 8  | 16 | 25  | 25  | 35 | 50  | 100 |
| 16 | 25 | 36 | 55               | 25 | 36 | 55  | 8  | 16 | 25  | 25  | 8  | 16 | 25  | 25  | –  | –   | –   |
| –  | –  | –  | –                | –  | –  | –   | –  | –  | –   | –   | –  | –  | –   | –   | 35 | 50  | 100 |
| –  | –  | –  | –                | –  | –  | –   | –  | –  | –   | –   | –  | –  | –   | –   | 25 | 35  | 50  |

76.2 (3P) | 101.6 (4P)

105 (3P) | 140 (4P)

138 (3P) | 184 (4P)

138 (3P) | 184 (4P)

210 (3P) | 280 (4P)

130

158

248

248

320

70

70

110

110

120

88

88

137

137

253



# 3VA1 molded case circuit breakers, switch disconnectors up to 1000 A

## Application

2



|                                                                                                                             |               |         |  | 3VA10      | 3VA11      | 3VA11      |
|-----------------------------------------------------------------------------------------------------------------------------|---------------|---------|--|------------|------------|------------|
| <b>Electrical characteristics according to IEC 60947-2</b>                                                                  |               |         |  |            |            |            |
| Number of poles                                                                                                             |               |         |  | 3/4-pole   | 1-pole     | 2-pole     |
| Size A                                                                                                                      |               |         |  | 100        | 160        | 160        |
| Rated current $I_n$ at 50 °C ambient temperature A                                                                          |               |         |  | 16 ... 100 | 16 ... 160 | 16 ... 160 |
| <b>3VA1 molded case circuit breakers for line protection, standard applications (IEC 60947-2)</b>                           |               |         |  |            |            |            |
| <b>Service life/endurance (operating cycles)</b>                                                                            |               |         |  |            |            |            |
| Mechanical (CLOSE-OPEN cycles)                                                                                              |               |         |  | 20000      | 20000      | 20000      |
| Electrical                                                                                                                  | 380 ... 415 V | $I_n$   |  | 9000       | 9000       | 9000       |
|                                                                                                                             |               | $I_n/2$ |  | 15000      | 15000      | 15000      |
|                                                                                                                             | 690 V         |         |  | 6300       | 6300       | 6300       |
| <b>Trip units</b>                                                                                                           |               |         |  |            |            |            |
| TM210                                                                                                                       | FTFM          |         |  | ■          | ■          | ■          |
| TM220                                                                                                                       | ATFM          |         |  | –          | –          | –          |
| TM240                                                                                                                       | ATAM          |         |  | –          | –          | –          |
| <b>3VA1 molded case circuit breakers for starter protection (standards and specifications acc. to IEC 60947-2, annex O)</b> |               |         |  |            |            |            |
| Rated current $I_n$ at 50 °C ambient temperature A                                                                          |               |         |  | –          | –          | –          |
| <b>Service life/endurance (operating cycles)</b>                                                                            |               |         |  |            |            |            |
| Mechanical (CLOSE-OPEN cycles)                                                                                              |               |         |  | –          | –          | –          |
| Electrical                                                                                                                  | 380 ... 415 V |         |  | –          | –          | –          |
| <b>Trip units</b>                                                                                                           |               |         |  |            |            |            |
| TM120M                                                                                                                      | AM            |         |  | –          | –          | –          |
| <b>Switch disconnectors (IEC 60947-3)</b>                                                                                   |               |         |  |            |            |            |
| <b>Electrical characteristics according to IEC 60947-3</b>                                                                  |               |         |  |            |            |            |
| Rated uninterrupted current $I_u$ at 50 °C ambient temperature A                                                            |               |         |  | –          | –          | –          |
| Rated operational voltage $U_e$ 50/60 Hz AC V                                                                               |               |         |  | –          | –          | –          |
| Rated operational voltage $U_e$ DC V                                                                                        |               |         |  | –          | –          | –          |
| Rated conditional short-circuit current $I_q$ with upstream 3VA1 circuit breaker kA                                         |               |         |  | –          | –          | –          |
| Permissible rated short-time current $I_{cw}$ (1 s) kA                                                                      |               |         |  | –          | –          | –          |
| ■ Available      – Not available/not present                                                                                |               |         |  |            |            |            |

**3VA11****3VA12****3VA13****3VA14****3VA15**

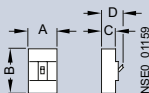
| 3VA11              | 3VA12              | 3VA13                       | 3VA14                       | 3VA15        |
|--------------------|--------------------|-----------------------------|-----------------------------|--------------|
| 3/4-pole           | 3/4-pole           | 3/4-pole                    | 3/4-pole                    | 3/4-pole     |
| 160                | 250                | 400                         | 630                         | 1000         |
| 16 ... 160         | 160 ... 250        | 320 ... 400                 | 500 ... 630                 | 630 ... 1000 |
| 20000              | 20000              | 20000                       | 20000                       | 10000        |
| 9000               | 8000               | 6000                        | 4000                        | 4600         |
| 15000              | 14000              | 12000                       | 8000                        | 7000         |
| 6300               | 5400               | 4200                        | 3000                        | 3200         |
| ■                  | —                  | —                           | —                           | —            |
| ■                  | —                  | —                           | —                           | —            |
| ■                  | ■                  | ■                           | ■                           | ■            |
| 1 ... 125          | 160, 200           | 250                         | 400 ... 500                 | 630 ... 800  |
| 20000              | 20000              | 20000                       | 20000                       | 10000        |
| 9000               | 8000               | 6000                        | 4000                        | 4600         |
| ■                  | ■                  | ■                           | ■                           | ■            |
| 63 ... 160         | 250                | 400                         | 630 (3P), 500 (4P)          | —            |
| 690                | 690                | 690                         | 690                         | —            |
| 500 (3P), 600 (4P) | 500 (3P), 600 (4P) | 500 (3P), 600 (4P)          | 500 (3P), 600 (4P)          | —            |
| 70 at 415 V        | 70 at 415 V        | 110 at 415 V<br>10 at 690 V | 110 at 415 V<br>10 at 690 V | —            |
| 2                  | 3                  | 6                           | 7.6 (3P), 6 (4P)            | —            |

# 3VA2 molded case circuit breakers up to 1600 A

## Technical specifications

2



|                                                                                     |                           |    | 3VA20               |     |     |     | 3VA21               |     |     |     |     | 3VA22               |     |     |     |     |
|-------------------------------------------------------------------------------------|---------------------------|----|---------------------|-----|-----|-----|---------------------|-----|-----|-----|-----|---------------------|-----|-----|-----|-----|
| Electrical characteristics according to IEC 60947-2                                 |                           |    |                     |     |     |     |                     |     |     |     |     |                     |     |     |     |     |
| Number of poles                                                                     |                           |    | 3/4-pole            |     |     |     | 3/4-pole            |     |     |     |     | 3/4-pole            |     |     |     |     |
| Size                                                                                | A                         |    | 100                 |     |     |     | 160                 |     |     |     |     | 250                 |     |     |     |     |
| Rated current $I_n$                                                                 | A                         |    | 25 ... 100          |     |     |     | 25 ... 160          |     |     |     |     | 160 ... 250         |     |     |     |     |
| Rated operational voltage $U_e$ 50/60 Hz AC                                         | V                         |    | 690                 |     |     |     | 690                 |     |     |     |     | 690                 |     |     |     |     |
| Rated insulation voltage $U_i$                                                      | V                         |    | 800                 |     |     |     | 800                 |     |     |     |     | 800                 |     |     |     |     |
| Rated impulse withstand voltage $U_{imp}$                                           | kV                        |    | 8                   |     |     |     | 8                   |     |     |     |     | 8                   |     |     |     |     |
| Use in IT networks<br>(breaking capacity acc. to IEC 60947-2, annex H)              | V                         |    | ■                   |     |     |     | ■                   |     |     |     |     | ■                   |     |     |     |     |
| Frequency                                                                           | Hz                        |    | 50/60               |     |     |     | 50/60               |     |     |     |     | 50/60               |     |     |     |     |
| Breaking capacity (line protection)                                                 |                           |    | M                   | H   | C   | L   | M                   | H   | C   | L   | E   | M                   | H   | C   | L   | E   |
| Rated ultimate short-circuit breaking capacity $I_{cu}$                             |                           |    |                     |     |     |     |                     |     |     |     |     |                     |     |     |     |     |
| 50/60 Hz AC                                                                         | 220 ... 240 V             | kA | 85                  | 110 | 150 | 200 | 85                  | 110 | 150 | 200 | –   | 85                  | 110 | 150 | 200 | –   |
|                                                                                     | 380 ... 415 V             | kA | 55                  | 85  | 110 | 150 | 55                  | 85  | 110 | 150 | 200 | 55                  | 85  | 110 | 150 | 200 |
|                                                                                     | 440 V                     | kA | 55                  | 85  | 110 | 150 | 55                  | 85  | 110 | 150 | –   | 55                  | 85  | 110 | 150 | –   |
|                                                                                     | 500 V                     | kA | 36                  | 55  | 85  | 100 | 36                  | 55  | 85  | 100 | –   | 36                  | 55  | 85  | 100 | –   |
|                                                                                     | 690 V                     | kA | 2                   | 2   | 2   | 25  | 2.5                 | 2.5 | 2.5 | 25  | 85  | 3                   | 3   | 3   | 25  | 85  |
| DC                                                                                  | 125 V (1 switching pole)  | kA | –                   | –   | –   | –   | –                   | –   | –   | –   | –   | –                   | –   | –   | –   | –   |
|                                                                                     | 250 V (2 switching poles) | kA | –                   | –   | –   | –   | –                   | –   | –   | –   | –   | –                   | –   | –   | –   | –   |
|                                                                                     | 500 V (3 switching poles) | kA | –                   | –   | –   | –   | –                   | –   | –   | –   | –   | –                   | –   | –   | –   | –   |
|                                                                                     | 600 V (4 switching poles) | kA | –                   | –   | –   | –   | –                   | –   | –   | –   | –   | –                   | –   | –   | –   | –   |
| Rated service short-circuit breaking capacity $I_{cs}$                              |                           |    |                     |     |     |     |                     |     |     |     |     |                     |     |     |     |     |
| 50/60 Hz AC                                                                         | 220 ... 240 V             | kA | 85                  | 110 | 150 | 200 | 85                  | 110 | 150 | 200 | –   | 85                  | 110 | 150 | 200 | –   |
|                                                                                     | 380 ... 415 V             | kA | 55                  | 85  | 110 | 150 | 55                  | 85  | 110 | 150 | 200 | 55                  | 85  | 110 | 150 | 200 |
|                                                                                     | 440 V                     | kA | 55                  | 85  | 110 | 150 | 55                  | 85  | 110 | 150 | –   | 55                  | 85  | 110 | 150 | –   |
|                                                                                     | 500 V                     | kA | 36                  | 55  | 85  | 100 | 36                  | 55  | 85  | 100 | –   | 36                  | 55  | 85  | 100 | –   |
|                                                                                     | 690 V                     | kA | 2                   | 2   | 2   | 18  | 2.5                 | 2.5 | 2.5 | 18  | 65  | 3                   | 3   | 3   | 18  | 65  |
| DC                                                                                  | 125 V (1 switching pole)  | kA | –                   | –   | –   | –   | –                   | –   | –   | –   | –   | –                   | –   | –   | –   | –   |
|                                                                                     | 250 V (2 switching poles) | kA | –                   | –   | –   | –   | –                   | –   | –   | –   | –   | –                   | –   | –   | –   | –   |
|                                                                                     | 500 V (3 switching poles) | kA | –                   | –   | –   | –   | –                   | –   | –   | –   | –   | –                   | –   | –   | –   | –   |
|                                                                                     | 600 V (4 switching poles) | kA | –                   | –   | –   | –   | –                   | –   | –   | –   | –   | –                   | –   | –   | –   | –   |
| Dimensions                                                                          |                           |    |                     |     |     |     |                     |     |     |     |     |                     |     |     |     |     |
|  | A                         | mm | 105 (3P)   140 (4P) |     |     |     | 105 (3P)   140 (4P) |     |     |     |     | 105 (3P)   140 (4P) |     |     |     |     |
|                                                                                     | B                         | mm | 181                 |     |     |     | 181                 |     |     |     |     | 181                 |     |     |     |     |
|                                                                                     | C                         | mm | 86                  |     |     |     | 86                  |     |     |     |     | 86                  |     |     |     |     |
|                                                                                     | D                         | mm | 107                 |     |     |     | 107                 |     |     |     |     | 107                 |     |     |     |     |

<sup>1)</sup> Valid for  $I_n = 400$  A, 500 A; for  $I_n = 630$  A,  $I_{cs} = 65$  kA applies

■ Available

– Not available/not present



| 3VA23               |     |     |     |     | 3VA24               |     |                  |     |     | 3VA25               |     |     | 3VA26               |     |     | 3VA27                                                                      |     |     |
|---------------------|-----|-----|-----|-----|---------------------|-----|------------------|-----|-----|---------------------|-----|-----|---------------------|-----|-----|----------------------------------------------------------------------------|-----|-----|
| 3/4-pole            |     |     |     |     | 3/4-pole            |     |                  |     |     | 3/4-pole            |     |     | 3/4-pole            |     |     | 3/4-pole                                                                   |     |     |
| 400                 |     |     |     |     | 630                 |     |                  |     |     | 1000                |     |     | 1250                |     |     | 1600                                                                       |     |     |
| 250 ... 400         |     |     |     |     | 400 ... 630         |     |                  |     |     | 630 ... 1000        |     |     | 1250                |     |     | 800 ... 1600                                                               |     |     |
| 690                 |     |     |     |     | 690                 |     |                  |     |     | 690                 |     |     | 690                 |     |     | 690                                                                        |     |     |
| 800                 |     |     |     |     | 800                 |     |                  |     |     | 800                 |     |     | 800                 |     |     | 1000                                                                       |     |     |
| 8                   |     |     |     |     | 8                   |     |                  |     |     | 8                   |     |     | 8                   |     |     | 8                                                                          |     |     |
| ■                   |     |     |     |     | ■                   |     |                  |     |     | ≤ 500               |     |     | ≤ 500               |     |     | ■                                                                          |     |     |
| 50/60               |     |     |     |     | 50/60               |     |                  |     |     | 50/60               |     |     | 50/60               |     |     | 50/60                                                                      |     |     |
| M                   | H   | C   | L   | E   | M                   | H   | C                | L   | E   | M                   | H   | C   | M                   | H   | C   | M                                                                          | H   | C   |
| 85                  | 110 | 150 | 200 | –   | 85                  | 110 | 150              | 200 | –   | 85                  | 110 | 200 | 85                  | 110 | 200 | 100                                                                        | 150 | 200 |
| 55                  | 85  | 110 | 150 | 200 | 55                  | 85  | 110              | 150 | 200 | 55                  | 85  | 110 | 55                  | 85  | 110 | 55                                                                         | 85  | 110 |
| 55                  | 85  | 110 | –   | –   | 55                  | 85  | 110              | –   | –   | 55                  | 85  | 110 | 55                  | 85  | 110 | 55                                                                         | 85  | 100 |
| 36                  | 55  | 85  | –   | –   | 36                  | 55  | 85               | –   | –   | 36                  | 55  | 85  | 36                  | 55  | 85  | 36                                                                         | 55  | 85  |
| 5                   | 5   | 5   | 25  | 85  | 6                   | 6   | 6                | 25  | 85  | 25                  | 35  | 35  | 25                  | 35  | 35  | 25                                                                         | 36  | 50  |
| –                   | –   | –   | –   | –   | –                   | –   | –                | –   | –   | –                   | –   | –   | –                   | –   | –   | –                                                                          | –   | –   |
| –                   | –   | –   | –   | –   | –                   | –   | –                | –   | –   | –                   | –   | –   | –                   | –   | –   | –                                                                          | –   | –   |
| –                   | –   | –   | –   | –   | –                   | –   | –                | –   | –   | –                   | –   | –   | –                   | –   | –   | –                                                                          | –   | –   |
| –                   | –   | –   | –   | –   | –                   | –   | –                | –   | –   | –                   | –   | –   | –                   | –   | –   | –                                                                          | –   | –   |
| 85                  | 110 | 150 | 200 | –   | 85                  | 110 | 150              | 200 | –   | 85                  | 110 | 150 | 85                  | 110 | 150 | 100                                                                        | 150 | 200 |
| 55                  | 85  | 110 | 150 | 200 | 55                  | 85  | 110              | 150 | 200 | 55                  | 85  | 85  | 55                  | 85  | 85  | 55                                                                         | 85  | 110 |
| 55                  | 85  | 110 | –   | –   | 55                  | 85  | 110              | –   | –   | 55                  | 70  | 70  | 55                  | 70  | 70  | 55                                                                         | 85  | 100 |
| 36                  | 55  | 65  | –   | –   | 36                  | 55  | 85 <sup>1)</sup> | –   | –   | 36                  | 55  | 65  | 36                  | 55  | 65  | 36                                                                         | 55  | 63  |
| 5                   | 5   | 5   | 18  | 65  | 6                   | 6   | 6                | 18  | 65  | 19                  | 19  | 19  | 19                  | 19  | 19  | 25                                                                         | 36  | 36  |
| –                   | –   | –   | –   | –   | –                   | –   | –                | –   | –   | –                   | –   | –   | –                   | –   | –   | –                                                                          | –   | –   |
| –                   | –   | –   | –   | –   | –                   | –   | –                | –   | –   | –                   | –   | –   | –                   | –   | –   | –                                                                          | –   | –   |
| –                   | –   | –   | –   | –   | –                   | –   | –                | –   | –   | –                   | –   | –   | –                   | –   | –   | –                                                                          | –   | –   |
| –                   | –   | –   | –   | –   | –                   | –   | –                | –   | –   | –                   | –   | –   | –                   | –   | –   | –                                                                          | –   | –   |
| 138 (3P)   184 (4P) |     |     |     |     | 138 (3P)   184 (4P) |     |                  |     |     | 210 (3P)   280 (4P) |     |     | 210 (3P)   280 (4P) |     |     | 210 (3P)   280 (4P)                                                        |     |     |
| 248                 |     |     |     |     | 248                 |     |                  |     |     | 320                 |     |     | 320                 |     |     | 291                                                                        |     |     |
| 110                 |     |     |     |     | 110                 |     |                  |     |     | 120                 |     |     | 120                 |     |     | 171 (handle operating mechanism)   183 (stored energy operating mechanism) |     |     |
| 137                 |     |     |     |     | 137                 |     |                  |     |     | 253                 |     |     | 253                 |     |     | 225                                                                        |     |     |

# 3VA2 molded case circuit breakers up to 1600 A

## Application

2



|                                                                                                                    |               |         |  | 3VA20      | 3VA21      | 3VA22       |
|--------------------------------------------------------------------------------------------------------------------|---------------|---------|--|------------|------------|-------------|
| <b>Electrical characteristics according to IEC 60947-2</b>                                                         |               |         |  |            |            |             |
| Number of poles                                                                                                    |               |         |  | 3/4-pole   | 3/4-pole   | 3/4-pole    |
| Size                                                                                                               | A             |         |  | 100        | 160        | 250         |
| Rated current $I_n$                                                                                                | A             |         |  | 25 ... 100 | 25 ... 160 | 160 ... 250 |
| <b>Service life/endurance (operating cycles)</b>                                                                   |               |         |  |            |            |             |
| Mechanical (OPEN-CLOSE cycles)                                                                                     |               |         |  | 25000      | 25000      | 25000       |
| Electrical                                                                                                         | 380 ... 415 V | $I_n$   |  | 15000      | 14000      | 12000       |
|                                                                                                                    |               | $I_n/2$ |  | 20000      | 20000      | 17000       |
|                                                                                                                    | 690 V         |         |  | 10500      | 9800       | 7200        |
| <b>Trip units</b>                                                                                                  |               |         |  |            |            |             |
| ETU320                                                                                                             | LI            |         |  | ■          | ■          | ■           |
| ETU330                                                                                                             | LIG           |         |  | ■          | ■          | ■           |
| ETU340                                                                                                             | ELISA LI      |         |  | –          | ■          | ■           |
| ETU350                                                                                                             | LSI           |         |  | ■          | ■          | ■           |
| ETU550/ETU850                                                                                                      | LSI           |         |  | ■          | ■          | ■           |
| ETU560/ETU860                                                                                                      | LSIG          |         |  | ■          | ■          | ■           |
| ETU650                                                                                                             | LSI           |         |  | –          | –          | –           |
| ETU360                                                                                                             | LSIG          |         |  | –          | –          | –           |
| ETU660                                                                                                             | LSIG          |         |  | –          | –          | –           |
| <b>3VA2 molded case circuit breakers for motor/starter protection (IEC 60947-4-1 standards and specifications)</b> |               |         |  |            |            |             |
| Rated current $I_n$ at 50 °C ambient temperature                                                                   | A             |         |  | –          | 25 ... 100 | 160 ... 200 |
| <b>Service life/endurance (operating cycles)</b>                                                                   |               |         |  |            |            |             |
| Mechanical (CLOSE-OPEN cycles)                                                                                     |               |         |  | –          | 25000      | 25000       |
| Electrical                                                                                                         | 380 ... 415 V |         |  | –          | 14000      | 12000       |
| <b>Trip units</b>                                                                                                  |               |         |  |            |            |             |
| ETU310M                                                                                                            | I             |         |  | –          | ■          | ■           |
| ETU350M                                                                                                            | LSI           |         |  | –          | ■          | ■           |
| ETU550M                                                                                                            | LSI           |         |  | –          | ■          | ■           |
| ETU860M                                                                                                            | LSIG          |         |  | –          | ■          | ■           |
| ETU320                                                                                                             | LI            |         |  | –          | –          | –           |
| ETU350                                                                                                             | LSI           |         |  | –          | –          | –           |
| ETU360                                                                                                             | LSIG          |         |  | –          | –          | –           |
| ETU650                                                                                                             | LSIG          |         |  | –          | –          | –           |
| ETU660                                                                                                             | LSIG          |         |  | –          | –          | –           |

■ Available      – Not available/not present





| 3VA23       | 3VA24                        | 3VA25        | 3VA26    | 3VA27        |
|-------------|------------------------------|--------------|----------|--------------|
| 3/4-pole    | 3/4-pole                     | 3/4-pole     | 3/4-pole | 3/4-pole     |
| 400         | 630                          | 1000         | 1250     | 1600         |
| 250 ... 400 | 400 ... 630                  | 630 ... 1000 | 1250     | 800 ... 1600 |
| 20000       | 20000                        | 10000        | 10000    | 10000        |
| 6000        | 5000                         | 4600         | 4600     | 2000         |
| 12000       | 8000                         | 7000         | 7000     | —            |
| 4200        | 3500                         | 3200         | 3200     | —            |
| ■           | ■                            | ■            | ■        | ■            |
| ■           | ■                            | ■            | ■        | —            |
| ■           | ■                            | ■            | ■        | —            |
| ■           | ■                            | ■            | ■        | ■            |
| ■           | ■                            | ■            | ■        | —            |
| ■           | ■                            | ■            | ■        | —            |
| —           | —                            | —            | —        | ■            |
| —           | —                            | —            | —        | ■            |
| —           | —                            | —            | —        | ■            |
| 250         | 400 ... 500                  | 630 ... 800  | —        | 800 ... 1600 |
| 20000       | 20000                        | 10000        | —        | 10000        |
| 6000        | 5000 (400 A)<br>3000 (500 A) | 4600         | —        | 2000         |
| ■           | ■                            | —            | —        | —            |
| ■           | ■                            | ■            | —        | —            |
| ■           | ■                            | ■            | —        | —            |
| ■           | ■                            | ■            | —        | —            |
| —           | —                            | —            | —        | ■            |
| —           | —                            | —            | —        | ■            |
| —           | —                            | —            | —        | ■            |
| —           | —                            | —            | —        | ■            |

# Trip units

Protection system for 3VA molded case circuit breakers up to 1000 A

| Trip units                  | Thermal-magnetic                                                                                    | Electronic                                                                                                                                    | Electronic with display                                                                                                                                                                                                                                                  | Electronic with display and metering function                                                                                                                                                                                                                              |
|-----------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             |                    |                                                              |                                                                                                                                                                                        |                                                                                                                                                                                         |
|                             | <b>TM 2-series</b>                                                                                  | <b>ETU 3-series</b>                                                                                                                           | <b>ETU 5-series</b>                                                                                                                                                                                                                                                      | <b>ETU 8-series</b>                                                                                                                                                                                                                                                        |
| <b>Protective function</b>  |                                                                                                     |                                                                                                                                               |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                            |
| Line protection             | TM210, TM220, TM240                                                                                 | ETU320, ETU330, ETU340, ETU350                                                                                                                | ETU550, ETU560                                                                                                                                                                                                                                                           | ETU850, ETU860                                                                                                                                                                                                                                                             |
| Starter protection          | TM120M                                                                                              | ETU310M                                                                                                                                       | –                                                                                                                                                                                                                                                                        | –                                                                                                                                                                                                                                                                          |
| Motor protection            | –                                                                                                   | ETU350M                                                                                                                                       | ETU550M                                                                                                                                                                                                                                                                  | ETU860M                                                                                                                                                                                                                                                                    |
| <b>Integrated functions</b> |                                                                                                     |                                                                                                                                               |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                            |
| Parameterizing              | Setting and reading the parameters <ul style="list-style-type: none"> <li>Current values</li> </ul> | Setting and reading the parameters <ul style="list-style-type: none"> <li>Current values</li> <li>Delay times</li> </ul>                      | Setting and reading the parameters <ul style="list-style-type: none"> <li>Via display and communication</li> <li>Fine setting of the parameters</li> <li>Reading the measured values</li> </ul>                                                                          | Setting and reading the parameters <ul style="list-style-type: none"> <li>Via display and communication</li> <li>Fine setting of the parameters</li> <li>Reading the measured values</li> </ul>                                                                            |
| Status display              | –                                                                                                   | Indicating the ETU status via LEDs                                                                                                            | Indicating the ETU status via LEDs                                                                                                                                                                                                                                       | Indicating the ETU status via LEDs                                                                                                                                                                                                                                         |
| Interface                   | –                                                                                                   | Interface for test devices                                                                                                                    | Interface for test devices                                                                                                                                                                                                                                               | Interface for test devices                                                                                                                                                                                                                                                 |
| Metering function           | –                                                                                                   | –                                                                                                                                             | –                                                                                                                                                                                                                                                                        | Metering function integrated                                                                                                                                                                                                                                               |
| <b>Optional expansions</b>  |                                                                                                     |                                                                                                                                               |                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                            |
| 24 V module                 | –                                                                                                   | –                                                                                                                                             | <br>24 V module for continuous power supply (also without primary current through the molded case circuit breaker)                                                                     | <br>24 V module for continuous power supply (also without primary current through the molded case circuit breaker)                                                                     |
| External function box       | –                                                                                                   | <br>EFB300 external function box for connection to the ETU | <br>EFB300 external function box for connection to the ETU                                                                                                                            | <br>EFB300 external function box for connection to the ETU                                                                                                                            |
| Communications module       | –                                                                                                   | –                                                                                                                                             | <br>COM060 communications module                                                                                                                                                      | <br>COM060 communications module                                                                                                                                                      |
| Data concentrator           | –                                                                                                   | –                                                                                                                                             | <br>COM800/COM100 data concentrator with interface to <ul style="list-style-type: none"> <li>PROFIBUS</li> <li>PROFINET</li> <li>Modbus RTU</li> <li>Ethernet (Modbus TCP)</li> </ul> | <br>COM800/COM100 data concentrator with interface to <ul style="list-style-type: none"> <li>PROFIBUS</li> <li>PROFINET</li> <li>Modbus RTU</li> <li>Ethernet (Modbus TCP)</li> </ul> |
| External display            | –                                                                                                   | –                                                                                                                                             | <br>DSP800 external display for installing in the cubicle door                                                                                                                        | <br>DSP800 external display for installing in the cubicle door                                                                                                                        |
| Test device                 | –                                                                                                   | <br>TD300/TD400/TD500 test device                          | <br>TD300/TD400/TD500 test device                                                                                                                                                     | <br>TD300/TD400/TD500 test device                                                                                                                                                     |

## Protective functions of the 3VA1 with thermal-magnetic trip unit

|                                        | TM120M<br>AM | TM210<br>FTFM | TM220<br>ATFM | TM240<br>ATAM |
|----------------------------------------|--------------|---------------|---------------|---------------|
| <b>Protection</b>                      |              |               |               |               |
| Starter protection                     | ■            | —             | —             | —             |
| Line protection                        | —            | ■             | ■             | ■             |
| <b>Version available with</b>          |              |               |               |               |
| 1-pole and 2-pole breakers             | —            | ■             | —             | —             |
| 3-pole breaker                         | ■            | ■             | ■             | ■             |
| 4-pole breaker                         | —            | ■             | ■             | ■             |
| <b>Available protection parameters</b> |              |               |               |               |
| $I_r$ adjustable                       | —            | —             | ■             | ■             |
| $I_i$ adjustable                       | ■            | —             | —             | ■             |
| $I_r$ fixed                            | —            | ■             | —             | —             |
| $I_i$ fixed                            | —            | ■             | ■             | —             |
| $I_N$ <sup>1)</sup>                    | —            | ■             | ■             | ■             |

<sup>1)</sup> 3VA10 only without N protection

3VA11, 3VA12, 3VA13, 3VA14 without, 50% or 100% N protection  
50% N protection from  $I_{in} \geq 100$  A

## Protective functions of the 3VA2 with electronic trip unit

|                                                          | ETU310M<br>I | ETU320<br>LI | ETU330<br>LIG | ETU340<br>ELISA® | ETU350<br>LSI | ETU350M<br>LSI | ETU550<br>LSI | ETU550M<br>LSI | ETU560<br>LSIG | ETU850<br>LSI | ETU860<br>LSIG | ETU860M<br>LSIG |
|----------------------------------------------------------|--------------|--------------|---------------|------------------|---------------|----------------|---------------|----------------|----------------|---------------|----------------|-----------------|
| <b>Protection</b>                                        |              |              |               |                  |               |                |               |                |                |               |                |                 |
| Starter protection                                       | ■            | —            | —             | —                | —             | —              | —             | —              | —              | —             | —              | —               |
| Motor protection                                         | —            | —            | —             | —                | —             | ■              | —             | ■              | —              | —             | —              | ■               |
| Line protection                                          | —            | ■            | ■             | ■                | ■             | —              | ■             | —              | ■              | ■             | ■              | —               |
| Generator protection                                     | —            | ■            | ■             | —                | ■             | —              | ■             | —              | ■              | ■             | ■              | —               |
| <b>Version available with</b>                            |              |              |               |                  |               |                |               |                |                |               |                |                 |
| 3-pole without external neutral conductor transformer    | ■            | ■            | ■             | ■                | ■             | ■              | —             | ■              | —              | —             | —              | ■               |
| 3-pole with external neutral conductor transformer       | —            | —            | —             | —                | —             | —              | ■             | —              | ■              | ■             | ■              | —               |
| 4-pole with protected neutral conductor transformer      | —            | ■            | ■             | ■                | ■             | —              | ■             | —              | ■              | ■             | ■              | —               |
| <b>Available protection parameters</b>                   |              |              |               |                  |               |                |               |                |                |               |                |                 |
| Characteristic in L range                                | $I^2t$       | $I^2t$       | $I^2t$        | $I^4t$           | $I^2t$        | $I^2t$         | $I^2t$        | $I^2t$         | $I^2t$         | $I^2t$        | $I^2t$         | $I^2t$          |
| $I_r$                                                    | —            | ■            | ■             | ■                | ■             | ■              | ■             | ■              | ■              | ■             | ■              | ■               |
| $t_r$ at $6 \times I_r$                                  | —            | ■            | ■             | —                | ■             | —              | ■             | —              | ■              | ■             | ■              | —               |
| $t_c$                                                    | —            | —            | —             | —                | —             | ■              | —             | ■              | —              | —             | —              | ■               |
| $t_p$                                                    | —            | —            | —             | —                | —             | —              | —             | ■              | —              | —             | —              | ■               |
| Thermal memory                                           | ■            | ■            | ■             | ■                | ■             | ■              | ■             | ■              | ■              | ■             | ■              | ■               |
| Thermal memory can be switched on/off                    | —            | —            | —             | —                | —             | —              | ■             | —              | ■              | ■             | ■              | —               |
| $I_{sd}$                                                 | —            | —            | —             | —                | ■             | ■              | ■             | ■              | ■              | ■             | ■              | ■               |
| $t_{sd}$ at $8 \times I_r$                               | —            | —            | —             | —                | ■             | ■              | ■             | ■              | ■              | ■             | ■              | ■               |
| Characteristic in S range: $I^2t_{sd}$                   | —            | —            | —             | —                | ■             | —              | ■             | —              | ■              | ■             | ■              | —               |
| Characteristic in S range: selectable $I^2t_{sd}/t_{sd}$ | —            | —            | —             | —                | —             | —              | ■             | —              | ■              | ■             | ■              | —               |
| $I_i$                                                    | ■            | ■            | ■             | ■                | ■             | ■              | ■             | ■              | ■              | ■             | ■              | ■               |
| $I_N$ <sup>1)</sup>                                      | —            | ■            | ■             | ■                | ■             | —              | ■             | —              | ■              | ■             | ■              | —               |
| $I_g$                                                    | —            | —            | ■             | —                | —             | —              | —             | —              | ■              | —             | ■              | ■               |
| $t_g$ at $2 \times I_g$                                  | —            | —            | ■             | —                | —             | —              | —             | —              | ■              | —             | ■              | ■               |
| Characteristic in G range: $I^2t_g$                      | —            | —            | —             | —                | —             | —              | —             | —              | ■              | —             | ■              | ■               |
| Characteristic in G range: selectable $I^2t_g/t_g$       | —            | —            | —             | —                | —             | —              | —             | —              | ■              | —             | ■              | ■               |
| Ground-fault alarm function                              | —            | —            | —             | —                | —             | —              | —             | —              | ■              | —             | ■              | ■               |
| Blocking protection                                      | —            | —            | —             | —                | —             | —              | —             | —              | —              | —             | —              | ■               |
| ZSI in combination with an EFB external function box     | —            | ■            | ■             | ■                | ■             | ■              | ■             | ■              | ■              | ■             | ■              | ■               |

<sup>1)</sup> Available in a version with external current transformer for N conductor or 4-pole breaker

### Available for:

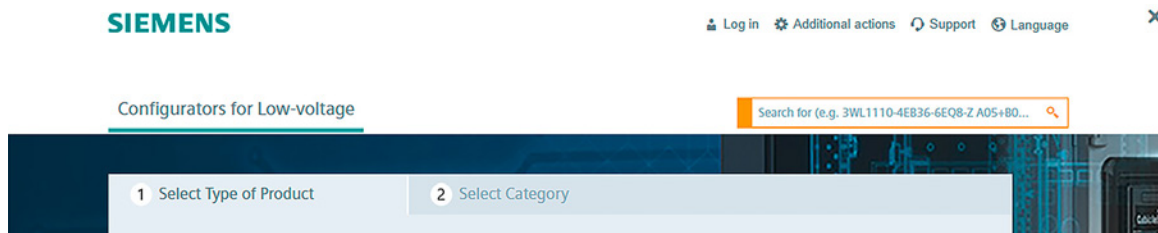
- Circuit breakers with ETU (4-pole)
- Circuit breakers with ETU5/ETU8 3-pole with external neutral conductor transformer or 4-pole

# Online configurator highlights

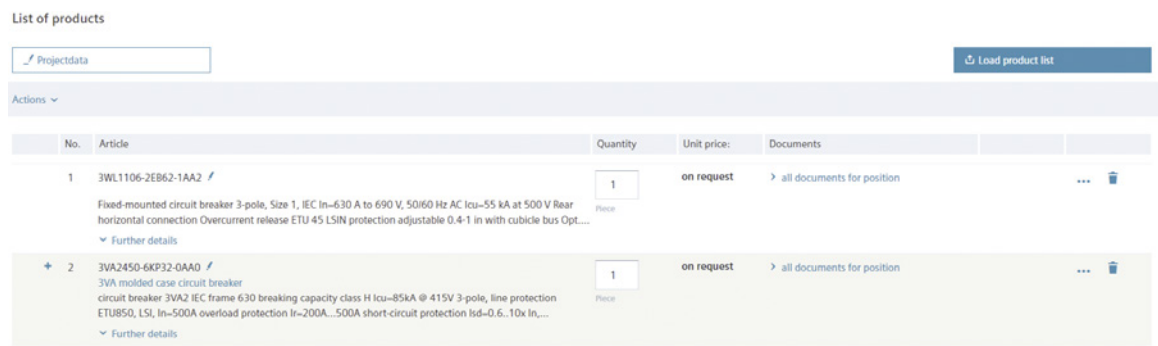
[www.siemens.com/lowvoltage/configurators](http://www.siemens.com/lowvoltage/configurators)

