



## 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.

### Note:

Products bearing our Siemens EcoTech label are identified by this clickable symbol in the catalog:



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

# Molded Case Circuit Breakers

All the information you need .....	2/2
Molded case circuit breakers and switch disconnectors for all applications .....	2/4
Quick selection guide .....	2/6
3VA1 molded case circuit breakers, switch disconnectors up to 1000 A .....	2/6
3VA2 molded case circuit breakers up to 1600 A .....	2/14
Online configurator highlights .....	2/22
3VA10 – 3VA26 .....	2/24
System overview .....	2/24
Structure of the article numbers .....	2/26
Internal accessories .....	2/34
Manual operators .....	2/36
Motor operators .....	2/42
Connection technology .....	2/44
Plug-in and withdrawable technology .....	2/58
Residual current devices RCD .....	2/62
Communication .....	2/64
Locking, blocking and interlocking .....	2/70
Cover frame and mounting .....	2/72
3VA27 .....	2/74
System overview .....	2/74
Structure of the article numbers .....	2/76
Accessory options .....	2/80
Guide frame .....	2/82
Electronic trip unit ETU and accessories .....	2/83
Accessories for connection and insulation .....	2/86
Motor operators and manual operators .....	2/88
Auxiliary release, closing coil .....	2/89
Locking provisions and interlocks .....	2/91

# 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/sentron-3va](http://www.siemens.com/sentron-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)

### Electrical Designer

With the Electrical Designer in the TIA Selection Tool, it is possible to design and dimension the electrical equipment of a machine in conformity with the standards – from the suitable switching devices to the correctly dimensioned cables

[www.siemens.com/controlpanel/electrical-designer](http://www.siemens.com/controlpanel/electrical-designer)

### 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](#)

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
  - Selectivity for 3VA molded case circuit breakers [\(109743975\)](#)
- 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



3VA1 molded case circuit breakers  
3VA10 ... 3VA15

## *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



3VA2 molded case circuit breakers  
3VA20 ... 3VA26

## 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

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

## Protective functions and accessories

2



### Protective functions

Size	3VA10 100 A	3VA11 160 A	3VA12 250 A
Switch disconnectors			
No protection	–	■	■
Thermal-magnetic			
Line protection	■	■	■
Starter protection	–	■	■

### Accessories

Size	100 A	160 A	250 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	–	–	–
Locking, blocking and interlocking	■	■	■
Residual current device (mounted onto the side)	–	■	■
Residual current device (mounted underneath)	–	■	■
Cover frame	■	■	■
DIN-rail adapter	■	■	–
Busbar adapter	■	■	■

■ Available

– Not available/not present



**3VA13**

400 A

**3VA14**

630 A

**3VA15**

1000 A

3VA13	3VA14	3VA15
400 A	630 A	1000 A
■	■	-
■	■	■
■	■	■

400 A	630 A	1000 A
■	■	■
■	■	■
■	■	■
■	■	■
■	■	-
■	■	■
■	■	-
-	-	-
■	■	-
■	■	-
■	■	■
-	-	-
-	-	-
■	■	■
-	-	-
■	■	-

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

## Technical specifications

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				
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 (breaking capacity acc. to IEC 60947-2, annex H)	V	■		■			■				
Frequency	Hz	0 ... 400		0 ... 400			0 ... 400				
<b>Breaking capacity (line protection)</b>											
<b>Rated ultimate short-circuit breaking capacity <math>I_{cu}</math></b>		<b>B</b>	<b>N</b>	<b>S</b>	<b>N</b>	<b>S</b>	<b>M</b>	<b>N</b>	<b>S</b>	<b>M</b>	
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	–	–	–	–	–	–	–	–	–
<b>Rated service short-circuit breaking capacity <math>I_{cs}</math></b>											
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 <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	–	–	–	–	–	–	–	–	–
<b>Dimensions</b>											
		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			
■				■				■				■				■			
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	100	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	–	–	–		
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	50	85	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	–	–	–		
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	50	85	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	–	–	–
Utilization category		–	–	–

■ Available      – Not available/not present

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

2

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 10 at 690 V	110 at 415 V 10 at 690 V	–
2	3	6	7.6 (3P), 6 (4P)	–
AC23-A, DC-23A	AC23-A, DC-23A	AC23-A, DC-23A	AC23-A, DC-23A	–

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

## Trip units

### Protection system

### Thermal-magnetic



### TM 2-series

### Protective function

Line protection TM210, TM220, TM240

Starter protection TM120M

### Integrated functions

Parameterizing Setting and reading the parameters

- Current values

Protective function	TM120M AM	TM210 FTFM	TM220 ATFM	TM240 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



# 3VA2 molded case circuit breakers up to 1600 A

## Protective functions and accessories

2



Protective functions	3VA20	3VA21	3VA22
Size	100 A	160 A	250 A
<b>Switch disconnectors</b>			
No protection	–	–	–
<b>Electronic</b>			
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
<b>Accessories</b>			
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	■	■	■
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 underneath)	■	■	■
Communications interface	■	■	■
EFB300	■	■	■
Testing and commissioning devices	■	■	■
Cover frame	■	■	■
Busbar adapter	■	■	■

■ Available

– Not available/not present



# 3VA2 molded case circuit breakers up to 1600 A

## Technical specifications

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						
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 (breaking capacity acc. to IEC 60947-2, annex H)	V	■				■				■						
Frequency	Hz	50/60				50/60				50/60						
<b>Breaking capacity (line protection)</b>		M	H	C	L	M	H	C	L	E	M	H	C	L	E	
<b>Rated ultimate short-circuit breaking capacity <math>I_{cu}</math></b>																
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	–	–	–	–	–	–	–	–	–	–	–	–	–	–
<b>Rated service short-circuit breaking capacity <math>I_{cs}</math></b>																
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	–	–	–	–	–	–	–	–	–	–	–	–	–	–
<b>Dimensions</b>																
	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 (CLOSE-OPEN cycles)		25000	25000	25000
Electrical	380 ... 415 V	15000	14000	12000
	$I_n$	20000	20000	17000
	$I_n/2$	10500	9800	7200
690 V				
<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) 3000 (500 A)	4600	-	2000
■	■	-	-	-
■	■	■	-	-
■	■	■	-	-
■	■	■	-	-
-	-	-	-	■
-	-	-	-	■
-	-	-	-	■
-	-	-	-	■

# 3VA2 molded case circuit breakers up to 1000 A

## Trip units

Protection System	Electronic	Electronic with display	Electronic with display and metering function
			
	ETU 3-series	ETU 5-series	ETU 8-series
<b>Protective function</b>			
Line protection	ETU320, ETU330, ETU340, ETU350	ETU550, ETU560	ETU850, ETU860
Starter protection	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> <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	–	 24 V module for continuous power supply (also without primary current through the molded case circuit breaker)	 24 V module for continuous power supply (also without primary current through the molded case circuit breaker)
External function box	 EFB300 external function box for connection to the ETU	 EFB300 external function box for connection to the ETU	 EFB300 external function box for connection to the ETU
Communications module	–	 COM060 communications module	 COM060 communications module
Data concentrator	–	 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>	 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	–	 DSP800 external display for installing in the cubicle door	 DSP800 external display for installing in the cubicle door
Test device	 TD300/TD400/TD500 test device	 TD300/TD400/TD500 test device	 TD300/TD400/TD500 test device

Protective functions	ETU310M	ETU320	ETU330	ETU340	ETU350	ETU350M	ETU550	ETU550M	ETU560	ETU850	ETU860	ETU860M
	I	LI	LIG	ELISA®	LSI	LSI	LSI	LSI	LSIG	LSI	LSIG	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