## Search function with global direct input

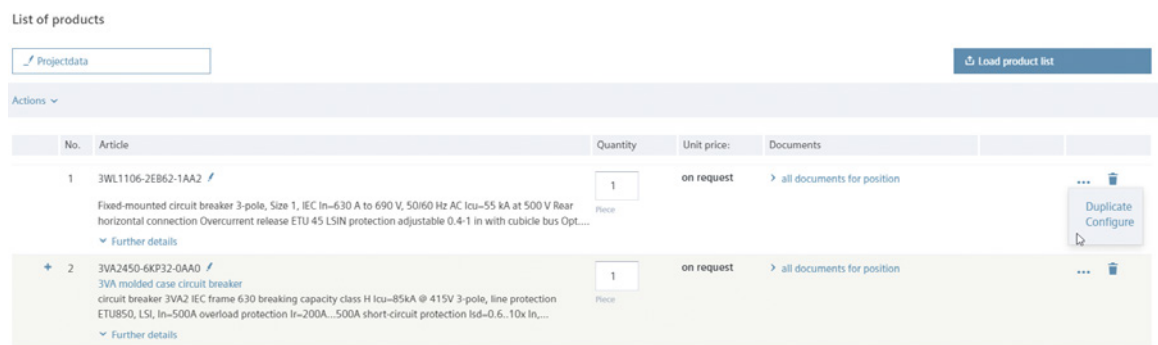
Searches for specific terms and jumps to the article number based on input to the correct configurator



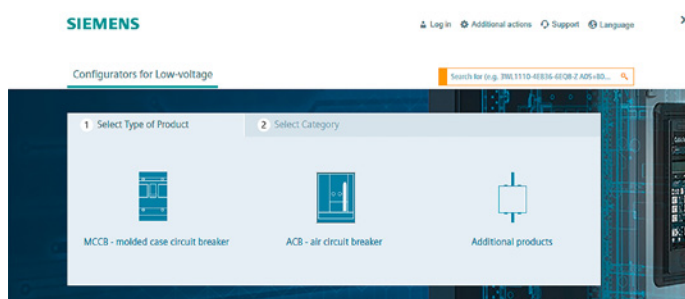
## Product list stores multiple configurations and can transfer them collectively to the shopping cart



## Recall of completed configurations for modification or additional configuration

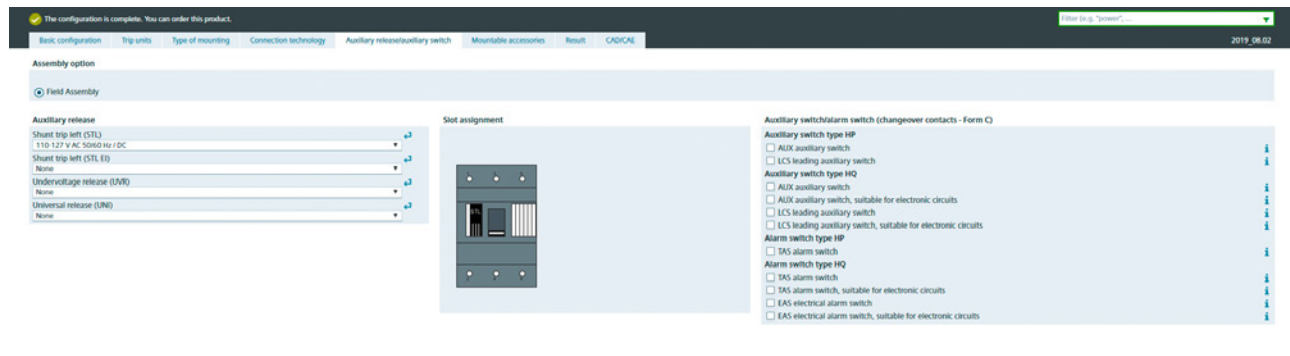


## Responsive Design

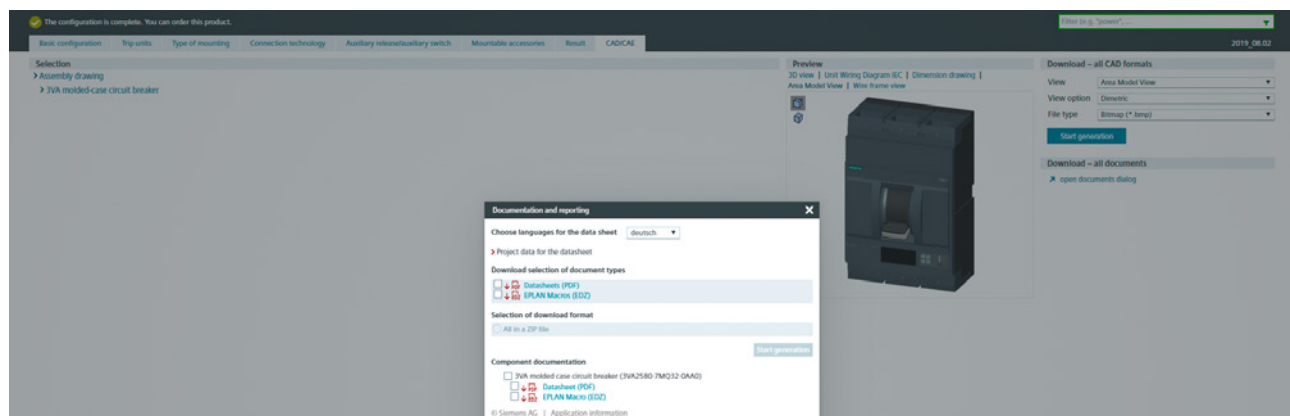


[www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator) and  
[www.siemens.com/lowvoltage/3va27-configurator](http://www.siemens.com/lowvoltage/3va27-configurator)

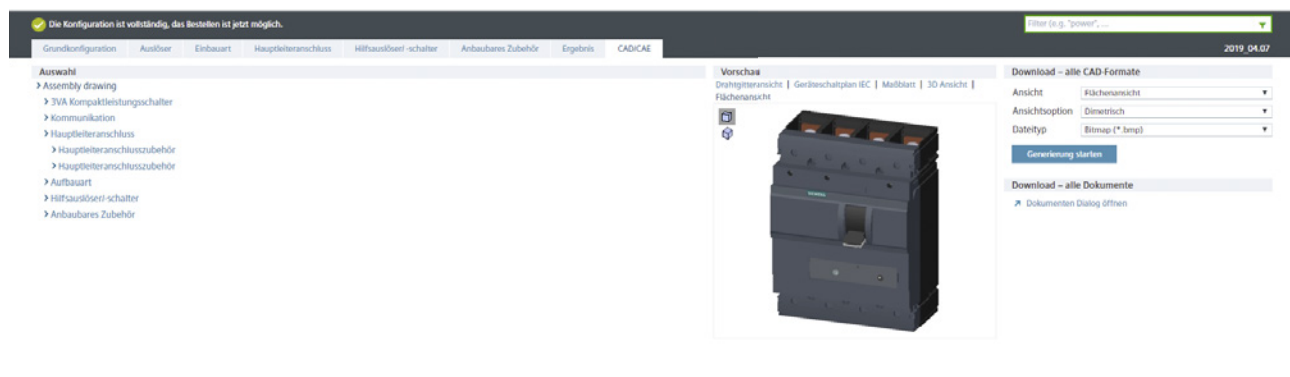
## Visualization of the internally mountable accessories (slot assignment)



## Download of the individual edz files for 3VA



Automatic generation of the 3D model, the 2D dimension drawing and the internal circuit diagram according to IEC



# System overview

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

2

## Molded case circuit breakers and switch disconnectors



3VA1 for standard applications

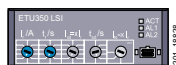


3VA2 for selective applications

## Trip units



Thermal-magnetic trip unit (TMTU)



Electronic trip unit (ETU)



Electronic trip unit (ETU) with display, and optionally with metering function

## Trip unit accessories



24 V module



Communications module



Data concentrator



External display



Test device

## Type of mounting



Fixed-mounted



Withdrawable unit, complete kit



Plug-in unit, complete kit

## Supplementary accessories



Auxiliary circuit connector



Door feedthrough



Position signaling switch



Cylinder lock adapter



Crank

## Main conductor connection



Bus connectors



Bus connectors broadened



Circular conductor terminals



Box terminals



Nut keeper kits, right-angled

## Connection accessories



Insulation accessories

### Note:

You will find a detailed range of accessories in the Accessories and spare parts section.



## Auxiliary releases/auxiliary switches



Shunt trip



Universal release



Undervoltage release



Auxiliary switch



Tripped signaling switch



Leading changeover switch LCS

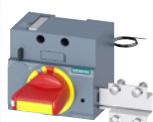


Electrical alarm switches EAS



Short circuit alarm switch SAS

## Mountable accessories



Manual operator



Motor operator



Residual current device

## Additional circuit breaker accessories



Cover frame



DIN-rail adapter

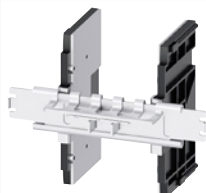


Locking provisions



Cylinder lock

## Mechanical interlocking mechanisms



Sliding bar interlock



Interlocking with rod



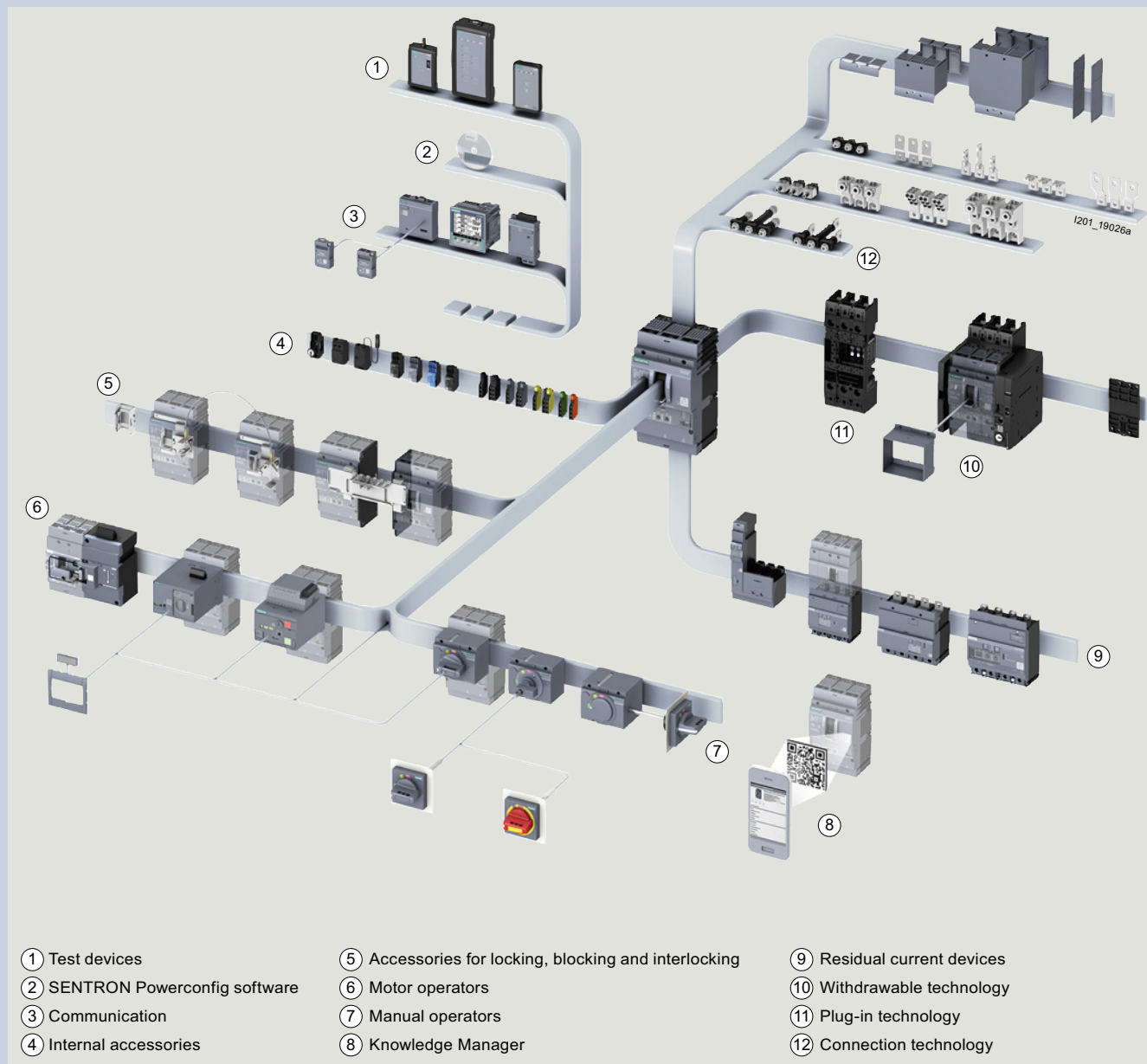
Handle interlocking module with Bowden cable

### Note:

You will find a detailed range of accessories in the Accessories and spare parts section.

# System overview

2





# Structure of the article numbers

## Basic configuration for line and generator protection

The structure shown below is intended as an overview of each position and its meaning.  
For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

|                                 |                      | 3VA 4 5 6 7 – 8 9 10 11 12 – 0AA0 |       |       |       |       |       |       |                 |                 |                 |       |       |       |     |
|---------------------------------|----------------------|-----------------------------------|-------|-------|-------|-------|-------|-------|-----------------|-----------------|-----------------|-------|-------|-------|-----|
| Trip units                      |                      |                                   |       |       |       |       |       |       |                 |                 |                 |       |       |       |     |
| Thermal-magnetic                |                      | 1                                 |       |       |       |       |       |       |                 |                 |                 |       |       |       |     |
| Electronic                      |                      | 2                                 |       |       |       |       |       |       |                 |                 |                 |       |       |       |     |
|                                 |                      | 3VA10                             | 3VA11 | 3VA12 | 3VA13 | 3VA14 | 3VA15 | 3VA20 | 3VA21           | 3VA22           | 3VA23           | 3VA24 | 3VA25 | 3VA26 |     |
| Size (SZ)                       | 100 A                | ■                                 | –     | –     | –     | –     | –     | ■     | –               | –               | –               | –     | –     | –     | 0   |
|                                 | 160 A                | –                                 | ■     | –     | –     | –     | –     | –     | ■               | –               | –               | –     | –     | –     | 1   |
|                                 | 250 A                | –                                 | –     | ■     | –     | –     | –     | –     | –               | ■               | –               | –     | –     | –     | 2   |
|                                 | 400 A                | –                                 | –     | –     | ■     | –     | –     | –     | –               | –               | ■               | –     | –     | –     | 3   |
|                                 | 630 A                | –                                 | –     | –     | –     | ■     | –     | –     | –               | –               | –               | ■     | –     | –     | 4   |
|                                 | 1000 A               | –                                 | –     | –     | –     | –     | ■     | –     | –               | –               | –               | –     | ■     | –     | 5   |
|                                 | 1250 A               | –                                 | –     | –     | –     | –     | –     | –     | –               | –               | –               | –     | –     | ■     | 6   |
| Max. rated current $I_{n \max}$ | Line protection      | 16 A                              | ■     | ■     | –     | –     | –     | –     | –               | –               | –               | –     | –     | –     | 9 6 |
|                                 |                      | 20 A                              | ■     | ■     | –     | –     | –     | –     | –               | –               | –               | –     | –     | –     | 2 0 |
|                                 |                      | 25 A                              | ■     | ■     | –     | –     | –     | ■     | ■               | –               | –               | –     | –     | –     | 2 5 |
|                                 |                      | 32 A                              | ■     | ■     | –     | –     | –     | –     | –               | –               | –               | –     | –     | –     | 3 2 |
|                                 |                      | 40 A                              | ■     | ■     | –     | –     | –     | ■     | ■               | –               | –               | –     | –     | –     | 4 0 |
|                                 |                      | 50 A                              | ■     | ■     | –     | –     | –     | –     | –               | –               | –               | –     | –     | –     | 5 0 |
|                                 |                      | 63 A                              | ■     | ■     | –     | –     | –     | ■     | ■               | –               | –               | –     | –     | –     | 6 3 |
|                                 |                      | 80 A                              | ■     | ■     | –     | –     | –     | –     | –               | –               | –               | –     | –     | –     | 8 0 |
|                                 |                      | 100 A                             | ■     | ■     | –     | –     | –     | ■     | ■               | –               | –               | –     | –     | –     | 1 0 |
|                                 |                      | 125 A                             | –     | ■     | –     | –     | –     | –     | –               | –               | –               | –     | –     | –     | 1 2 |
|                                 |                      | 160 A                             | –     | ■     | ■     | –     | –     | –     | ■ <sup>1)</sup> | ■               | –               | –     | –     | –     | 1 6 |
|                                 |                      | 200 A                             | –     | –     | ■     | –     | –     | –     | –               | –               | –               | –     | –     | –     | 2 0 |
|                                 |                      | 250 A                             | –     | –     | ■     | –     | –     | –     | –               | ■ <sup>1)</sup> | ■               | –     | –     | –     | 2 5 |
|                                 |                      | 320 A                             | –     | –     | –     | ■     | –     | –     | –               | –               | –               | –     | –     | –     | 3 2 |
|                                 |                      | 400 A                             | –     | –     | –     | ■     | –     | –     | –               | ■ <sup>1)</sup> | ■ <sup>2)</sup> | –     | –     | –     | 4 0 |
|                                 |                      | 500 A                             | –     | –     | –     | –     | ■     | –     | –               | –               | ■ <sup>2)</sup> | –     | –     | –     | 5 0 |
|                                 |                      | 630 A                             | –     | –     | –     | –     | ■     | ■     | –               | –               | –               | ■     | –     | –     | 6 3 |
|                                 |                      | 800 A                             | –     | –     | –     | –     | –     | ■     | –               | –               | –               | –     | ■     | –     | 8 0 |
|                                 |                      | 1000 A                            | –     | –     | –     | –     | ■     | –     | –               | –               | –               | –     | ■     | –     | 1 0 |
|                                 |                      | 1250 A                            | –     | –     | –     | –     | –     | –     | –               | –               | –               | –     | –     | ■     | 1 2 |
|                                 | Generator protection | 25 A                              | –     | –     | –     | –     | –     | ■     | ■               | –               | –               | –     | –     | –     | 2 5 |
|                                 |                      | 40 A                              | –     | –     | –     | –     | –     | ■     | ■               | –               | –               | –     | –     | –     | 4 0 |
|                                 |                      | 63 A                              | –     | –     | –     | –     | –     | ■     | ■               | –               | –               | –     | –     | –     | 6 3 |
|                                 |                      | 100 A                             | –     | –     | –     | –     | –     | ■     | ■               | –               | –               | –     | –     | –     | 1 0 |
|                                 |                      | 160 A                             | –     | –     | –     | –     | –     | ■     | ■               | –               | –               | –     | –     | –     | 1 6 |
|                                 |                      | 250 A                             | –     | –     | –     | –     | –     | –     | ■               | ■               | –               | –     | –     | –     | 2 5 |
|                                 |                      | 400 A                             | –     | –     | –     | –     | –     | –     | –               | ■               | ■ <sup>2)</sup> | –     | –     | –     | 4 0 |
|                                 |                      | 500 A                             | –     | –     | –     | –     | –     | –     | –               | –               | ■ <sup>2)</sup> | –     | –     | –     | 5 0 |
|                                 |                      | 630 A                             | –     | –     | –     | –     | –     | –     | –               | –               | ■               | ■     | –     | –     | 6 3 |
|                                 |                      | 800 A                             | –     | –     | –     | –     | –     | –     | –               | –               | –               | ■     | –     | –     | 8 0 |
|                                 |                      | 1000 A                            | –     | –     | –     | –     | –     | –     | –               | –               | –               | ■     | –     | –     | 1 0 |
|                                 |                      | 1250 A                            | –     | –     | –     | –     | –     | –     | –               | –               | –               | –     | ■     | –     | 1 2 |
|                                 | Switch disconnect    | 63 A                              | –     | ■     | –     | –     | –     | –     | –               | –               | –               | –     | –     | –     | 6 3 |
|                                 |                      | 100 A                             | –     | ■     | –     | –     | –     | –     | –               | –               | –               | –     | –     | –     | 1 0 |
|                                 |                      | 125 A                             | –     | ■     | –     | –     | –     | –     | –               | –               | –               | –     | –     | –     | 1 2 |
|                                 |                      | 160 A                             | –     | ■     | –     | –     | –     | –     | –               | –               | –               | –     | –     | –     | 1 6 |
|                                 |                      | 250 A                             | –     | –     | ■     | –     | –     | –     | –               | –               | –               | –     | –     | –     | 2 5 |
|                                 |                      | 400 A                             | –     | –     | –     | ■     | –     | –     | –               | –               | –               | –     | –     | –     | 4 0 |
|                                 |                      | 500 A                             | –     | –     | –     | –     | ■     | –     | –               | –               | –               | –     | –     | –     | 5 0 |
|                                 |                      | 630 A                             | –     | –     | –     | –     | ■     | –     | –               | –               | –               | –     | –     | –     | 6 3 |

<sup>1)</sup> Rated current not available with ETU340 ELISA LI

<sup>2)</sup> With ETU 5-series and 8-series, utilization category B and ETU340 ELISA LI only

|                                                                                                                                      |                                                                     | 3VA                                  |       |                 |       |       |       |       |       |       |       |       |       | 4     | 5      | 6        | 7                 | 8 | 9 | 10 | 11 | 12 | – 0AA0 |  |
|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------|-------|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|----------|-------------------|---|---|----|----|----|--------|--|
|                                                                                                                                      |                                                                     | 3VA10                                | 3VA11 | 3VA12           | 3VA13 | 3VA14 | 3VA15 | 3VA20 | 3VA21 | 3VA22 | 3VA23 | 3VA24 | 3VA25 | 3VA26 |        |          |                   |   |   |    |    |    |        |  |
| Short-circuit breaking capacity<br>$I_{cu} = I_{cs}$ at 415 V                                                                        | Without overload protection                                         | –                                    | ■     | –               | ■     | –     | ■     | –     | –     | –     | –     | –     | –     | –     | 1      |          |                   |   |   |    |    |    |        |  |
|                                                                                                                                      | Without short-circuit protection                                    | –                                    | ■     | ■               | ■     | ■     | –     | –     | –     | –     | –     | –     | –     | –     | 1      |          |                   |   |   |    |    |    |        |  |
|                                                                                                                                      | 16 kA                                                               | ■                                    | –     | –               | –     | –     | –     | –     | –     | –     | –     | –     | –     | –     | 2      |          |                   |   |   |    |    |    |        |  |
|                                                                                                                                      | 25 kA                                                               | ■                                    | ■     | –               | –     | –     | –     | –     | –     | –     | –     | –     | –     | –     | 3      |          |                   |   |   |    |    |    |        |  |
|                                                                                                                                      | 36 kA                                                               | ■                                    | ■     | ■               | ■     | ■     | –     | –     | –     | –     | –     | –     | –     | –     | 4      |          |                   |   |   |    |    |    |        |  |
|                                                                                                                                      | 55 kA                                                               | –                                    | ■     | ■               | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | 5      |          |                   |   |   |    |    |    |        |  |
|                                                                                                                                      | 70 kA                                                               | –                                    | ■     | ■               | ■     | ■     | ■     | –     | –     | –     | –     | –     | –     | –     | 6      |          |                   |   |   |    |    |    |        |  |
|                                                                                                                                      | 85 kA                                                               | –                                    | –     | –               | –     | –     | –     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | 6      |          |                   |   |   |    |    |    |        |  |
|                                                                                                                                      | 110 kA                                                              | –                                    | –     | –               | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | 7      |          |                   |   |   |    |    |    |        |  |
|                                                                                                                                      | 150 kA                                                              | –                                    | –     | –               | –     | –     | –     | ■     | ■     | ■     | ■     | ■     | ■     | –     | 8      |          |                   |   |   |    |    |    |        |  |
| 200 kA <sup>1)</sup>                                                                                                                 | –                                                                   | –                                    | –     | –               | –     | –     | –     | ■     | ■     | ■     | ■     | –     | –     | 0     |        |          |                   |   |   |    |    |    |        |  |
| <sup>1)</sup> Available for 3 and 8-series ETUs                                                                                      |                                                                     |                                      |       |                 |       |       |       |       |       |       |       |       |       |       |        |          |                   |   |   |    |    |    |        |  |
| Protective function thermal-magnetic                                                                                                 | No protection                                                       | –                                    | ■     | ■               | ■     | ■     | –     | –     | –     | –     | –     | –     | –     | –     | SD100  | –        |                   |   | A |    |    |    |        |  |
|                                                                                                                                      | Line protection                                                     | ■                                    | ■     | –               | –     | –     | –     | –     | –     | –     | –     | –     | –     | –     | TM210  | FTFM     |                   |   | D |    |    |    |        |  |
|                                                                                                                                      |                                                                     | –                                    | ■     | –               | –     | –     | –     | –     | –     | –     | –     | –     | –     | –     | TM220  | ATFM     |                   |   | E |    |    |    |        |  |
|                                                                                                                                      |                                                                     | –                                    | ■     | ■               | ■     | ■     | ■     | –     | –     | –     | –     | –     | –     | –     | TM240  | ATAM     |                   |   | F |    |    |    |        |  |
| Protective function thermal-magnetic, neutral conductor protection                                                                   | No protection                                                       |                                      |       |                 |       |       |       |       |       |       |       |       |       |       |        |          | A                 |   |   |    |    |    |        |  |
|                                                                                                                                      | Line protection                                                     | Without neutral conductor protection |       |                 |       |       |       |       |       |       |       |       |       |       |        |          | E                 |   |   |    |    |    |        |  |
|                                                                                                                                      |                                                                     | 50% neutral conductor protection     |       |                 |       |       |       |       |       |       |       |       |       |       |        |          | F                 |   |   |    |    |    |        |  |
|                                                                                                                                      |                                                                     | 100% neutral conductor protection    |       |                 |       |       |       |       |       |       |       |       |       |       |        |          | G                 |   |   |    |    |    |        |  |
| Protective function electronic                                                                                                       | Line protection                                                     | –                                    | –     | –               | –     | –     | –     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ETU320 | LI       | (N) <sup>2)</sup> | H | L |    |    |    |        |  |
|                                                                                                                                      |                                                                     | –                                    | –     | –               | –     | –     | –     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ETU330 | LIG      | (N) <sup>2)</sup> | H | M |    |    |    |        |  |
|                                                                                                                                      |                                                                     | –                                    | –     | –               | –     | –     | –     | –     | ■     | ■     | ■     | ■     | ■     | ■     | ETU340 | ELISA LI | (N) <sup>2)</sup> | H | K |    |    |    |        |  |
|                                                                                                                                      | Line and generator protection                                       | –                                    | –     | –               | –     | –     | –     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ETU350 | LSI      | (N) <sup>2)</sup> | H | N |    |    |    |        |  |
|                                                                                                                                      | Line and generator protection, with display                         | –                                    | –     | –               | –     | –     | –     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ETU550 | LSI      | (N) <sup>3)</sup> | J | P |    |    |    |        |  |
|                                                                                                                                      |                                                                     | –                                    | –     | –               | –     | –     | –     | ■     | ■     | ■     | ■     | ■     | ■     | –     | ETU560 | LSIG     | (N) <sup>3)</sup> | J | Q |    |    |    |        |  |
|                                                                                                                                      | Line and generator protection, with display, with metering function | –                                    | –     | –               | –     | –     | –     | ■     | ■     | ■     | ■     | ■     | ■     | –     | ETU850 | LSI      | (N) <sup>3)</sup> | K | P |    |    |    |        |  |
|                                                                                                                                      |                                                                     | –                                    | –     | –               | –     | –     | –     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ETU860 | LSIG     | (N) <sup>3)</sup> | K | Q |    |    |    |        |  |
| <sup>2)</sup> Neutral conductor protection for 4-pole breakers                                                                       |                                                                     |                                      |       |                 |       |       |       |       |       |       |       |       |       |       |        |          |                   |   |   |    |    |    |        |  |
| <sup>3)</sup> Neutral conductor protection for 3-pole breakers with an external neutral conductor transformer or for 4-pole breakers |                                                                     |                                      |       |                 |       |       |       |       |       |       |       |       |       |       |        |          |                   |   |   |    |    |    |        |  |
| Number of poles                                                                                                                      | 1-pole                                                              | Line protection                      | –     | ■ <sup>4)</sup> | –     | –     | –     | –     | –     | –     | –     | –     | –     | –     |        |          |                   |   |   |    | 1  |    |        |  |
|                                                                                                                                      | 2-pole                                                              | Line protection                      | –     | ■ <sup>4)</sup> | –     | –     | –     | –     | –     | –     | –     | –     | –     | –     |        |          |                   |   |   |    | 2  |    |        |  |
|                                                                                                                                      | 3-pole                                                              | Line protection                      | ■     | ■               | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     |        |          |                   |   |   |    | 3  |    |        |  |
|                                                                                                                                      |                                                                     | Generator protection                 | –     | –               | –     | –     | –     | –     | ■     | ■     | ■     | ■     | ■     | ■     | ■      |          |                   |   |   |    | 3  |    |        |  |
|                                                                                                                                      | 4-pole                                                              | Line protection                      | ■     | ■               | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■      |          |                   |   |   |    | 4  |    |        |  |
|                                                                                                                                      |                                                                     | Generator protection                 | –     | –               | –     | –     | –     | –     | ■     | ■     | ■     | ■     | ■     | ■     | ■      |          |                   |   |   |    | 4  |    |        |  |
| <sup>4)</sup> For TM210 only                                                                                                         |                                                                     |                                      |       |                 |       |       |       |       |       |       |       |       |       |       |        |          |                   |   |   |    |    |    |        |  |
| Connection technology                                                                                                                | Nut keeper kit                                                      | Line protection                      | ■     | ■               | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     |        |          |                   |   |   |    | 2  |    |        |  |
|                                                                                                                                      |                                                                     | Generator protection                 | –     | –               | –     | –     | –     | –     | ■     | ■     | ■     | ■     | ■     | ■     | ■      |          |                   |   |   |    | 2  |    |        |  |
|                                                                                                                                      | Box terminal                                                        | Line protection                      | ■     | ■               | –     | –     | –     | –     | ■     | ■     | –     | –     | –     | –     | –      |          |                   |   |   |    | 6  |    |        |  |
|                                                                                                                                      |                                                                     | Generator protection                 | –     | –               | –     | –     | –     | –     | ■     | ■     | –     | –     | –     | –     | –      |          |                   |   |   |    | 6  |    |        |  |

<sup>1)</sup> Available for 3 and 8-series ETUs<sup>2)</sup> Neutral conductor protection for 4-pole breakers<sup>3)</sup> Neutral conductor protection for 3-pole breakers with an external neutral conductor transformer or for 4-pole breakers<sup>4)</sup> For TM210 only

# Structure of the article numbers

## Basic configuration for starter and motor protection

The structure shown below is intended as an overview of each position and its meaning.  
For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

|                                 |                                                            | 3VA 4 5 6 7 8 9 10 11 12 – 0AA0 |       |       |       |       |       |       |       |       |       |   |   |
|---------------------------------|------------------------------------------------------------|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|---|
| Trip units                      | Thermal-magnetic                                           | 1                               |       |       |       |       |       |       |       |       |       |   |   |
|                                 | Electronic                                                 | 2                               |       |       |       |       |       |       |       |       |       |   |   |
|                                 |                                                            | 3VA11                           | 3VA12 | 3VA13 | 3VA14 | 3VA15 | 3VA21 | 3VA22 | 3VA23 | 3VA24 | 3VA25 |   |   |
| Size (SZ)                       | 160 A                                                      | ■                               | -     | -     | -     | -     | ■     | -     | -     | -     | -     | 1 |   |
|                                 | 250 A                                                      | -                               | ■     | -     | -     | -     | -     | ■     | -     | -     | -     | 2 |   |
|                                 | 400 A                                                      | -                               | -     | ■     | -     | -     | -     | -     | ■     | -     | -     | 3 |   |
|                                 | 630 A                                                      | -                               | -     | -     | ■     | -     | -     | -     | -     | ■     | -     | 4 |   |
|                                 | 1000 A                                                     | -                               | -     | -     | -     | ■     | -     | -     | -     | -     | ■     | 5 |   |
| Max. rated current $I_{n \max}$ | Starter protection                                         | 1 A                             | ■     | -     | -     | -     | -     | -     | -     | -     | -     | 8 | 1 |
|                                 |                                                            | 2 A                             | ■     | -     | -     | -     | -     | -     | -     | -     | -     | 0 | 2 |
|                                 |                                                            | 4 A                             | ■     | -     | -     | -     | -     | -     | -     | -     | -     | 0 | 4 |
|                                 |                                                            | 8 A                             | ■     | -     | -     | -     | -     | -     | -     | -     | -     | 0 | 8 |
|                                 |                                                            | 12.5 A                          | ■     | -     | -     | -     | -     | -     | -     | -     | -     | 9 | 2 |
|                                 |                                                            | 20 A                            | ■     | -     | -     | -     | -     | -     | -     | -     | -     | 2 | 0 |
|                                 |                                                            | 25 A                            | -     | -     | -     | -     | -     | ■     | -     | -     | -     | 2 | 5 |
|                                 |                                                            | 32 A                            | ■     | -     | -     | -     | -     | -     | -     | -     | -     | 3 | 2 |
|                                 |                                                            | 40 A                            | ■     | -     | -     | -     | -     | ■     | -     | -     | -     | 4 | 0 |
|                                 |                                                            | 50 A                            | ■     | -     | -     | -     | -     | -     | -     | -     | -     | 5 | 0 |
|                                 |                                                            | 63 A                            | ■     | -     | -     | -     | -     | ■     | -     | -     | -     | 6 | 3 |
|                                 |                                                            | 80 A                            | ■     | -     | -     | -     | -     | -     | -     | -     | -     | 8 | 0 |
|                                 |                                                            | 100 A                           | ■     | -     | -     | -     | -     | ■     | -     | -     | -     | 1 | 0 |
|                                 |                                                            | 125 A                           | ■     | -     | -     | -     | -     | -     | -     | -     | -     | 1 | 2 |
|                                 |                                                            | 160 A                           | -     | ■     | -     | -     | -     | -     | ■     | -     | -     | 1 | 6 |
|                                 |                                                            | 200 A                           | -     | ■     | -     | -     | -     | -     | ■     | -     | -     | 2 | 0 |
|                                 |                                                            | 250 A                           | -     | -     | ■     | -     | -     | -     | -     | ■     | -     | 2 | 5 |
|                                 |                                                            | 320 A                           | -     | -     | ■     | -     | -     | -     | -     | -     | -     | 3 | 2 |
|                                 |                                                            | 400 A                           | -     | -     | -     | ■     | -     | -     | -     | ■     | -     | 4 | 0 |
|                                 |                                                            | 500 A                           | -     | -     | -     | ■     | -     | -     | -     | ■     | -     | 5 | 0 |
|                                 |                                                            | 630 A                           | -     | -     | -     | -     | ■     | -     | -     | -     | -     | 6 | 3 |
|                                 |                                                            | 800 A                           | -     | -     | -     | -     | ■     | -     | -     | -     | -     | 8 | 0 |
|                                 | Motor protection                                           | 25 A                            | -     | -     | -     | -     | -     | ■     | -     | -     | -     | 2 | 5 |
|                                 |                                                            | 40 A                            | -     | -     | -     | -     | -     | ■     | -     | -     | -     | 4 | 0 |
|                                 |                                                            | 63 A                            | -     | -     | -     | -     | -     | ■     | -     | -     | -     | 6 | 3 |
|                                 |                                                            | 100 A                           | -     | -     | -     | -     | -     | ■     | -     | -     | -     | 1 | 0 |
|                                 |                                                            | 160 A                           | -     | -     | -     | -     | -     | -     | ■     | -     | -     | 1 | 6 |
|                                 |                                                            | 200 A                           | -     | -     | -     | -     | -     | -     | ■     | -     | -     | 2 | 0 |
|                                 |                                                            | 250 A                           | -     | -     | -     | -     | -     | -     | -     | ■     | -     | 2 | 5 |
|                                 |                                                            | 400 A                           | -     | -     | -     | -     | -     | -     | -     | ■     | -     | 4 | 0 |
|                                 |                                                            | 500 A                           | -     | -     | -     | -     | -     | -     | -     | ■     | -     | 5 | 0 |
|                                 |                                                            | 630 A                           | -     | -     | -     | -     | -     | -     | -     | -     | ■     | 6 | 3 |
|                                 |                                                            | 800 A                           | -     | -     | -     | -     | -     | -     | -     | -     | ■     | 8 | 0 |
|                                 | Short-circuit breaking capacity $I_{cu} = I_{cs}$ at 415 V | 55 kA                           | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | 5 |   |
|                                 |                                                            | 70 kA                           | ■     | ■     | ■     | ■     | ■     | -     | -     | -     | -     | 6 |   |
|                                 |                                                            | 110 kA                          | -     | -     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | 7 |   |
|                                 |                                                            | 200 kA                          | -     | -     | -     | -     | -     | ■     | ■     | ■     | ■     | 0 |   |



|                                      |                                                        |                    | 3VA   |       |       |       |       |       |       |       |       |       | 4       | 5      | 6  | 7 | – | 8 | 9 | 10 | 11 | 12 | – 0AA0 |  |
|--------------------------------------|--------------------------------------------------------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|--------|----|---|---|---|---|----|----|----|--------|--|
|                                      |                                                        |                    | 3VA11 | 3VA12 | 3VA13 | 3VA14 | 3VA15 | 3VA21 | 3VA22 | 3VA23 | 3VA24 | 3VA25 |         |        |    |   |   |   |   |    |    |    |        |  |
| Protective function thermal-magnetic | Starter protection                                     |                    | ■     | –     | –     | –     | –     | –     | –     | –     | –     | –     | –       | TM110M | FM |   | M | G |   |    |    |    |        |  |
|                                      |                                                        |                    | ■     | ■     | ■     | ■     | ■     | –     | –     | –     | –     | –     | –       | TM120M | AM |   | M | H |   |    |    |    |        |  |
| Protective function electronic       | Motor protection                                       |                    | –     | –     | –     | –     | –     | ■     | ■     | ■     | ■     | ■     | ETU350M | LSI    |    | M | N |   |   |    |    |    |        |  |
|                                      | Motor protection, with display                         |                    | –     | –     | –     | –     | –     | ■     | ■     | ■     | ■     | ■     | ETU550M | LSI    |    | M | P |   |   |    |    |    |        |  |
|                                      | Motor protection, with display, with metering function |                    | –     | –     | –     | –     | –     | ■     | ■     | ■     | ■     | ■     | ETU860M | LSIG   |    | M | Q |   |   |    |    |    |        |  |
|                                      | Starter protection                                     |                    | –     | –     | –     | –     | –     | ■     | ■     | ■     | ■     | –     | ETU310M | I      |    | M | S |   |   |    |    |    |        |  |
| Number of poles                      | 3-pole                                                 | Starter protection | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | –     |         |        |    |   |   |   |   | 3  |    |    |        |  |
|                                      |                                                        | Motor protection   | –     | –     | –     | –     | –     | ■     | ■     | ■     | ■     | ■     |         |        |    |   |   |   |   | 3  |    |    |        |  |
| Connection technology                | Nut keeper kit                                         | Starter protection | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | ■     | –     |         |        |    |   |   |   |   |    | 2  |    |        |  |
|                                      |                                                        | Motor protection   | –     | –     | –     | –     | –     | ■     | ■     | ■     | ■     | ■     |         |        |    |   |   |   |   |    | 2  |    |        |  |
|                                      | Box terminals                                          | Starter protection | ■     | –     | –     | –     | –     | ■     | –     | –     | –     | –     |         |        |    |   |   |   |   |    | 6  |    |        |  |
|                                      |                                                        | Motor protection   | –     | –     | –     | –     | –     | ■     | –     | –     | –     | –     |         |        |    |   |   |   |   |    | 6  |    |        |  |

# Internal accessories

## Auxiliary switches and alarm switches

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

2

3VA20  
3VA21  
3VA22  
3VA23  
3VA24  
3VA25  
3VA26

3VA12

3VA13

3VA14

3VA15

3VA10

3VA11

### Auxiliary switches AUX

- Used to signal the position of the main contacts of the molded case circuit breaker
- The contacts of the auxiliary switch and the molded case circuit breaker close in unison



| Type | Width              | $I_e$ max<br>(IEC 60947-5-1) | $U_e$ AC/DC<br>(IEC 60947-5-1) | Version               |   |  |  |  |               |
|------|--------------------|------------------------------|--------------------------------|-----------------------|---|--|--|--|---------------|
| HQ   | 7 mm<br>(1 slot)   | 6 A                          | 240 V/250 V                    | Standard              |   |  |  |  | 3VA9988-0AA12 |
|      |                    | < 1 A                        | 24 V/24 V                      | Electronic-compatible |   |  |  |  | 3VA9988-0AA13 |
| HP   | 14 mm<br>(2 slots) | 10 A                         | 600 V/250 V                    | Standard              | – |  |  |  | 3VA9988-0AA11 |

### Leading changeover switches LCS

- Used for load shedding, for example
- Signal the opening of the main contacts with a lead time of 20 ms in advance of molded case circuit breaker trips



| Type | Width              | $I_e$ max<br>(IEC 60947-5-1) | $U_e$ AC/DC<br>(IEC 60947-5-1) | Version               |   |  |  |  |               |
|------|--------------------|------------------------------|--------------------------------|-----------------------|---|--|--|--|---------------|
| HQ   | 7 mm<br>(1 slot)   | 6 A                          | 240 V/250 V                    | Standard              | – |  |  |  | 3VA9988-0AA22 |
|      |                    | < 1 A                        | 24 V/24 V                      | Electronic-compatible | – |  |  |  | 3VA9988-0AA23 |
| HP   | 14 mm<br>(2 slots) | 10 A                         | 600 V/250 V                    | Standard              | – |  |  |  | 3VA9988-0AA21 |

### Trip alarm switches TAS

- Signal every circuit breaker tripping operation
- Are actuated whenever the molded case circuit breaker switches to the TRIP position



| Type | Width              | $I_e$ max<br>(IEC 60947-5-1) | $U_e$ AC/DC<br>(IEC 60947-5-1) | Version               |   |  |  |  |               |
|------|--------------------|------------------------------|--------------------------------|-----------------------|---|--|--|--|---------------|
| HQ   | 7 mm<br>(1 slot)   | 6 A                          | 240 V/250 V                    | Standard              |   |  |  |  | 3VA9988-0AB12 |
|      |                    | < 1 A                        | 24 V/24 V                      | Electronic-compatible |   |  |  |  | 3VA9988-0AB13 |
| HP   | 14 mm<br>(2 slots) | 10 A                         | 600 V/250 V                    | Standard              | – |  |  |  | 3VA9988-0AB11 |

### Short circuit alarm switches SAS

- Signal tripping operations only if they have been initiated by a short circuit
- The tripping operation must be reset by deliberate acknowledgement of the fault before the molded case circuit breaker can be switched to ON again



| Type | Width            | $I_e$ max<br>(IEC 60947-5-1) | $U_e$ AC/DC<br>(IEC 60947-5-1) | Version               |   |               |               |   |   |
|------|------------------|------------------------------|--------------------------------|-----------------------|---|---------------|---------------|---|---|
| HQ   | 7 mm<br>(1 slot) | 6 A                          | 240 V/250 V                    | Standard              | – | 3VA9988-0AB32 | 3VA9988-0AB34 | – | – |
|      |                  | < 1 A                        | 24 V/24 V                      | Electronic-compatible | – | 3VA9988-0AB33 | 3VA9988-0AB35 | – | – |

### Electrical alarm switches EAS

- Are actuated as soon as the main contacts of the molded case circuit breaker open in the event that the breaker is tripped by the ETU



| Type | Width            | $I_e$ max<br>(IEC 60947-5-1) | $U_e$ AC/DC<br>(IEC 60947-5-1) | Version               |   |   |   |   |               |
|------|------------------|------------------------------|--------------------------------|-----------------------|---|---|---|---|---------------|
| HQ   | 7 mm<br>(1 slot) | 6 A                          | 240 V/250 V                    | Standard              | – | – | – | – | 3VA9988-0AB22 |
|      |                  | < 1 A                        | 24 V/24 V                      | Electronic-compatible | – | – | – | – | 3VA9988-0AB23 |

## Auxiliary releases

2

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

|                                                                                     |                                                                                                                                                                                                                                                                    |                   |               |       |  |               |  |               |  |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------|-------|--|---------------|--|---------------|--|
|                                                                                     |                                                                                                                                                                                                                                                                    |                   |               | 3VA10 |  |               |  |               |  |
|                                                                                     |                                                                                                                                                                                                                                                                    |                   |               | 3VA11 |  | 3VA20         |  |               |  |
|                                                                                     |                                                                                                                                                                                                                                                                    |                   |               | 3VA12 |  | 3VA21         |  |               |  |
|                                                                                     |                                                                                                                                                                                                                                                                    |                   |               | 3VA13 |  | 3VA22         |  |               |  |
|                                                                                     |                                                                                                                                                                                                                                                                    |                   |               | 3VA14 |  | 3VA23         |  | 3VA25         |  |
|                                                                                     |                                                                                                                                                                                                                                                                    |                   |               | 3VA15 |  | 3VA24         |  | 3VA26         |  |
| <b>Shunt trips left STL</b>                                                         |                                                                                                                                                                                                                                                                    |                   |               |       |  |               |  |               |  |
|    | <ul style="list-style-type: none"> <li>Used for remote-controlled tripping of the molded case circuit breaker</li> <li>Have particularly low power consumption</li> <li>Especially suitable for electrical interlocking in the EI variant <sup>1)</sup></li> </ul> |                   |               |       |  |               |  |               |  |
|                                                                                     | Version                                                                                                                                                                                                                                                            | $U_e$ 50/60 Hz AC | $U_e$ DC      |       |  |               |  |               |  |
|                                                                                     | Standard                                                                                                                                                                                                                                                           | –                 | 12 V          |       |  |               |  | 3VA9988-0BL10 |  |
|                                                                                     |                                                                                                                                                                                                                                                                    | 24 V              | 24 ... 30 V   |       |  |               |  | 3VA9988-0BL30 |  |
|                                                                                     |                                                                                                                                                                                                                                                                    | 48 ... 60 V       | 48 ... 60 V   |       |  |               |  | 3VA9988-0BL31 |  |
|                                                                                     |                                                                                                                                                                                                                                                                    | 110 ... 127 V     | 110 ... 127 V |       |  |               |  | 3VA9988-0BL32 |  |
|                                                                                     |                                                                                                                                                                                                                                                                    | 208 ... 277 V     | 220 ... 250 V |       |  |               |  | 3VA9988-0BL33 |  |
|                                                                                     |                                                                                                                                                                                                                                                                    | 380 ... 600 V     | –             |       |  |               |  | 3VA9988-0BL20 |  |
|                                                                                     | Electrical (EI)                                                                                                                                                                                                                                                    | –                 | 24 V          |       |  |               |  | 3VA9988-0BM10 |  |
| <b>Shunt trips flexible STF</b>                                                     |                                                                                                                                                                                                                                                                    |                   |               |       |  |               |  |               |  |
|   | <ul style="list-style-type: none"> <li>Used for remote-controlled tripping of the molded case circuit breaker</li> <li>Flexible installation</li> </ul>                                                                                                            |                   |               |       |  |               |  |               |  |
|                                                                                     | $U_e$ 50/60 Hz AC                                                                                                                                                                                                                                                  | $U_e$ DC          |               |       |  |               |  |               |  |
|                                                                                     | 24 V                                                                                                                                                                                                                                                               | –                 |               | –     |  | 3VA9988-0BA20 |  | –             |  |
|                                                                                     | 48 ... 60 V                                                                                                                                                                                                                                                        | –                 |               | –     |  | 3VA9988-0BA21 |  | –             |  |
|                                                                                     | 110 ... 127 V                                                                                                                                                                                                                                                      | –                 |               | –     |  | 3VA9988-0BA22 |  | –             |  |
|                                                                                     | 208 ... 277 V                                                                                                                                                                                                                                                      | –                 |               | –     |  | 3VA9988-0BA23 |  | –             |  |
|                                                                                     | 380 ... 500 V                                                                                                                                                                                                                                                      | –                 |               | –     |  | 3VA9988-0BA24 |  | –             |  |
|                                                                                     | 600 V                                                                                                                                                                                                                                                              | –                 |               | –     |  | 3VA9988-0BA25 |  | –             |  |
| <b>Universal releases UNI</b>                                                       |                                                                                                                                                                                                                                                                    |                   |               |       |  |               |  |               |  |
|  | <ul style="list-style-type: none"> <li>Combination of shunt trip and undervoltage release</li> </ul>                                                                                                                                                               |                   |               |       |  |               |  |               |  |
|                                                                                     | $U_e$ 50/60 Hz AC                                                                                                                                                                                                                                                  | $U_e$ DC          |               |       |  |               |  |               |  |
|                                                                                     | –                                                                                                                                                                                                                                                                  | 12 V              |               |       |  | 3VA9908-0BD11 |  |               |  |
|                                                                                     |                                                                                                                                                                                                                                                                    | 24 V              |               |       |  | 3VA9908-0BD12 |  |               |  |
|                                                                                     |                                                                                                                                                                                                                                                                    | 48 V              |               |       |  | 3VA9908-0BD13 |  |               |  |
| <b>Undervoltage releases UVR</b>                                                    |                                                                                                                                                                                                                                                                    |                   |               |       |  |               |  |               |  |
|  | <ul style="list-style-type: none"> <li>Trip the molded case circuit breaker in the event that the rated operational voltage of a monitored circuit drops below a minimum permissible limit or fails altogether</li> </ul>                                          |                   |               |       |  |               |  |               |  |
|                                                                                     | $U_e$ 50/60 Hz AC                                                                                                                                                                                                                                                  | $U_e$ DC          |               |       |  |               |  |               |  |
|                                                                                     | –                                                                                                                                                                                                                                                                  | 12 V              |               |       |  | 3VA9908-0BB10 |  |               |  |
|                                                                                     |                                                                                                                                                                                                                                                                    | 24 V              |               |       |  | 3VA9908-0BB11 |  |               |  |
|                                                                                     |                                                                                                                                                                                                                                                                    | 48 V              |               |       |  | 3VA9908-0BB12 |  |               |  |
|                                                                                     |                                                                                                                                                                                                                                                                    | 60 V              |               |       |  | 3VA9908-0BB13 |  |               |  |
|                                                                                     |                                                                                                                                                                                                                                                                    | 125 ... 127 V     |               |       |  | 3VA9908-0BB14 |  |               |  |
|                                                                                     |                                                                                                                                                                                                                                                                    | 220 ... 230 V     |               |       |  | 3VA9908-0BB15 |  |               |  |
|                                                                                     |                                                                                                                                                                                                                                                                    | 250 V             |               |       |  | 3VA9908-0BB16 |  |               |  |
|                                                                                     | 24 V                                                                                                                                                                                                                                                               | –                 |               |       |  | 3VA9908-0BB20 |  |               |  |
|                                                                                     | 48 V                                                                                                                                                                                                                                                               | –                 |               |       |  | 3VA9908-0BB21 |  |               |  |
|                                                                                     | 60 V                                                                                                                                                                                                                                                               | –                 |               |       |  | 3VA9908-0BB22 |  |               |  |
|                                                                                     | 110 V                                                                                                                                                                                                                                                              | –                 |               |       |  | 3VA9908-0BB23 |  |               |  |
|                                                                                     | 120 ... 127 V                                                                                                                                                                                                                                                      | –                 |               |       |  | 3VA9908-0BB24 |  |               |  |
|                                                                                     | 208 ... 230 V                                                                                                                                                                                                                                                      | –                 |               |       |  | 3VA9908-0BB25 |  |               |  |
|                                                                                     | 380 ... 400 V                                                                                                                                                                                                                                                      | –                 |               |       |  | 3VA9908-0BB26 |  |               |  |
|                                                                                     | 440 ... 480 V                                                                                                                                                                                                                                                      | –                 |               |       |  | 3VA9908-0BB27 |  |               |  |
| <b>Time-delay devices for undervoltage releases</b>                                 |                                                                                                                                                                                                                                                                    |                   |               |       |  |               |  |               |  |
|  | $U_e$ 50/60 Hz AC                                                                                                                                                                                                                                                  | $U_e$ DC          |               |       |  |               |  |               |  |
|                                                                                     | 110 V                                                                                                                                                                                                                                                              | 110 V             |               |       |  | 3VA9988-0BF21 |  |               |  |
|                                                                                     | 230 V                                                                                                                                                                                                                                                              | 230 V             |               |       |  | 3VA9988-0BF22 |  |               |  |
|                                                                                     | –                                                                                                                                                                                                                                                                  | 24 V              |               |       |  | 3VA9988-0BF23 |  |               |  |

<sup>1)</sup> In combination with TAS and AUX. For circuit diagrams, see the operating instructions

# Manual operators

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

2

|                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                |                  | 3VA10          |               | 3VA20         | 3VA13         | 3VA15         |               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------|---------------|---------------|---------------|---------------|---------------|
|                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                |                  | 3VA11          | 3VA12         | 3VA21         | 3VA14         | 3VA25         |               |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                |                  |                |               | 3VA22         | 3VA23         | 3VA26         |               |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                |                  |                |               |               | 3VA24         |               |               |
| Front mounted rotary operators                                                                                                                                             |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                |                  |                |               |               |               |               |               |
| <br>     | <ul style="list-style-type: none"><li>• Handle</li><li>• For IEC</li><li>• Degree of protection IP30</li><li>• For 3-pole and 4-pole breakers</li></ul>                                                                                                                                                       |                                                                                                                                                                                                                                                                |                  |                |               |               |               |               |               |
|                                                                                                                                                                            | Version                                                                                                                                                                                                                                                                                                       | Illumination kit                                                                                                                                                                                                                                               | Door interlock   |                |               |               |               |               |               |
|                                                                                                                                                                            | Standard (gray)                                                                                                                                                                                                                                                                                               | Without                                                                                                                                                                                                                                                        | Without          | 3VA9157-0EK11  | 3VA9257-0EK11 | 3VA9267-0EK11 | 3VA9467-0EK11 | 3VA9687-0EK11 |               |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                | With             | 3VA9157-0EK21  | 3VA9257-0EK21 | 3VA9267-0EK21 | 3VA9467-0EK21 | 3VA9687-0EK21 |               |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                               | With                                                                                                                                                                                                                                                           | Without          | 3VA9157-0EK13  | 3VA9257-0EK13 | 3VA9267-0EK13 | 3VA9467-0EK13 | –             |               |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                | With             | 3VA9157-0EK23  | 3VA9257-0EK23 | 3VA9267-0EK23 | 3VA9467-0EK23 | –             |               |
|                                                                                                                                                                            | EMERGENCY-OFF (red/yellow)                                                                                                                                                                                                                                                                                    | Without                                                                                                                                                                                                                                                        | Without          | 3VA9157-0EK15  | 3VA9257-0EK15 | 3VA9267-0EK15 | 3VA9467-0EK15 | 3VA9687-0EK15 |               |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                | With             | 3VA9157-0EK25  | 3VA9257-0EK25 | 3VA9267-0EK25 | 3VA9467-0EK25 | 3VA9687-0EK25 |               |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                               | With                                                                                                                                                                                                                                                           | Without          | 3VA9157-0EK17  | 3VA9257-0EK17 | 3VA9267-0EK17 | 3VA9467-0EK17 | –             |               |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                | With             | 3VA9157-0EK27  | 3VA9257-0EK27 | 3VA9267-0EK27 | 3VA9467-0EK27 | –             |               |
| Door mounted rotary operators with tolerance compensation                                                                                                                  |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                |                  |                |               |               |               |               |               |
| <br> | <ul style="list-style-type: none"><li>• Shaft 300 mm (325 mm for 3VA15/3VA25/3VA26)</li><li>• With mounting tolerance compensation</li><li>• Handle with masking plate 75 × 75 mm (100 × 100 mm for 3VA15/3VA25/3VA26)</li><li>• Degree of protection IP65</li><li>• For 3-pole and 4-pole breakers</li></ul> |                                                                                                                                                                                                                                                                |                  |                |               |               |               |               |               |
|                                                                                                                                                                            | Version                                                                                                                                                                                                                                                                                                       | Illumination kit                                                                                                                                                                                                                                               | Door interlock   |                |               |               |               |               |               |
|                                                                                                                                                                            | Standard (gray)                                                                                                                                                                                                                                                                                               | Without                                                                                                                                                                                                                                                        | With             | 3VA9157-0FK21  | 3VA9257-0FK21 | 3VA9267-0FK21 | 3VA9467-0FK21 | 3VA9687-0FK21 |               |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                               | With                                                                                                                                                                                                                                                           | With             | 3VA9157-0FK23  | 3VA9257-0FK23 | 3VA9267-0FK23 | 3VA9467-0FK23 | 3VA9687-0FK23 |               |
|                                                                                                                                                                            | EMERGENCY-OFF (red/yellow)                                                                                                                                                                                                                                                                                    | Without                                                                                                                                                                                                                                                        | With             | 3VA9157-0FK25  | 3VA9257-0FK25 | 3VA9267-0FK25 | 3VA9467-0FK25 | 3VA9687-0FK25 |               |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                               | With                                                                                                                                                                                                                                                           | With             | 3VA9157-0FK27  | 3VA9257-0FK27 | 3VA9267-0FK27 | 3VA9467-0FK27 | 3VA9687-0FK27 |               |
|                                                                                                                                                                            | Door mounted rotary operators without tolerance compensation                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                |                  |                |               |               |               |               |               |
|                                                                                                                                                                            |                                                                                                                                                                                                                            | <ul style="list-style-type: none"><li>• Shaft 300 mm (325 mm for 3VA15/3VA25/3VA26)</li><li>• Handle with masking plate 75 × 75 mm (100 × 100 mm for 3VA15/3VA25/3VA26)</li><li>• Degree of protection IP65</li><li>• For 3-pole and 4-pole breakers</li></ul> |                  |                |               |               |               |               |               |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                               | Version                                                                                                                                                                                                                                                        | Illumination kit | Door interlock |               |               |               |               |               |
|                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                               | Standard (gray)                                                                                                                                                                                                                                                | Without          | With           | 3VA9157-0FK61 | 3VA9257-0FK61 | 3VA9267-0FK61 | 3VA9467-0FK61 | 3VA9687-0FK61 |
| Door mounted rotary operators without handle                                                                                                                               |                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                |                  |                |               |               |               |               |               |
|                                                                                         |                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"><li>• For IEC</li><li>• Degree of protection IP30</li><li>• For 3-pole and 4-pole breakers</li></ul>                                                                                                                         |                  |                |               |               |               |               |               |
|                                                                                                                                                                            | Version                                                                                                                                                                                                                                                                                                       | Illumination kit                                                                                                                                                                                                                                               | Door interlock   |                |               |               |               |               |               |
|                                                                                                                                                                            | With shaft stub (gray)                                                                                                                                                                                                                                                                                        | –                                                                                                                                                                                                                                                              | Without          | 3VA9157-0GK00  | 3VA9257-0GK00 | 3VA9267-0GK00 | 3VA9467-0GK00 | 3VA9687-0GK00 |               |

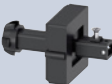
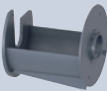
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

# Manual operators

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

2

|                                                                                     |                                                                                                       |                                                                         |               |               |                         |                                  |                         |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------|---------------|-------------------------|----------------------------------|-------------------------|
|                                                                                     |                                                                                                       |                                                                         |               |               | 3VA20<br>3VA21<br>3VA22 | 3VA13<br>3VA14<br>3VA23<br>3VA24 | 3VA15<br>3VA25<br>3VA26 |
|                                                                                     |                                                                                                       | 3VA10<br>3VA11                                                          | 3VA12         |               |                         |                                  |                         |
| Supplementary handles for door mounted rotary operators                             |                                                                                                       |                                                                         |               |               |                         |                                  |                         |
|    | • For operation when control cabinet door is open                                                     |                                                                         |               |               |                         |                                  |                         |
|                                                                                     | Version                                                                                               |                                                                         |               |               |                         |                                  |                         |
|                                                                                     | Standard (gray)                                                                                       | 3VA9287-0GC01                                                           | 3VA9287-0GC01 | 3VA9487-0GC01 | 3VA9487-0GC11           | 3VA9687-0GC01                    |                         |
|                                                                                     | EMERGENCY-OFF (red/yellow)                                                                            | 3VA9287-0GC05                                                           | 3VA9287-0GC05 | 3VA9487-0GC05 | 3VA9487-0GC15           | 3VA9687-0GC05                    |                         |
| Handles                                                                             |                                                                                                       |                                                                         |               |               |                         |                                  |                         |
|    | • With masking plate                                                                                  |                                                                         |               |               |                         |                                  |                         |
|                                                                                     | Version                                                                                               | Tolerance compensation                                                  |               |               |                         |                                  |                         |
|                                                                                     | Standard (gray)                                                                                       | With                                                                    | 8UD1721-0AB21 |               | 8UD1731-0AB21           | 8UD1741-0AB21                    |                         |
|                                                                                     |                                                                                                       | Without                                                                 | 8UD1721-0AB11 |               | 8UD1731-0AB11           | 8UD1741-0AB11                    |                         |
|                                                                                     | EMERGENCY-OFF (red/yellow)                                                                            | With                                                                    | 8UD1721-0AB25 |               | 8UD1731-0AB25           | 8UD1741-0AB25                    |                         |
| Without                                                                             |                                                                                                       | 8UD1721-0AB15                                                           |               | 8UD1731-0AB15 | 8UD1741-0AB15           |                                  |                         |
| Handle lever extensions                                                             |                                                                                                       |                                                                         |               |               |                         |                                  |                         |
|   | • <b>Note:</b> The handle lever extension is already included in the scope of supply of the breakers. |                                                                         |               |               |                         |                                  |                         |
|                                                                                     |                                                                                                       |                                                                         |               |               |                         |                                  |                         |
|                                                                                     |                                                                                                       |                                                                         | –             | –             | –                       | 3VA9487-0SC10                    | 3VA9987-0SC10           |
| Shafts                                                                              |                                                                                                       |                                                                         |               |               |                         |                                  |                         |
|  | Type                                                                                                  | Length                                                                  |               |               |                         |                                  |                         |
|                                                                                     | 8 × 8 mm                                                                                              | 300 mm                                                                  | 8UD1900-2WA00 |               |                         |                                  | –                       |
|                                                                                     |                                                                                                       | 600 mm                                                                  | 8UD1900-2WB00 |               |                         |                                  | –                       |
|                                                                                     | 12 × 12 mm                                                                                            | 300 mm                                                                  | –             | –             | –                       | –                                | 8UD1900-4WA00           |
|                                                                                     |                                                                                                       | 600 mm                                                                  | –             | –             | –                       | –                                | 8UD1900-4WB00           |
| Adapters for shafts                                                                 |                                                                                                       |                                                                         |               |               |                         |                                  |                         |
|  | Type                                                                                                  | Use                                                                     |               |               |                         |                                  |                         |
|                                                                                     | 8 × 8 mm                                                                                              | With door mounted rotary operator and side wall mounted rotary operator | 8UD1900-2DA00 |               |                         |                                  | –                       |
|                                                                                     | 12 × 12 mm                                                                                            | For door mounted rotary operator                                        | –             | –             | –                       | –                                | 8UD1900-4DA00           |
| Door couplings                                                                      |                                                                                                       |                                                                         |               |               |                         |                                  |                         |
|  | Type                                                                                                  |                                                                         |               |               |                         |                                  |                         |
|                                                                                     | 8 × 8 mm                                                                                              | 8UD1900-2HA00                                                           |               |               |                         | –                                |                         |
|                                                                                     | 12 × 12 mm                                                                                            | –                                                                       | –             | –             | –                       | 8UD1900-4HA00                    |                         |

|                                                                                    |            | 3VA10<br>3VA11 | 3VA12 | 3VA20<br>3VA21<br>3VA22 | 3VA13<br>3VA14<br>3VA23<br>3VA24 | 3VA15<br>3VA25<br>3VA26 |
|------------------------------------------------------------------------------------|------------|----------------|-------|-------------------------|----------------------------------|-------------------------|
| Mounting tolerance compensations                                                   |            |                |       |                         |                                  |                         |
|   | Type       |                |       |                         |                                  |                         |
|                                                                                    | 8 × 8 mm   | 8UD1900-2GA00  |       |                         |                                  |                         |
|   | 12 × 12 mm | –              | –     | –                       | –                                | 8UD1900-4GA00           |
| Fixing brackets for shafts                                                         |            |                |       |                         |                                  |                         |
|   |            | 3VA9287-0GA80  |       | 3VA9487-0GA80           |                                  | 3VA9687-0GA80           |
| Variable depth adapters                                                            |            |                |       |                         |                                  |                         |
|  | Size       |                |       |                         |                                  |                         |
|                                                                                    | 8 × 8 mm   | 3VA9487-0GB10  |       |                         |                                  |                         |



# Manual operators

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

2

|  |       |       |       |  |       |       |
|--|-------|-------|-------|--|-------|-------|
|  |       |       |       |  | 3VA20 |       |
|  |       |       |       |  | 3VA21 |       |
|  |       |       |       |  | 3VA22 |       |
|  | 3VA10 |       |       |  | 3VA23 | 3VA25 |
|  | 3VA11 | 3VA13 |       |  | 3VA24 | 3VA26 |
|  | 3VA12 | 3VA14 | 3VA15 |  |       |       |

## Labeling plates for manual operators



3VA9087-0SX10

## Illumination kits for manual operators



- 24 V DC voltage

| Version                                                            | Rated current  |               |               |               |               |               |
|--------------------------------------------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|
| Front mounted rotary operator                                      | 100 ... 250 A  | 8UD1900-0KA10 | –             | –             | –             | –             |
|                                                                    | 100 ... 630 A  | –             | 8UD1900-0KA20 | –             | 8UD1900-0KA20 | –             |
|                                                                    | 630 ... 1000 A | –             | –             | 8UD1900-0KA30 | –             | 8UD1900-0KA30 |
| Door mounted rotary operator and side wall mounted rotary operator | 100 ... 630 A  | 8UD1900-0KA20 | 8UD1900-0KA20 | 8UD1900-0KA20 | 8UD1900-0KA20 | –             |
|                                                                    | 630 ... 1000 A | –             | –             | –             | –             | 8UD1900-0KA30 |

## Cylinder locks (type Kaba), standard masking plates



| Use                                                                                                                                   | Key |               |               |   |               |   |
|---------------------------------------------------------------------------------------------------------------------------------------|-----|---------------|---------------|---|---------------|---|
| For door mounted rotary operator and side wall mounted rotary operator (in the masking plate), only for locking, not for interlocking | 1   | 8UD1900-0MB01 | 8UD1900-0MB01 | – | 8UD1900-0MB01 | – |
|                                                                                                                                       | 2   | 8UD1900-0NB01 | 8UD1900-0NB01 | – | 8UD1900-0NB01 | – |
|                                                                                                                                       | 3   | 8UD1900-0PB01 | 8UD1900-0PB01 | – | 8UD1900-0PB01 | – |
|                                                                                                                                       | 4   | 8UD1900-0QB01 | 8UD1900-0QB01 | – | 8UD1900-0QB01 | – |

## Cylinder locks (type Kaba), EMERGENCY-OFF masking plates



| Use                                                                                                                                   | Key |               |               |   |               |   |
|---------------------------------------------------------------------------------------------------------------------------------------|-----|---------------|---------------|---|---------------|---|
| For door mounted rotary operator and side wall mounted rotary operator (in the masking plate), only for locking, not for interlocking | 1   | 8UD1900-0MB05 | 8UD1900-0MB05 | – | 8UD1900-0MB05 | – |
|                                                                                                                                       | 2   | 8UD1900-0NB05 | 8UD1900-0NB05 | – | 8UD1900-0NB05 | – |
|                                                                                                                                       | 3   | 8UD1900-0PB05 | 8UD1900-0PB05 | – | 8UD1900-0PB05 | – |
|                                                                                                                                       | 4   | 8UD1900-0QB05 | 8UD1900-0QB05 | – | 8UD1900-0QB05 | – |

## Cylinder locks (type RONIS)



- Includes a lock with 2 keys
- For locking or interlocking
- For installation on the circuit breaker side in all rotary operators
- For mounting in the adapter kit for the accessories compartment
- **Note:** The cylinder lock adapter for rotary operators is also needed for locking or interlocking circuit breakers via rotary operators

| Key |  |  |  |               |  |
|-----|--|--|--|---------------|--|
| 1   |  |  |  | 3VA9980-0VL10 |  |
| 3   |  |  |  | 3VA9980-0VL30 |  |
| 4   |  |  |  | 3VA9980-0VL40 |  |

## Cylinder lock adapters for rotary operators



- To mount the cylinder lock in the rotary operator (also possible with door mounted rotary operator and side wall mounted rotary operator), on circuit breaker side, NOT in masking plate

| Rated current |               |               |               |               |               |
|---------------|---------------|---------------|---------------|---------------|---------------|
| 100 ... 630 A | 3VA9980-0LF20 | 3VA9980-0LF20 | –             | 3VA9980-0LF20 | –             |
| 1000 A        | –             | –             | 3VA9680-0LF20 | –             | 3VA9680-0LF20 |

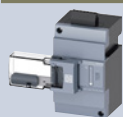


# Motor operators

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

2

## Side mounted motor operators without stored energy mechanisms (MO310)



- Cover size 45 mm

| Addressable via control signals | Isolating features in accordance with IEC/EN 60947-1 | Make time, typically<br>For 3VA1 | For 3VA2 | Break time, typically<br>For 3VA1 | For 3VA2 | Rated operational power         |
|---------------------------------|------------------------------------------------------|----------------------------------|----------|-----------------------------------|----------|---------------------------------|
| ■                               | ■                                                    | < 300 ms                         | –        | < 300 ms                          | –        | 250 W,<br>max. 500 W<br>(60 ms) |

## Motor operators without stored energy mechanisms (MO320)



| Addressable via control signals | Isolating features in accordance with IEC/EN 60947-1 | Make time, typically<br>For 3VA1 | For 3VA2                                | Break time, typically<br>For 3VA1 | For 3VA2                                | Rated operational power         |
|---------------------------------|------------------------------------------------------|----------------------------------|-----------------------------------------|-----------------------------------|-----------------------------------------|---------------------------------|
| ■                               | ■                                                    | < 800 ms<br>(160 A, 250 A)       | < 1000 ms (250 A),<br>< 1700 ms (630 A) | < 800 ms<br>(160 A, 250 A)        | < 1000 ms (250 A),<br>< 1400 ms (630 A) | 250 W,<br>max. 500 W<br>(60 ms) |

## Spare parts kit for MO320

Scope of supply  
Mounting plate, plug

## Motor operators with stored energy mechanisms (SEO520)



- Synchronizable motor operator with optional communications interface
- Up to 3VA22 (250 A), it has two spring assemblies that are used to switch the 3VA2 molded case circuit breaker on and off quickly. This new principle in the MCCB area ensures fast, reliable and easily controllable switching sequences, especially in load transfer switching applications.
- The connection with the COM060 communications module, via a plug-in connection, integrates the SEO520 into the communication environment of the 3VA molded case circuit breakers and ensures that the molded case circuit breaker can also be switched via the supported communication networks and the SENTRON Powerconfig and SENTRON Powermanager software packages.
- Note:** On account of the fast switching times, the SEO520 cannot be used with a leading changeover switch LCS.

| Addressable via control signals | Isolating features in accordance with IEC/EN 60947-1 | Make time, typically<br>For 3VA1 | For 3VA2                     | Break time, typically<br>For 3VA1 | For 3VA2                                                | Rated operational power         |
|---------------------------------|------------------------------------------------------|----------------------------------|------------------------------|-----------------------------------|---------------------------------------------------------|---------------------------------|
| ■                               | ■                                                    | < 80 ms<br>(400 A, 630 A)        | < 80 ms<br>(100 A ... 630 A) | < 5 s<br>(400 A, 630 A)           | < 80 ms<br>(100 A ... 250 A)<br>< 5 s<br>(400 A, 630 A) | 300 W,<br>max. 500 W<br>(60 ms) |

## Spare parts kit for SEO520

Scope of supply  
Mounting plate, plug

## Spare parts kit for SEO520 with communication

Scope of supply  
Mounting plate, plug, SLC adapter

## Mechanical operating cycles counters (for installation in the SEO520)



| Mounting                       | Article No.   |
|--------------------------------|---------------|
| For installation in the SEO520 | 3VA9987-0HX10 |

## Cylinder lock adapters for SEO520



| Mounting                                                     | Article No.   |
|--------------------------------------------------------------|---------------|
| For installation of cylinder locks in the SEO520 up to 250 A | 3VA9980-0LF30 |

## Cylinder locks (type RONIS)



- Includes a lock with 2 keys
- To locking the operating mode (Manual/Auto/Lock) for SEOs up to 250 A

| Key | Article No.   |
|-----|---------------|
| 1   | 3VA9980-0VL10 |
| 3   | 3VA9980-0VL30 |
| 4   | 3VA9980-0VL40 |

|                                       |                    | 3VA10 | 3VA11         | 3VA12         | 3VA20<br>3VA21<br>3VA22     | 3VA13<br>3VA14              | 3VA23<br>3VA24              |
|---------------------------------------|--------------------|-------|---------------|---------------|-----------------------------|-----------------------------|-----------------------------|
| Rated control supply voltage          | With communication |       |               |               |                             |                             |                             |
| 42 ... 60 V AC,<br>24 ... 60 V DC     | –                  | –     | 3VA9117-0HB10 | –             | –                           | –                           | –                           |
| 110 ... 230 V AC,<br>110 ... 250 V DC | –                  | –     | 3VA9117-0HB20 | –             | –                           | –                           | –                           |
| Rated control supply voltage          | With communication |       |               |               |                             |                             |                             |
| 24 ... 60 V DC                        | –                  | –     | 3VA9157-0HA10 | 3VA9257-0HA10 | 3VA9267-0HA10               | 3VA9467-0HA10               | 3VA9467-0HA10               |
| 110 V AC                              | –                  | –     | –             | –             | 3VA9267-0HA21 <sup>1)</sup> | 3VA9467-0HA21 <sup>1)</sup> | 3VA9467-0HA21 <sup>1)</sup> |
| 110 ... 230 V AC,<br>110 ... 250 V DC | –                  | –     | 3VA9157-0HA20 | 3VA9257-0HA20 | 3VA9267-0HA20               | 3VA9467-0HA20               | 3VA9467-0HA20               |
| 230 V AC                              | –                  | –     | –             | –             | 3VA9267-0HA22 <sup>1)</sup> | 3VA9467-0HA22 <sup>1)</sup> | 3VA9467-0HA22 <sup>1)</sup> |
|                                       |                    | –     | 3VA9157-0HA00 | 3VA9257-0HA00 | 3VA9267-0HA00               | 3VA9467-0HA00               | 3VA9467-0HA00               |
| Rated control supply voltage          | With communication |       |               |               |                             |                             |                             |
| 24 V DC                               | –                  | –     | –             | –             | 3VA9267-0HC10               | 3VA9467-0HC10 <sup>2)</sup> |                             |
| 42 ... 60 V AC/DC                     | –                  | –     | –             | –             | 3VA9267-0HC20               | 3VA9467-0HC20 <sup>2)</sup> |                             |
| 110 ... 230 V AC,<br>110 ... 250 V DC | –                  | –     | –             | –             | 3VA9267-0HC30               | 3VA9467-0HC30 <sup>2)</sup> |                             |
| 24 V DC                               | Yes                | –     | –             | –             | 3VA9267-0HC15               | –                           | 3VA9467-0HC15 <sup>2)</sup> |
| 110 ... 230 V AC,<br>110 ... 250 V DC | Yes                | –     | –             | –             | 3VA9267-0HC35               | –                           | 3VA9467-0HC35 <sup>2)</sup> |
|                                       |                    | –     | –             | –             | 3VA9267-0HC00               | –                           | –                           |
|                                       |                    | –     | –             | –             | 3VA9267-0HC05               | –                           | –                           |

<sup>1)</sup> Optimized for long control cable lengths, see FAQ at [www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) (109804710)

<sup>2)</sup> For 3VA13 and 3VA14 (IEC) with product version < \*E04\* and for 3VA23 and 3VA24 (IEC) with product version < \*E06\*, the service life (mechanical operating cycles) of the molded case circuit breaker is reduced when the SEO520 is used. For newer product versions, this is not the case. We recommend upgrading the circuit breaker to a higher product version, if necessary.