List of products

Projectdata  [Load product list](#)

Actions ▾

No.	Article	Quantity	Unit price:	Documents
1	3WL1106-2EB62-1AA2 <a href="#">f</a> Fixed-mounted circuit breaker 3-pole, Size 1, IEC In=630 A to 690 V, 50/60 Hz AC Icu=55 kA at 500 V Rear horizontal connection Overcurrent release ETU 45 LSIN protection adjustable 0.4-1 in with cubicle bus Opt... Further details	1	on request	> all documents for position
+ 2	3VA2450-6KP32-0AA0 <a href="#">f</a> 3VA molded case circuit breaker circuit breaker 3VA2 IEC frame 630 breaking capacity class H Icu=85kA @ 415V 3-pole, line protection ETU850, LSI, In=500A overload protection Ir=200A...500A short-circuit protection Isd=0.6..10x In,... Further details	1	on request	> all documents for position

## Recall of completed configurations for modification or additional configuration

List of products

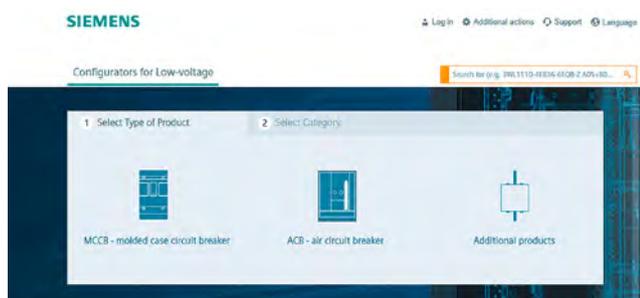
Projectdata  [Load product list](#)

Actions ▾

No.	Article	Quantity	Unit price:	Documents
1	3WL1106-2EB62-1AA2 <a href="#">f</a> Fixed-mounted circuit breaker 3-pole, Size 1, IEC In=630 A to 690 V, 50/60 Hz AC Icu=55 kA at 500 V Rear horizontal connection Overcurrent release ETU 45 LSIN protection adjustable 0.4-1 in with cubicle bus Opt... Further details	1	on request	> all documents for position
+ 2	3VA2450-6KP32-0AA0 <a href="#">f</a> 3VA molded case circuit breaker circuit breaker 3VA2 IEC frame 630 breaking capacity class H Icu=85kA @ 415V 3-pole, line protection ETU850, LSI, In=500A overload protection Ir=200A...500A short-circuit protection Isd=0.6..10x In,... Further details	1	on request	> all documents for position

Duplicate Configure

## 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)

The screenshot shows the configuration interface for a 3VA1/2 molded case circuit breaker. The left sidebar lists configuration categories, with 'Mountable accessories' selected. The main area displays two sections: 'Auxiliary release' and 'Auxiliary switch/alarm switch (changeover contacts - Form C)'. Each section contains several dropdown menus for selecting specific accessories. On the right, a product card for '3VA1/2 molded case circuit breaker, IEC' is visible, indicating 'Price on demand' and providing a 'Results & Documents' button.

2

### Download of the individual edz files for 3VA

This screenshot shows the 'Downloads and links' section of the configurator. It provides options for downloading technical documents and links to support resources. A 'CAD Generator' button is prominently displayed, allowing users to generate CAD files for their configuration. The right sidebar shows the product details for the 3VA1/2 breaker, including the 'Price on demand' indicator.

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

The screenshot shows the 'CAD Generator' dialog box, which allows users to select the type of output they want to generate: a 3D model, a 2D dimension drawing, or an internal circuit diagram. The dialog is currently set to '3D view'. The background shows the same product configuration interface as the previous screenshots.

# 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)

## Molded case circuit breakers and switch disconnectors

2



3VA1



3VA2

### 3VA1 trip units



Thermal-magnetic trip unit (TMTU)

### 3VA2 trip units



Electronic trip unit (ETU)



Electronic trip unit (ETU) with display



Electronic trip unit (ETU) with display and metering function

### 3VA2 trip unit accessories



24 V module



Communications module



Data concentrator



External display



Test device

### Trip unit accessories



Fixed-mounted



Withdrawable unit, complete kit



Plug-in unit, complete kit

### Supplementary accessories



Auxiliary circuit connector



Door feed-through



Position signaling switch



Cylinder lock adapter



Crank

#### Note:

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

## Main conductor connection



Bus connectors

Bus connectors broadened

Circular conductor terminals

Box terminals

Nut keeper kits, right-angled

## Connection accessories



Insulation accessories

## Auxiliary releases/auxiliary switches



Shunt trip STF/STL

Universal release UNI

Undervoltage release UVR

Auxiliary switch AUX

Trip alarm switch TAS

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.

# Structure of the article numbers



## 3VA1 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)

2

		3VA1					5	6	7	8	9	10	11	12	- 0AA0		
		3VA10	3VA11	3VA12	3VA13	3VA14	3VA15										
Size (SZ)	100 A	■	-	-	-	-	-	0									
	160 A	-	■	-	-	-	-	1									
	250 A	-	-	■	-	-	-	2									
	400 A	-	-	-	■	-	-	3									
	630 A	-	-	-	-	■	-	4									
	1000 A	-	-	-	-	-	■	5									
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	-	■	■	-	-	-	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								
	1000 A	-	-	-	-	-	■	1	0								
	Switch disconnecter	63 A	-	■	-	-	-	-	6	3							
		100 A	-	■	-	-	-	-	1	0							
		125 A	-	■	-	-	-	-	1	2							
		160 A	-	■	-	-	-	-	1	6							
		250 A	-	-	■	-	-	-	2	5							
		400 A	-	-	-	■	-	-	4	0							
		630 A	-	-	-	-	■	-	6	3							

		3VA1						5	6	7	8	9	10	11	12	- 0AA0	
		3VA10	3VA11	3VA12	3VA13	3VA14	3VA15										
<b>Short-circuit breaking capacity <math>I_{cu} = I_{cs}</math> at 415 V</b>	Without overload protection	-	■	-	■	-	■									1	
	Without short-circuit protection	-	■	■	■	■	-									1	
	16 kA	■	-	-	-	-	-									2	
	25 kA	■	■	-	-	-	-									3	
	36 kA	■	■	■	■	■	-									4	
	55 kA	-	■	■	■	■	■									5	
	70 kA	-	■	■	■	■	■									6	
110 kA	-	-	-	■	■	■									7		
<b>Protective function thermal-magnetic</b>	No protection	-	■	■	■	■	-	SD100	-						A		
	Line protection	■	■	-	-	-	-	TM210	FTFM						D		
		-	■	-	-	-	-	TM220	ATFM						E		
		-	■	■	■	■	■	TM240	ATAM						F		
<b>Protective function thermal-magnetic, neutral conductor protection</b>	No protection											A					
	Line protection	Without neutral conductor protection										E					
		50% neutral conductor protection										F					
		100% neutral conductor protection										G					
<b>Number of poles</b>	1-pole	Line protection	-	■ <sup>1)</sup>	-	-	-	-						1			
	2-pole	Line protection	-	■ <sup>1)</sup>	-	-	-	-						2			
	3-pole	Line protection	■	■	■	■	■	■						3			
	4-pole	Line protection	■	■	■	■	■	■						4			
<sup>1)</sup> For TM210 only																	
<b>Connection technology</b>	Nut keeper kit	Line protection	■	■	■	■	■	■						2			
	Boxterminal	Line protection	■	■	-	-	-	-						6			

# Structure of the article numbers



## 3VA1 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)

		3VA1					5	6	7	8	9	10	11	12	- 0AA0
		3VA11	3VA12	3VA13	3VA14	3VA15									
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				
		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						
Short-circuit breaking capacity $I_{cu} = I_{cs}$ at 415 V	55 kA	■	■	■	■	■								5	
	70 kA	■	■	■	■	■								6	

			3VA 1					5	6	7	8	9	10	11	12	- 0AA0	
			3VA11	3VA12	3VA13	3VA14	3VA15										
Protective function thermal-magnetic	Starter protection		■	-	-	-	-	TM110M	FM			M	G				
			■	■	■	■	■	TM120M	AM			M	H				
Number of poles	3-pole	Starter protection	■	■	■	■	■								3		
Connection technology	Nut keeper kit Starter	Starter protection	■	■	■	■	■										2
	Box terminals	Starter protection	■	-	-	-	-										6

# Structure of the article numbers



## 3VA2 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)

2

		3VA2						5	6	7	8	9	10	11	12	- 0AA0	
		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	25 A	■	■	-	-	-	-	-	2	5						
		40 A	■	■	-	-	-	-	-	4	0						
		63 A	■	■	-	-	-	-	-	6	3						
		100 A	■	■	-	-	-	-	-	1	0						
		160 A	-	■ <sup>1)</sup>	■	-	-	-	-	1	6						
		250 A	-	-	■ <sup>1)</sup>	■	-	-	-	2	5						
		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						
	Motor 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						

<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

		3VA2						5	6	7	8	9	10	11	12	- 0AA0		
		3VA20	3VA21	3VA22	3VA23	3VA24	3VA25	3VA26										
<b>Short-circuit Breaking capacity <math>I_{cu} = I_{cs}</math> at 415 V</b>	55 kA	■	■	■	■	■	■	■										
	85 kA	■	■	■	■	■	■	■										
	110 kA	■	■	■	■	■	■	■										
	150 kA	-	■	■	■	■	-	-										
	200 kA <sup>1)</sup>	-	■	■	■	■	-	-										
<b>Protective function electronic</b>	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						
<b>Number of poles</b>	3-pole	Line protection	■	■	■	■	■	■									3	
		Generator protection	■	■	■	■	■	■	■									3
	4-pole	Line protection	■	■	■	■	■	■	■									4
		Generator protection	■	■	■	■	■	■	■									4
<b>Connection technology</b>	Nut keeper kit	Line protection	■	■	■	■	■	■									2	
		Generator protection	■	■	■	■	■	■	■									2
	Box terminal	Line protection	■	■	-	-	-	-	-									6
		Generator protection	■	■	-	-	-	-	-									6
	Connecting bar	Line protection	-	-	-	-	-	-	■									7
		Generator protection	-	-	-	-	-	-	■									7

<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

# Structure of the article numbers



## 3VA2 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)

2

		3VA2					5	6	7	8	9	10	11	12	- 0AA0	
		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	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							
	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							
Short-circuit Breaking capacity $I_{cu} = I_{cs}$ bei 415 V	110 kA	■	■	■	■	■									7	
	200 kA	■	■	■	■	■									0	

		3VA2					5	6	7	8	9	10	11	12	- 0AA0
		3VA21	3VA22	3VA23	3VA24	3VA25									
<b>Protective function electronic</b>	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			
	Line protection	■	■	■	■	-	ETU310M	I			M	S			
<b>Number of poles</b>	3-pole														
		Line protection	■	■	■	■	-								3
		Motor protection	■	■	■	■									3
<b>Connection technology</b>	Nut keeper kit	Line protection	■	■	■	■	-								2
		Motor protection	■	■	■	■	■								2
	Box terminals	Line protection	■	-	-	-	-								6
		Motor protection	■	-	-	-	-								6



## Auxiliary releases

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	3VA12	3VA13	3VA14	3VA15	3VA20	3VA21	3VA22	3VA23	3VA24	3VA25	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-OBL10										
		24 V	24 ... 30 V		3VA9988-OBL30										
		48 ... 60 V	48 ... 60 V		3VA9988-OBL31										
		110 ... 127 V	110 ... 127 V		3VA9988-OBL32										
		208 ... 277 V	220 ... 250 V		3VA9988-OBL33										
		380 ... 600 V	–		3VA9988-OBL20										
	Electrical (EI)	–	24 V		3VA9988-OBM10										
<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-OBA20										
	48 ... 60 V	–	–	–	3VA9988-OBA21										
	110 ... 127 V	–	–	–	3VA9988-OBA22										
	208 ... 277 V	–	–	–	3VA9988-OBA23										
	380 ... 500 V	–	–	–	3VA9988-OBA24										
	600 V	–	–	–	3VA9988-OBA25										
<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 3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25 3VA26																																																																								
<b>Front mounted rotary operators</b>																																																																															
<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>																																																																															
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Version	Illumination kit	Door interlock																																																																													
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 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	–																																																																								
<b>Door mounted rotary operators with tolerance compensation</b>																																																																															
<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>																																																																															
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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																																																																								
<b>Door mounted rotary operators without tolerance compensation</b>																																																																															
<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>																																																																															
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<b>Door mounted rotary operators without handle</b>																																																																															
<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>																																																																															
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 With shaft stub (gray)	–	Without	3VA9157-0GK00	3VA9257-0GK00	3VA9267-0GK00	3VA9467-0GK00	3VA9687-0GK00																																																																								

			3VA10 3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25 3VA26	
<b>Side wall mounted rotary operators</b>								
	<ul style="list-style-type: none"> <li>Rotary operator with shaft 300 mm</li> <li>Handle with masking plate 75 × 75 mm</li> <li>Degree of protection IP65</li> <li>For 3-pole and 4-pole breakers</li> </ul>							
	<b>Version</b>	<b>Mounting bracket</b>	<b>Illumination kit</b>					
	Standard (gray)	Without	Without	3VA9157-0PK11	3VA9257-0PK11	3VA9267-0PK11	3VA9467-0PK11	–
			With	3VA9157-0PK13	3VA9257-0PK13	3VA9267-0PK13	3VA9467-0PK13	–
	EMERGENCY-OFF (red/yellow)	Without	Without	3VA9157-0PK15	3VA9257-0PK15	3VA9267-0PK15	3VA9467-0PK15	–
			With	3VA9157-0PK17	3VA9257-0PK17	3VA9267-0PK17	3VA9467-0PK17	–
<b>Side wall mounted rotary operators with mounting bracket</b>								
	<ul style="list-style-type: none"> <li>Rotary operator with short shaft and mounting bracket for mounting directly on the side wall</li> <li>Handle with masking plate 75 × 75 mm</li> <li>Degree of protection IP65</li> <li>For 3-pole and 4-pole breakers</li> </ul>							
	<b>Version</b>	<b>Mounting bracket</b>	<b>Illumination kit</b>					
	Standard (gray)	With	Without	3VA9157-0PK51	3VA9257-0PK51	3VA9267-0PK51	–	–
			With	3VA9157-0PK53	3VA9257-0PK53	3VA9267-0PK53	–	–
	EMERGENCY-OFF (red/yellow)	With	Without	3VA9157-0PK55	3VA9257-0PK55	3VA9267-0PK55	–	–
			With	3VA9157-0PK57	3VA9257-0PK57	3VA9267-0PK57	–	–
<b>Extended DIN rail for N/PE terminals</b>								
	<b>Version</b>	<b>Rated current</b>						
	For mounting bracket	≤ 250 A	3VA9987-0GL30	3VA9987-0GL30	3VA9987-0GL30	–	–	
<b>Auxiliary switch modules for rotary operator</b>								
	<b>Version</b>							
	2 × leading to "ON"	3VA9257-0GX10	3VA9257-0GX10	3VA9467-0GX10	3VA9467-0GX10	–	–	
	2 × leading to "ON" and 1 × leading to "OFF"	–	–	3VA9467-0GX20	3VA9467-0GX20	–	–	
<b>Mounting adapters for side wall mounted rotary operators</b>								
	<b>Version</b>							
	Necessary accessories for 3VA side wall mounted rotary operators, if 3VA9...-0GX.0 auxiliary switch modules are used	3VA9257-0GX01	3VA9257-0GX01	3VA9467-0GX01	–	–	–	