## Reset mode

All motor operators have the following reset modes:

Reset mode 1: Automatic reset  
Reset mode 2: Reset via OFF-signal

The motor operator with SEO520 stored energy operator additionally has:

Reset mode 3: Reset via OFF-signal with additional acknowledge signal

# Connection technology



- ① For mounting onto the circuit breaker  
② For mounting on plug-in and withdrawable units

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

2

## Box terminals

|                                                                                   | Connection options |   | Scope of supply    | Cable cross-section, copper stranded | Terminal short designation |
|-----------------------------------------------------------------------------------|--------------------|---|--------------------|--------------------------------------|----------------------------|
|  | ①                  | ② | 3 single terminals | 1.5 ... 70 mm <sup>2</sup>           | TS1.1                      |
|                                                                                   |                    |   |                    | 6 ... 120 mm <sup>2</sup>            | TS1.2                      |
|                                                                                   |                    |   |                    | 25 ... 185 mm <sup>2</sup>           | TS1.4                      |
|                                                                                   |                    |   |                    | 50 ... 185 mm <sup>2</sup>           | TS1.3                      |
|                                                                                   |                    |   |                    | 35 ... 300 mm <sup>2</sup>           | TS1.5                      |
|  | ①                  | ② | 4 single terminals | 1.5 ... 70 mm <sup>2</sup>           | TS1.1                      |
|                                                                                   |                    |   |                    | 6 ... 120 mm <sup>2</sup>            | TS1.2                      |
|                                                                                   |                    |   |                    | 25 ... 185 mm <sup>2</sup>           | TS1.4                      |
|                                                                                   |                    |   |                    | 50 ... 185 mm <sup>2</sup>           | TS1.3                      |
|                                                                                   |                    |   |                    | 35 ... 300 mm <sup>2</sup>           | TS1.5                      |

## Nut keeper kits

|                                                                                     | Connection options |   | Scope of supply                                      | Max. tap width | Max. tap thickness |
|-------------------------------------------------------------------------------------|--------------------|---|------------------------------------------------------|----------------|--------------------|
|   | ①                  | ② | 3 terminals                                          | 17 mm          | 6.5 mm             |
|                                                                                     |                    |   |                                                      | 25 mm          | 8 mm               |
|                                                                                     |                    |   |                                                      | 35 mm          | 10 mm              |
|                                                                                     |                    |   | Nut keeper kit for 3-pole breakers, 1 terminal cover | 50 mm          | 25 mm              |
|  | ①                  | ② | 4 terminals                                          | 17 mm          | 6.5 mm             |
|                                                                                     |                    |   |                                                      | 25 mm          | 8 mm               |
|                                                                                     |                    |   |                                                      | 35 mm          | 10 mm              |
|                                                                                     |                    |   | Nut keeper kit for 4-pole breakers, 1 terminal cover | 50 mm          | 28 mm              |

## Circular conductor terminals, 1 cable

|                                                                                     | Connection options |   | Scope of supply    | Cable cross-section        | Copper/aluminum stranded <sup>1)</sup> |                  | Terminal short designation |
|-------------------------------------------------------------------------------------|--------------------|---|--------------------|----------------------------|----------------------------------------|------------------|----------------------------|
|                                                                                     |                    |   |                    |                            | Cu                                     | Al <sup>2)</sup> |                            |
|  | ①                  | ② | 3 single terminals | 1.5 ... 10 mm <sup>2</sup> | ■                                      | –                | TA1.0                      |
|                                                                                     |                    |   |                    | 1.5 ... 50 mm <sup>2</sup> | ■                                      | –                | TA1.3                      |
|                                                                                     |                    |   |                    | 10 ... 95 mm <sup>2</sup>  | ■                                      | ■                | TA1.1                      |
|                                                                                     |                    |   |                    | 16 ... 185 mm <sup>2</sup> | ■                                      | ■ <sup>3)</sup>  | TA1.4                      |
|                                                                                     |                    |   |                    | 35 ... 185 mm <sup>2</sup> | ■                                      | ■                | TA1.2                      |
|                                                                                     |                    |   |                    | 50 ... 300 mm <sup>2</sup> | ■                                      | ■                | TA1.5                      |
|  | ①                  | ② | 4 single terminals | 1.5 ... 10 mm <sup>2</sup> | ■                                      | –                | TA1.0                      |
|                                                                                     |                    |   |                    | 1.5 ... 50 mm <sup>2</sup> | ■                                      | –                | TA1.3                      |
|                                                                                     |                    |   |                    | 10 ... 95 mm <sup>2</sup>  | ■                                      | ■                | TA1.1                      |
|                                                                                     |                    |   |                    | 16 ... 185 mm <sup>2</sup> | ■                                      | ■ <sup>3)</sup>  | TA1.4                      |
|                                                                                     |                    |   |                    | 35 ... 185 mm <sup>2</sup> | ■                                      | ■                | TA1.2                      |
|                                                                                     |                    |   |                    | 50 ... 300 mm <sup>2</sup> | ■                                      | ■                | TA1.5                      |

<sup>1)</sup> All circular conductor terminals tested according to UL 486 A/B for Cu and Al cables

<sup>2)</sup> Al cable tested according to IEC 60947-2 annex D

<sup>3)</sup> Use antioxidants

<sup>4)</sup> Maximum current-carrying capacity of cable connection 400 A  
Flexible copper bar: No restrictions

<sup>5)</sup> Maximum current-carrying capacity of copper cables 380 A  
Maximum current-carrying capacity of aluminum cables 310 A

|               |               |               |               | 3VA13                       |               |
|---------------|---------------|---------------|---------------|-----------------------------|---------------|
|               |               |               |               | 3VA14                       |               |
| 3VA10         |               | 3VA20         |               | 3VA23                       | 3VA15         |
| 3VA11         | 3VA12         | 3VA21         | 3VA22         | 3VA24                       | 3VA25         |
|               |               |               |               |                             |               |
|               |               |               |               |                             |               |
| 3VA9153-OJA11 | –             | –             | –             | –                           | –             |
| –             | 3VA9253-OJA11 | 3VA9163-OJA12 | 3VA9163-OJA12 | –                           | –             |
| –             | –             | 3VA9263-OJA12 | 3VA9263-OJA12 | –                           | –             |
| –             | 3VA9253-OJA12 | –             | –             | –                           | –             |
| –             | –             | –             | –             | 3VA9483-OJA13 <sup>4)</sup> | –             |
| 3VA9154-OJA11 | –             | –             | –             | –                           | –             |
| –             | 3VA9254-OJA11 | 3VA9164-OJA12 | 3VA9164-OJA12 | –                           | –             |
| –             | –             | 3VA9264-OJA12 | 3VA9264-OJA12 | –                           | –             |
| –             | 3VA9254-OJA12 | –             | –             | –                           | –             |
| –             | –             | –             | –             | 3VA9484-OJA13 <sup>4)</sup> | –             |
|               |               |               |               |                             |               |
|               |               |               |               |                             |               |
| 3VA9113-OQA00 | –             | –             | –             | –                           | –             |
| –             | 3VA9213-OQA00 | 3VA9203-OQA00 | 3VA9203-OQA00 | –                           | –             |
| –             | –             | –             | –             | 3VA9403-OQA00               | –             |
| –             | –             | –             | –             | –                           | 3VA9603-OQA00 |
| 3VA9114-OQA00 | –             | –             | –             | –                           | –             |
| –             | 3VA9214-OQA00 | 3VA9204-OQA00 | 3VA9204-OQA00 | –                           | –             |
| –             | –             | –             | –             | 3VA9404-OQA00               | –             |
| –             | –             | –             | –             | –                           | 3VA9604-OQA00 |
|               |               |               |               |                             |               |
|               |               |               |               |                             |               |
| 3VA9113-OJB10 | –             | –             | –             | –                           | –             |
| –             | –             | 3VA9103-OJB11 | 3VA9103-OJB11 | –                           | –             |
| 3VA9113-OJB11 | –             | –             | –             | –                           | –             |
| –             | –             | 3VA9263-OJB12 | 3VA9263-OJB12 | –                           | –             |
| –             | 3VA9253-OJB12 | –             | –             | –                           | –             |
| –             | –             | –             | –             | 3VA9383-OJB13 <sup>5)</sup> | –             |
| 3VA9114-OJB10 | –             | –             | –             | –                           | –             |
| –             | –             | 3VA9104-OJB11 | 3VA9104-OJB11 | –                           | –             |
| 3VA9114-OJB11 | –             | –             | –             | –                           | –             |
| –             | –             | 3VA9264-OJB12 | 3VA9264-OJB12 | –                           | –             |
| –             | 3VA9254-OJB12 | –             | –             | –                           | –             |
| –             | –             | –             | –             | 3VA9384-OJB13 <sup>5)</sup> | –             |

# Connection technology



- ① For mounting onto the circuit breaker  
② For mounting on plug-in and withdrawable units

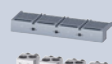
For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

2

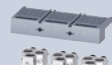
## Circular conductor terminals with control wire taps, 1 cable<sup>3)</sup>

|                                                                                   | Connection options |   | Scope of supply    | Cable cross-section        | Copper/aluminum stranded <sup>1)</sup> |                  | Terminal short designation |
|-----------------------------------------------------------------------------------|--------------------|---|--------------------|----------------------------|----------------------------------------|------------------|----------------------------|
|                                                                                   | ①                  | ② |                    |                            | Cu                                     | Al <sup>2)</sup> |                            |
|  | ①                  | ② | 3 single terminals | 1.5 ... 10 mm <sup>2</sup> | ■                                      | —                | TA1.0                      |
|                                                                                   |                    |   |                    | 1.5 ... 50 mm <sup>2</sup> | ■                                      | —                | TA1.3                      |
|                                                                                   |                    |   |                    | 10 ... 95 mm <sup>2</sup>  | ■                                      | ■                | TA1.1                      |
|                                                                                   |                    |   |                    | 16 ... 185 mm <sup>2</sup> | ■                                      | ■ <sup>3)</sup>  | TA1.4                      |
|                                                                                   |                    |   |                    | 50 ... 185 mm <sup>2</sup> | ■                                      | ■                | TA1.2                      |
|                                                                                   |                    |   |                    | 50 ... 300 mm <sup>2</sup> | ■                                      | ■                | TA1.5                      |
|  | ①                  | ② | 4 single terminals | 1.5 ... 10 mm <sup>2</sup> | ■                                      | —                | TA1.0                      |
|                                                                                   |                    |   |                    | 1.5 ... 50 mm <sup>2</sup> | ■                                      | —                | TA1.3                      |
|                                                                                   |                    |   |                    | 10 ... 95 mm <sup>2</sup>  | ■                                      | ■                | TA1.1                      |
|                                                                                   |                    |   |                    | 16 ... 185 mm <sup>2</sup> | ■                                      | ■ <sup>3)</sup>  | TA1.4                      |
|                                                                                   |                    |   |                    | 50 ... 185 mm <sup>2</sup> | ■                                      | ■                | TA1.2                      |
|                                                                                   |                    |   |                    | 50 ... 300 mm <sup>2</sup> | ■                                      | ■                | TA1.5                      |

## Circular conductor terminals, 2 cables

|                                                                                     | Connection options |   | Scope of supply                            | Cable cross-section         | Copper/aluminum stranded <sup>1)</sup> |                  | Control wire tap <sup>4)</sup> | Terminal short designation |
|-------------------------------------------------------------------------------------|--------------------|---|--------------------------------------------|-----------------------------|----------------------------------------|------------------|--------------------------------|----------------------------|
|                                                                                     | ①                  | ② |                                            |                             | Cu                                     | Al <sup>2)</sup> |                                |                            |
|  | ①                  | ② | 3 single terminals, 1 short terminal cover | 120 ... 300 mm <sup>2</sup> | ■                                      | ■                | No                             | TA3.1                      |
|                                                                                     |                    |   |                                            |                             |                                        |                  | Yes                            | TA3.1                      |
|  | ①                  | ② | 4 single terminals, 1 short terminal cover | 120 ... 300 mm <sup>2</sup> | ■                                      | ■                | No                             | TA3.1                      |
|                                                                                     |                    |   |                                            |                             |                                        |                  | Yes                            | TA3.1                      |

## Circular conductor terminals, 3 cables

|                                                                                     | Connection options |   | Scope of supply                            | Cable cross-section         | Copper/aluminum stranded <sup>1)</sup> |                  | Control wire tap <sup>4)</sup> | Terminal short designation |
|-------------------------------------------------------------------------------------|--------------------|---|--------------------------------------------|-----------------------------|----------------------------------------|------------------|--------------------------------|----------------------------|
|                                                                                     | ①                  | ② |                                            |                             | Cu                                     | Al <sup>2)</sup> |                                |                            |
|  | ①                  | ② | 3 single terminals, 1 short terminal cover | 120 ... 185 mm <sup>2</sup> | ■                                      | ■                | No                             | TA3.2                      |
|                                                                                     |                    |   |                                            |                             |                                        |                  | Yes                            | TA3.2                      |
|  | ①                  | ② | 4 single terminals, 1 short terminal cover | 120 ... 185 mm <sup>2</sup> | ■                                      | ■                | No                             | TA3.2                      |
|                                                                                     |                    |   |                                            |                             |                                        |                  | Yes                            | TA3.2                      |

## Control wire taps for box terminals<sup>3)</sup>

| Connection options |  |
|--------------------|--|
| ①                  |  |
| ②                  |  |

## Control wire taps for busbars<sup>3)</sup>

| Connection options |  |
|--------------------|--|
| ①                  |  |
| ②                  |  |

<sup>1)</sup> All circular conductor terminals tested according to UL 486 A/B for Cu and Al cables

<sup>2)</sup> Al cable tested according to IEC 60947-2 annex D

<sup>3)</sup> Use antioxidants

<sup>4)</sup> Maximum current-carrying capacity 15 A  
Maximum cable connection up to 2.5 mm<sup>2</sup>

<sup>5)</sup> Maximum current-carrying capacity of copper cables 380 A  
Maximum current-carrying capacity of aluminum cables 310 A

|               |               |               |               | 3VA13                       |               |
|---------------|---------------|---------------|---------------|-----------------------------|---------------|
| 3VA10         |               |               | 3VA20         | 3VA14                       |               |
| 3VA11         | 3VA12         | 3VA21         | 3VA22         | 3VA23                       | 3VA15         |
|               |               |               |               | 3VA24                       | 3VA25         |
|               |               |               |               |                             |               |
|               |               |               |               |                             |               |
| 3VA9113-OJG10 | –             | –             | –             | –                           | –             |
| –             | –             | 3VA9103-OJG11 | 3VA9103-OJG11 | –                           | –             |
| 3VA9113-OJG11 | –             | –             | –             | –                           | –             |
| –             | –             | 3VA9263-OJG12 | 3VA9263-OJG12 | –                           | –             |
| –             | 3VA9253-OJG12 | –             | –             | –                           | –             |
| –             | –             | –             | –             | 3VA9383-OJG13 <sup>5)</sup> | –             |
| 3VA9114-OJG10 | –             | –             | –             | –                           | –             |
| –             | –             | 3VA9104-OJG11 | 3VA9104-OJG11 | –                           | –             |
| 3VA9114-OJG11 | –             | –             | –             | –                           | –             |
| –             | –             | 3VA9264-OJG12 | 3VA9264-OJG12 | –                           | –             |
| –             | 3VA9254-OJG12 | –             | –             | –                           | –             |
| –             | –             | –             | –             | 3VA9384-OJG13 <sup>5)</sup> | –             |
|               |               |               |               |                             |               |
|               |               |               |               |                             |               |
| –             | –             | –             | –             | –                           | 3VA9503-OJB23 |
| –             | –             | –             | –             | –                           | 3VA9503-OJG23 |
|               |               |               |               |                             |               |
| –             | –             | –             | –             | –                           | 3VA9504-OJB23 |
| –             | –             | –             | –             | –                           | 3VA9504-OJG23 |
|               |               |               |               |                             |               |
|               |               |               |               |                             |               |
| –             | –             | –             | –             | –                           | 3VA9503-OJB32 |
| –             | –             | –             | –             | –                           | 3VA9503-OJG32 |
|               |               |               |               |                             |               |
| –             | –             | –             | –             | –                           | 3VA9504-OJB32 |
| –             | –             | –             | –             | –                           | 3VA9504-OJG32 |
|               |               |               |               |                             |               |
|               |               |               |               |                             |               |
| 3VA9110-OWB00 | 3VA9200-OWB00 | 3VA9200-OWB00 | 3VA9200-OWB00 | 3VA9480-OWB00               | –             |
| 3VA9150-OWB00 | 3VA9280-OWB00 | 3VA9280-OWB00 | 3VA9280-OWB00 | 3VA9480-OWB00               | –             |
|               |               |               |               |                             |               |
|               |               |               |               |                             |               |
| 3VA9110-OWC00 | 3VA9200-OWC00 | 3VA9200-OWC00 | 3VA9200-OWC00 | 3VA9480-OWC00               | –             |
| 3VA9150-OWC00 | 3VA9280-OWC00 | 3VA9280-OWC00 | 3VA9280-OWC00 | 3VA9480-OWC00               | –             |



# Connection technology



- ① For mounting onto the circuit breaker  
② For mounting on plug-in and withdrawable units

**For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)**

## Note:

All bus connectors, bus connectors broadened and rear connections are Cu/Sn 6 r plated according to ISO 2093.

2

### Front bus connectors



| Number of poles | Connection options | Scope of supply | Max. tap width | Max. tap thickness |
|-----------------|--------------------|-----------------|----------------|--------------------|
| 1P              | ① –                | 1 terminal      | 22 mm          | 8 mm               |
| 3P              | – ②                | 3 terminals     | 6 × 50 mm      | 8 mm               |

### Front bus connectors, with phase barriers



- 3-pole and 4-pole bus connectors only permitted if used with phase barriers!
- Phase barriers are included in the connection technology scope of supply or can be ordered as a spare part (3VA9...-WA00).

| Number of poles | Connection options | Scope of supply                                      | Max. tap width | Max. tap thickness |
|-----------------|--------------------|------------------------------------------------------|----------------|--------------------|
| 3P              | ① ②                | 3 terminals,<br>2 phase barriers                     | 22 mm          | 8 mm               |
|                 |                    |                                                      | 32 mm          | 10 mm              |
|                 |                    |                                                      | 40 mm          | 12.5 mm            |
|                 |                    |                                                      | 50 mm          | 30 mm              |
| 4P              | ① ②                | 3 short terminals, <sup>1)</sup><br>2 phase barriers | 50 mm          | 30 mm              |
|                 |                    |                                                      |                |                    |
|                 |                    | 4 terminals,<br>3 phase barriers                     | 22 mm          | 8 mm               |
|                 |                    |                                                      | 32 mm          | 10 mm              |
|                 |                    |                                                      | 40 mm          | 12.5 mm            |
|                 |                    |                                                      | 50 mm          | 30 mm              |
|                 |                    | 4 short terminals, <sup>1)</sup><br>3 phase barriers | 50 mm          | 30 mm              |
|                 |                    |                                                      |                |                    |



### Bus connectors edgewise, with phase barriers



- 3-pole and 4-pole bus connectors only permitted if used with phase barriers!
- Phase barriers are included in the connection technology scope of supply or can be ordered as a spare part (3VA9...-WA00).

| Number of poles | Connection options | Scope of supply                  | Max. tap width | Max. tap thickness |
|-----------------|--------------------|----------------------------------|----------------|--------------------|
| 3P              | ① ②                | 3 terminals,<br>2 phase barriers | 20 mm          | 6 mm               |
|                 |                    |                                  | 25 mm          | 7 mm               |
|                 |                    |                                  | 40 mm          | 8 mm               |
| 4P              | ① ②                | 4 terminals,<br>3 phase barriers | 20 mm          | 6 mm               |
|                 |                    |                                  | 25 mm          | 7 mm               |
|                 |                    |                                  | 40 mm          | 8 mm               |



### Front bus connectors broadened, with phase barriers



- 3-pole and 4-pole bus connectors broadened only permitted if used with phase barriers!
- Phase barriers are included in the connection technology scope of supply or can be ordered as a spare part (3VA9...-WA00).
- Distance between pole centers:
  - 100/160 A = 35 mm, 250 A = 45 mm, 400/630 A = 70 mm

| Number of poles | Connection options | Scope of supply                  | Max. tap width | Max. tap thickness |
|-----------------|--------------------|----------------------------------|----------------|--------------------|
| 3P              | ① ②                | 3 terminals,<br>2 phase barriers | 30 mm          | 8 mm               |
|                 |                    |                                  | 35 mm          | 10 mm              |
|                 |                    |                                  | 60 mm          | 12.5 mm            |
|                 |                    |                                  | 80 mm          | 10 mm              |
| 4P              | – ②                | 3 terminals,<br>2 phase barriers | 80 mm          | 15 mm              |
|                 |                    |                                  |                |                    |
|                 | ① ②                | 4 terminals,<br>3 phase barriers | 30 mm          | 8 mm               |
|                 |                    |                                  | 35 mm          | 10 mm              |
|                 |                    |                                  | 60 mm          | 12.5 mm            |
|                 |                    |                                  | 80 mm          | 10 mm              |



<sup>1)</sup> Bus connectors short for use with terminal covers

| 3VA10<br>3VA11 |              | 3VA20<br>3VA21<br>3VA22 |              | 3VA13<br>3VA14<br>3VA23<br>3VA24 | 3VA15<br>3VA25 | 3VA26 |
|----------------|--------------|-------------------------|--------------|----------------------------------|----------------|-------|
| 3VA9151-QB00   | –            | –                       | –            | –                                | –              | –     |
| –              | –            | –                       | –            | –                                | 3VA9603-QB01   | –     |
| 3VA9153-QB00   | –            | –                       | –            | –                                | –              | –     |
| –              | 3VA9253-QB00 | 3VA9263-QB00            | –            | –                                | –              | –     |
| –              | –            | –                       | 3VA9483-QB00 | –                                | –              | –     |
| –              | –            | –                       | –            | 3VA9603-QB00                     | –              | –     |
| –              | –            | –                       | –            | 3VA9603-QB02                     | –              | –     |
| 3VA9154-QB00   | –            | –                       | –            | –                                | –              | –     |
| –              | 3VA9254-QB00 | 3VA9264-QB00            | –            | –                                | –              | –     |
| –              | –            | –                       | 3VA9484-QB00 | –                                | –              | –     |
| –              | –            | –                       | –            | 3VA9604-QB00                     | –              | –     |
| –              | –            | –                       | –            | 3VA9604-QB02                     | –              | –     |
| 3VA9153-QD00   | –            | –                       | –            | –                                | –              | –     |
| –              | 3VA9253-QD00 | 3VA9263-QD00            | –            | –                                | –              | –     |
| –              | –            | –                       | 3VA9483-QD00 | –                                | –              | –     |
| 3VA9154-QD00   | –            | –                       | –            | –                                | –              | –     |
| –              | 3VA9254-QD00 | 3VA9264-QD00            | –            | –                                | –              | –     |
| –              | –            | –                       | 3VA9484-QD00 | –                                | –              | –     |
| 3VA9153-QC00   | –            | –                       | –            | –                                | –              | –     |
| –              | 3VA9253-QC00 | 3VA9263-QC00            | –            | –                                | –              | –     |
| –              | –            | –                       | 3VA9483-QC00 | –                                | –              | –     |
| –              | –            | –                       | –            | 3VA9603-QC00                     | –              | –     |
| –              | –            | –                       | –            | 3VA9603-QC01                     | 3VA9603-QC01   | –     |
| 3VA9154-QC00   | –            | –                       | –            | –                                | –              | –     |
| –              | 3VA9254-QC00 | 3VA9264-QC00            | –            | –                                | –              | –     |
| –              | –            | –                       | 3VA9484-QC00 | –                                | –              | –     |
| –              | –            | –                       | –            | 3VA9604-QC00                     | –              | –     |

# Connection technology



- ① For mounting onto the circuit breaker  
② For mounting on plug-in and withdrawable units

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

## Note:

All bus connectors, bus connectors broadened and rear connections are Cu/Sn 6 r plated according to ISO 2093.

### Nut keeper kits, right-angled <sup>1)</sup>



| Number of poles | Connection options |   | Scope of supply                  | Max. tap width | Max. tap thickness |
|-----------------|--------------------|---|----------------------------------|----------------|--------------------|
| 3P              | ①                  | ② | 3 terminals,<br>2 phase barriers | 22 mm          | 8 mm               |
|                 |                    |   |                                  | 32 mm          | 10 mm              |
|                 |                    |   |                                  | 40 mm          | 12.5 mm            |
| 4P              | ①                  | ② | 4 terminals,<br>3 phase barriers | 22 mm          | 8 mm               |
|                 |                    |   |                                  | 32 mm          | 10 mm              |
|                 |                    |   |                                  | 40 mm          | 12.5 mm            |

### Rear connection studs flat



| Number of poles | Connection options |     | Scope of supply                                               |
|-----------------|--------------------|-----|---------------------------------------------------------------|
| 1P              | ①                  | ②   | 1 short connection stud flat<br>1 long connection stud flat   |
| 3P              | ①                  | ②   | 2 short connection studs flat,<br>1 long connection stud flat |
|                 |                    | – ② | 3 short connection studs flat                                 |
| 4P              | ①                  | ②   | 2 short connection studs flat,<br>2 long connection stud flat |

### Rear connectors vertical



| Number of poles | Connection options |   | Scope of supply   |
|-----------------|--------------------|---|-------------------|
| 3P              | ①                  | – | 3 rear connectors |
| 4P              | ①                  | – | 4 rear connectors |

### Rear connectors horizontal



| Number of poles | Connection options |   | Scope of supply   |
|-----------------|--------------------|---|-------------------|
| 3P              | ①                  | – | 3 rear connectors |
| 4P              | ①                  | – | 4 rear connectors |

### Rear connection studs round



| Number of poles | Connection options |   | Scope of supply                                                  |
|-----------------|--------------------|---|------------------------------------------------------------------|
| 1P              | ①                  | ② | 1 short connection stud round<br>1 long connection stud round    |
| 3P              | ①                  | ② | 1 long connection stud round,<br>2 short connection studs round  |
| 4P              | ①                  | ② | 2 long connection studs round,<br>2 short connection studs round |

<sup>1)</sup> Can only be connected to breaker side N, 1, 3, 5

| 3VA10<br>3VA11 |               | 3VA20<br>3VA21<br>3VA22 |               | 3VA13<br>3VA14<br>3VA23<br>3VA24 |               | 3VA15<br>3VA25<br>3VA26 |   |
|----------------|---------------|-------------------------|---------------|----------------------------------|---------------|-------------------------|---|
|                |               |                         |               |                                  |               |                         |   |
| 3VA9113-0QG00  | –             | –                       | –             | –                                | –             | –                       | – |
| –              | 3VA9213-0QG00 | 3VA9223-0QG00           | –             | –                                | –             | –                       | – |
| –              | –             | –                       | 3VA9403-0QG00 | –                                | –             | –                       | – |
|                |               |                         |               |                                  |               |                         |   |
| 3VA9114-0QG00  | –             | –                       | –             | –                                | –             | –                       | – |
| –              | 3VA9214-0QG00 | 3VA9224-0QG00           | –             | –                                | –             | –                       | – |
| –              | –             | –                       | 3VA9404-0QG00 | –                                | –             | –                       | – |
|                |               |                         |               |                                  |               |                         |   |
|                |               |                         |               |                                  |               |                         |   |
| 3VA9111-0QE10  | 3VA9211-0QE10 | 3VA9201-0QE10           | 3VA9401-0QE10 | –                                | –             | –                       | – |
| 3VA9111-0QE20  | 3VA9211-0QE20 | 3VA9201-0QE20           | 3VA9401-0QE20 | –                                | –             | –                       | – |
| 3VA9113-0QE00  | 3VA9213-0QE00 | 3VA9203-0QE00           | 3VA9403-0QE00 | –                                | –             | –                       | – |
| –              | –             | –                       | –             | 3VA9603-0QE01                    | 3VA9603-0QE01 | –                       | – |
| 3VA9114-0QE00  | 3VA9214-0QE00 | 3VA9204-0QE00           | 3VA9404-0QE00 | –                                | –             | –                       | – |
|                |               |                         |               |                                  |               |                         |   |
|                |               |                         |               |                                  |               |                         |   |
| –              | –             | –                       | –             | –                                | –             | 3VA9603-0QE00           | – |
| –              | –             | –                       | –             | –                                | –             | 3VA9604-0QE00           | – |
|                |               |                         |               |                                  |               |                         |   |
|                |               |                         |               |                                  |               |                         |   |
| –              | –             | –                       | –             | –                                | –             | 3VA9603-0QE60           | – |
| –              | –             | –                       | –             | –                                | –             | 3VA9604-0QE60           | – |
|                |               |                         |               |                                  |               |                         |   |
|                |               |                         |               |                                  |               |                         |   |
| 3VA9111-0QF10  | 3VA9211-0QF10 | 3VA9201-0QF10           | 3VA9401-0QF10 | –                                | –             | –                       | – |
| 3VA9111-0QF20  | 3VA9211-0QF20 | 3VA9201-0QF20           | 3VA9401-0QF20 | –                                | –             | –                       | – |
| 3VA9113-0QF00  | 3VA9213-0QF00 | 3VA9203-0QF00           | 3VA9403-0QF00 | –                                | –             | –                       | – |
| 3VA9114-0QF00  | 3VA9214-0QF00 | 3VA9204-0QF00           | 3VA9404-0QF00 | –                                | –             | –                       | – |

# Connection technology



- ① For mounting onto the circuit breaker  
② For mounting on plug-in and withdrawable units

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

2

## Circular conductor terminals, 2P



| Connection options | Scope of supply                                                         | Number of cables | Cable cross-section        | Cu/Al stranded <sup>1)</sup> |                  | Control wire tap <sup>3)</sup> | Terminal short designation |
|--------------------|-------------------------------------------------------------------------|------------------|----------------------------|------------------------------|------------------|--------------------------------|----------------------------|
|                    |                                                                         |                  |                            | Cu                           | Al <sup>2)</sup> |                                |                            |
| ① –                | 2 single terminals,<br>1 extended terminal cover,<br>1 insulation plate | 1                | 25 ... 150 mm <sup>2</sup> | ■                            | ■ <sup>4)</sup>  | Yes                            | TA2.1                      |
|                    |                                                                         |                  |                            |                              |                  | No                             | TA2.1                      |
|                    |                                                                         | 6                | 1.5 ... 35 mm <sup>2</sup> | ■                            | –                | No                             | TA2.5                      |

## Circular conductor terminals, 3P



- **Note on 3VA9603-0JJ25, 3VA9603-0JJ35 and 3VA9603-0JJ45:**  
1 set of front bus connectors 3VA9603-0QB01 is required for installing circular conductor terminals on the load side and/or outgoing side.

| Connection options | Scope of supply                                                         | Number of cables | Cable cross-section         | Cu/Al stranded <sup>1)</sup> |                  | Control wire tap <sup>3)</sup> | Terminal short designation |
|--------------------|-------------------------------------------------------------------------|------------------|-----------------------------|------------------------------|------------------|--------------------------------|----------------------------|
|                    |                                                                         |                  |                             | Cu                           | Al <sup>2)</sup> |                                |                            |
| ① –                | 3 single terminals,<br>1 extended terminal cover,<br>1 insulation plate | 1                | 25 ... 150 mm <sup>2</sup>  | ■                            | ■ <sup>4)</sup>  | Yes                            | TA2.1                      |
|                    |                                                                         |                  |                             |                              |                  | No                             | TA2.1                      |
|                    |                                                                         |                  | 50 ... 240 mm <sup>2</sup>  | ■                            | ■                | Yes                            | TA2.2                      |
|                    |                                                                         |                  |                             |                              |                  | No                             | TA2.2                      |
|                    |                                                                         | 2                | 25 ... 150 mm <sup>2</sup>  | ■                            | ■ <sup>4)</sup>  | Yes                            | TA2.3                      |
|                    |                                                                         |                  |                             |                              |                  | No                             | TA2.3                      |
|                    |                                                                         |                  | 70 ... 300 mm <sup>2</sup>  | ■                            | ■                | Yes                            | TA2.4                      |
|                    |                                                                         |                  |                             |                              |                  | No                             | TA2.4                      |
|                    |                                                                         | 4                | 120 ... 240 mm <sup>2</sup> | ■                            | –                | Yes                            | TA4.3                      |
|                    |                                                                         |                  |                             |                              |                  | No                             | TA4.3                      |
|                    |                                                                         |                  | 120 ... 300 mm <sup>2</sup> | ■                            | ■                | Yes                            | TA4.4                      |
|                    |                                                                         |                  |                             |                              |                  | No                             | TA4.4                      |
| – ②                | 3 single terminals,<br>1 extended terminal cover,<br>1 insulation plate | 1                | 25 ... 150 mm <sup>2</sup>  | ■                            | ■ <sup>4)</sup>  | Yes                            | TA2.1                      |
|                    |                                                                         |                  |                             |                              |                  | No                             | TA2.1                      |
|                    |                                                                         | 2                | 25 ... 150 mm <sup>2</sup>  | ■                            | ■ <sup>4)</sup>  | Yes                            | TA2.2                      |
|                    |                                                                         |                  |                             |                              |                  | No                             | TA2.2                      |
|                    |                                                                         |                  | 50 ... 240 mm <sup>2</sup>  | ■                            | ■                | Yes                            | TA2.3                      |
|                    |                                                                         |                  |                             |                              |                  | No                             | TA2.3                      |
|                    |                                                                         |                  | 70 ... 300 mm <sup>2</sup>  | ■                            | ■                | Yes                            | TA2.4                      |
|                    |                                                                         |                  |                             |                              |                  | No                             | TA2.4                      |
|                    |                                                                         |                  | 150 ... 300 mm <sup>2</sup> | ■                            | ■                | Yes                            | TA5.1                      |
|                    |                                                                         |                  |                             |                              |                  | No                             | TA5.1                      |
|                    |                                                                         | 3                | 150 ... 300 mm <sup>2</sup> | ■                            | ■                | Yes                            | TA5.2                      |
|                    |                                                                         |                  |                             |                              |                  | No                             | TA5.2                      |
|                    |                                                                         | 4                | 150 ... 300 mm <sup>2</sup> | ■                            | –                | Yes                            | TA5.3                      |
|                    |                                                                         |                  |                             |                              |                  | No                             | TA5.3                      |
|                    |                                                                         | 6                | 1.5 ... 35 mm <sup>2</sup>  | ■                            | –                | No                             | TA2.5                      |
|                    |                                                                         |                  |                             |                              |                  | No                             | TA2.6                      |
|                    |                                                                         |                  |                             |                              |                  |                                | TA2.7                      |