# Manual operators

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2

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

## 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



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

# Manual operators

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2

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

## Labeling plates for manual operators



3VA9087-05X10

## 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

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2

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



- Cover size 45 mm

Addressable via control signals	Isolating features in accordance with IEC/EN 60947-1	Make time, typically		Break time, typically		Rated operational power
		For 3VA1	For 3VA2	For 3VA1	For 3VA2	
■	■	< 300 ms	–	< 300 ms	–	250 W, max. 500 W (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		Break time, typically		Rated operational power
		For 3VA1	For 3VA2	For 3VA1	For 3VA2	
■	■	< 800 ms (160 A, 250A)	< 1000 ms (250 A), < 1700 ms (630 A)	< 800 ms (160 A, 250A)	< 1000 ms (250 A), < 1400 ms (630 A)	250 W, max. 500 W (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		Break time, typically		Rated operational power
		For 3VA1	For 3VA2	For 3VA1	For 3VA2	
■	■	< 80 ms (400 A, 630 A)	< 80 ms (100 A ... 630 A)	< 5 s (400 A, 630 A)	< 80 ms (100 A ... 250 A) < 5 s (400 A, 630 A)	300 W, max. 500 W (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 3VA21 3VA22	3VA13 3VA14	3VA23 3VA24
Rated control supply voltage	With communication						
42 ... 60 V AC 24 ... 60 V DC	–	–	3VA9117-0HB10	–	–	–	–
110 ... 230 V AC 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 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 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 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

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2

## Box terminals

	Connection options		Scope of supply	Cable cross-section, copper stranded	Terminal short designation
	①	②			
	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			
	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
	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

## Circular conductor terminals, 1 cable

	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
				35 ... 185 mm <sup>2</sup>	■	■ <sup>3)</sup>	TA1.2
	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>	■	■ <sup>3)</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

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



I201\_20321

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

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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>	■	■ <sup>3)</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>	■	■ <sup>3)</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

3VA10 3VA11		3VA12	3VA20 3VA21	3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 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
3VA9110-0WB00	3VA9200-0WB00	3VA9200-0WB00	3VA9200-0WB00	3VA9480-0WB00	–	–
3VA9150-0WB00	3VA9280-0WB00	3VA9280-0WB00	3VA9280-0WB00	3VA9480-0WB00	–	–
3VA9110-0WC00	3VA9200-0WC00	3VA9200-0WC00	3VA9200-0WC00	3VA9480-0WC00	–	–
3VA9150-0WC00	3VA9280-0WC00	3VA9280-0WC00	3VA9280-0WC00	3VA9480-0WC00	–	–

# 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.

### 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
	① ②		80 mm	30 mm
4P <b>new</b>	① –	4 terminals	80 mm	30 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, 2 phase barriers	22 mm	8 mm
			32 mm	10 mm
			40 mm	12.5 mm
			50 mm	30 mm
4P	① ②	4 terminals, 3 phase barriers	22 mm	8 mm
			32 mm	10 mm
			40 mm	12.5 mm
			50 mm	30 mm
4P	① ②	4 short terminals, <sup>1)</sup> 2 phase barriers	50 mm	30 mm
			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, 2 phase barriers	20 mm	6 mm
			25 mm	7 mm
			40 mm	8 mm
4P	① ②	4 terminals, 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, 2 phase barriers	30 mm	8 mm
			35 mm	10 mm
			60 mm	12.5 mm
			80 mm	10 mm
	– ②	3 terminals, 2 phase barriers	80 mm	15 mm
4P	① ②	4 terminals, 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 3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25	3VA26
3VA9151-QB00	-	-	-	-	-
-	-	-	-	3VA9603-QB01	-
-	-	-	-	-	3VA9603-QB03 <b>new</b>
-	-	-	-	-	3VA9604-QB03
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	-
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

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## 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, 2 phase barriers	22 mm	8 mm
				32 mm	10 mm
				40 mm	12.5 mm
	4P	① ②	4 terminals, 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 1 long connection stud flat	
				3P
– ②	3 short connection studs flat			
	4P	① ②		

### Rear connectors vertical

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

### Rear connectors horizontal

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

### Rear connection studs round

	Number of poles	Connection options	Scope of supply			
	1P	① ②	1 short connection stud round 1 long connection stud round			
				3P	① ②	1 long connection stud round, 2 short connection studs round
	4P	① ②				2 long connection studs round, 2 short connection studs round

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

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

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## 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, 1 extended terminal cover, 1 insulation plate	1	25 ... 150 mm <sup>2</sup>	■	■ <sup>4)</sup>	Yes	TA2.1
		6	1.5 ... 35 mm <sup>2</sup>	■	–	No	TA2.1 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, 1 extended terminal cover, 1 insulation plate	1	25 ... 150 mm <sup>2</sup>	■	■ <sup>4)</sup>	Yes	TA2.1	
			50 ... 240 mm <sup>2</sup>	■	■	No	TA2.1	
			50 ... 240 mm <sup>2</sup>	■	■	Yes	TA2.2 <sup>5)</sup>	
			50 ... 240 mm <sup>2</sup>	■	■	No	TA2.2 <sup>5)</sup>	
			25 ... 150 mm <sup>2</sup>	■	■ <sup>4)</sup>	Yes	TA2.3	
			25 ... 150 mm <sup>2</sup>	■	■ <sup>4)</sup>	No	TA2.3	
		2	70 ... 300 mm <sup>2</sup>	■	■	Yes	TA2.4	
			70 ... 300 mm <sup>2</sup>	■	■	No	TA2.4	
			4	120 ... 240 mm <sup>2</sup>	■	–	Yes	TA4.3
				120 ... 240 mm <sup>2</sup>	■	–	No	TA4.3
			120 ... 300 mm <sup>2</sup>	120 ... 300 mm <sup>2</sup>	■	■	Yes	TA4.4
				120 ... 300 mm <sup>2</sup>	■	■	No	TA4.4
6	1.5 ... 35 mm <sup>2</sup>	■	–	No	TA2.7			
– ②	3 single terminals, 1 extended terminal cover, 1 insulation plate	1	25 ... 150 mm <sup>2</sup>	■	■ <sup>4)</sup>	Yes	TA2.1	
			50 ... 240 mm <sup>2</sup>	■	■	Yes	TA2.2 <sup>5)</sup>	
			25 ... 150 mm <sup>2</sup>	■	■ <sup>4)</sup>	Yes	TA2.3	
			70 ... 300 mm <sup>2</sup>	■	■	Yes	TA2.4	
			150 ... 300 mm <sup>2</sup>	■	■	Yes	TA5.1	
			150 ... 300 mm <sup>2</sup>	■	■	Yes	TA5.2	
		3	150 ... 300 mm <sup>2</sup>	■	–	Yes	TA5.3	
			150 ... 300 mm <sup>2</sup>	■	–	No	TA5.3	
		4	150 ... 300 mm <sup>2</sup>	■	–	Yes	TA2.5	
			150 ... 300 mm <sup>2</sup>	■	–	No	TA2.5	
		6	1.5 ... 35 mm <sup>2</sup>	■	–	No	TA2.6	
			1.5 ... 35 mm <sup>2</sup>	■	–	No	TA2.6	