<sup>1)</sup> All circular conductor terminals tested according to UL 486 A/B for Cu and Al cables

<sup>2)</sup> Al cable tested according to IEC 60947-2 annex D

<sup>3)</sup> Maximum current-carrying capacity 15 A  
Maximum cable connection up to 2.5 mm<sup>2</sup>

<sup>4)</sup> Max. 225 A

|               |               |  |               | 3VA13         |               |
|---------------|---------------|--|---------------|---------------|---------------|
|               |               |  |               | 3VA14         |               |
| 3VA10         |               |  | 3VA20         | 3VA23         | 3VA15         |
| 3VA11         | 3VA12         |  | 3VA21         | 3VA24         | 3VA25         |
|               |               |  |               |               |               |
|               |               |  |               |               |               |
| 3VA9112-0JC12 | –             |  | –             | –             | –             |
| 3VA9112-0JJ12 | –             |  | –             | –             | –             |
| 3VA9112-0JF60 | –             |  | –             | –             | –             |
|               |               |  |               |               |               |
|               |               |  |               |               |               |
| 3VA9113-0JC12 | –             |  | –             | –             | –             |
| 3VA9113-0JJ12 | –             |  | –             | –             | –             |
| –             | 3VA9213-0JC13 |  | 3VA9223-0JC13 | –             | –             |
| –             | 3VA9213-0JJ13 |  | 3VA9223-0JJ13 | –             | –             |
| –             | 3VA9213-0JC22 |  | 3VA9223-0JC22 | –             | –             |
| –             | 3VA9213-0JJ22 |  | 3VA9223-0JJ22 | –             | –             |
| –             | –             |  | –             | 3VA9403-0JC23 | –             |
| –             | –             |  | –             | 3VA9403-0JJ23 | –             |
| –             | –             |  | –             | –             | 3VA9603-0JC43 |
| –             | –             |  | –             | –             | 3VA9603-0JJ43 |
| –             | –             |  | –             | –             | 3VA9603-0JC44 |
| –             | –             |  | –             | –             | 3VA9603-0JJ44 |
| 3VA9113-0JF60 | 3VA9213-0JF60 |  | 3VA9223-0JF60 | 3VA9303-0JF60 | –             |
| 3VA9153-0JC12 | –             |  | –             | –             | –             |
| –             | 3VA9253-0JC13 |  | 3VA9263-0JC13 | –             | –             |
| –             | 3VA9253-0JC22 |  | 3VA9263-0JC22 | –             | –             |
| –             | –             |  | –             | 3VA9483-0JC23 | –             |
| –             | –             |  | –             | –             | 3VA9603-0JJ25 |
| –             | –             |  | –             | –             | 3VA9603-0JJ35 |
| –             | –             |  | –             | –             | 3VA9603-0JJ45 |
| 3VA9153-0JF60 | –             |  | –             | –             | –             |
| –             | 3VA9253-0JF60 |  | 3VA9263-0JF60 | –             | –             |
| –             | –             |  | –             | 3VA9383-0JF60 | –             |

# Connection technology



- ① For mounting onto the circuit breaker  
② For mounting on plug-in and withdrawable units

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

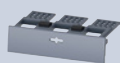
2

## Circular conductor terminals, 4P



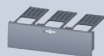
| Connection options |                | Scope of supply                                                         | Number of cables | Cable cross-section | Cu/Al stranded <sup>1)</sup> |                  | Control wire tap <sup>3)</sup> | Terminal short designation |
|--------------------|----------------|-------------------------------------------------------------------------|------------------|---------------------|------------------------------|------------------|--------------------------------|----------------------------|
|                    |                |                                                                         |                  |                     | Cu                           | Al <sup>2)</sup> |                                |                            |
| ①                  | —              | 4 single terminals,<br>1 extended terminal cover,<br>1 insulation plate | 1                | 25 ... 150 mm²      | ■                            | ■ <sup>4)</sup>  | Yes                            | TA2.1                      |
|                    |                |                                                                         |                  |                     |                              |                  | No                             | TA2.1                      |
|                    |                |                                                                         |                  | 50 ... 240 mm²      | ■                            | ■                | Yes                            | TA2.2                      |
|                    |                |                                                                         |                  |                     |                              | No               | TA2.2                          |                            |
|                    |                |                                                                         | 2                | 25 ... 150 mm²      | ■                            | ■ <sup>4)</sup>  | Yes                            | TA2.3                      |
|                    |                |                                                                         |                  |                     |                              | No               | TA2.3                          |                            |
|                    |                |                                                                         |                  | 70 ... 300 mm²      | ■                            | ■                | Yes                            | TA2.4                      |
|                    |                |                                                                         |                  |                     | No                           | TA2.4            |                                |                            |
|                    |                |                                                                         | 4                | 120 ... 240 mm²     | ■                            | —                | Yes                            | TA4.3                      |
|                    |                |                                                                         |                  |                     | No                           | TA4.3            |                                |                            |
|                    |                |                                                                         |                  | 120 ... 300 mm²     | ■                            | ■                | Yes                            | TA4.4                      |
|                    |                |                                                                         |                  |                     | No                           | TA4.4            |                                |                            |
| 6                  | 1.5 ... 35 mm² | ■                                                                       | —                | No                  | TA2.5                        |                  |                                |                            |
|                    |                |                                                                         |                  |                     | TA2.6                        |                  |                                |                            |
|                    |                |                                                                         |                  |                     | TA2.7                        |                  |                                |                            |
| —                  | ②              | 4 single terminals,<br>1 extended terminal cover,<br>1 insulation plate | 1                | 25 ... 150 mm²      | ■                            | ■ <sup>4)</sup>  | Yes                            | TA2.1                      |
|                    |                |                                                                         |                  | 50 ... 240 mm²      | ■                            | ■                | Yes                            | TA2.2                      |
|                    |                |                                                                         | 2                | 25 ... 150 mm²      | ■                            | ■ <sup>4)</sup>  | Yes                            | TA2.3                      |
|                    |                |                                                                         |                  | 70 ... 300 mm²      | ■                            | ■                | Yes                            | TA2.4                      |
|                    |                |                                                                         | 6                | 1.5 ... 35 mm²      | ■                            | —                | No                             | TA2.5                      |
|                    |                |                                                                         |                  |                     |                              |                  |                                | TA2.6                      |
|                    |                |                                                                         |                  |                     |                              |                  |                                | TA2.7                      |

## Terminal covers specially for fixed-mounted units



| Version                 | Number of poles | Mounting location |
|-------------------------|-----------------|-------------------|
| Short                   | 1P              | ① –               |
|                         | 2P              | ① –               |
|                         | 3P              | ① –               |
|                         | 4P              | ① –               |
| Intermediate            | 3P              | ① –               |
|                         | 4P              | ① –               |
| Extended <sup>5)</sup>  | 2P              | ① –               |
|                         | 3P              | ① –               |
|                         | 4P              | ① –               |
| Broadened <sup>5)</sup> | 3P              | ① –               |
|                         | 4P              | ① –               |

## Terminal covers specially for plug-in and withdrawable units (spare part)



- To provide circuit breaker touch protection
- For mounting to the molded case circuit breaker
- Included in scope of supply: Cover for the infeed and outgoing terminal

| Version | Number of poles | Mounting location |
|---------|-----------------|-------------------|
| Short   | 3P              | ① –               |
|         | 4P              | ① –               |

<sup>1)</sup> All circular conductor terminals tested according to UL 486 A/B for Cu and Al cables

<sup>2)</sup> Al cable tested according to IEC 60947-2 annex D

<sup>3)</sup> Maximum current-carrying capacity 15 A  
Maximum cable connection up to 2.5 mm<sup>2</sup>

<sup>4)</sup> Max. 225 A

<sup>5)</sup> Including insulating plate

<sup>6)</sup> Suitable for circular conductor terminals 2/4 cables

| 3VA10         |               | 3VA11         | 3VA12         | 3VA20<br>3VA21<br>3VA22 | 3VA13<br>3VA14<br>3VA23<br>3VA24 | 3VA15<br>3VA25 |
|---------------|---------------|---------------|---------------|-------------------------|----------------------------------|----------------|
|               |               |               |               |                         |                                  |                |
| 3VA9114-0JC12 |               | –             | –             | –                       | –                                | –              |
| 3VA9114-0JJ12 |               | –             | –             | –                       | –                                | –              |
| –             | –             | 3VA9214-0JC13 | 3VA9224-0JC13 | –                       | –                                | –              |
| –             | –             | 3VA9214-0JJ13 | 3VA9224-0JJ13 | –                       | –                                | –              |
| –             | –             | 3VA9214-0JC22 | 3VA9224-0JC22 | –                       | –                                | –              |
| –             | –             | 3VA9214-0JJ22 | 3VA9224-0JJ22 | –                       | –                                | –              |
| –             | –             | –             | –             | 3VA9404-0JC23           | –                                | –              |
| –             | –             | –             | –             | 3VA9404-0JJ23           | –                                | –              |
| –             | –             | –             | –             | –                       | 3VA9604-0JC43                    | –              |
| –             | –             | –             | –             | –                       | 3VA9604-0JJ43                    | –              |
| –             | –             | –             | –             | –                       | 3VA9604-0JC44                    | –              |
| –             | –             | –             | –             | –                       | 3VA9604-0JJ44                    | –              |
| 3VA9114-0JF60 |               | –             | –             | –                       | –                                | –              |
| –             | –             | 3VA9214-0JF60 | 3VA9224-0JF60 | –                       | –                                | –              |
| –             | –             | –             | –             | 3VA9304-0JF60           | –                                | –              |
| 3VA9154-0JC12 |               | –             | –             | –                       | –                                | –              |
| –             | –             | 3VA9254-0JC13 | 3VA9264-0JC13 | –                       | –                                | –              |
| –             | –             | 3VA9254-0JC22 | 3VA9264-0JC22 | –                       | –                                | –              |
| –             | –             | –             | –             | 3VA9484-0JC23           | –                                | –              |
| 3VA9154-0JF60 |               | –             | –             | –                       | –                                | –              |
| –             | –             | 3VA9254-0JF60 | 3VA9264-0JF60 | –                       | –                                | –              |
| –             | –             | –             | –             | 3VA9384-0JF60           | –                                | –              |
|               |               |               |               |                         |                                  |                |
| –             | 3VA9111-0WD10 | –             | –             | –                       | –                                | –              |
| –             | 3VA9111-0WD20 | –             | –             | –                       | –                                | –              |
| 3VA9111-0WD30 | 3VA9111-0WD30 | 3VA9211-0WD30 | 3VA9221-0WD30 | 3VA9481-0WD30           | 3VA9601-0WD30                    | –              |
| 3VA9111-0WD40 | 3VA9111-0WD40 | 3VA9211-0WD40 | 3VA9221-0WD40 | 3VA9481-0WD40           | 3VA9601-0WD40                    | –              |
| –             | –             | –             | –             | –                       | 3VA9601-0WE30 <sup>6)</sup>      | –              |
| –             | –             | –             | –             | –                       | 3VA9601-0WE40 <sup>6)</sup>      | –              |
| –             | 3VA9111-0WF20 | –             | –             | –                       | –                                | –              |
| 3VA9111-0WF30 | 3VA9111-0WF30 | 3VA9211-0WF30 | 3VA9221-0WF30 | 3VA9481-0WF30           | 3VA9601-0WF30                    | –              |
| 3VA9111-0WF40 | 3VA9111-0WF40 | 3VA9211-0WF40 | 3VA9221-0WF40 | 3VA9481-0WF40           | 3VA9601-0WF40                    | –              |
| 3VA9111-0WG30 | 3VA9111-0WG30 | 3VA9211-0WG30 | 3VA9221-0WG30 | 3VA9401-0WG30           | –                                | –              |
| 3VA9111-0WG40 | 3VA9111-0WG40 | 3VA9211-0WG40 | 3VA9221-0WG40 | 3VA9401-0WG40           | –                                | –              |
|               |               |               |               |                         |                                  |                |
| 3VA9113-0KB01 | 3VA9113-0KB01 | 3VA9213-0KB01 | 3VA9123-0KB01 | 3VA9353-0KB01           | –                                | –              |
| 3VA9114-0KB01 | 3VA9114-0KB01 | 3VA9214-0KB01 | 3VA9124-0KB01 | 3VA9354-0KB01           | –                                | –              |



# Connection technology



- ① For mounting onto the circuit breaker  
② For mounting on plug-in and withdrawable units

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

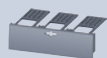
2

3VA10

3VA11

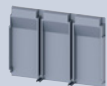
## Terminal covers for plug-in or withdrawable sockets

- For touch protection in the termination area
- Of the plug-in or withdrawable socket
- For mounting onto the plug-in or withdrawable socket



| Version                 | Number of poles | Mounting location |   |   |               |
|-------------------------|-----------------|-------------------|---|---|---------------|
| Short                   | 3P              | –                 | ② | – | 3VA9153-OKB03 |
|                         | 4P              | –                 | ② | – | 3VA9154-OKB03 |
| Extended <sup>1)</sup>  | 3P              | –                 | ② | – | 3VA9153-OKB04 |
|                         | 4P              | –                 | ② | – | 3VA9154-OKB04 |
| Broadened <sup>1)</sup> | 3P              | –                 | ② | – | 3VA9153-OKB05 |
|                         | 4P              | –                 | ② | – | 3VA9154-OKB05 |

## Insulating plates



| Version   | Number of poles | Mounting location |   |               |               |
|-----------|-----------------|-------------------|---|---------------|---------------|
| Standard  | 2P              | ①                 | – | –             | 3VA9111-0WJ20 |
|           | 3P              | ①                 | – | 3VA9111-0WJ30 | 3VA9111-0WJ30 |
|           | 4P              | ①                 | – | 3VA9111-0WJ40 | 3VA9111-0WJ40 |
| Broadened | 3P              | ①                 | – | 3VA9111-0WK30 | 3VA9111-0WK30 |
|           | 4P              | ①                 | – | 3VA9111-0WK40 | 3VA9111-0WK40 |

## Phase barriers



| Mounting location | Scope of supply  |               |
|-------------------|------------------|---------------|
| ① ②               | 2 phase barriers | 3VA9152-OWA00 |
| – ②               | 2 phase barriers | –             |

## Protective sleeve for insulation of rear connections



| Mounting location | Scope of supply      |   |
|-------------------|----------------------|---|
| ②                 | 3 protective sleeves | – |

## DC insulation plates for 3VA1 for fixed-mounted molded case circuit breakers



| Number of poles |               |
|-----------------|---------------|
| 3P              | 3VA9113-0SG10 |
| 4P              | 3VA9114-0SG10 |

## Side plates for 3VA1 for fixed-mounted molded case circuit breakers



| Number of poles | Mounting                               |   |               |
|-----------------|----------------------------------------|---|---------------|
| 2P              | On 2-pole molded case circuit breakers | – | 3VA9112-0SG20 |

<sup>1)</sup> Including insulating plate

|               |                | 3VA13<br>3VA14 |               |               |
|---------------|----------------|----------------|---------------|---------------|
|               | 3VA20<br>3VA21 | 3VA23<br>3VA24 | 3VA15         |               |
| 3VA12         | 3VA22          | 3VA24          | 3VA25         | 3VA26         |
|               |                |                |               |               |
|               |                |                |               |               |
| 3VA9253-OKB03 | 3VA9163-OKB03  | 3VA9353-OKB03  | 3VA9603-OKB03 | –             |
| 3VA9254-OKB03 | 3VA9164-OKB03  | 3VA9354-OKB03  | –             | –             |
|               |                |                |               |               |
| 3VA9253-OKB04 | 3VA9163-OKB04  | 3VA9353-OKB04  | –             | –             |
| 3VA9254-OKB04 | 3VA9164-OKB04  | 3VA9354-OKB04  | –             | –             |
|               |                |                |               |               |
| 3VA9253-OKB05 | 3VA9163-OKB05  | 3VA9353-OKB05  | –             | –             |
| 3VA9254-OKB05 | 3VA9164-OKB05  | 3VA9354-OKB05  | –             | –             |
|               |                |                |               |               |
|               |                |                |               |               |
| –             | –              | –              | –             | –             |
| 3VA9211-0WJ30 | 3VA9221-0WJ30  | 3VA9481-0WJ30  | –             | –             |
| 3VA9211-0WJ40 | 3VA9221-0WJ40  | 3VA9481-0WJ40  | –             | –             |
| 3VA9211-0WK30 | 3VA9221-0WK30  | 3VA9481-0WK30  | –             | –             |
| 3VA9211-0WK40 | 3VA9221-0WK40  | 3VA9481-0WK40  | –             | –             |
|               |                |                |               |               |
|               |                |                |               |               |
| 3VA9252-0WA00 | 3VA9262-0WA00  | 3VA9482-0WA00  | 3VA9602-0WA00 | 3VA9602-0WA00 |
| –             | –              | –              | 3VA9602-0WA05 | 3VA9602-0WA05 |
|               |                |                |               |               |
|               |                |                |               |               |
| –             | –              | –              | 3VA9603-0WH05 | –             |
|               |                |                |               |               |
|               |                |                |               |               |
| –             | –              | –              | –             | –             |
| –             | –              | –              | –             | –             |
|               |                |                |               |               |
|               |                |                |               |               |
| –             | –              | –              | –             | –             |

# Plug-in and withdrawable technology

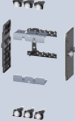
## Thanks to plug-in and withdrawable technology:

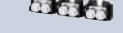
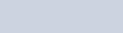
- Molded case circuit breakers can be replaced quickly and easily for overhauls or servicing
- Electrical isolation and clearly visible isolating distance
- The socket can be interlocked to prevent the 3VA molded case circuit breaker from being plugged in or moved in
- Identical connection technology for all molded case circuit breakers, whether they are plug-in, withdrawable or fixed-mounted units

## In addition, withdrawable technology offers:

- Transmission of the position of the molded case circuit breaker via communication (CONNECT, TEST, DISCONNECT)
- The ability to test the auxiliary and control circuit connections in the test position of the withdrawable unit, without contacted main current paths
- Transmission of the state of the molded case circuit breaker (ON, OFF, TRIP) via the COM060 communications module

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3VA11 | 3VA12         | 3VA20<br>3VA21<br>3VA22 | 3VA13<br>3VA14<br>3VA23<br>3VA24 | 3VA15<br>3VA25<br>3VA26 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------|-------------------------|----------------------------------|-------------------------|
| <b>Withdrawable units, complete kits</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           |       |               |                         |                                  |                         |
|  <ul style="list-style-type: none"> <li>• <b>Scope of supply:</b> <ul style="list-style-type: none"> <li>– Withdrawable socket</li> <li>– Withdrawable unit, conversion kit</li> <li>– Mounting screw kit</li> </ul> </li> <li>• <b>Note:</b> The crank for the withdrawable unit must be ordered separately.</li> </ul>                                                                         |       |               |                         |                                  |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |               |                         |                                  |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |               |                         |                                  |                         |
| <b>Number of poles</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       |               |                         |                                  |                         |
| 3P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | –     | 3VA9213-0KD00 | 3VA9123-0KD00           | 3VA9323-0KD00                    | –                       |
| 4P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | –     | 3VA9214-0KD00 | 3VA9124-0KD00           | 3VA9324-0KD00                    | –                       |
| <b>Withdrawable units, conversion kits</b>                                                                                                                                                                                                                                                                                                                                                                                                                                         |       |               |                         |                                  |                         |
|  <ul style="list-style-type: none"> <li>• <b>Scope of supply:</b> <ul style="list-style-type: none"> <li>– Screw-fastened terminal covers for molded case circuit breakers</li> <li>– Side panels</li> <li>– Plug-in contacts</li> <li>– Cable cages</li> <li>– Autotrip plunger</li> </ul> </li> <li>• <b>Note:</b> The crank for the withdrawable unit must be ordered separately.</li> </ul> |       |               |                         |                                  |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |               |                         |                                  |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |               |                         |                                  |                         |
| <b>Number of poles</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                             |       |               |                         |                                  |                         |
| 3P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | –     | 3VA9213-0KD10 | 3VA9123-0KD10           | 3VA9323-0KD10                    | –                       |
| 4P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | –     | 3VA9214-0KD10 | 3VA9124-0KD10           | 3VA9324-0KD10                    | –                       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               | 3VA20         | 3VA13         |               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|---------------|---------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               | 3VA21         | 3VA14         | 3VA15         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               | 3VA22         | 3VA23         | 3VA25         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |               | 3VA24         | 3VA26         |
| Plug-in units, complete kits                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               | 3VA11         | 3VA12         |               |
|                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>• <b>Scope of supply:</b> <ul style="list-style-type: none"> <li>– Plug-in socket</li> <li>– Plug-in unit, conversion kit</li> <li>– Mounting screw kit</li> </ul> </li> <li>• <b>Note on 3VA9603-0KP00:</b> <ul style="list-style-type: none"> <li>– An undervoltage release (UVR) (article number 3VA9908-0BB..) is required in the circuit breaker in order to provide the protection trip specified in the standard for unplugging the circuit breaker under load. The required UVR voltage version must be ordered in addition.</li> </ul> </li> </ul> |               |               |               |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Number of poles</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |               |               |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3VA9113-0KP00 | 3VA9213-0KP00 | 3VA9123-0KP00 | 3VA9323-0KP00 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3VA9114-0KP00 | 3VA9214-0KP00 | 3VA9124-0KP00 | 3VA9324-0KP00 |
| Plug-in units, conversion kits                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |               |               |               |
|                                                                                             | <ul style="list-style-type: none"> <li>• <b>Scope of supply:</b> <ul style="list-style-type: none"> <li>– Screw-fastened terminal covers for molded case circuit breakers</li> <li>– Plug-in contacts</li> <li>– Cable cages</li> <li>– Autotrip plunger</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                                                                    |               |               |               |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Number of poles</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |               |               |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3VA9113-0KP10 | 3VA9213-0KP10 | 3VA9123-0KP10 | 3VA9323-0KP10 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3VA9114-0KP10 | 3VA9214-0KP10 | 3VA9124-0KP10 | 3VA9324-0KP10 |
| Plug-in units, conversion kits with blade contacts                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |               |               |               |               |
|      | <ul style="list-style-type: none"> <li>• <b>Scope of supply:</b> <ul style="list-style-type: none"> <li>– 6x blade contacts</li> <li>– Guide frame for circuit breaker</li> <li>– 2x cover for blade contacts</li> <li>– Position signaling switch</li> <li>– Connecting cable for auxiliary circuits</li> </ul> </li> </ul>                                                                                                                                                                                                                                                                       |               |               |               |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Number of poles</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |               |               |               |               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | –             | –             | –             | 3VA9603-0KP10 |

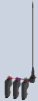
# Plug-in and withdrawable technology

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

2

|                                                                                   |                                                                                                       | 3VA11         | 3VA12         | 3VA20<br>3VA21<br>3VA22 | 3VA13<br>3VA14<br>3VA23<br>3VA24 | 3VA15<br>3VA25<br>3VA26 |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|---------------|---------------|-------------------------|----------------------------------|-------------------------|
| <b>Cable cages for plug-in/withdrawable units (spare part)</b>                    |                                                                                                       |               |               |                         |                                  |                         |
|  | • For routing of the required cables from the internal accessories on the back of the circuit breaker |               |               |                         |                                  |                         |
|                                                                                   | Number of poles                                                                                       |               |               |                         |                                  |                         |
|                                                                                   | 3P/4P                                                                                                 | 3VA9157-OKB02 | 3VA9257-OKB02 | 3VA9167-OKB02           | 3VA9367-OKB02                    | –                       |
| <b>Door feedthroughs</b>                                                          |                                                                                                       |               |               |                         |                                  |                         |
|  |                                                                                                       | –             | 3VA9257-OKT00 | 3VA9167-OKT00           | 3VA9367-OKT00                    | –                       |
| <b>Autotrip plungers (spare part)</b>                                             |                                                                                                       |               |               |                         |                                  |                         |
|  | Version                                                                                               |               |               |                         |                                  |                         |
|                                                                                   | Plug-in unit                                                                                          | 3VA9157-OKP81 | 3VA9257-OKP81 | 3VA9267-OKP81           | 3VA9457-OKP81                    | –                       |
|                                                                                   | Withdrawable unit                                                                                     | –             | 3VA9257-OKD81 | 3VA9267-OKD81           | 3VA9457-OKD81                    | –                       |

## Accessories

|                                                                                     |                                                                                                                                                                                                                                          | 3VA11         | 3VA12         | 3VA20<br>3VA21<br>3VA22 | 3VA13<br>3VA14<br>3VA23<br>3VA24 | 3VA15<br>3VA25<br>3VA26 |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|-------------------------|----------------------------------|-------------------------|
| <b>Communications interface for withdrawable unit</b>                               |                                                                                                                                                                                                                                          |               |               |                         |                                  |                         |
|    | <b>Scope of supply</b>                                                                                                                                                                                                                   |               |               |                         |                                  |                         |
|                                                                                     | Set of cables with three special position signaling switches, 3VA9987-0KC10 connecting cables                                                                                                                                            | 3VA9987-0KC00 | 3VA9987-0KC00 | 3VA9987-0KC00           | 3VA9987-0KC00                    | –                       |
| <b>Position signaling switches for withdrawable unit and plug-in unit</b>           |                                                                                                                                                                                                                                          |               |               |                         |                                  |                         |
|    | <ul style="list-style-type: none"> <li><b>Note on 3VA9603-0KB00:</b><br/>4 position signaling switches can be installed in the plug-in base.</li> </ul>                                                                                  |               |               |                         |                                  |                         |
|                                                                                     |                                                                                                                                                                                                                                          | 3VA9987-0KB00 | 3VA9987-0KB00 | 3VA9987-0KB00           | 3VA9987-0KB00                    | 3VA9603-0KB00           |
| <b>Connecting cables</b>                                                            |                                                                                                                                                                                                                                          |               |               |                         |                                  |                         |
|    | <b>Use</b>                                                                                                                                                                                                                               |               |               |                         |                                  |                         |
|                                                                                     | Connection of position signaling switches for communication with COM060                                                                                                                                                                  | 3VA9987-0KC10 | 3VA9987-0KC10 | 3VA9987-0KC10           | 3VA9987-0KC10                    | –                       |
|                                                                                     | For auxiliary circuits                                                                                                                                                                                                                   | –             | –             | –                       | –                                | 3VA9603-0KP80           |
| <b>Cranks for withdrawable units</b>                                                |                                                                                                                                                                                                                                          |               |               |                         |                                  |                         |
|    | <b>Version</b>                                                                                                                                                                                                                           |               |               |                         |                                  |                         |
|                                                                                     | Insulated Including crank holder                                                                                                                                                                                                         | 3VA9987-0KD81 | 3VA9987-0KD81 | 3VA9987-0KD81           | 3VA9987-0KD81                    | –                       |
| <b>Auxiliary circuit connectors</b>                                                 |                                                                                                                                                                                                                                          |               |               |                         |                                  |                         |
|  | <ul style="list-style-type: none"> <li>Each auxiliary circuit connector is designed for 4 cables.</li> </ul>                                                                                                                             |               |               |                         |                                  |                         |
|                                                                                     | <b>Version</b>                                                                                                                                                                                                                           |               |               |                         |                                  |                         |
|                                                                                     | For all withdrawable units                                                                                                                                                                                                               | 3VA9987-0KD80 | 3VA9987-0KD80 | 3VA9987-0KD80           | 3VA9987-0KD80                    | –                       |
| <b>Cylinder locks</b>                                                               |                                                                                                                                                                                                                                          |               |               |                         |                                  |                         |
|  | <ul style="list-style-type: none"> <li><b>Scope of supply:</b> <ul style="list-style-type: none"> <li>1 lock with 2 keys</li> </ul> </li> <li>For locking or interlocking</li> <li><b>Note:</b> Not for 3VA15/3VA25!</li> </ul>          |               |               |                         |                                  |                         |
|                                                                                     | <b>Key</b>                                                                                                                                                                                                                               |               |               |                         |                                  |                         |
|                                                                                     | 1                                                                                                                                                                                                                                        | 3VA9980-0VL10 | 3VA9980-0VL10 | 3VA9980-0VL10           | 3VA9980-0VL10                    | –                       |
|                                                                                     | 3                                                                                                                                                                                                                                        | 3VA9980-0VL30 | 3VA9980-0VL30 | 3VA9980-0VL30           | 3VA9980-0VL30                    | –                       |
|                                                                                     | 4                                                                                                                                                                                                                                        | 3VA9980-0VL40 | 3VA9980-0VL40 | 3VA9980-0VL40           | 3VA9980-0VL40                    | –                       |
| <b>Cylinder lock adapters for withdrawable units</b>                                |                                                                                                                                                                                                                                          |               |               |                         |                                  |                         |
|  | <ul style="list-style-type: none"> <li>To prevent unauthorized withdrawal or insertion of the circuit breaker into the withdrawable unit</li> <li>Circuit breaker can be locked in the CONNECT, TEST and DISCONNECT positions</li> </ul> |               |               |                         |                                  |                         |
|                                                                                     | <b>Use</b>                                                                                                                                                                                                                               |               |               |                         |                                  |                         |
|                                                                                     | For fitting a cylinder lock in the right-hand side wall of the withdrawable unit                                                                                                                                                         | 3VA9980-0LF40 | 3VA9980-0LF40 | 3VA9980-0LF40           | 3VA9980-0LF40                    | –                       |

# Residual current devices RCD

According to IEC 60947-2 annex B (Type A, Type B) and according to DIN VDE 0664-400 (Type B+)

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va-configurator](http://www.siemens.com/lowvoltage/3va-configurator)

2

## Residual current devices (RCD) for switch disconnectors and molded case circuit breakers

- Mounted onto the side (left)



| Number of poles | Type   | Sensitivity <sup>3)</sup> | Rated residual response current $I_{\Delta n}$ | Limit value of non-tripping time $\Delta t$ | Rated operational voltage $U_e$ | Fault current frequency | Pre-alarm |   |   | Trip alarm |   |   |
|-----------------|--------|---------------------------|------------------------------------------------|---------------------------------------------|---------------------------------|-------------------------|-----------|---|---|------------|---|---|
|                 |        |                           |                                                |                                             |                                 |                         |           |   |   |            |   |   |
| 3-pole          | RCD510 | Type A                    | 0.03 ... 5 A                                   | 0 ... 3 s                                   | 127 ... 480 V AC                | 50/60 Hz                | 1         | – | – | ■          | ■ | – |
| 4-pole          | RCD310 | Type A                    | 0.03 ... 5 A                                   | Instantaneous                               | 127 ... 480 V AC                | 50/60 Hz                | 1         | – | – | ■          | ■ | – |
|                 | RCD510 | Type A                    | 0.03 ... 5 A                                   | 0 ... 3 s                                   | 127 ... 480 V AC                | 50/60 Hz                | 1         | – | – | ■          | ■ | – |

## Residual current devices (RCD) for molded case circuit breakers

- Mounted below (under trip unit)



| Number of poles | Type                   | Sensitivity <sup>3)</sup> | Rated residual response current $I_{\Delta n}$ | Limit value of non-tripping time $\Delta t$ | Rated operational voltage $U_e$ | Fault current frequency | Pre-alarm |   |   | Trip alarm |   |   |
|-----------------|------------------------|---------------------------|------------------------------------------------|---------------------------------------------|---------------------------------|-------------------------|-----------|---|---|------------|---|---|
|                 |                        |                           |                                                |                                             |                                 |                         |           |   |   |            |   |   |
| 3-pole          | RCD520                 | Type A                    | 0.03 ... 5 A                                   | 0 ... 3 s                                   | 127 ... 480 V AC                | 50/60 Hz                | 1         | – | – | ■          | ■ | – |
|                 | RCD520B <sup>14)</sup> | Type B                    | 0.03 ... 5 A                                   | 0 ... 10 s                                  | 127 ... 690 V AC                | 0 ... 100 kHz           | 1         | ■ | – | ■          | ■ | – |
|                 |                        | Type B+                   | 0.03 ... 0.3 A                                 |                                             |                                 |                         |           |   |   |            |   |   |
|                 | RCD820 <sup>2)</sup>   | Type A                    | 0.03 ... 30 A <sup>5)</sup>                    | 0 ... 10 s                                  | 127 ... 690 V AC                | 50/60 Hz                | 2         | ■ | ■ | ■          | ■ | ■ |
| 4-pole          | RCD320                 | Type A                    | 0.03 ... 5 A                                   | Instantaneous                               | 127 ... 480 V AC                | 50/60 Hz                | 1         | – | – | ■          | ■ | – |
|                 | RCD520                 | Type A                    | 0.03 ... 5 A                                   | 0 ... 3 s                                   | 127 ... 480 V AC                | 50/60 Hz                | 1         | – | – | ■          | ■ | – |
|                 | RCD520B <sup>4)</sup>  | Type B                    | 0.03 ... 5 A                                   | 0 ... 10 s                                  | 127 ... 690 V AC                | 0 ... 100 kHz           | 1         | ■ | – | ■          | ■ | – |
|                 |                        | Type B+                   | 0.03 ... 0.3 A                                 |                                             |                                 |                         |           |   |   |            |   |   |
|                 | RCD820 <sup>2)</sup>   | Type A                    | 0.03 ... 30 A <sup>5)</sup>                    | 0 ... 10 s                                  | 127 ... 690 V AC                | 50/60 Hz                | 2         | ■ | ■ | ■          | ■ | ■ |

## Residual current releases (spare part)



| Version              | Scope of supply     |
|----------------------|---------------------|
| For RCD310 or RCD510 | RCR, RCR-RCD cables |

## RCD820 - 3VA2 ETU connecting cables (spare part)

- Connecting cable between the RCD820 and the electronic trip unit (ETU) of a 3VA2



| Version    | Scope of supply   |
|------------|-------------------|
| For RCD820 | 1 × RCD-ETU cable |

<sup>1)</sup> 3-pole version in 4-pole enclosure

<sup>2)</sup> With energy infeed from below, the required auxiliary switch (AUX) must be ordered separately

<sup>3)</sup> Type A: pulse current sensitive, type B/B+: universal current sensitive

<sup>4)</sup> Sensitivity selectable for type B/B+

<sup>5)</sup>  $I_{\Delta n} = 30A$ : type AC

<sup>6)</sup> If the molded case circuit breaker has no box terminals as connections, a set of box terminals must be ordered additionally for the taps below the thermal-magnetic trip units.

<sup>7)</sup> 1 set of box terminals is included in scope of supply of the RCD510 (3VA921.-0R520).

Modular residual current devices type A/B (according to IEC 60947-2 annex M), see monitoring devices, from page 11/1 onwards

|   |                                                         |                           |                             |                             |               |               |               |               |   |   |
|---|---------------------------------------------------------|---------------------------|-----------------------------|-----------------------------|---------------|---------------|---------------|---------------|---|---|
|   |                                                         |                           |                             |                             |               |               |               |               |   |   |
|   | Monitoring mode (tripping can be disabled as an option) | Remote test/ remote reset | Communication-capable       |                             |               |               |               |               |   |   |
| ■ | —                                                       | —                         | 3VA9113-0RS20 <sup>6)</sup> | 3VA9213-0RS20 <sup>7)</sup> | —             | —             | —             | —             | — | — |
| ■ | —                                                       | —                         | 3VA9114-0RS10 <sup>6)</sup> | —                           | —             | —             | —             | —             | — | — |
| ■ | —                                                       | —                         | 3VA9114-0RS20 <sup>6)</sup> | 3VA9214-0RS20 <sup>7)</sup> | —             | —             | —             | —             | — | — |
|   |                                                         |                           |                             |                             |               |               |               |               |   |   |
|   |                                                         |                           |                             |                             |               |               |               |               |   |   |
|   | Monitoring mode (tripping can be disabled as an option) | Remote test/ remote reset | Communication-capable       |                             |               |               |               |               |   |   |
| — | —                                                       | —                         | 3VA9113-0RL20               | 3VA9213-0RL20               | —             | —             | —             | —             | — | — |
| ■ | —                                                       | —                         | 3VA9113-0RL21               | —                           | —             | —             | —             | —             | — | — |
| ■ | ■                                                       | ■                         | —                           | —                           | 3VA9123-0RL30 | 3VA9223-0RL30 | 3VA9323-0RL30 | 3VA9423-0RL30 | — | — |
| — | —                                                       | —                         | 3VA9114-0RL10               | —                           | —             | —             | —             | —             | — | — |
| — | —                                                       | —                         | 3VA9114-0RL20               | 3VA9214-0RL20               | —             | —             | —             | —             | — | — |
| ■ | —                                                       | —                         | 3VA9114-0RL21               | —                           | —             | —             | —             | —             | — | — |
| ■ | ■                                                       | ■                         | —                           | —                           | 3VA9124-0RL30 | 3VA9224-0RL30 | 3VA9324-0RL30 | 3VA9424-0RL30 | — | — |
|   |                                                         |                           |                             |                             |               |               |               |               |   |   |
|   |                                                         |                           |                             |                             |               |               |               |               |   |   |
|   |                                                         |                           | 3VA9988-0BR10               | 3VA9988-0BR10               | —             | —             | —             | —             | — | — |
|   |                                                         |                           |                             |                             |               |               |               |               |   |   |
|   |                                                         |                           |                             |                             |               |               |               |               |   |   |
|   |                                                         |                           | —                           | —                           | 3VA9927-0RC00 | 3VA9927-0RC00 | 3VA9927-0RC00 | 3VA9927-0RC00 | — | — |



# Communication

## Metering function <sup>1)</sup>

|                                             |                                     |       | ETU 5-series | ETU 8-series | Display in ETU   | Display DSP800 | Communication COM800/COM100 |
|---------------------------------------------|-------------------------------------|-------|--------------|--------------|------------------|----------------|-----------------------------|
| <b>Current</b>                              |                                     |       |              |              |                  |                |                             |
| Phase and neutral conductor currents        | $I_1, I_2, I_3, I_N$                | A     | ■            | ■            | □                | □              | ■                           |
| Residual current to ground                  | $I_g$                               | A     | ■            | ■            | □                | □              | ■                           |
| Phase with highest load                     |                                     | A     | ■            | ■            | □                | □              | ■                           |
| Average value over the three phase currents | $I_{AVG} = (I_1 + I_2 + I_3)/3$     | A     | –            | ■            | –                | □              | ■                           |
| Asymmetry of the phase currents             | $I_{nba}$                           | %     | –            | ■            | –                | □              | ■                           |
| THD of the 3 phases                         | $THDI_1, THDI_2, THDI_3$            | %     | –            | ■            | –                | □              | ■                           |
| <b>Voltage</b>                              |                                     |       |              |              |                  |                |                             |
| Phase voltages incl. average value          | $U_{12}, U_{23}, U_{31}, U_{phavg}$ | V     | –            | ■            | □                | □              | ■                           |
| Voltages to N conductor incl. average value | $U_{1N}, U_{2N}, U_{3N}, U_{Navg}$  | V     | –            | ■            | –                | □              | ■                           |
| Voltage unbalance                           |                                     | %     | –            | ■            | –                | □              | ■                           |
| THD phase/phase and phase/N                 | $THDI_1, THDI_2, THDI_3$            | %     | –            | ■            | –                | □              | ■                           |
| <b>Power</b>                                |                                     |       |              |              |                  |                |                             |
| Active power, total and per phase           | $P_1, P_2, P_3, P_{tot}$            | kW    | –            | ■            | □ ( $P_{tot}$ )  | □              | ■                           |
| Apparent power, total and per phase         | $S_1, S_2, S_3, S_{tot}$            | kVA   | –            | ■            | –                | □              | ■                           |
| Reactive power, total and per phase         | $Q_1, Q_2, Q_3, Q_{tot}$            | kVAr  | –            | ■            | □                | □              | ■                           |
| Power factor of the fundamental             | $P_{F1}, P_{F2}, P_{F3}, P_{Favg}$  |       | –            | ■            | □ ( $PF_{avg}$ ) | □              | ■                           |
| <b>Energy</b>                               |                                     |       |              |              |                  |                |                             |
| Active energy, infeed and feedback          | $E_p$                               | kWh   | –            | ■            | □                | □              | ■                           |
| Reactive energy, infeed and feedback        | $E_q$                               | kVArh | –            | ■            | –                | □              | ■                           |
| Apparent energy                             | $E_s$                               | kVAh  | –            | ■            | –                | □              | ■                           |
| <b>Frequency</b>                            |                                     |       |              |              |                  |                |                             |
| Present frequency                           | $f$                                 | Hz    | –            | ■            | □                | □              | ■                           |
| <b>Min/max pointer function</b>             |                                     |       |              |              |                  |                |                             |
| Min./max. current, voltage, power           | With time stamp                     | –     | –            | –            | –                | –              | ■                           |
| <b>Condition Monitoring <sup>2)</sup></b>   |                                     |       |              |              |                  |                |                             |
| Operating cycles counter                    | CLOSE-OPEN cycle                    |       | ■            | ■            | –                | –              | ■                           |
| Operating hours                             |                                     | h     | ■            | ■            | –                | –              | ■                           |
| Trip counter                                | Differentiated by trip causes       |       | ■            | ■            | –                | –              | ■                           |
| Health indicator <sup>3)</sup>              | Incl. contact state                 | %     | ■            | ■            | ■                | –              | ■                           |
| Remaining life time <sup>3)</sup>           |                                     | Time  | ■            | ■            | –                | –              | ■                           |

■ Available

□ Displayable

– Not available

<sup>1)</sup> Depending on ETU version<sup>2)</sup> Only available with continuous external power supply and COM060 and COM800/100 communication interfaces<sup>3)</sup> Firmware 4.4 or higher of ETU, COM060, COM800/100 required

|       |       |
|-------|-------|
|       | 3VA23 |
| 3VA20 | 3VA24 |
| 3VA21 | 3VA25 |
| 3VA22 | 3VA26 |

### COM060 communications modules



- For mounting in the right-hand accessories compartment of the 3VA2 molded case circuit breaker (including ETU power supply)
- Including a T-Connector

#### Use

Communication to the COM800/COM100 data concentrator via 3VA line

3VA9187-0TB10

3VA9387-0TB10

### SLC adapters (spare part)



#### Scope of supply

5 units

3VA9187-0TB60

3VA9387-0TB60

### 24 V modules



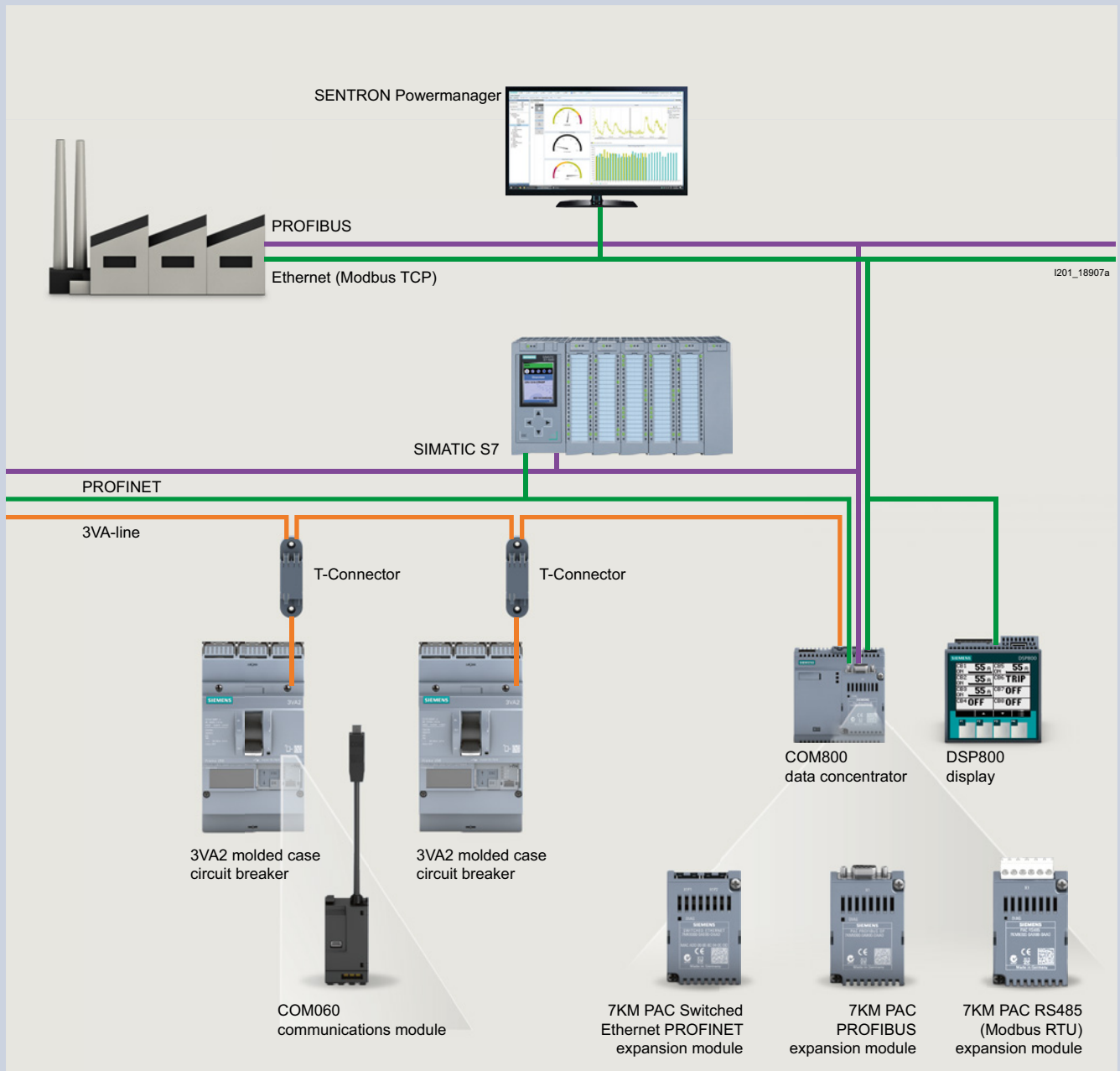
- 24 V DC
- For mounting in the right-hand accessories compartment of the 3VA2

#### Use

Optional energy supply for the ETU, also includes continuous operation of the ETU display and the metering function of the ETU 8-series

3VA9187-0TB50

3VA9387-0TB50



# Communication

## Data concentrator

### COM800 data concentrators



#### Version

Central communications module for connection of up to eight 3VA2 molded case circuit breakers via the 3VA line, Ethernet 10/100 Mbps interface module socket for inserting an optional PROFIBUS DP or PROFINET module, 2 terminating resistors

#### Article No.

3VA9987-0TA10

### COM100 data concentrators



#### Version

Central communications module for connection of a 3VA2 molded case circuit breaker via the 3VA line, Ethernet 10/100 Mbps interface module socket for inserting an optional PROFIBUS DP or PROFINET module, 2 terminating resistors

#### Article No.

3VA9987-0TA20

### 7KM PAC PROFIBUS DP expansion modules



#### Use

Used for connecting the COM800/COM100 data concentrator, and the 3VA molded case circuit breakers connected to it, to PROFIBUS DPV1. Supplies the state and measured variables of the 3VA molded case circuit breaker for the PROFIBUS DP master. Receives information (e.g. commands) from the PROFIBUS DP master and transmits them to the 3VA molded case circuit breaker.

#### Article No.

7KM9300-0AB01-0AA0

### 7KM PAC Switched Ethernet PROFINET expansion modules



#### Use

Used for connecting the COM800/COM100 data concentrator, and the connected 3VA molded case circuit breakers, to PROFINET via two Ethernet interfaces. Supplies the state and measured variables of the 3VA molded case circuit breakers to PROFINET via the PROFINET IO, PROFINET energy and Modbus TCP protocols.

#### Article No.

7KM9300-0AE02-0AA0

### 7KM PAC RS485 Modbus RTU expansion modules



#### Use

Used for connecting the COM800/COM100 data concentrator, and the 3VA molded case circuit breakers connected to it, to Modbus RTU. Supplies the state and measured variables of the 3VA molded case circuit breaker for the Modbus RTU master. Receives information (e.g. commands) from the Modbus RTU master and transmits them to the 3VA molded case circuit breaker.

#### Article No.

7KM9300-0AM00-0AA0

## Interfaces

### Interfaces to IEC 61850

- The SICAM A8000 smart data concentrator connects the circuit breakers from the SENTRON portfolio via the Modbus TCP/IP protocol and transmits data via communication protocols (e.g.: IEC 61850, IEC 60870-5-104, IEC 60870-5-101, Modbus and DNP) to higher-level systems.



#### Type

#### Processor assembly

#### Article No.

SICAM CP-8021 <sup>1)</sup>

–

6MF2802-1AA00

SICAM CP-8031 <sup>2)</sup>

–

6MF2803-1AA00

SICAM CP-8050 <sup>3)</sup>

–

6MF2805-0AA00

SICAM PS-8620

24 ... 60 V DC (12 W)

6MF2862-0AA00

SICAM PS-8622

110 ... 220 V DC (12 W)

6MF2862-2AA00

<sup>1)</sup> Dimensioned for device quantities of max. 1× 3WA and 1× 3VA

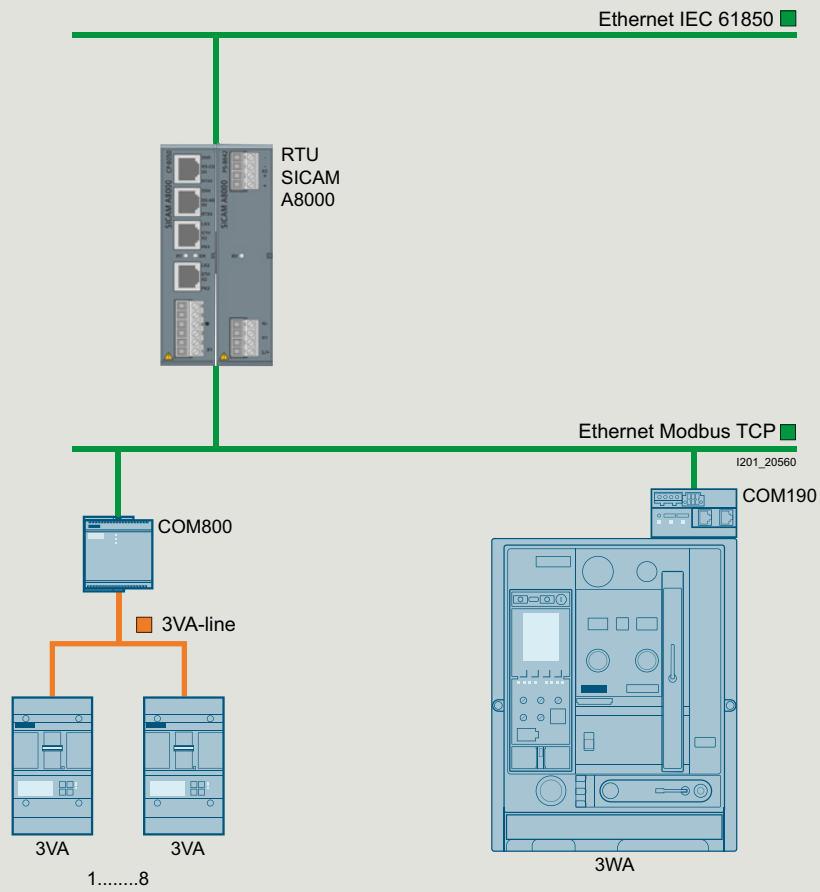
<sup>2)</sup> Dimensioned for device quantities of 1× 3WA and 8× 3VA

<sup>3)</sup> Dimensioned for device quantities of 3× 3WA and 8× 3VA or 2× 3WA and 8× 3VA and 1× PAC4200

You will find further information at:

[www.siemens.com/sicam-a8000](http://www.siemens.com/sicam-a8000)

For the SICAM CP-8021, SICAM CP-8031 and SICAM CP-8050, predefined modules were created to reduce commissioning work to a minimum. The modules can be obtained free of charge via SiePortal [www.siemens.com/lowvoltage/product-support](http://www.siemens.com/lowvoltage/product-support) (109816057).



# Communication

## Accessories for communication

### T-connectors (spare part)



| Use                                                                                     | Article No.   |
|-----------------------------------------------------------------------------------------|---------------|
| Provides a stub connection to the COM060 and loops through to the next circuit breaker. | 3VA9987-0TG10 |

### DIN-rail adapters



| Use                                           | Article No.   |
|-----------------------------------------------|---------------|
| For snapping the T-Connector onto a DIN rail. | 3VA9987-0TG11 |

### Prefabricated connecting cables, T-connector – T-connector or T-connector – COM800/COM100



| Length | Article No.   |
|--------|---------------|
| 0.4 m  | 3VA9987-0TC10 |
| 1 m    | 3VA9987-0TC20 |
| 2 m    | 3VA9987-0TC30 |
| 4 m    | 3VA9987-0TC40 |

### Prefabricated connecting cables for extending the COM060 – T-connector stub connection



| Length | Article No.   |
|--------|---------------|
| 0.4 m  | 3VA9987-0TF20 |
| 0.8 m  | 3VA9987-0TF10 |

### Additional bus terminating resistors (spare part)



| Use                   | Article No.   |
|-----------------------|---------------|
| For COM800 and COM060 | 3VA9987-0TE10 |

### Voltage tap to external N conductors (spare part)



| Use                                                                                                | Article No.   |
|----------------------------------------------------------------------------------------------------|---------------|
| Cable for connection of the star point for the metering function of the 8-series ETU, length 1.5 m | 3VA9987-0UC10 |

### External current transformer for N conductors



| Use                                                                                                | Rated current | Article No.   |
|----------------------------------------------------------------------------------------------------|---------------|---------------|
| For 3VA2 3-pole molded case circuit breakers, for 5 and 8-series ETUs, including connecting cables | 25 ... 150 A  | 3VA9007-0NA10 |
|                                                                                                    | 160 ... 350 A | 3VA9107-0NA10 |
|                                                                                                    | 400 ... 630 A | 3VA9307-0NA10 |

### External current transformers as straight-through transformers



| Rated current  | Article No.   |
|----------------|---------------|
| 25 ... 150 A   | 3VA9077-0NA10 |
| 160 ... 350 A  | 3VA9177-0NA10 |
| 400 ... 630 A  | 3VA9377-0NA10 |
| 600 ... 1250 A | 3VA9677-0NA10 |

### Connecting cables for external current transformers for N conductors (spare part)



| Article No.   |
|---------------|
| 3VA9907-0NB10 |

## Display

### DSP800 displays



| Use                                                                                                                                               | Article No.   |
|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| For displaying the status and measured values of up to eight devices                                                                              | 3VA9987-0TD10 |
| <ul style="list-style-type: none"> <li>• 3VA2 via COM800/100</li> <li>• 3VA27</li> <li>• 3WL10</li> <li>• 3WL11-13</li> <li>• PAC3200T</li> </ul> |               |

## External function box

### EFB300 external function boxes



- 4 digital outputs for information output
- 1 digital input
- ZSI functionality
- S0 interface
- Including cable 1.5 m in length

| Use                                                            | Article No.   |
|----------------------------------------------------------------|---------------|
| For connection to the ETU of 3VA2 molded case circuit breakers | 3VA9987-0UA10 |

### Connecting cables for EFB300



| Length | Use                          | Article No.   |
|--------|------------------------------|---------------|
| 1.5 m  | For 3VA2 with EFB            | 3VA9987-0UB10 |
| 3.0 m  | For 3VA2 with EFB            | 3VA9987-0UB20 |
|        | For 3VA2 with EFB and RCD820 | 3VA9987-0UB30 |

## Test devices

### TD300 test devices



| Use                                                                   | Connection                        | Article No.   |
|-----------------------------------------------------------------------|-----------------------------------|---------------|
| For activation of the ETU and initiation of a test tripping operation | On the front interface of the ETU | 3VA9987-0MA10 |

### TD400 test devices <sup>1)</sup>



- Energy supply via batteries or the USB-C interface
- USB-C interface for connecting a PC with SENTRON Powerconfig
- Bluetooth interface for connection to a PC, smartphone or tablet
- ETU parameterization
- Including adapter and connecting cable to 3VA2 molded case circuit breaker and IEC 3WL (ETU release 2)
- Including case

| Use                                     | Connection                                                        | Article No.   |
|-----------------------------------------|-------------------------------------------------------------------|---------------|
| Initiation of a test tripping operation | On the front interface of the ETU (3VA and IEC 3WL ETU release 2) | 3VW9011-0AT40 |

### TD500 test devices



- USB interface for connecting a PC with SENTRON Powerconfig
- Including external power supply
- Including connecting cable to 3VA2 molded case circuit breaker

| Use                                                                          | Connection                        | Article No.   |
|------------------------------------------------------------------------------|-----------------------------------|---------------|
| Initiation of various test tripping operations (LSING), ETU parameterization | On the front interface of the ETU | 3VA9987-0MB10 |

### External power supplies for TD500 (spare part)



| Voltage       | Article No.   |
|---------------|---------------|
| 110 ... 240 V | 3VA9987-0MX10 |

### Connecting cables for connecting TD500 to 3VA2 molded case circuit breakers (spare part)

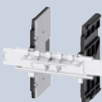
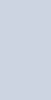


| Article No.   |
|---------------|
| 3VA9987-0MY10 |

<sup>1)</sup> A country-specific radio license is required to operate the Bluetooth interface. Before activating the Bluetooth function, ensure that the license is available: [www.siemens.com/lowvoltage/certificates](http://www.siemens.com/lowvoltage/certificates)

# Locking, blocking and interlocking

2

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                 | 3VA11         | 3VA12         | 3VA20<br>3VA21<br>3VA22 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------|---------------|-------------------------|
| Locking                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                 |               |               |                         |
| <br><br>                                                                                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"><li>The locking provisions make it possible to lock the 3VA molded case circuit breakers in either the OFF or the ON operating position.</li></ul>                                                                                                                                                                                                                                                                                               |                                 |               |               |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Version                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                 |               |               |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Cylinder lock                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Key 1 (lock number 1)           |               | 3VA9980-OVL10 |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Key 3 (lock number 3)           |               | 3VA9980-OVL30 |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Key 4 (lock number 4)           |               | 3VA9980-OVL40 |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Adapter kit for mounting the cylinder lock (type RONIS) in the accessories compartment of the molded case circuit breaker                                                                                                                                                                                                                                                                                                                                                          |                                 | 3VA9157-OLF10 | 3VA9257-OLF10 | 3VA9167-OLF10           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Locking provision for handle operating mechanism                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                 | 3VA9088-OLB10 |               | 3VA9388-OLB10           |
| Interlocking                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                 |               |               |                         |
| <br><br><br><br><br><br> | <ul style="list-style-type: none"><li>Using interlocking technology, it is possible to mutually interlock two or more molded case circuit breakers.</li><li>The interlock system is designed to ensure that no more than one molded case circuit breaker can be operated at a time.</li><li>The following methods of interlocking can be used on 3VA molded case circuit breakers:<ul style="list-style-type: none"><li>Front interlock</li><li>Rear interlock</li></ul></li></ul> |                                 |               |               |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Version                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                 |               |               |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Cylinder lock                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Key 1 (lock number 1)           |               | 3VA9980-OVL10 |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Key 3 (lock number 3)           |               | 3VA9980-OVL30 |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Key 4 (lock number 4)           |               | 3VA9980-OVL40 |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Sliding bar interlock                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                 | 3VA9158-0VF30 | 3VA9258-0VF30 | 3VA9168-0VF30           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Handle interlocking module with Bowden cable                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                 | 3VA9157-0VF10 | 3VA9257-0VF10 | 3VA9167-0VF10           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Bowden cable                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Length 0.6 m                    |               | 3VA9980-OVC10 |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Length 1.0 m                    |               | 3VA9980-OVC20 |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Length 1.5 m                    |               | 3VA9980-OVC30 |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Rear interlock with rod                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Circuit breaker, fixed-mounted  |               | 3VA9088-OVM10 |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Plug-in/withdrawable technology |               | 3VA9088-OVM30 |                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mounting frame for rear interlock with rod                                                                                                                                                                                                                                                                                                                                                                                                                                         | Mounting rails                  |               | 3VA9088-0VK10 |                         |
| Mounting plate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 3VA9158-0VK20                   | 3VA9258-0VK20 | 3VA9268-0VK20 |                         |

<sup>1)</sup> With mounting frame for rear interlock.

Can be used with breaker 3VA15 from "E02" and 3VA25 from "E05" (Line protection CB with TMTU, 3-Series ETU and 5-Series ETU)

|       |       |
|-------|-------|
| 3VA13 |       |
| 3VA14 | 3VA15 |
| 3VA23 | 3VA25 |
| 3VA24 | 3VA26 |

## Locking

|                                                 | Use in                                                                        | Locking in<br>OFF position | Locking in<br>ON position | Front<br>mounting | Rear<br>mounting | Interlocked<br>breakers |
|-------------------------------------------------|-------------------------------------------------------------------------------|----------------------------|---------------------------|-------------------|------------------|-------------------------|
| 3VA9980-0VL10<br>3VA9980-0VL30<br>3VA9980-0VL40 | Breakers, motor<br>operators, manual<br>operators, withdrawable<br>technology | ■                          | ■                         | ■                 | –                | –                       |
| 3VA9367-0LF10<br>3VA9587-0LF10                  | Circuit breaker                                                               | ■                          | ■                         | ■                 | –                | –                       |
| 3VA9388-0LB10<br>3VA9588-0LB10                  | Circuit breaker                                                               | ■                          | ■                         | ■                 | –                | –                       |

## Interlocking

|                                                 | Use in                                                                   | Locking in<br>OFF position | Locking in<br>ON position | Front<br>mounting | Rear<br>mounting | Interlocked<br>breakers |
|-------------------------------------------------|--------------------------------------------------------------------------|----------------------------|---------------------------|-------------------|------------------|-------------------------|
| 3VA9980-0VL10<br>3VA9980-0VL30<br>3VA9980-0VL40 | Breakers, manual<br>operators                                            | ■                          | ■                         | ■                 | –                | Unlimited               |
| 3VA9368-0VF30<br>–                              | Circuit breaker                                                          | –                          | –                         | ■                 | –                | 3                       |
| 3VA9367-0VF10<br>3VA9587-0VF10                  | Circuit breaker                                                          | –                          | –                         | ■                 | –                | 3                       |
| 3VA9980-0VC10<br>3VA9980-0VC20<br>3VA9980-0VC30 |                                                                          |                            |                           |                   |                  |                         |
| 3VA9088-0VM10<br>3VA9088-0VM30                  | Circuit breaker,<br>fixed-mounted,<br>plug-in/withdrawable<br>technology | –                          | –                         | –                 | ■                | 2                       |
| 3VA9088-0VK10<br>–                              |                                                                          |                            |                           |                   |                  |                         |
| 3VA9468-0VK20<br>–                              | Fixed-mounted                                                            | –                          | –                         | –                 | ■                |                         |



# Cover frame and mounting

2

3VA10

3VA11

3VA12

## Cover frames for door cut-outs for molded case circuit breakers



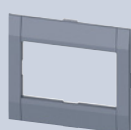
| Number of poles | Door cut-out with trip unit |               |               |
|-----------------|-----------------------------|---------------|---------------|
| 3P              | No                          | 3VA9053-OSB10 | 3VA9253-OSB10 |
|                 | Yes                         | 3VA9053-OSB20 | 3VA9253-OSB20 |
| 4P              | No                          | 3VA9054-OSB10 | 3VA9254-OSB10 |
|                 | Yes                         | 3VA9054-OSB20 | 3VA9254-OSB20 |

## Cover frames for motor operators



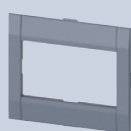
| Use                                                |               |               |
|----------------------------------------------------|---------------|---------------|
| MO320 motor operator                               | 3VA9053-OSB20 | 3VA9257-OSB30 |
| Motor operator with SEO520 stored energy mechanism | –             | –             |

## Cover frames for RCD320, RCD520 and RCD820 residual current devices



| Number of poles |               |               |
|-----------------|---------------|---------------|
| 3P              | 3VA9053-OSB10 | 3VA9253-OSB10 |
| 4P              | 3VA9054-OSB10 | 3VA9254-OSB10 |

## Cover frames for front mounted rotary operators



|               |               |
|---------------|---------------|
| 3VA9053-OSB10 | 3VA9253-OSB10 |
|---------------|---------------|

## Cover frames for door feedthroughs



|   |               |
|---|---------------|
| – | 3VA9253-OSB20 |
|---|---------------|

## Labeling plates for cover frame



3VA9087-OSX10

## DIN-rail adapter for 3VA1 molded case circuit breakers



| Number of poles                               |                             |   |
|-----------------------------------------------|-----------------------------|---|
| 1P                                            | 3VA9181-OSH10 <sup>1)</sup> | – |
| 2P                                            | 3VA9182-OSH10               | – |
| 3P and 4P                                     | 3VA9187-OSH10               | – |
| 3P and 4P in connection with RCD310 or RCD510 | 3VA9187-OSH20               | – |

## Mounting screw kits



| Use                                     | Number of poles                                         |               |               |
|-----------------------------------------|---------------------------------------------------------|---------------|---------------|
| For fixed-mounted circuit breakers      | 1P                                                      | 3VA9111-OSS10 | –             |
|                                         | 2P and 3P (apart from 125 A/160 A with 55 kA and 70 kA) | 3VA9116-OSS10 |               |
|                                         | 3P (125 A/160 A with 55 kA and 70 kA) and 4P            | 3VA9114-OSS10 |               |
|                                         | 3P                                                      | –             | –             |
|                                         | 4P                                                      | –             | –             |
|                                         | 3P and 4P                                               | –             | –             |
| For plug-in units                       | –                                                       | 3VA9114-OSS10 |               |
| For plug-in and withdrawable technology | –                                                       | –             | 3VA9114-OSS10 |

<sup>1)</sup> For 1-pole 3VA11 molded case circuit breakers up to 25 kA

Adapters for 60 mm busbar system (8US), [see page 13/26](#)

|               | 3VA13         |               |
|---------------|---------------|---------------|
| 3VA20         | 3VA14         | 3VA15         |
| 3VA21         | 3VA23         | 3VA25         |
| 3VA22         | 3VA24         | 3VA26         |
|               |               |               |
| 3VA9163-0SB10 | 3VA9383-0SB10 | 3VA9503-0SB10 |
| 3VA9163-0SB20 | 3VA9363-0SB20 | 3VA9503-0SB20 |
| 3VA9164-0SB10 | 3VA9384-0SB10 | 3VA9504-0SB10 |
| 3VA9164-0SB20 | 3VA9364-0SB20 | 3VA9504-0SB20 |
|               |               |               |
| 3VA9257-0SB30 | 3VA9377-0SB30 | –             |
| 3VA9167-0SB30 | 3VA9377-0SB30 | –             |
|               |               |               |
| 3VA9253-0SB10 | 3VA9303-0SB40 | –             |
| 3VA9254-0SB10 | 3VA9304-0SB40 | –             |
|               |               |               |
| 3VA9163-0SB10 | 3VA9383-0SB10 | 3VA9503-0SB50 |
|               |               |               |
| 3VA9253-0SB20 | 3VA9353-0SB20 | –             |
|               |               |               |
| 3VA9087-0SX10 |               |               |
|               |               |               |
| –             | –             | –             |
| –             | –             | –             |
| –             | –             | –             |
| –             | –             | –             |
|               |               |               |
| –             | –             | –             |
| –             | –             | –             |
| –             | –             | –             |
| 3VA9126-0SS10 | –             | –             |
| 3VA9124-0SS10 | –             | –             |
| –             | 3VA9328-0SS10 | 3VA9517-0SS10 |
| –             | –             | 3VA9603-0SS10 |
| 3VA9124-0SS10 | 3VA9328-0SS10 | –             |

# System overview

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va27-configurator](http://www.siemens.com/lowvoltage/3va27-configurator)

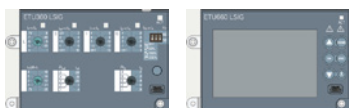
## Molded case circuit breakers



Handle

Stored energy mechanism

## Trip units



Electronic trip unit (ETU)

## Accessories



Communications module



Rating plugs



Breaker Connect module



Test devices and breaker data adapters

## Main conductor connections

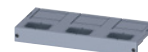
Rear vertical/  
horizontalRear  
broadenedFront  
extendedFront  
broadened

Cable lug

## Accessories



Phase barriers



Terminal cover

## Motors

Spring charging  
motor

## Accessories



Mechanical operating cycles counter (MOC)

## Auxiliary releases/closing coils

Undervoltage release (UVR)/  
Shunt trip (ST)Closing coil (CC)/  
Remote reset magnet (RR)

### Note:

You will find a detailed range of accessories in the Accessories and spare parts section.

## Auxiliary switches



Trip alarm switch



Ready-to-close  
signaling switch (RTC)



Auxiliary switch  
ON/OFF (AUX)



Trip alarm switch  
(S24)



Trip alarm switch  
(TAS)

## Other accessories



Interlocking sets



Locking provision



Locking mechanism



Door sealing frame



Protective cover



Mechanical  
interlock



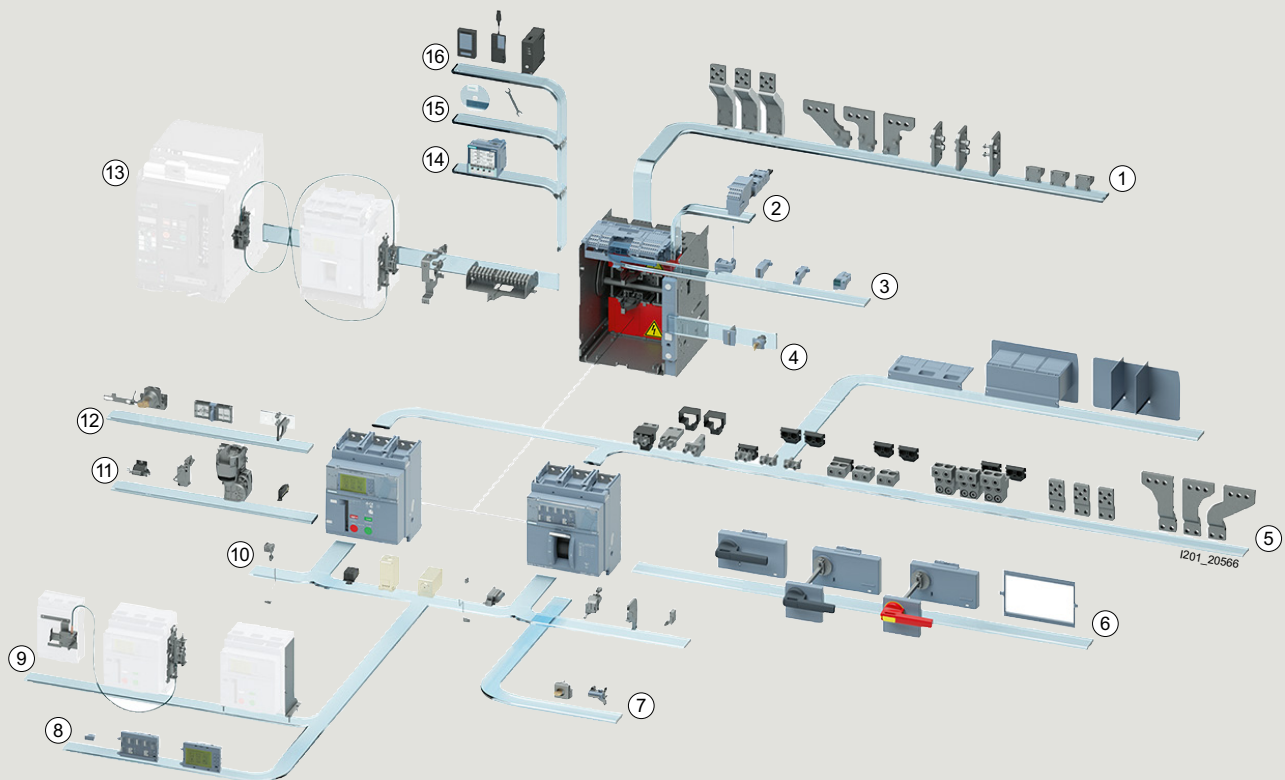
Manual operator

### Note:

You will find a detailed range of accessories in the Accessories and spare parts section.