<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> Use antioxidants

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

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2

## Circular conductor terminals, 4P



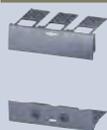
Connection options	Scope of supply	Number of cables	Cable cross-section	Cu/Al stranded <sup>1)</sup>		Control wire tap <sup>3)</sup>	Terminal short designation
				Cu	Al <sup>2)</sup>		
① –	4 single terminals, 1 extended terminal cover, 1 insulation plate	1	25 ... 150 mm <sup>2</sup>	■	■ <sup>4)</sup>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

<sup>7)</sup> Use antioxidants

3VA10		3VA11		3VA12		3VA20 3VA21 3VA22		3VA13 3VA14 3VA23 3VA24		3VA15 3VA25		3VA26	
	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	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	3VA9601-0WP31	–
–	–	–	–	–	–	–	–	–	–	–	–	3VA9601-0WP41	–
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

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2

				3VA10	3VA11		
<b>Terminal covers for plug-in or withdrawable sockets</b>							
	<ul style="list-style-type: none"> <li>For touch protection in the termination area</li> <li>Of the plug-in or withdrawable socket</li> <li>For mounting onto the plug-in or withdrawable socket</li> </ul>						
	<b>Version</b>	<b>Number of poles</b>	<b>Mounting location</b>				
	Short	3P	–	②	–	3VA9153-OKB03	
		4P	–	②	–	3VA9154-OKB03	
	Extended <sup>1)</sup>	3P	–	②	–	3VA9153-OKB04	
			–	②	–	3VA9154-OKB04	
	Broadened <sup>1)</sup>	3P	–	②	–	3VA9153-OKB05	
		4P	–	②	–	3VA9154-OKB05	
	<b>Insulating plates</b>						
		<b>Version</b>	<b>Number of poles</b>	<b>Mounting location</b>			
		Standard	2P	①	–	–	3VA9111-OWJ20
			3P	①	–	3VA9111-OWJ30	3VA9111-OWJ30
4P			①	–	3VA9111-OWJ40	3VA9111-OWJ40	
Broadened		3P	①	–	3VA9111-OWK30	3VA9111-OWK30	
		4P	①	–	3VA9111-OWK40	3VA9111-OWK40	
<b>Phase barriers</b>							
	<b>Mounting location</b>	<b>Scope of supply</b>					
	① ②	2 phase barriers	3VA9152-OWA00				
	– ②	2 phase barriers	–				
<b>Protective sleeve for insulation of rear connections</b>							
	<b>Mounting location</b>	<b>Scope of supply</b>					
	②	3 protective sleeves	–				
<b>DC insulation plates for 3VA1 for fixed-mounted molded case circuit breakers</b>							
	<b>Number of poles</b>						
	3P	3VA9113-0SG10					
	4P	3VA9114-0SG10					
<b>Side plates for 3VA1 for fixed-mounted molded case circuit breakers</b>							
	<b>Number of poles</b>	<b>Mounting</b>					
	2P	On 2-pole molded case circuit breakers	–	3VA9112-0SG20			

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

	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25	3VA26
3VA9253-0KB03	3VA9163-0KB03	3VA9353-0KB03	3VA9603-0KB03	–
3VA9254-0KB03	3VA9164-0KB03	3VA9354-0KB03	–	–
3VA9253-0KB04	3VA9163-0KB04	3VA9353-0KB04	–	–
3VA9254-0KB04	3VA9164-0KB04	3VA9354-0KB04	–	–
3VA9253-0KB05	3VA9163-0KB05	3VA9353-0KB05	–	–
3VA9254-0KB05	3VA9164-0KB05	3VA9354-0KB05	–	–
–	–	–	–	–
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 3VA9602-0WA05	3VA9602-0WA00 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

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	3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25 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	–

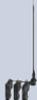
	3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25 3VA26	
<b>Plug-in units, complete kits</b>						
	<ul style="list-style-type: none"> <li><b>Scope of supply:</b> <ul style="list-style-type: none"> <li>– Plug-in socket</li> <li>– Plug-in unit, conversion kit</li> <li>– Mounting screw 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	3VA9603-0KP00
4P	3VA9114-0KP00	3VA9214-0KP00	3VA9124-0KP00	3VA9324-0KP00	–	
<b>Plug-in 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>– 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	–	
<b>Plug-in units, conversion kits with blade contacts</b>						
	<ul style="list-style-type: none"> <li><b>Scope of supply:</b> <ul style="list-style-type: none"> <li>– 6 × blade contacts</li> <li>– Guide frame for circuit breaker</li> <li>– 2 × 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
<b>Cable cages for plug-in/withdrawable units (spare part)</b>						
	<ul style="list-style-type: none"> <li>– For routing of the required cables from the internal accessories on the back of the circuit breaker</li> </ul>					
	<b>Number of poles</b>					
	3P/4P	3VA9157-0KB02	3VA9257-0KB02	3VA9167-0KB02	3VA9367-0KB02	–
<b>Door feedthroughs</b>						
	–					
	–	3VA9257-0KT00	3VA9167-0KT00	3VA9367-0KT00	–	
<b>Autotrip plungers (spare part)</b>						
	<b>Version</b>					
	Plug-in unit	3VA9157-0KP81	3VA9257-0KP81	3VA9267-0KP81	3VA9457-0KP81	–
	Withdrawable unit	–	3VA9257-0KD81	3VA9267-0KD81	3VA9457-0KD81	–

# Plug-in and withdrawable technology

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2

## Accessories

		3VA11	3VA12	3VA20	3VA13	3VA15	
				3VA21	3VA14	3VA25	
				3VA22	3VA23	3VA26	
					3VA24		
<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> 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	–	
	For all plug-in units	3VA9987-0KP80	3VA9987-0KP80	3VA9987-0KP80	3VA9987-0KP80	–	
<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>	<b>Lock number</b>					
	1	1	3VA9980-0VL10	3VA9980-0VL10	3VA9980-0VL10	3VA9980-0VL10	–
	3	3	3VA9980-0VL30	3VA9980-0VL30	3VA9980-0VL30	3VA9980-0VL30	–
	4	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+)

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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			
							Pre-alarm	COM	TRIP	COM	COM	
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			
							Pre-alarm	COM	TRIP	COM	COM	
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									
4-pole	RCD820 <sup>2)</sup>	Type A	0.03 ... 30 A <sup>5)</sup>	0 ... 10 s	127 ... 690 V AC	50/60 Hz	2	■	■	■	■	■
	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>  $I_{\Delta n} = 30$  A: 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.-0RS20).