# System overview

2



- |                                                           |                                                                                                      |
|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| ① Connection technology for guide frame                   | ⑩ Auxiliary and alarm switches/auxiliary releases                                                    |
| ② Position signaling switch                               | ⑪ Spring charging motor and accessories                                                              |
| ③ Communication modules                                   | ⑫ Accessories for locking, blocking, and interlocking for synchronizable spring charging motor (SEO) |
| ④ Locking for guide frame                                 | ⑬ Interlocking for guide frame/external accessories                                                  |
| ⑤ Connection technology for fixed-mounted circuit breaker | ⑭ DSP800 display                                                                                     |
| ⑥ Manual operators                                        | ⑮ SENTRON Powerconfig software                                                                       |
| ⑦ Sliding bar interlock                                   | ⑯ Test devices                                                                                       |
| ⑧ Electronic trip units (ETUs)                            |                                                                                                      |
| ⑨ Interlocking for fixed-mounted circuit breaker          |                                                                                                      |





3VA27

6 7 8 9 10 11 12 13 14 15 16

## Alarm switch combinations

|                |                                                                                                    |   |
|----------------|----------------------------------------------------------------------------------------------------|---|
| Alarm switches | Without                                                                                            | 0 |
|                | With trip alarm switch TAS<br>and trip alarm switch S25                                            | 1 |
|                | With two leading changeover switches S26                                                           | 2 |
|                | With trip alarm switch TAS<br>and trip alarm switch S25<br>and two leading changeover switches S26 | 3 |

## Auxiliary releases, closing coils

|                                                |         |   |
|------------------------------------------------|---------|---|
| Closing coil (CC),<br>remote reset magnet (RR) | Without | A |
|------------------------------------------------|---------|---|

|                       |                                                                               |   |
|-----------------------|-------------------------------------------------------------------------------|---|
| 2nd auxiliary release | Without 2nd auxiliary release                                                 | A |
|                       | With undervoltage release (UVR)                                               | B |
|                       | 24 V AC/DC                                                                    | C |
|                       | 30 V AC/DC                                                                    | D |
|                       | 48 V AC/DC                                                                    | E |
|                       | 60 V AC/DC                                                                    | F |
|                       | 110 ... 120 V AC/DC                                                           | G |
|                       | 120 ... 127 V AC/DC                                                           | H |
|                       | 220 ... 240 V AC/DC                                                           | J |
|                       | 240 ... 250 V AC/DC                                                           | K |
|                       | 380 ... 400 V AC/DC                                                           | L |
|                       | 415 ... 440 V AC/DC                                                           | M |
|                       | With undervoltage release (UVR),<br>delayable with external time-delay device | N |
|                       | Scope of supply: UVR + time-delay device                                      | P |
|                       | 220 ... 250 V AC/DC                                                           | Q |
|                       | With 2nd shunt trip (ST2)                                                     | R |
|                       | 24 V AC/DC                                                                    | S |
|                       | 30 V AC/DC                                                                    | T |
|                       | 48 V AC/DC                                                                    | U |
|                       | 60 V AC/DC                                                                    | V |
|                       | 110 ... 120 V AC/DC                                                           | W |
|                       | 120 ... 127 V AC/DC                                                           | X |
|                       | 220 ... 240 V AC/DC                                                           |   |
|                       | 240 ... 250 V AC/DC                                                           |   |

|                       |                               |   |
|-----------------------|-------------------------------|---|
| 1st auxiliary release | Without 1st auxiliary release | 0 |
|                       | Shunt trip (ST)               | 1 |
|                       | 24 V AC/DC                    | 2 |
|                       | 30 V AC/DC                    | 3 |
|                       | 48 V AC/DC                    | 4 |
|                       | 60 V AC/DC                    | 5 |
|                       | 110 ... 120 V AC/DC           | 6 |
|                       | 120 ... 127 V AC/DC           | 7 |
|                       | 220 ... 240 V AC/DC           | 8 |
|                       | 240 ... 250 V AC/DC           |   |



# Structure of the article numbers

## Basic configuration with stored energy mechanism

The structure shown below is intended as an overview of each position and its meaning.  
For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va27-configurator](http://www.siemens.com/lowvoltage/3va27-configurator)

|                                                                  |                                                                      |                                                                                              |               |                   | 6     | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |  |
|------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------|-------------------|-------|---|---|---|----|----|----|----|----|----|----|--|
|                                                                  |                                                                      |                                                                                              |               |                   | 3VA27 |   | – |   |    |    |    | –  |    |    |    |  |
| Molded case circuit breakers and ETUs                            |                                                                      |                                                                                              |               |                   |       |   |   |   |    |    |    |    |    |    |    |  |
| Max. rated current<br>$I_{n\ max}$                               | 800 A                                                                |                                                                                              |               |                   | 8     | 0 |   |   |    |    |    |    |    |    |    |  |
|                                                                  | 1000 A                                                               |                                                                                              |               |                   | 1     | 0 |   |   |    |    |    |    |    |    |    |  |
|                                                                  | 1250 A                                                               |                                                                                              |               |                   | 1     | 2 |   |   |    |    |    |    |    |    |    |  |
|                                                                  | 1600 A                                                               |                                                                                              |               |                   | 1     | 6 |   |   |    |    |    |    |    |    |    |  |
| Short-circuit<br>breaking capacity<br>$I_{cu} = I_{cs}$ at 415 V | Stored energy<br>mechanism                                           | 55 kA                                                                                        |               |                   |       |   | 1 |   |    |    |    |    |    |    |    |  |
|                                                                  |                                                                      | 85 kA                                                                                        |               |                   |       |   | 2 |   |    |    |    |    |    |    |    |  |
|                                                                  |                                                                      | 110 kA                                                                                       |               |                   |       |   | 3 |   |    |    |    |    |    |    |    |  |
| Molded case<br>switches                                          | Without metering<br>function, without<br>communications<br>interface | Without trip unit                                                                            |               |                   |       |   |   | A | A  |    |    |    |    |    |    |  |
| Circuit breakers,<br>ETU 3-series                                | Without metering<br>function, without<br>communications<br>interface | With trip unit                                                                               | ETU320 LI     | (N) <sup>1)</sup> |       |   | A | B |    |    |    |    |    |    |    |  |
|                                                                  |                                                                      |                                                                                              | ETU350 LSI    | (N) <sup>1)</sup> |       |   | A | C |    |    |    |    |    |    |    |  |
|                                                                  |                                                                      |                                                                                              | ETU360 LSIG   | (N) <sup>1)</sup> |       |   | A | D |    |    |    |    |    |    |    |  |
| Circuit breakers,<br>ETU 6-series                                |                                                                      | With trip unit                                                                               | ETU650 LSI    | (N) <sup>1)</sup> |       |   |   | E |    |    |    |    |    |    |    |  |
|                                                                  |                                                                      |                                                                                              | ETU660 LSIG   | (N) <sup>1)</sup> |       |   |   | F |    |    |    |    |    |    |    |  |
|                                                                  | Without a<br>communications<br>interface                             | Without metering function                                                                    |               |                   |       |   | A |   |    |    |    |    |    |    |    |  |
|                                                                  |                                                                      |                                                                                              |               |                   |       |   | B |   |    |    |    |    |    |    |    |  |
|                                                                  | With a<br>communications<br>interface                                | Without metering function                                                                    |               |                   |       |   | C |   |    |    |    |    |    |    |    |  |
|                                                                  |                                                                      |                                                                                              |               |                   |       |   | D |   |    |    |    |    |    |    |    |  |
|                                                                  |                                                                      |                                                                                              |               |                   |       |   | E |   |    |    |    |    |    |    |    |  |
|                                                                  |                                                                      |                                                                                              |               |                   |       |   | F |   |    |    |    |    |    |    |    |  |
| Number of poles                                                  | Fixed-mounted                                                        | 3-pole                                                                                       |               |                   |       |   |   |   |    | 0  |    |    |    |    |    |  |
|                                                                  |                                                                      | 4-pole                                                                                       | Neutral left  |                   |       |   |   |   |    | 1  |    |    |    |    |    |  |
|                                                                  |                                                                      |                                                                                              | Neutral right |                   |       |   |   |   |    | 2  |    |    |    |    |    |  |
|                                                                  | Withdrawable                                                         | 3-pole                                                                                       |               |                   |       |   |   |   |    | 3  |    |    |    |    |    |  |
|                                                                  |                                                                      | 4-pole                                                                                       | Neutral left  |                   |       |   |   |   |    | 4  |    |    |    |    |    |  |
|                                                                  |                                                                      |                                                                                              | Neutral right |                   |       |   |   |   |    | 5  |    |    |    |    |    |  |
| Connections                                                      |                                                                      |                                                                                              |               |                   |       |   |   |   |    |    |    |    |    |    |    |  |
| Type of mounting                                                 | Withdrawable                                                         | Withdrawable circuit breaker without guide frame<br>(guide frame must be ordered separately) |               |                   |       |   |   |   |    |    | 0  |    |    |    |    |  |
|                                                                  | Fixed-mounted breaker/<br>withdrawable breaker                       | Rear vertical connection                                                                     |               |                   |       |   |   |   |    |    | 1  |    |    |    |    |  |
|                                                                  |                                                                      | Rear horizontal connection                                                                   |               |                   |       |   |   |   |    |    | 2  |    |    |    |    |  |
|                                                                  |                                                                      | Front main connection                                                                        |               |                   |       |   |   |   |    |    | 3  |    |    |    |    |  |
|                                                                  |                                                                      | Front-accessible, extended main connection                                                   |               |                   |       |   |   |   |    |    | 5  |    |    |    |    |  |
|                                                                  |                                                                      | Front-accessible, broadened main connection                                                  |               |                   |       |   |   |   |    |    | 6  |    |    |    |    |  |
|                                                                  |                                                                      | Rear broadened bus connectors                                                                |               |                   |       |   |   |   |    |    | 7  |    |    |    |    |  |
|                                                                  |                                                                      |                                                                                              |               |                   |       |   |   |   |    |    |    |    |    |    |    |  |
| Motor                                                            |                                                                      |                                                                                              |               |                   |       |   |   |   |    |    |    |    |    |    |    |  |
| Operating<br>mechanisms                                          | Manual operator                                                      |                                                                                              |               |                   |       |   |   |   |    |    |    | 0  |    |    |    |  |
|                                                                  | Spring charging motor                                                | 24 ... 30 V AC/DC                                                                            |               |                   |       |   |   |   |    |    |    | 1  |    |    |    |  |
|                                                                  |                                                                      | 48 ... 60 V AC/DC                                                                            |               |                   |       |   |   |   |    |    |    | 2  |    |    |    |  |
|                                                                  |                                                                      | 110 V AC/DC                                                                                  |               |                   |       |   |   |   |    |    |    | 3  |    |    |    |  |
|                                                                  |                                                                      | 230 V AC/DC                                                                                  |               |                   |       |   |   |   |    |    |    | 4  |    |    |    |  |

3VA27

6 7 8 9 10 11 12 13 14 15 16

## Auxiliary releases, closing coils, remote reset magnets

|                                                |                                                                                                                           |                     |   |
|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------|---|
| Closing coil (CC),<br>remote reset magnet (RR) | Without                                                                                                                   |                     | A |
|                                                | Closing coil (CC)                                                                                                         | 24 V AC/DC          | B |
|                                                |                                                                                                                           | 30 V AC/DC          | C |
|                                                |                                                                                                                           | 48 V AC/DC          | D |
|                                                |                                                                                                                           | 60 V AC/DC          | E |
|                                                |                                                                                                                           | 110 ... 120 V AC/DC | F |
|                                                |                                                                                                                           | 120 ... 127 V AC/DC | G |
|                                                |                                                                                                                           | 220 ... 240 V AC/DC | H |
|                                                |                                                                                                                           | 240 ... 250 V AC/DC | J |
|                                                | Closing coil (CC) and<br>additional remote reset magnet (RR)                                                              | 24 V AC/DC          | K |
|                                                |                                                                                                                           | 110 V AC/DC         | L |
|                                                |                                                                                                                           | 220 V AC/DC         | M |
| 2nd auxiliary release                          | Without 2nd auxiliary release                                                                                             |                     | A |
|                                                | With undervoltage release (UVR)                                                                                           | 24 V AC/DC          | B |
|                                                |                                                                                                                           | 30 V AC/DC          | C |
|                                                |                                                                                                                           | 48 V AC/DC          | D |
|                                                |                                                                                                                           | 60 V AC/DC          | E |
|                                                |                                                                                                                           | 110 ... 120 V AC/DC | F |
|                                                |                                                                                                                           | 120 ... 127 V AC/DC | G |
|                                                |                                                                                                                           | 220 ... 240 V AC/DC | H |
|                                                |                                                                                                                           | 240 ... 250 V AC/DC | J |
|                                                |                                                                                                                           | 380 ... 400 V AC/DC | K |
|                                                |                                                                                                                           | 415 ... 440 V AC/DC | L |
|                                                | With undervoltage release (UVR),<br>delayable with external time-delay device<br>Scope of supply: UVR + time-delay device | 24 ... 30 V AC/DC   | M |
|                                                |                                                                                                                           | 110 ... 127 V AC/DC | N |
|                                                |                                                                                                                           | 220 ... 250 V AC/DC | P |
|                                                | With 2nd shunt trip (ST2)                                                                                                 | 24 V AC/DC          | Q |
|                                                |                                                                                                                           | 30 V AC/DC          | R |
|                                                |                                                                                                                           | 48 V AC/DC          | S |
|                                                |                                                                                                                           | 60 V AC/DC          | T |
|                                                |                                                                                                                           | 110 ... 120 V AC/DC | U |
|                                                |                                                                                                                           | 120 ... 127 V AC/DC | V |
|                                                |                                                                                                                           | 220 ... 240 V AC/DC | W |
|                                                |                                                                                                                           | 240 ... 250 V AC/DC | X |
| 1st auxiliary release                          | Without 1st auxiliary release                                                                                             |                     | 0 |
|                                                | Shunt trip (ST)                                                                                                           | 24 V AC/DC          | 1 |
|                                                |                                                                                                                           | 30 V AC/DC          | 2 |
|                                                |                                                                                                                           | 48 V AC/DC          | 3 |
|                                                |                                                                                                                           | 60 V AC/DC          | 4 |
|                                                |                                                                                                                           | 110 ... 120 V AC/DC | 5 |
|                                                |                                                                                                                           | 120 ... 127 V AC/DC | 6 |
|                                                |                                                                                                                           | 220 ... 240 V AC/DC | 7 |
|                                                |                                                                                                                           | 240 ... 250 V AC/DC | 8 |

# Accessory options

For a complete and valid configuration of your molded case circuit breaker, please use our online configurator at [www.siemens.com/lowvoltage/3va27-configurator](http://www.siemens.com/lowvoltage/3va27-configurator)

To specify the options, add "-Z" to the complete article number and indicate the appropriate order code(s).

3VA27..-.....-.... -Z

Order code

## Accessories for basic configuration

### Mounting options for fixed-mounted circuit breakers

- In the basic configuration, the fixed-mounted circuit breaker is mounted onto the rear panel. Floor mounting is possible as an option. The device must additionally be modified if it is to be extended to include functionalities such as external auxiliary switches or mechanical interlocking mechanism.<sup>1)</sup>

|                                                                   |                                         |                                         |                                                                                     |                                                                                     |     |
|-------------------------------------------------------------------|-----------------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----|
| Mounting options for fixed-mounted circuit breakers <sup>1)</sup> | Floor mounting                          | Mounting support standard               |  |  | A07 |
|                                                                   |                                         | Mounting support extended <sup>2)</sup> |  |  | S56 |
|                                                                   | Rear panel mounting onto mounting plate | Side wall extended <sup>2)</sup>        |  |  | S57 |

## Accessories for electronic trip units ETU

### Rating plugs

- As standard, the electronic trip units are equipped with a rating plug for setting the rated current  $I_n$ , which is equal to the maximum rated circuit breaker current ( $< I_{n\max}$ ). The rated current of the selected rating plug must be less than or equal to  $I_{n\max}$ .
- To downrate the circuit breaker, a rated current smaller than  $I_{n\max}$  is selected for the rating plug via a Z option.
- Other functions can also be activated using rating plugs (L = OFF or Rc protection).

|             |                                                                                                                                                                                           |                   |        |                                                                                       |                                                                                       |     |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----|
| Rating plug | For setting the rated current $I_n$                                                                                                                                                       | For all ETUs      | 400 A  |  |  | B04 |
|             |                                                                                                                                                                                           |                   | 630 A  |  |  | B06 |
|             |                                                                                                                                                                                           |                   | 800 A  |  |  | B08 |
|             |                                                                                                                                                                                           |                   | 1000 A |  |  | B10 |
|             |                                                                                                                                                                                           |                   | 1200 A |  |  | B12 |
|             | For setting the rated current $I_n$ , with overload protection L = OFF                                                                                                                    | For 6-series ETUs | 400 A  |  |  | L04 |
|             |                                                                                                                                                                                           |                   | 630 A  |  |  | L06 |
|             |                                                                                                                                                                                           |                   | 800 A  |  |  | L08 |
|             |                                                                                                                                                                                           |                   | 1000 A |  |  | L10 |
|             |                                                                                                                                                                                           |                   | 1250 A |  |  | L12 |
|             |                                                                                                                                                                                           |                   | 1600 A |  |  | L16 |
|             | For setting the rated current $I_n$ ,<br>For enabling the residual current protective function.<br>The residual current function is only possible with the MF Advanced metering function. | For ETU660 only   | 400 A  |  |  | G04 |
|             |                                                                                                                                                                                           |                   | 630 A  |  |  | G06 |
|             |                                                                                                                                                                                           |                   | 800 A  |  |  | G08 |
|             |                                                                                                                                                                                           |                   | 1250 A |  |  | G12 |

### Communications modules

- Up to 2 different communication modules can be used at the same time.
- When using an IOM040 digital I/O module (Z option K56), only 1 communication module can be used.

|                        |        |            |                                                                                       |                                                                                       |     |
|------------------------|--------|------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----|
| Communications modules | COM040 | PROFIBUS   |  |  | F02 |
|                        | COM041 | PROFINET   |  |  | F03 |
|                        | COM043 | Modbus TCP |  |  | F11 |
|                        | COM042 | Modbus RTU |  |  | F12 |

### Breaker Connect modules

- When a circuit breaker with a communications interface is ordered, a Breaker Connect module for external 24 V DC power supply of the electronic components is also supplied ready installed as standard.
- By means of this Z option, the Breaker Connect module for 24 V DC is replaced by a Breaker Connect module for 110–240 V AC/DC.

|                        |                     |                                                                                       |                                                                                       |     |
|------------------------|---------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----|
| Breaker Connect module | 110 ... 240 V AC/DC |  |  | F26 |
|------------------------|---------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----|

### I/O modules internal

|                      |                           |                     |                                                                                       |                                                                                       |     |
|----------------------|---------------------------|---------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----|
| I/O modules internal | IOM040 digital I/O module | 2 inputs, 2 outputs |  |  | K56 |
|----------------------|---------------------------|---------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----|

 For molded case circuit breakers with stored energy mechanism

 For molded case circuit breakers with handle operating mechanism

<sup>1)</sup> These functionalities can be applied directly to the frame of the withdrawable circuit breaker, without any modification of the side wall.

<sup>2)</sup> Not possible in connection with or as an alternative to the mounting support, standard (A07).

To specify the options, add "-Z" to the complete article number and indicate the appropriate order code(s).

3VA27..-.....-.... -Z

Order code

2

## Accessories for motors

|                                              |                                                                                     |   |     |
|----------------------------------------------|-------------------------------------------------------------------------------------|---|-----|
| Mechanical operating cycles counter, 5-digit |  | - | C01 |
|----------------------------------------------|-------------------------------------------------------------------------------------|---|-----|

## Auxiliary switches and signaling switches

- Auxiliary and signaling switches for currents > 100 mA and up to 400 V AC are installed as standard.
- For currents < 100 mA for PLC connections, these auxiliary and signaling switches can be replaced.
- The auxiliary/signaling switches for 24 V DC digital signals are designed for
  - a minimum load above 1 mA at 5 V DC, and
  - a maximum breaking capacity of 100 mA at 24 V DC.

|                                                            |                                      |                                                               |                                                                                      |                                                                                      |     |
|------------------------------------------------------------|--------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----|
| Position signaling switches for guide frames <sup>1)</sup> |                                      | 2 CO   2 CO   2 CO (connected   test   disconnected position) |   |   | K55 |
| Signaling switch                                           | Ready-to-close signaling switch      | 1 CO digital 24 V DC                                          |   | -                                                                                    | K50 |
|                                                            | Trip alarm switch (S24)              | 1 CO digital 24 V DC                                          |   |   | K53 |
|                                                            | Spring charge signaling switch (S21) | 1 CO digital 24 V DC                                          |   | -                                                                                    | K54 |
| Auxiliary switch                                           | On/Off AUX                           | 4 CO digital 24 V DC                                          |   |   | K51 |
|                                                            |                                      | 2 CO 400 V AC, and 2 CO digital 24 V DC                       |  |  | K52 |

## Locking, blocking and interlocking

|                                  |                                                               |                                           |               |                                                                                       |                                                                                       |     |
|----------------------------------|---------------------------------------------------------------|-------------------------------------------|---------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----|
| Locking provisions <sup>1)</sup> | To prevent movement of the withdrawable circuit breaker       | Cylinder lock                             | Made by RONIS |  |  | R78 |
|                                  |                                                               | For no more than 3 padlocks, 8 mm         |               |  |  | R65 |
| Locking mechanism                | To prevent movement to disconnected position                  |                                           |               |  |  | R79 |
| Locking provision                | Against unauthorized closing in the operator panel (safe OFF) | Cylinder lock, made by RONIS              |               |  | -                                                                                     | S08 |
|                                  |                                                               | For no more than 3 padlocks, plastic 4 mm |               |  | -                                                                                     | S22 |
|                                  |                                                               | For no more than 1 padlock, metal 7 mm    |               |  | -                                                                                     | S23 |
|                                  |                                                               | For no more than 2 padlocks, metal 8 mm   |               |  | -                                                                                     | S07 |
| Interlocking set                 | For mechanical ON and/or OFF on the operator panel            | For no more than 3 padlocks, plastic 4 mm |               |  | -                                                                                     | S42 |
|                                  |                                                               | For no more than 1 padlock, metal 7 mm    |               |  | -                                                                                     | S43 |
|                                  |                                                               | For no more than 2 padlocks, metal 8 mm   |               |  | -                                                                                     | S44 |
| Protective cover                 | For mechanical ON/OFF, not lockable                           |                                           |               |  | -                                                                                     | S41 |
| Door sealing frame IP30          | IP3x                                                          |                                           |               |  |  | T30 |

 For molded case circuit breakers with stored energy mechanism

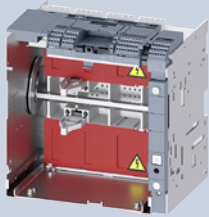
 For molded case circuit breakers with handle operating mechanism

<sup>1)</sup> Can be used both for individual orders of the guide frame and complete orders (circuit breaker + guide frame).

# Guide frames

3VA27

## Guide frames for ordering separately without circuit breakers



- Guide frames without breakers up to 1600 A
- **Note:** All CB bus modules for communication COM04x/IOM300/Breaker Connect module, as well as COMPSS signaling switches are configured without frames in the withdrawable circuit breaker and defined there by means of Z options, and are included with the breaker. PSS Standard is always included in the frame and can be changed to an electronics-capable signal by means of a Z option.

| Number of poles | Connection type                        | Article No.   |
|-----------------|----------------------------------------|---------------|
| 3-pole          | Rear vertical                          | 3VW8116-7AA01 |
|                 | Rear horizontal                        | 3VW8116-7AB01 |
|                 | Front straight bus connectors extended | 3VW8116-7AE01 |
|                 | Broadened bus connectors               | 3VW8116-7AF01 |
|                 | Rear broadened bus connectors          | 3VW8116-7AG01 |
| 4-pole          | Rear vertical                          | 3VW8116-7BA01 |
|                 | Rear horizontal                        | 3VW8116-7BB01 |
|                 | Front straight bus connectors extended | 3VW8116-7BE01 |
|                 | Broadened bus connectors               | 3VW8116-7BF01 |
|                 | Rear broadened bus connectors          | 3VW8116-7BG01 |

To specify the options, add "-Z" to the complete article number and indicate the appropriate order code(s).

3VW8....-.....-Z

Order code

## Locking, blocking and interlocking

|                   |                                                                                    |                                   |  |     |
|-------------------|------------------------------------------------------------------------------------|-----------------------------------|--|-----|
| Locking provision | To prevent movement of the withdrawable circuit breaker                            | Cylinder lock, made by RONIS      |  | R78 |
|                   |                                                                                    | For no more than 3 padlocks, 8 mm |  | R65 |
| Locking mechanism | To prevent movement to disconnected position (only in combination with R78 or R65) |                                   |  | R79 |

## Auxiliary/signaling switches

|                                               |                                                   |                                                               |  |     |
|-----------------------------------------------|---------------------------------------------------|---------------------------------------------------------------|--|-----|
| Position signaling switch PSS for guide frame | For 24 V DC digital signals, for minimum currents | 2 CO   2 CO   2 CO (connected   test   disconnected position) |  | K55 |
|-----------------------------------------------|---------------------------------------------------|---------------------------------------------------------------|--|-----|

Auxiliary and signaling switches for currents > 100 mA and up to 400 V AC are installed as standard.

For currents < 100 mA for PLC connections, these auxiliary and signaling switches can be modified.

The auxiliary/signaling switches for 24 V DC digital signals are designed for

- a minimum load above 1 mA at 5 V DC, and
- a maximum breaking capacity of 100 mA at 24 V DC.

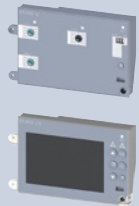
For molded case circuit breakers with stored energy mechanism

For molded case circuit breakers with handle operating mechanism

# Electronic trip unit ETU and accessories

3VA27

## Electronic trip units (ETU)



| Version                     | With communications/<br>metering function,<br>enhanced protective functions | Type   | Protective<br>function | Article No.   |
|-----------------------------|-----------------------------------------------------------------------------|--------|------------------------|---------------|
| With rotary coding switches | No                                                                          | ETU320 | LIN                    | 3VW9011-5AA00 |
|                             |                                                                             | ETU350 | LSIN                   | 3VW9012-5AA00 |
|                             |                                                                             | ETU360 | LSING                  | 3VW9012-7AA00 |
| With display                | Yes                                                                         | ETU650 | LSIN                   | 3VW9017-5AA00 |
|                             |                                                                             | ETU660 | LSING                  | 3VW9017-7AA00 |

2

## Metering functions for ETU650 or ETU660



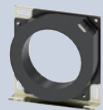
| Description                             | Protective function/version                           | Arrangement   | Article No.   |
|-----------------------------------------|-------------------------------------------------------|---------------|---------------|
| Metering function                       | MF Basic                                              | –             | 3VW9011-0AT01 |
|                                         | MF Advanced                                           | –             | 3VW9011-0AT04 |
| Set of cables for<br>voltage tap for MF | For 4-pole circuit breakers<br>with N conductor right | Top or bottom | 3VW9011-0AT08 |
|                                         | For 4-pole circuit breakers<br>with N conductor left  | Top           | 3VW9011-0AT75 |
|                                         |                                                       | Bottom        | 3VW9011-0AT76 |
|                                         | For 3-pole circuit breakers                           | Top           | 3VW9011-0AT72 |
|                                         |                                                       | Bottom        | 3VW9011-0AT73 |

## External current transformers for N conductors



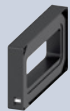
| Accessory for                             | Use                              | Article No.   |
|-------------------------------------------|----------------------------------|---------------|
| ETU320, ETU350, ETU360,<br>ETU650, ETU660 | Only for 3-pole circuit breakers | 3VW9011-0AA30 |

## External current transformers for grounded transformer neutral points



| Accessory for | $G_{ret}$ (Ground return) | Article No.   |
|---------------|---------------------------|---------------|
| ETU660        | 100 A                     | 3VW9011-0GF30 |
|               | 250 A                     | 3VW9011-0GF31 |

## Summation current transformers external Rc-CT for residual current measurement



- Only with MF Advanced metering function and Rc rating plug

| Accessory for | Use                                          | Article No.   |
|---------------|----------------------------------------------|---------------|
| ETU660        | For external residual current<br>measurement | 3VW9011-0RC30 |

## Remote reset magnets RR for the circuit breakers including tripped signaling



- Remote reset magnet (RR) for resetting the circuit breaker after tripping as a result of overcurrent conditions

| Accessory for                             | Voltage     | Article No.   |
|-------------------------------------------|-------------|---------------|
| ETU320, ETU350, ETU360,<br>ETU650, ETU660 | 24 V DC     | 3VW9011-0AK03 |
|                                           | 110 V AC/DC | 3VW9011-0AK05 |
|                                           | 250 V AC/DC | 3VW9011-0AK06 |

## Spare part batteries for electronic trip unit ETU



| Accessory for                          | Article No.   |
|----------------------------------------|---------------|
| ETU320, ETU350, ETU360, ETU650, ETU660 | 3VW9011-0AT38 |

For molded case circuit breakers with stored energy mechanism

For molded case circuit breakers with handle operating mechanism

# Electronic trip unit ETU and accessories

3VA27

## Rating plugs



- Only one module is possible per circuit breaker.

| Accessory for                                | Version                                                                                                                                                                                                                                     | Rated current $I_n$ |  | Article No.   |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--|---------------|
| ETU320, ETU350,<br>ETU360, ETU650,<br>ETU660 | Rating plugs for setting ( $< I_{n\max}$ )<br>the rated current $I_n$                                                                                                                                                                       | 400 A               |  | 3VW9011-0AA53 |
|                                              |                                                                                                                                                                                                                                             | 630 A               |  | 3VW9011-0AA55 |
|                                              |                                                                                                                                                                                                                                             | 800 A               |  | 3VW9011-0AA56 |
|                                              |                                                                                                                                                                                                                                             | 1000 A              |  | 3VW9011-0AA57 |
|                                              |                                                                                                                                                                                                                                             | 1250 A              |  | 3VW9011-0AA58 |
|                                              |                                                                                                                                                                                                                                             | 1600 A              |  | 3VW9011-0AA61 |
| ETU 6-series                                 | Rating plug without overload protection (L = OFF)<br>and for setting ( $< I_{n\max}$ ) the rated current $I_n$                                                                                                                              | 400 A               |  | 3VW9011-0LF53 |
|                                              |                                                                                                                                                                                                                                             | 630 A               |  | 3VW9011-0LF55 |
|                                              |                                                                                                                                                                                                                                             | 800 A               |  | 3VW9011-0LF56 |
|                                              |                                                                                                                                                                                                                                             | 1000 A              |  | 3VW9011-0LF57 |
|                                              |                                                                                                                                                                                                                                             | 1250 A              |  | 3VW9011-0LF58 |
|                                              |                                                                                                                                                                                                                                             | 1600 A              |  | 3VW9011-0LF61 |
| ETU660                                       | Rating plug Rc for ETU660 for enabling of the residual<br>current protective function and setting ( $< I_{n\max}$ ) of the<br>rated current $I_n$ . A residual current function is only<br>possible with the MF advanced metering function. | 400 A               |  | 3VW9011-0RC53 |
|                                              |                                                                                                                                                                                                                                             | 630 A               |  | 3VW9011-0RC55 |
|                                              |                                                                                                                                                                                                                                             | 800 A               |  | 3VW9011-0RC56 |
|                                              |                                                                                                                                                                                                                                             | 1250 A              |  | 3VW9011-0RC58 |

## CB bus modules - communications modules



- Contains the communications module
- Up to 2 different communications modules can be used at the same time.
- When using a digital I/O module IOM040 (Z option K56), only 1 communications module can be used.
- Can only be used with ETU of the 6-series and require a Breaker Connect module for connection to the circuit breaker. This can also be configured directly on the device by means of a Z option if the communications interface to the ETU 6-series is selected.

| Communications module | Protocol   |  |  | Article No.   |
|-----------------------|------------|--|--|---------------|
| COM040                | PROFIBUS   |  |  | 3VW9011-0AT15 |
| COM041                | PROFINET   |  |  | 3VW9011-0AT14 |
| COM043                | Modbus TCP |  |  | 3VW9011-0AT16 |
| COM042                | Modbus RTU |  |  | 3VW9011-0AT17 |

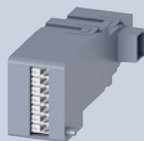
## CB bus modules - I/O modules external IOM300



- For snapping onto DIN rail

| Accessory for | Maximum switching current per contact                                                                                                                            | Inputs | Outputs |  |  | Article No.   |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|--|--|---------------|
| ETU 6-series  | <ul style="list-style-type: none"> <li>2 A at <math>\leq 30</math> V DC</li> <li>0.8 A at 50 V DC</li> <li>0.2 A at 150 V DC</li> <li>4 A at 250 V AC</li> </ul> | 11     | 10      |  |  | 3VW9011-0AT20 |

## CB bus modules - I/O modules internal IOM040



- When using a digital I/O module IOM040, only 1 communication module can be used.

| Accessory for | Maximum switching current per contact                                                                                                                            | Inputs | Outputs |  |  | Article No.   |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|--|--|---------------|
| ETU 6-series  | <ul style="list-style-type: none"> <li>2 A at <math>\leq 30</math> V DC</li> <li>0.8 A at 50 V DC</li> <li>0.2 A at 150 V DC</li> <li>4 A at 250 V AC</li> </ul> | 2      | 2       |  |  | 3VW9011-0AT30 |

For molded case circuit breakers with stored energy mechanism

For molded case circuit breakers with handle operating mechanism

3VA27

## Actuator modules COM ACT



- For switching the circuit breaker on/off remotely via communication.
- Actuation of the closing coil (CC) and the 1st shunt trip (ST).
- Can only be used in combination with a communications module, spring charging motor, closing coil and 1st shunt trip.
- Automatically included if the communications interface of the ETU 6-series is selected in the basic circuit breaker configuration.

## Accessory for

ETU 6-series



—

## Article No.

3VW9011-0AT10

## Breaker Connect modules



- For external power supply for the electronics components

## Voltage

110 ... 240 V AC/DC



## Article No.

3VW9011-0AT06

24 ... 48 V DC



3VW9011-0AT07

## Auxiliary contact signals for communications interface



- Auxiliary contacts for signaling the readiness to close or for position signaling switches of the withdrawable positions.
- Can only be used in combination with communications module.
- Can be combined with standard position signaling switches or ready-to-close signaling contacts.
- **Note:** Both signaling switches are automatically included in the basic circuit breaker (COM PSS only with withdrawable versions) if the communications interface of the ETU 6-series is selected.