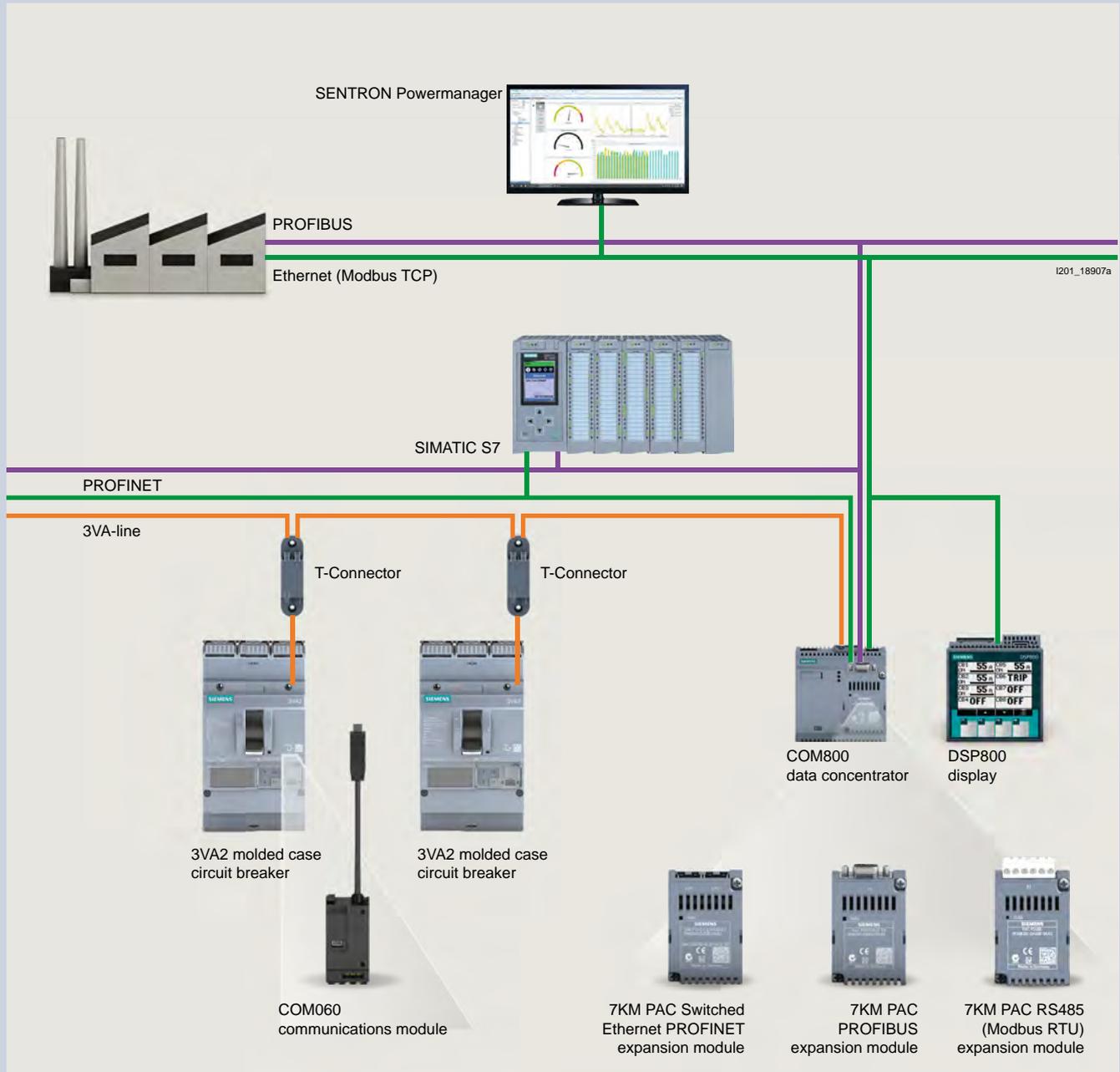
Modular residual current devices type A/B (according to IEC 60947-2 annex M), see monitoring devices, from page 11/1 onwards

			3VA11	3VA12	3VA20 3VA21	3VA22	3VA23	3VA24	3VA10 3VA13 3VA14 3VA15 3VA25 3VA26
Monitoring mode (tripping can be disabled as an option)	Remote test/ remote reset	Communication-capable							
■	–	–	3VA9113-ORS20 <sup>6)</sup>	3VA9213-ORS20 <sup>7)</sup>	–	–	–	–	–
■	–	–	3VA9114-ORS10 <sup>6)</sup>	–	–	–	–	–	–
■	–	–	3VA9114-ORS20 <sup>6)</sup>	3VA9214-ORS20 <sup>7)</sup>	–	–	–	–	–
Monitoring mode (tripping can be disabled as an option)	Remote test/ remote reset	Communication-capable							
–	–	–	3VA9113-ORL20	3VA9213-ORL20	–	–	–	–	–
■	–	–	3VA9113-ORL21	–	–	–	–	–	–
■	■	■	–	–	3VA9123-ORL30	3VA9223-ORL30	3VA9323-ORL30	3VA9423-ORL30	–
–	–	–	3VA9114-ORL10	–	–	–	–	–	–
–	–	–	3VA9114-ORL20	3VA9214-ORL20	–	–	–	–	–
■	–	–	3VA9114-ORL21	–	–	–	–	–	–
■	■	■	–	–	3VA9124-ORL30	3VA9224-ORL30	3VA9324-ORL30	3VA9424-ORL30	–
			3VA9988-0BR10	3VA9988-0BR10	–	–	–	–	–
			–	–	3VA9927-ORC00	3VA9927-ORC00	3VA9927-ORC00	3VA9927-ORC00	–

# Communication

For 3VA2 molded case circuit breakers

2



Metering function <sup>1)</sup>			ETU		Display		Communication
			5-series	8-series	in ETU	DSP800	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	$I_{LAVG} = (I_1 + I_2 + I_3)/3$	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

		3VA20	3VA24
		3VA21	3VA25
		3VA22	3VA26
<b>COM060 communications modules</b>			
	<ul style="list-style-type: none"> <li>For mounting in the right-hand accessories compartment of the 3VA2 molded case circuit breaker (including ETU power supply)</li> <li>Including a T-Connector</li> </ul>		
<b>Use</b>			
	Communication to the COM800/COM100 data concentrator via 3VA line	3VA9187-0TB10	3VA9387-0TB10
<b>SLC adapters (spare part)</b>			
	<b>Scope of supply</b>		
	5 units	3VA9187-0TB60	3VA9387-0TB60
<b>24 V modules</b>			
	<ul style="list-style-type: none"> <li>24 V DC</li> <li>For mounting in the right-hand accessories compartment of the 3VA2</li> </ul>		
<b>Use</b>			
	Optional power 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

## For 3VA2 molded case circuit breakers

### Data concentrator

#### COM800 data concentrators



Version	Article No.
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	3VA9987-0TA10

#### COM100 data concentrators



Version	Article No.
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	3VA9987-0TA20

#### 7KM PAC PROFIBUS DP expansion modules



Use	Article No.
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.	7KM9300-0AB01-0AA0

#### 7KM PAC Switched Ethernet PROFINET expansion modules



Use	Article No.
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.	7KM9300-0AE02-0AA0

#### 7KM PAC RS485 Modbus RTU expansion modules



Use	Article No.
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.	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

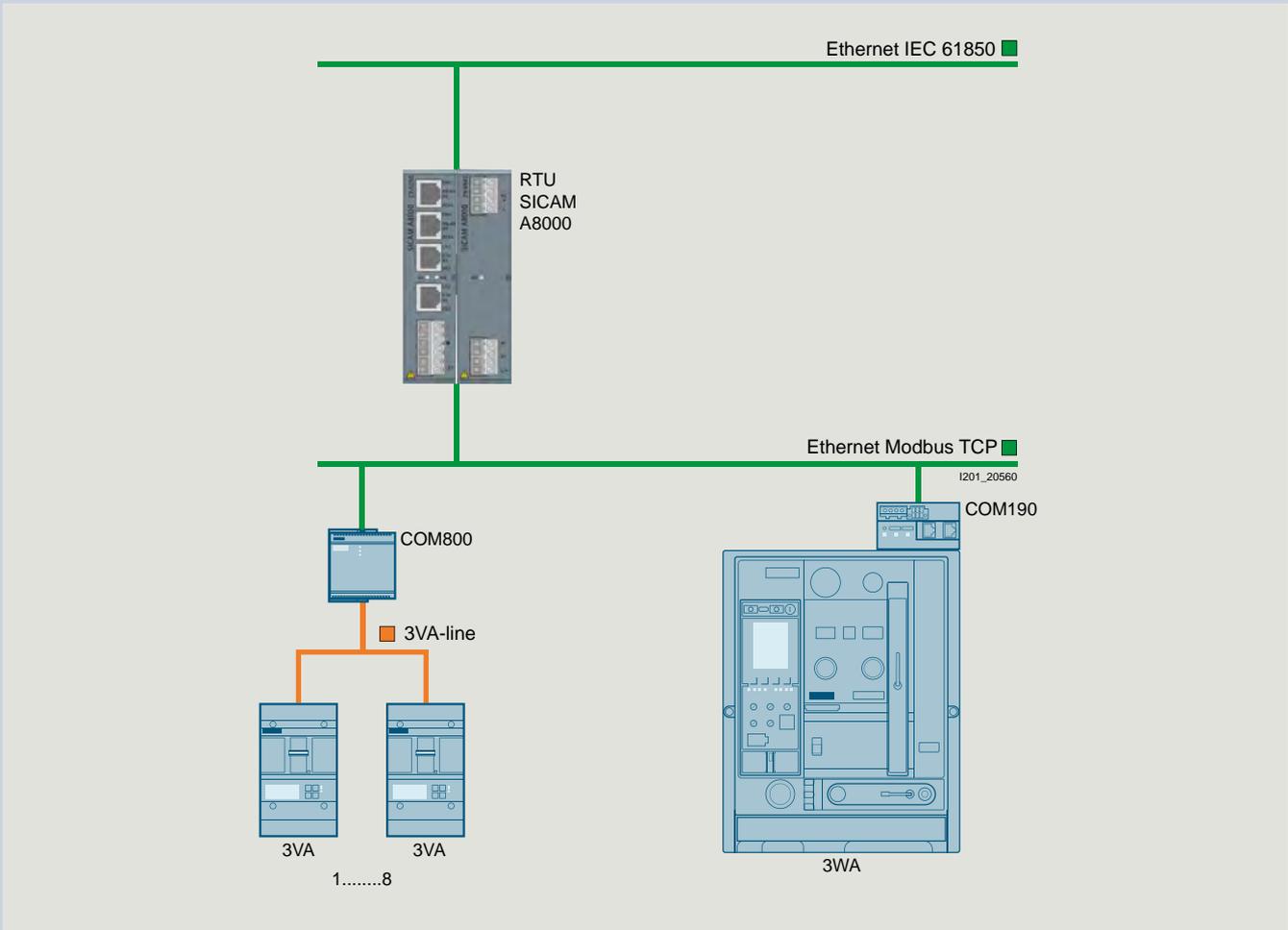
<sup>3)</sup> Dimensioned for device quantities of 3 × 3WA and 8 × 3VA or 2 × 3WA and 8 × 3VA and 1 × PAC4200

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

## For 3VA2 molded case circuit breakers

### Accessories for communication

T-connectors (spare part)			
	<b>Use</b>		<b>Article No.</b>
	Provides a stub connection to the COM060 and loops through to the next circuit breaker.		3VA9987-0TG10
DIN-rail adapters			
	<b>Use</b>		<b>Article No.</b>
	For snapping the T-Connector onto a DIN rail.		3VA9987-0TG11
Prefabricated connecting cables, T-connector – T-connector or T-connector – COM800/COM100			
	<b>Length</b>		<b>Article No.</b>
	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			
	<b>Length</b>		<b>Article No.</b>
	0.4 m		3VA9987-0TF20
	0.8 m		3VA9987-0TF10
Additional bus terminating resistors (spare part)			
	<b>Use</b>		<b>Article No.</b>
	For COM800 and COM060		3VA9987-0TE10
Voltage tap to external N conductors (spare part)			
	<b>Use</b>		<b>Article No.</b>
	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			
	<b>Use</b>	<b>Rated current</b>	<b>Article No.</b>
	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			
	<b>Rated current</b>		<b>Article No.</b>
	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)			
			<b>Article No.</b>
			3VA9907-0NB10

### Display

DSP800 displays		
	<b>Use</b>	<b>Article No.</b>
	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>



- Commissioning/service tool for 3VA and 3WL with ETU Release 2
- Not suitable for 3WL10 and 3VA27
- Power 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
- Including adapter, connecting cable and case

Connection	Article No.
On the front interface of the ETU	3VW9011-0AT40

### TD400 adapter (spare part)

Version	Article No.
For 3VA	3VW9011-0AT43
For 3WL ETU Release 1	3VW9011-0AT44
For 3WL ETU Release 2	3VW9011-0AT45
For 3WA ETU300	3VW9011-0AT46

### 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

3VA21

3VA22

## Locking

- The locking provisions make it possible to lock the 3VA molded case circuit breakers in either the OFF or the ON operating position.

### Version

Cylinder lock	Key 1 (lock number 1)			3VA9980-0VL10
	Key 3 (lock number 3)			3VA9980-0VL30
	Key 4 (lock number 4)			3VA9980-0VL40
Adapter kit for mounting the cylinder lock (type RONIS) in the accessories compartment of the molded case circuit breaker		3VA9157-0LF10	3VA9257-0LF10	3VA9167-0LF10
Locking provision for handle operating mechanism			3VA9088-0LB10	3VA9388-0LB10

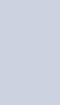


## Interlocking

- Using interlocking technology, it is possible to mutually interlock two or more molded case circuit breakers.
- The interlock system is designed to ensure that no more than one molded case circuit breaker can be operated at a time.
- The following methods of interlocking can be used on 3VA molded case circuit breakers:
  - Front interlock
  - Rear interlock

### Version

Cylinder lock	Key 1 (lock number 1)			3VA9980-0VL10
	Key 3 (lock number 3)			3VA9980-0VL30
	Key 4 (lock number 4)			3VA9980-0VL40
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			3VA9980-0VC10
	Length 1.0 m			3VA9980-0VC20
	Length 1.5 m			3VA9980-0VC30
Rear interlock with rod	Circuit breaker, fixed-mounted			3VA9088-0VM10
	Plug-in/withdrawable technology			3VA9088-0VM30
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 OFF position	Locking in ON position	Front mounting	Rear mounting	Interlocked breakers
3VA9980-0VL10 3VA9980-0VL30 3VA9980-0VL40	■	■	■	–	–
3VA9367-0LF10      3VA9587-0LF10	■	■	■	–	–
3VA9388-0LB10      3VA9588-0LB10	■	■	■	–	–

### Interlocking

Use in	Locking in OFF position	Locking in ON position	Front mounting	Rear mounting	Interlocked breakers
3VA9980-0VL10 3VA9980-0VL30 3VA9980-0VL40	■	■	■	–	Unlimited
3VA9368-0VF30      –	–	–	■	–	3
3VA9367-0VF10      3VA9587-0VF10	–	–	■	–	3
3VA9980-0VC10 3VA9980-0VC20 3VA9980-0VC30					
3VA9088-0VM10      3VA9588-0VM10 <sup>1)</sup> 3VA9088-0VM30      –	–	–	–	■	2
3VA9088-0VK10      –	–	–	–	■	
3VA9468-0VK20      –					

# 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	3VA10	3VA12
	3P	No		3VA9053-OSB10
Yes			3VA9053-OSB20	3VA9253-OSB20
4P	No		3VA9054-OSB10	3VA9254-OSB10
	Yes		3VA9054-OSB20	3VA9254-OSB20

## Cover frames for motor operators

	Use	3VA10	3VA12
	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	3VA10	3VA12
	3P	3VA9053-OSB10	3VA9253-OSB10
4P	3VA9054-OSB10	3VA9254-OSB10	

## Cover frames for front mounted rotary operators

	3VA10	3VA12
	3VA9053-OSB10	3VA9253-OSB10

## Cover frames for door feedthroughs

	3VA10	3VA12
	–	3VA9253-OSB20

## Labeling plates for cover frame

	3VA10	3VA12
	–	3VA9087-OSX10

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

	Number of poles	3VA10	3VA12
	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	3VA10	3VA12
	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		–	–	
For plug-in units	3P and 4P	–	–	
	–	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

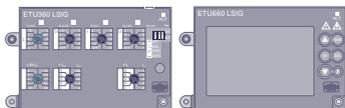


Handle



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/horizontal

Rear broadened

Front extended

Front 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.