## Function

Ready-to-close signaling switch for communication (COM RTC)



—

## Article No.

3VW9011-0AT11

Position signaling switch COM PSS (for withdrawable breaker only)



3VW9011-0AT12

## Test devices and breaker data adapters



- Usable for all ETU 3-series and 6-series

## Description

Test device

## Type

TD310



## Article No.

3VW9011-0AT32

- For the trip test via ETU and tripping solenoid including release
- Activation of the ETU and the tripping solenoid by means of a battery built into the test device
- On activation in the ETU 6-series, the parameters can be configured on the display

Breaker data adapter

TD410



3VW9011-0AT34

- As gateway for parameterization of the ETU with SENTRON Powerconfig
- For generation of a report of the set parameters with powerservice

Test device and breaker data adapter

TD420



3VW9011-0AT33

- As gateway for parameterization of the ETU with SENTRON Powerconfig
  - Testing a tripping operation using SENTRON Powerconfig
- For use with the powerservice software
  - Testing of the basic protective functions LSING
  - Testing of the enhanced protective functions
  - Test data storage
  - Readout of ETU buffer
  - Generation of a report of the set parameters



For molded case circuit breakers with stored energy mechanism



For molded case circuit breakers with handle operating mechanism



# Accessories for connection and insulation

3VA27

## Front main connections acc. to IEC 60947-2

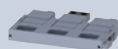
- Acc. to IEC 60947-2 for 3VA27 up to 1600 A (depending on application conditions)
- To be ordered separately for top and bottom



| Mounting      | Version                                                                          | Mounting onto                                          | Number of poles/quantity | Article No.   |
|---------------|----------------------------------------------------------------------------------|--------------------------------------------------------|--------------------------|---------------|
| Fixed-mounted | Front main connections                                                           | –                                                      | 3-pole/3 units           | 3VW9011-0AL01 |
|               |                                                                                  |                                                        | 4-pole/4 units           | 3VW9011-0AL02 |
|               | Extended main terminals, including insulation plate and phase barriers, standard | Front main connections                                 | 3-pole/3 units           | 3VW9011-0AL77 |
|               |                                                                                  |                                                        | 4-pole/4 units           | 3VW9011-0AL78 |
|               |                                                                                  |                                                        |                          |               |
| Withdrawable  | Front-accessible terminals for main circuit connection                           | Front main connections, top                            | 3-pole/3 units           | 3VW9011-0AL73 |
|               |                                                                                  | Front main connections, bottom                         | 3-pole/3 units           | 3VW9011-0AL75 |
|               |                                                                                  | Front main connections, top/bottom                     | 4-pole/4 units           | 3VW9011-0AL74 |
|               | Broadened main circuit connections                                               | Guide frame flange                                     | 3-pole/3 units           | 3VW9011-0AN01 |
|               |                                                                                  |                                                        | 4-pole/4 units           | 3VW9011-0AN02 |
|               |                                                                                  |                                                        |                          |               |
|               |                                                                                  | Front-accessible terminals for main circuit connection | 3-pole/3 units           | 3VW9011-0AN73 |
|               |                                                                                  |                                                        | 4-pole/4 units           | 3VW9011-0AN74 |

## Rear terminals for main circuit connections acc. to IEC 60947-2

- Acc. to IEC 60947-2 for 3VA27 up to 1600 A (depending on application conditions)
- To be ordered separately for top and bottom



| Mounting      | Version                                                                                                            | Mounting onto                    | Number of poles/quantity | Article No.   |
|---------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------|---------------|
| Fixed-mounted | Rear terminals for main circuit connection, rotatable for horizontal/vertical connection, including terminal cover | –                                | 3-pole/3 units           | 3VW9011-0AL32 |
|               |                                                                                                                    |                                  | 4-pole/4 units           | 3VW9011-0AL33 |
| Withdrawable  | Rear terminals for main circuit connection, rotatable for horizontal/vertical connection, including terminal cover | –                                | 3-pole/3 units           | 3VW9011-0AN32 |
|               |                                                                                                                    |                                  | 4-pole/4 units           | 3VW9011-0AN33 |
|               | Broadened main terminals                                                                                           | Rear horizontal main connections | 3-pole/3 units           | 3VW9011-0AN75 |
|               |                                                                                                                    |                                  | 4-pole/4 units           | 3VW9011-0AN76 |

## Cu/Al cable connections acc. to IEC 60947-2

- Acc. to IEC 60947-2 for 3VA27 up to 1600 A (depending on application conditions)
- To be ordered separately for top and bottom



| Mounting      | Version                                                                                                                                                      | Mounting onto                  | Number of poles/quantity | Article No.   |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------|---------------|
| Fixed-mounted | Circular conductor terminals 4 × 240 mm <sup>2</sup> for front cable connection <sup>1)</sup> , including insulation plate and high, extended terminal cover | Front main connections         | 3-pole/3 units           | 3VW9011-0AL71 |
|               |                                                                                                                                                              |                                | 4-pole/4 units           | 3VW9011-0AL72 |
| Withdrawable  | Set of circular conductor connection pieces 4 × 240 mm <sup>2</sup> for cable lugs for rear cable connection                                                 | Rear vertical main connections | 3-pole/3 units           | 3VW9011-0AN71 |
|               |                                                                                                                                                              |                                | 4-pole/4 units           | 3VW9011-0AN72 |

<sup>1)</sup> For connecting Al cables up to 1000 A

For molded case circuit breakers with stored energy mechanism

For molded case circuit breakers with handle operating mechanism

## 3VA27

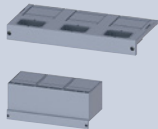
## Auxiliary supply connectors in push-in version



- Control wire tap in push-in version for upgrading fixed-mounted circuit breakers and guide frames.
- The device is always fitted at the factory with the exact number of control wire taps required.

| Version | Article No.   |
|---------|---------------|
| Push-in | 3VW9011-0AB11 |

## Terminal covers for fixed-mounted circuit breakers



- Finger-proof for front main connections for fixed-mounted versions
- Necessary isolation measures are always supplied with the corresponding connection technology and do not need to be ordered separately.

| Version  | Number of poles/quantity | Article No.   |
|----------|--------------------------|---------------|
| Standard | 3-pole/2 units           | 3VW9723-0WD30 |
|          | 4-pole/2 units           | 3VW9724-0WD40 |
| Extended | 3-pole/2 units           | 3VW9723-0WF30 |
|          | 4-pole/2 units           | 3VW9724-0WF40 |

## Phase barriers for fixed-mounted circuit breakers



- Necessary isolation measures are always supplied with the corresponding connection technology and do not need to be ordered separately.
- For operational voltages > 440 V AC the use of phase barriers is mandatory; up to 440 V AC their use is optional.

| Height            | Number of poles/quantity | Article No.   |
|-------------------|--------------------------|---------------|
| 100 mm (standard) | 3-pole/4 units           | 3VW9723-0WA00 |
|                   | 4-pole/6 units           | 3VW9724-0WA10 |
| 200 mm (extended) | 3-pole/4 units           | 3VW9723-0WA01 |
|                   | 4-pole/6 units           | 3VW9724-0WA11 |

## Supports for mounting the fixed-mounted circuit breakers on the floor



- For fixed-mounted versions only

| Version                                                                                                                                              | Use                                                                                                                                                                                                                                                                                                                                                          | Article No.   |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Mounting support standard (circuit breaker feet) (= Z option A07)                                                                                    |                                                                                                                                                                                                                                                                                                                                                              | 3VW9011-0BB51 |
| Mounting support extended (circuit breaker feet) including mechanical transmission of switch position on circuit breaker side panel (= Z option S56) | <ul style="list-style-type: none"> <li>Fixation for external auxiliary switches AUX 15 CO (3VW9011-0AG15)</li> <li>Locking mechanism for control cabinet door, direct (for 3VW9011-0BB10)</li> <li>Locking mechanism for control cabinet door, Bowden cable (for 3VW9011-0BB16),</li> <li>Mechanical interlock to 3WA/3WL/3VA (for 3VW9011-0BB21)</li> </ul> | 3VW9011-0BB52 |

## Extension kits for modification of the side wall of the fixed-mounted circuit breakers



- For fixed-mounted versions only
- Rear fixation on mounting plate
- For modification for mechanical transmission of switch position on circuit breaker side panel (= Z option S57)

| Version                     | Use                                                                                                                                                                                                                                                                                                                                                          | Article No.   |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Extension kit for side wall | <ul style="list-style-type: none"> <li>Fixation for external auxiliary switches AUX 15 CO (3VW9011-0AG15)</li> <li>Locking mechanism for control cabinet door, direct (for 3VW9011-0BB10)</li> <li>Locking mechanism for control cabinet door, Bowden cable (for 3VW9011-0BB16),</li> <li>Mechanical interlock to 3WA/3WL/3VA (for 3VW9011-0BB21)</li> </ul> | 3VW9011-0BB53 |

For molded case circuit breakers with stored energy mechanism

For molded case circuit breakers with handle operating mechanism

# Motor operators and manual operators

3VA27

## Spring charging motor (MO)



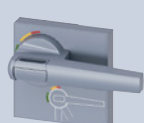
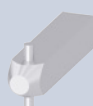
| Description                                           | Voltage             |   | Article No.   |
|-------------------------------------------------------|---------------------|---|---------------|
| For automatic charging of the stored energy mechanism | 24 ... 30 V AC/DC   | – | 3VW9011-0AF01 |
|                                                       | 48 ... 60 V AC/DC   | – | 3VW9011-0AF02 |
|                                                       | 100 ... 130 V AC/DC | – | 3VW9011-0AF03 |
|                                                       | 220 ... 250 V AC/DC | – | 3VW9011-0AF04 |

## Mechanical operating cycles counter MOC



| Description                                                | Version  |   | Article No.   |
|------------------------------------------------------------|----------|---|---------------|
| Only possible in combination with a spring charging motor. | 5 digits | – | 3VW9011-0AH07 |

## Manual operators for handle operating mechanism



| Description                                            | Version              | Color      | Degree of protection |   | Article No.   |
|--------------------------------------------------------|----------------------|------------|----------------------|---|---------------|
| Front mounted rotary operator incl. door sealing frame | Standard             | Gray       | IP30                 | – | 3VW9727-0EK11 |
|                                                        | EMERGENCY-OFF        | Yellow-red | IP30                 | – | 3VW9727-0EK15 |
| Door mounted rotary operator                           | Standard             | Gray       | IP30                 | – | 3VW9727-0FK21 |
|                                                        | EMERGENCY-OFF        | Yellow-red | IP30                 | – | 3VW9727-0FK25 |
|                                                        | Basic without handle |            | IP30                 | – | 3VW9727-0GK00 |
|                                                        | Shaft stub           |            | IP30                 | – | 8UD1900-3WD00 |
| Handle                                                 |                      | Gray       | IP30                 | – | 8UD1861-0AB11 |
|                                                        |                      | Yellow-red | IP30                 | – | 8UD1861-0AB15 |

– For molded case circuit breakers with stored energy mechanism

– For molded case circuit breakers with handle operating mechanism

# Auxiliary releases, closing coils

3VA27

## Closing coils CC/shunt trips ST

- **Note:**
  - For molded case circuit breakers with handle operating mechanism, the products can only be used as closing shunt trips ST.
  - For molded case circuit breakers with stored energy mechanism, the products can be used as closing coils CC and shunt trips ST.



| Voltage             | Article No.   |
|---------------------|---------------|
| 24 V AC/DC          | 3VW9011-0AD01 |
| 30 V AC/DC          | 3VW9011-0AD02 |
| 48 V AC/DC          | 3VW9011-0AD03 |
| 60 V AC/DC          | 3VW9011-0AD04 |
| 110 ... 120 V AC/DC | 3VW9011-0AD05 |
| 120 ... 127 V AC/DC | 3VW9011-0AD06 |
| 220 ... 240 V AC/DC | 3VW9011-0AD07 |
| 240 ... 250 V AC/DC | 3VW9011-0AD08 |
| 380 ... 400 V AC    | 3VW9011-0AD17 |
| 415 ... 440 V AC    | 3VW9011-0AD18 |

## TD320 function test units for closing coils/shunt trips



- The TD320 test unit allows the operational availability and functions of the closing coils and shunt trips with a rated operational voltage between 24 V and 250 V (AC and DC) to be tested.
- The operational availability test is performed cyclically at intervals of 30 seconds.
- The unit has visual indicators in the form of LEDs on the front in order to display the following states:
  - LED POWER ON LIT: Correct function of the YO/YC test device
  - LED DEACTIVATION LIT: Power supply failure, wire break
  - LED SHORT-CIRCUIT LIT: Winding short-circuit
  - LED DEACTIVATION and SHORT-CIRCUIT FLASHING: Incorrect power supply
  - LED DEACTIVATION and SHORT-CIRCUIT OFF: Closing coil/shunt trips OK

| Description                       | Article No.   |
|-----------------------------------|---------------|
| For all closing coils/shunt trips | 3VW9011-0AT31 |

## Auxiliary/signaling switches



- The auxiliary/signaling switches for 24 V DC digital signals are designed for
  - a minimum load above 1 mA at 5 V DC, and
  - a maximum breaking capacity of 100 mA at 24 V DC
- For external auxiliary switches ON/OFF AUX 15 CO, a 3VW9011-0AG1x fixation must be ordered in addition, and for fixed-mounted circuit breakers a 3VW9011-0BB5x side wall modification

| Description                                                          | Contacts                                                                  |   | Article No.   |
|----------------------------------------------------------------------|---------------------------------------------------------------------------|---|---------------|
| Ready-to-close signal RTC                                            | 1 CO standard                                                             | ☐ | 3VW9011-0AH01 |
|                                                                      | 1 CO digital                                                              | ☐ | 3VW9011-0AH02 |
| Auxiliary switch ON/OFF AUX                                          | 4 CO standard                                                             | ☐ | 3VW9011-0AG01 |
|                                                                      | 4 CO digital                                                              | ☐ | 3VW9011-0AG02 |
|                                                                      | 2 CO standard + 2 CO digital                                              | ☐ | 3VW9011-0AG03 |
| External auxiliary switch ON/OFF AUX                                 | 15 CO standard                                                            | ☐ | 3VW9011-0AG05 |
|                                                                      | 15 CO digital                                                             | ☐ | 3VW9011-0AG06 |
| Trip alarm switch S24                                                | 1 CO standard                                                             | ☐ | 3VW9011-0AH14 |
|                                                                      | 1 CO digital                                                              | ☐ | 3VW9011-0AH15 |
| Spring charge signaling switch S21                                   | 1 CO standard                                                             | ☐ | 3VW9011-0AH10 |
|                                                                      | 1 CO digital                                                              | ☐ | 3VW9011-0AH08 |
| Position signaling switches PSS<br>(only with withdrawable versions) | 2 CO   2 CO   2 CO<br>(connected   test   disconnected position) standard | ☐ | 3VW9011-0AH11 |
|                                                                      | 2 CO   2 CO   2 CO<br>(connected   test   disconnected position) digital  | ☐ | 3VW9011-0AH12 |

☐ For molded case circuit breakers with stored energy mechanism

☐ For molded case circuit breakers with handle operating mechanism

# Auxiliary releases, closing coils

3VA27

## Auxiliary/signaling switches for handle operating mechanism



- Auxiliary and signaling switches are each offered in two versions:
  - Standard version for currents > 100 mA and up to 400/250 V AC, minimum load above 100 mA at 24 V DC, and maximum breaking capacity 5 A at 250 V AC
  - Digital version for currents < 100 mA for PLC connections, minimum load above 1 mA at 5 V DC, and maximum breaking capacity 100 mA at 24 V DC
- For external auxiliary switches ON/OFF AUX 15 CO, a 3VW9011-0AG1x fixation must be ordered in addition, and for fixed-mounted circuit breakers a 3VW9011-0BB5x side wall modification.

| Description                                                                                                                | Contacts                |   | Article No.   |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------|---|---------------|
| Trip alarm switch TAS signals the trip position irrespective of the tripping reason                                        | 1 CO standard           | – | 3VW9727-0AB11 |
|                                                                                                                            | 1 CO digital            | – | 3VW9727-0AB13 |
| Trip alarm switch via auxiliary release S25 signals tripping operations via auxiliary releases (UVR, ST) in UVR/ST2 pocket | 1 CO standard           | – | 3VW9727-0AB41 |
|                                                                                                                            | 1 CO digital            | – | 3VW9727-0AB43 |
| Leading changeover switch S26 (2 units)                                                                                    | 1 NO standard, 250 V AC | – | 3VW9727-0AA21 |

## Fixation for external auxiliary switches AUX 15 CO



- External auxiliary switches ON/OFF AUX 15 CO must be ordered separately.

| Version                                                                                                        |  | Article No.   |
|----------------------------------------------------------------------------------------------------------------|--|---------------|
| For fixed-mounted circuit breakers with rear panel or floor mounting (in combination with Z option S56 or S57) |  | 3VW9011-0AG15 |
| For guide frames                                                                                               |  | 3VW9011-0AG17 |

## Undervoltage releases UVR



| Voltage             |  | Article No.   |
|---------------------|--|---------------|
| 24 V AC/DC          |  | 3VW9011-0AE01 |
| 30 V AC/DC          |  | 3VW9011-0AE02 |
| 48 V AC/DC          |  | 3VW9011-0AE03 |
| 60 V AC/DC          |  | 3VW9011-0AE04 |
| 110 ... 120 V AC/DC |  | 3VW9011-0AE05 |
| 120 ... 127 V AC/DC |  | 3VW9011-0AE06 |
| 220 ... 240 V AC/DC |  | 3VW9011-0AE07 |
| 240 ... 250 V AC/DC |  | 3VW9011-0AE08 |
| 380 ... 400 V AC    |  | 3VW9011-0AE17 |
| 415 ... 440 V AC    |  | 3VW9011-0AE18 |

## External time-delay devices for undervoltage releases



- With adjustable delay time from 0.5 to 3 s.
- Suitable for mounting onto DIN rail.

| Voltage             |  | Article No.   |
|---------------------|--|---------------|
| 24 ... 30 V AC/DC   |  | 3VW9011-0AE10 |
| 48 V AC/DC          |  | 3VW9011-0AE11 |
| 60 V AC/DC          |  | 3VW9011-0AE15 |
| 110 ... 127 V AC/DC |  | 3VW9011-0AE12 |
| 220 ... 250 V AC/DC |  | 3VW9011-0AE13 |

For molded case circuit breakers with stored energy mechanism

For molded case circuit breakers with handle operating mechanism

# Locking provisions and interlocks

3VA27

## Locking provision to prevent movement of the withdrawable circuit breaker



### Version

RONIS cylinder lock (spare part for R78)



### Article No.

3VW9011-0BA80

Padlock 8 mm (spare part for R65), for no more than 3 padlocks



3VW9011-0BA87

## Locking mechanisms to prevent movement of the withdrawable circuit breakers in disconnected position



- Only possible as a supplement in conjunction with R78 (3VW9011-0BA80) and/or R65 (3VW9011-0BA87).

### Description

Locking mechanism (spare part for R79)



### Article No.

3VW9011-0BA84

## Locking provisions in OFF position



- For fixed-mounted and withdrawable versions
- Against unauthorized closing in the operator panel (safe OFF)
- The disconnecter unit fulfills the requirements for main circuit breakers according to EN 60204-1

### Description

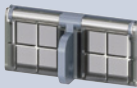
Cylinder lock, made by RONIS (spare part for S08)



### Article No.

3VW9011-0BA33

## Locking provisions in OFF position



- For fixed-mounted and withdrawable versions
- Against unauthorized closing in the operator panel (safe OFF)
- The disconnecter unit fulfills the requirements for main circuit breakers according to EN 60204-1

### Description

### Version

### Article No.

Padlock 4 mm (spare part for S22)

Plastic for no more than 3 locks



3VW9011-0BA41

Padlock 7 mm (spare part for S23)

Metal for no more than 1 lock



3VW9011-0BA42

Padlock 8 mm (spare part for S07)

Metal for no more than 2 locks



3VW9011-0BA44

## Locking provision in OFF position for handle operating mechanism with rotary operators



- Against unauthorized closing in the case of molded case circuit breakers with rotary operator

### Description

For RONIS



### Article No.

3VW9727-0VL10

## Locking provision in OFF position for handle operating mechanism without rotary operators



- Against unauthorized closing in the operator panel in the case of molded case circuit breakers without rotary operator

### Description

For padlocks



### Article No.

3VW9727-0LB10



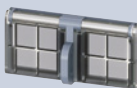
For RONIS



### Article No.

3VW9727-0LF10

## Interlocking sets for mechanical Open and/or Close on the operator panels



### Description

### Version

### Article No.

Padlock 4 mm (spare part for S42)

Plastic for no more than 3 locks



3VW9011-0BA22

Padlock 7 mm (spare part for S43)

Metal for no more than 1 lock



3VW9011-0BA23

Padlock 8 mm (spare part for S44)

Metal for no more than 2 locks



3VW9011-0BA24

For molded case circuit breakers with stored energy mechanism

For molded case circuit breakers with handle operating mechanism

# Locking provisions and interlocks

3VA27

## Protective covers for mechanical ON/OFF



- Mechanical ON/OFF to protect against unintentional actuation on the operator panel.
- Not lockable.

### Description

Not lockable (spare part for S41)



–

### Article No.

3VW9011-0BA21

## Mechanical interlock



- Mechanical interlock with Bowden cable 2 m
- For fixed-mounted versions, an additional support 3VW9011-0BB52 (option S56) or extension kit 3VW9011-0BB53 (option S57) must be ordered

### Mounting

### Mounting

### Article No.

Fixed-mounted

Rear panel or floor mounting



3VW9011-0BB21

Withdrawable

Mounting onto guide frame



3VW9011-0BB22

## Bowden cables, separate

- One required for each circuit breaker

### Type

### Article No.

1000 mm

3VW9011-0BB23

2000 mm

3WL9111-0BB45-0AA0

3000 mm

3WL9111-0BB46-0AA0

## Locking mechanisms to prevent opening of the control cabinet doors in ON position



- To prevent opening of the control cabinet door in ON position
- It additionally prevents the circuit breaker from being closed when the control cabinet door is open.

### Mounting

### Version

### Article No.

Fixed mounted on side panel or floor

Direct fixed interlocking



3VW9011-0BB10

Locking with Bowden cable



3VW9011-0BB16

Withdrawable

Direct fixed interlocking



3VW9011-0BB14

Locking with Bowden cable



3VW9011-0BB18

## Door sealing frames IP30



- For IP4x and higher, you must order the protective cover IP54 3VW9011-0AP03 or 3VW9011-0AP13.

### Description

### Mounting

### Version

### Article No.

Spare part  
for Z option T30.

Fixed-mounted

IP3x



3VW9011-0AP01

Withdrawable

IP3x



3VW9011-0AP02



3VW9011-0AP04

## Protective covers IP54



- Protective cover/hood IP54 lockable for fixed-mounted circuit breakers and withdrawable breakers
- For implementing degrees of protection IP4x and IP54 when installing in switchboard door.
- Cannot be combined with IP30 door sealing frame and door mounted rotary operator.

### Description

### Version

### Article No.

Lock with unique key

IP54



3VW9011-0AP03

Lock with standard key

IP54



3VW9011-0AP13

For molded case circuit breakers with stored energy mechanism

For molded case circuit breakers with handle operating mechanism

# 3VL up to 1600 A, IEC



3VL molded case circuit breaker



2

## Product Discontinuation

The 3VL molded case circuit breaker up to 1600 A IEC can only be ordered as a spare part since 10/2020, and will be removed from the order portfolio from 10/2025 onwards.

### Documents available for downloading:

You can find comprehensive information on the 3VL molded case circuit breaker in the catalog extract.

3VL molded case circuit breakers

[www.siemens.com/lowvoltage/catalogs \(109769073\)](http://www.siemens.com/lowvoltage/catalogs (109769073))





# Appendix



Conditions of sale and delivery \_\_\_\_\_ A/2

Link directory \_\_\_\_\_ A/4



# Conditions of sale and delivery

## 1. General Provisions

By using this catalog you can purchase hard- and software products as well as services (together hereinafter referred to as "products") described therein from Siemens Aktiengesellschaft subject to the following Terms and Conditions of Sale and Delivery (hereinafter referred to as "T&C"). Note, for products purchased from any Siemens entity having a registered office outside of Germany, the respective terms and conditions of sale and delivery of the respective Siemens entity apply exclusively. The following T&C apply exclusively for orders placed with Siemens Aktiengesellschaft, Germany.

### 1.1 For customers with a seat or registered office in European Union

For customers with a seat or registered office in European Union, the following terms and conditions apply subordinate to T&C:

- for products, which include specific terms and conditions in the text of the product description, these specific terms and conditions shall apply and subordinate thereto,
- for stand-alone software products and software products forming a part of a product or project, the "General Conditions for Software Products for Infrastructure & Industry Business (German law)"<sup>1)</sup> and/or
- for consulting services the "Allgemeine Geschäftsbedingungen für Beratungsleistungen für Infrastructure & Industry Geschäft (Deutsches Recht)"<sup>1)</sup> (available only in German) and/or
- for other services, the "Supplementary Terms and Conditions for Services for Infrastructure & Industry Business (German Law) ("BL")"<sup>1)</sup> and/or
- for other products the "General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry"<sup>1)</sup>.

In case such products should contain Open Source Software, the conditions of which shall prevail over the "General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry"<sup>1)</sup>, the Product will be given a note as to which special conditions apply to this open source software. This shall apply mutatis mutandis for notices referring to other third-party software components.

### 1.2 For customers with a seat or registered office outside European Union

For customers with a seat or registered office outside European Union, the following terms and conditions apply subordinate to T&C:

- for products, which include specific terms and conditions in the description text, these specific terms and conditions shall apply and subordinate thereto,
- for consulting services the "Standard Terms and Conditions for Consulting Services for Infrastructure & Industry Business (Swiss Law)"<sup>1)</sup> and/or
- for other services the "International Terms & Conditions for Services"<sup>1)</sup> supplemented by "Software Licensing Conditions"<sup>1)</sup> and/or
- for other products the "International Terms & Conditions for Products"<sup>1)</sup> supplemented by "Software Licensing Conditions"<sup>1)</sup>

### 1.3 For customers with master or framework agreement

To the extent products offered are covered by an existing master or framework agreement, the terms and conditions of that agreement shall apply instead of T&C.

## 2. Additional Terms and Conditions

The dimensions are in mm. In Germany, according to the German law on units in measuring technology, data in inches apply only to devices for export.

Illustrations are not binding.

Insofar as there are no remarks on the individual pages of this catalog – especially with regard to data, dimensions and weights given – these are subject to change without prior notice.

<sup>1)</sup> The text of the Terms and Conditions of Siemens AG can be downloaded at [https://mall.industry.siemens.com/legal/ww/en/terms\\_of\\_trade\\_en.pdf](https://mall.industry.siemens.com/legal/ww/en/terms_of_trade_en.pdf)

### 3. Export Control and Sanctions Compliance

#### 3.1 General

Customer shall comply with all applicable sanctions, embargoes and (re-)export control laws and regulations, and, in any event, with those of the European Union, the United States of America and any locally applicable jurisdiction (collectively "Export Regulations").

#### 3.2 Checks for Products

Prior to any transaction by customer concerning products (including hardware, documentation and technology) delivered by Siemens, or products (including maintenance and technical support) performed by Siemens with a third party, customer shall check and certify by appropriate measures that

- (i) the customer's use, transfer, or distribution of such products, the brokering of contracts or the provision of other economic resources in connection with products will not be in violation of any Export Regulations, also taking into account any prohibitions to circumvent these (e.g., by undue diversion)
- (ii) the products are not intended or provided for prohibited or unauthorized non-civilian purposes (e.g. armaments, nuclear technology, weapons, or any other usage in the field of defense and military);
- (iii) customer has screened all direct and indirect parties involved in the receipt, use, transfer, or distribution of the products against all applicable restricted party lists of the Export Regulations concerning trading with entities, persons and organizations listed therein and
- (iv) products within the scope of items-related restrictions, as specified in the respective annexes to the Export Regulations, will not, unless permitted by the Export Regulations, be (a) exported, directly or indirectly (e.g., via Eurasian Economic Union (EAEU) countries), to Russia or Belarus, or (b) resold to any third party business partner that does not take a prior commitment not to export such products to Russia or Belarus.

#### 3.3 Non-Acceptable Use of Software and Cloud Services

Customer shall not, unless permitted by the Export Regulations or respective governmental licenses or approvals,

- (i) download, install, access or use the products from or in any location prohibited by or subject to comprehensive sanctions or subject or to license requirements according to the Export Regulations;
  - (ii) grant access to, transfer, (re-)export (including any "deemed (re-)exports"), or otherwise make available the products to any entity, person, or organization identified on a restricted party list of the Export Regulations;
  - (iii) use the products for any purpose prohibited by the Export Regulations (e.g. use in connection with armaments, nuclear technology or weapons);
  - (iv) upload to a products platform any customer content unless it is non-controlled (e.g. in the EU: AL = N; in the U.S.: ECCN = N or EAR99);
  - (v) facilitate any of the afore mentioned activities by any user.
- Customer shall provide all users with all information necessary to ensure compliance with the Export Regulations.

#### 3.4 Semiconductor Development

Customer will not, without advance written authorization from Siemens, use offerings for the development or production of integrated circuits at any semiconductor fabrication facility located in China meeting the criteria specified in the U.S. Export Administration Regulations, 15 C.F.R. 744.23.

#### 3.5 Information

Upon request by Siemens, customer shall promptly provide Siemens with all information pertaining to users, the intended use and the location of use or the final destination (in the case of hardware, documentation and technology) of the products. Customer will notify Siemens prior to customer disclosing any information to Siemens that is defense-related or requires controlled or special data handling pursuant to applicable government regulations, and will use the disclosure tools and methods specified by Siemens.

#### 3.6 Reservation

Siemens shall not be obligated to fulfill this agreement if such fulfillment is prevented by any impediments arising out of national or international foreign trade or customs requirements or any embargoes or other sanctions. Customer acknowledges that Siemens may be obliged under the Export Regulations to limit or suspend access by customer and/or users to products.

### 4. Miscellaneous

Errors excepted and subject to change without prior notice.

# Link directory

## Catalog LV 10

### General information

|                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Information on low-voltage power distribution and electrical installation technology | <a href="http://www.siemens.com/lowvoltage">www.siemens.com/lowvoltage</a>                                                                                                                                                                                                                                                                                                                                                                   |
| Tender specifications                                                                | <a href="http://www.siemens.com/tenderspecifications">www.siemens.com/tenderspecifications</a>                                                                                                                                                                                                                                                                                                                                               |
| Conversion tool                                                                      | <a href="http://www.siemens.com/conversion-tool">www.siemens.com/conversion-tool</a>                                                                                                                                                                                                                                                                                                                                                         |
| Image database                                                                       | <a href="http://www.siemens.com/lowvoltage/picturedb">www.siemens.com/lowvoltage/picturedb</a>                                                                                                                                                                                                                                                                                                                                               |
| CAX download manager                                                                 | <a href="http://www.siemens.com/cax">www.siemens.com/cax</a>                                                                                                                                                                                                                                                                                                                                                                                 |
| Newsletter system                                                                    | <a href="http://www.siemens.com/lowvoltage/newsletter">www.siemens.com/lowvoltage/newsletter</a>                                                                                                                                                                                                                                                                                                                                             |
| Siemens YouTube channel                                                              | <a href="http://www.youtube.com/Siemens">www.youtube.com/Siemens</a>                                                                                                                                                                                                                                                                                                                                                                         |
| Catalog LV 10                                                                        | <a href="http://www.siemens.com/lv10">www.siemens.com/lv10</a>                                                                                                                                                                                                                                                                                                                                                                               |
| Catalog LV 13                                                                        | <a href="http://www.siemens.com/lv13">www.siemens.com/lv13</a>                                                                                                                                                                                                                                                                                                                                                                               |
| Catalog LV 18                                                                        | <a href="http://www.siemens.com/lv18">www.siemens.com/lv18</a>                                                                                                                                                                                                                                                                                                                                                                               |
| Brochures/catalogs                                                                   | <a href="http://www.siemens.com/lowvoltage/catalogs">www.siemens.com/lowvoltage/catalogs</a>                                                                                                                                                                                                                                                                                                                                                 |
| Operating instructions/manuals                                                       | <a href="http://www.siemens.com/lowvoltage/manuals">www.siemens.com/lowvoltage/manuals</a>                                                                                                                                                                                                                                                                                                                                                   |
| SiePortal (knowledge base)                                                           | <a href="http://www.siemens.com/lowvoltage/product-support">www.siemens.com/lowvoltage/product-support</a>                                                                                                                                                                                                                                                                                                                                   |
| SiePortal (product catalog)                                                          | <a href="http://www.siemens.com/lowvoltage/product-catalog">www.siemens.com/lowvoltage/product-catalog</a>                                                                                                                                                                                                                                                                                                                                   |
| My Documentation Manager (MDM)                                                       | <a href="http://www.siemens.com/lowvoltage/mdm">www.siemens.com/lowvoltage/mdm</a>                                                                                                                                                                                                                                                                                                                                                           |
| Configurators                                                                        | <a href="http://www.siemens.com/lowvoltage/configurators">www.siemens.com/lowvoltage/configurators</a>                                                                                                                                                                                                                                                                                                                                       |
| Direct forwarding to SiePortal                                                       | <a href="http://www.siemens.com/product_catalog_SIEP?Article No.">www.siemens.com/product_catalog_SIEP?Article No.</a>                                                                                                                                                                                                                                                                                                                       |
| Training                                                                             | <a href="http://www.siemens.com/sitrain-lowvoltage">www.siemens.com/sitrain-lowvoltage</a>                                                                                                                                                                                                                                                                                                                                                   |
| Local contacts                                                                       | <a href="http://www.siemens.com/lowvoltage/contact">www.siemens.com/lowvoltage/contact</a><br><a href="http://www.siemens.com/lowvoltage/components/contact">www.siemens.com/lowvoltage/components/contact</a><br><a href="http://www.siemens.com/lowvoltage/systems/contact">www.siemens.com/lowvoltage/systems/contact</a><br><a href="http://www.siemens.com/lowvoltage/software/contact">www.siemens.com/lowvoltage/software/contact</a> |
| Technical Support                                                                    | <a href="http://www.siemens.com/support-request">www.siemens.com/support-request</a>                                                                                                                                                                                                                                                                                                                                                         |
| Information on services                                                              | <a href="http://www.siemens.com/service-offers">www.siemens.com/service-offers</a>                                                                                                                                                                                                                                                                                                                                                           |
| Control panels for the North American market                                         | <a href="http://www.siemens.com/northamerican-standards">www.siemens.com/northamerican-standards</a>                                                                                                                                                                                                                                                                                                                                         |
| Integrated Control Panels                                                            | <a href="http://www.siemens.com/controlpanel">www.siemens.com/controlpanel</a>                                                                                                                                                                                                                                                                                                                                                               |
| Energy savings and amortization                                                      | <a href="http://www.automation.siemens.com/sinasave">www.automation.siemens.com/sinasave</a>                                                                                                                                                                                                                                                                                                                                                 |
| SIMATIC Energy Suite                                                                 | <a href="http://www.siemens.com/energysuite">www.siemens.com/energysuite</a>                                                                                                                                                                                                                                                                                                                                                                 |
| SITOP power supplies                                                                 | <a href="http://www.siemens.com/sitop">www.siemens.com/sitop</a>                                                                                                                                                                                                                                                                                                                                                                             |
| Power distribution with Totally Integrated Power                                     | <a href="http://www.siemens.com/tip">www.siemens.com/tip</a>                                                                                                                                                                                                                                                                                                                                                                                 |
| TIA Selection Tool                                                                   | <a href="http://www.siemens.com/tst">www.siemens.com/tst</a>                                                                                                                                                                                                                                                                                                                                                                                 |
| Electrical Product Finder                                                            | <a href="http://www.siemens.com/electrical-product-finder">www.siemens.com/electrical-product-finder</a>                                                                                                                                                                                                                                                                                                                                     |
| Sustainability                                                                       | <a href="http://www.siemens.com/sustainability">www.siemens.com/sustainability</a>                                                                                                                                                                                                                                                                                                                                                           |

# Catalogs and further information



**LV 10**  
**Low-Voltage Power Distribution and  
Electrical Installation Technology**  
SENTRON • SIVACON • ALPHA  
PDF (E86060-K8280-A101-B8-7600)



**ET D1**  
**Switches and Socket Outlets**  
DELTA  
PDF (SIEP-C10409-00-7600)



**LV 13**  
**3WA Air Circuit Breakers**  
SENTRON  
PDF (E86060-K8280-B101-A2-7600)



**SiePortal**  
Information and Ordering Platform  
on the Internet:  
[sieportal.siemens.com](https://sieportal.siemens.com)



**LV 18**  
**Air Circuit Breakers and Molded Case  
Circuit Breakers with UL Certification**  
SENTRON  
PDF (E86060-K8280-E347-B1-7600)



**SITRAIN**  
Digital Industry Academy  
[www.siemens.com/sitrain](https://www.siemens.com/sitrain)



**IC 10**  
**Industrial Controls**  
SIRIUS  
PDF (E86060-K1010-A101-B6-7600)



**Siemens TIA Selection Tool**  
for the selection, configuration and  
ordering of TIA products and devices  
[www.siemens.com/tst](https://www.siemens.com/tst)

The catalogs listed above and additional catalogs are  
available in PDF format at  
[www.siemens.com/lowvoltage/catalogs](https://www.siemens.com/lowvoltage/catalogs)

Further information on low-voltage power distribution  
and electrical installation technology is available on the  
Internet at [www.siemens.com/lowvoltage](https://www.siemens.com/lowvoltage)

## Get more information

[www.siemens.com/lowvoltage](http://www.siemens.com/lowvoltage)

Published by  
Siemens AG

Smart Infrastructure  
Electrical Products  
Siemensstraße 10  
93055 Regensburg, Germany

For the U.S. published by  
Siemens Industry Inc.

100 Technology Drive  
Alpharetta, GA 30005  
United States

PDF (Catalog Extract  
E86060-K8280-A101-B8-7600)  
KG 1223 96 En  
Produced in Germany  
© Siemens 2023

## Cybersecurity information

Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e. g. firewalls and/or network segmentation) are in place.

For additional information on industrial cybersecurity measures that may be implemented, please visit [www.siemens.com/cybersecurity-industry](http://www.siemens.com/cybersecurity-industry).

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under [www.siemens.com/cert](http://www.siemens.com/cert).

Subject to changes and errors. The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract.

All product designations may be trademarks or other rights of Siemens AG, its affiliated companies or other companies whose use by third parties for their own purposes could violate the rights of the respective owner.