# Structure of the article numbers

## Basic configuration with handle operating 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		-									
<b>Molded case circuit breakers and ETUs</b>														
<b>Max. rated current</b>	800 A		8	0										
$I_{n\max}$	1000 A		1	0										
	1250 A		1	2										
	1600 A		1	6										
<b>Short-circuit breaking capacity</b> $I_{cu} = I_{cs}$ at 415 V	Handle operating mechanism	55 kA				5								
		85 kA				6								
		110 kA				7								
<b>Molded case switches</b>	Without metering function, without communications interface	Without trip unit				A	A							
<b>Circuit breakers, ETU 3-series</b>	Without metering function, without communications interface	With trip unit	ETU320 LI	(N) <sup>1)</sup>		A	B							
			ETU350 LSI	(N) <sup>1)</sup>		A	C							
			ETU360 LSI	(N) <sup>1)</sup>		A	D							
<b>Circuit breakers, ETU 6-series</b>	Without a communications interface	With trip unit	ETU650 LSI	(N) <sup>1)</sup>			E							
			ETU660 LSI	(N) <sup>1)</sup>			F							
	With a communications interface	Without metering function					A							
							B							
			Metering function	Voltage tap on bottom			C							
			Basic	Voltage tap on top			D							
Metering function	Advanced	Voltage tap on bottom				E								
		Voltage tap on top				F								
<b>Number of poles</b>	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					

<sup>1)</sup> Neutral conductor protection for 3-pole breakers with an external neutral conductor transformer or 4-pole breakers

## Connections

<b>Type of mounting</b>	Withdrawable	Withdrawable circuit breaker without guide frame (guide frame must be ordered separately)	0
	Fixed-mounted breaker/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

3VA27 6 7 8 9 10 11 12 13 14 15 16

## Alarm switch combinations

Alarm switches	Without	0
	With trip alarm switch TAS and trip alarm switch S25	1
	With two leading changeover switches S26	2
	With trip alarm switch TAS and trip alarm switch S25 and two leading changeover switches S26	3

## Auxiliary releases, closing coils

Closing coil (CC), remote reset magnet (RR)	Without	A
---	---------	---

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), delayable with external time-delay device 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

# 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)

2

3VA27 6 7 8 9 10 11 12 13 14 15 16

### Molded case circuit breakers and ETUs

<b>Max. rated current</b>	800 A	8	0
$I_{n\ max}$	1000 A	1	0
	1250 A	1	2
	1600 A	1	6

<b>Short-circuit breaking capacity</b> $I_{cu} = I_{cs}$ at 415 V	Stored energy mechanism	55 kA	1
		85 kA	2
		110 kA	3

<b>Molded case switches</b>	Without metering function, without communications interface	Without trip unit		A	A
-----------------------------	---	-------------------	--	---	---

<b>Circuit breakers, ETU 3-series</b>	Without metering function, without communications interface	With trip unit	ETU320 LI (N) <sup>1)</sup>	A	B
			ETU350 LSI (N) <sup>1)</sup>	A	C
			ETU360 LSI (N) <sup>1)</sup>	A	D

<b>Circuit breakers, ETU 6-series</b>	Without a communications interface	With trip unit	ETU650 LSI (N) <sup>1)</sup>		E	
			ETU660 LSI (N) <sup>1)</sup>		F	
	With a communications interface	Without metering function			A	
		Without metering function			B	
		Metering function Basic	Voltage tap on bottom		C	
		Metering function Advanced	Voltage tap on top		D	

<sup>1)</sup> Neutral conductor protection for 3-pole breakers with an external neutral conductor transformer or 4-pole breakers

<b>Number of poles</b>	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

<b>Type of mounting</b>	Withdrawable	Withdrawable circuit breaker without guide frame (guide frame must be ordered separately)	0
	Fixed-mounted breaker/ 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

## 3VA27

6 7 8 9 10 11 12 13 14 15 16

## Motor

Operating 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

## Auxiliary releases, closing coils, remote reset magnets

Closing coil (CC), 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 additional remote reset magnet (RR)	24 V AC/DC
	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), delayable with external time-delay device Scope of supply: UVR + time-delay device	24 ... 30 V AC/DC
	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>						Order code
	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						Order code	
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			
	630 A						L06
	800 A						L08
	1000 A						L10
	1250 A						L12
	1600 A						L16
	For setting the rated current $I_n$ , For enabling the residual current protective function. 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						Order code
	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						Order code
	110 ... 240 V AC/DC					F26

### I/O modules internal

I/O modules internal						Order code
	IOM040 digital I/O module	2 inputs, 2 outputs				K56

For molded case circuit breakers with stored energy 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.

For molded case circuit breakers with handle operating mechanism

<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
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## 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/ metering function, enhanced protective functions	Type	Protective 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

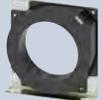
## Metering functions for ETU650 or ETU660

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

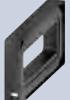
## External current transformers for N conductors

Accessory for	Use	Article No.
	ETU320, ETU350, ETU360, 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

Accessory for	Use	Article No.
	• Only with MF Advanced metering function and Rc rating plug	
	ETU660 For external residual current measurement	  3VW9011-0RC30

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

Accessory for	Voltage	Article No.
	• Remote reset magnet (RR) for resetting the circuit breaker after tripping as a result of overcurrent conditions	
	ETU320, ETU350, ETU360, 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, ETU360, ETU650, ETU660	Rating plugs for setting ( $< I_{n\max}$ ) 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) 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 current protective function and setting ( $< I_{n\max}$ ) of the rated current $I_n$ . A residual current function is only 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

2

# 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
	Front main connections	3-pole/3 units	 	3VW9011-0AL77
		4-pole/4 units	 	3VW9011-0AL78
		Broadened main terminals, including insulation plate and extended phase barriers	Front main connections, top	 
	Front main connections, bottom		 	3VW9011-0AL75
Withdrawable	Front-accessible terminals for main circuit connection	Guide frame flange	3-pole/3 units  	3VW9011-0AN01
		–	4-pole/4 units  	3VW9011-0AN02
	Broadened main circuit connections	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	 
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

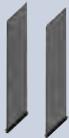
## Terminal covers for fixed-mounted circuit breakers



- 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

2

# 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



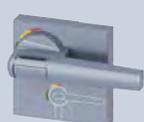
Door mounted rotary operator	Standard	Gray	IP30	-	3VW9727-0FK21
	EMERGENCY-OFF	Yellow-red	IP30	-	3VW9727-0FK25



Basic without handle			IP30	-	3VW9727-0GK00
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Shaft stub			IP30	-	8UD1900-3WD00
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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

2

## 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 (only with withdrawable versions)	2 CO   2 CO   2 CO (connected   test   disconnected position) standard	3VW9011-0AH11
	2 CO   2 CO   2 CO (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	Article No.
RONIS cylinder lock (spare part for R78)	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	Article No.
Locking mechanism (spare part for R79)	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	Article No.
Cylinder lock, made by RONIS (spare part for S08)	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	Article No.
For RONIS	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	Article No.
For padlocks	3VW9727-0LB10

For RONIS	3VW9727-0LF10
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## 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

2

# 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	Article No.
Not lockable (spare part for S41)	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
		IP3x	3VW9011-0AP02
	Withdrawable	IP3x	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

