

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

Molded Case Circuit Breakers

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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

Your product in detail

The SiePortal platform (knowledge base) provides comprehensive information
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

Use our conversion tool for quick and easy conversion to Siemens products www.siemens.com/conversion-tool

Siemens YouTube channel

- 3VA molded case circuit breakers (general)
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

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

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.

You will find order support in SiePortal under 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
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

You will find further information on services at 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

... 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

- 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

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

- SiePortal (product catalog)
www.siemens.com/lowvoltage/product-catalog
- Image database
www.siemens.com/lowvoltage/picturedb

Engineering data for CAD or CAE systems are available in the CAx Download Manager at www.siemens.com/cax



Manuals

Manuals can be found in SiePortal at

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

- 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 [\(109767421\)](#)

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	3VA14	3VA15
400 A	630 A	1000 A
■	■	—
■	■	■
■	■	■

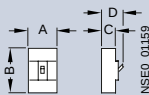
400 A	630 A	1000 A
■	■	■
■	■	■
■	■	■
■	■	■
■	■	—
■	■	■
■	■	—
—	—	—
■	■	—
■	■	—
■	■	■
—	—	—
—	—	—
■	■	■
—	—	—
■	■	—

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

Technical specifications

2



			3VA10			3VA11			3VA11		
Electrical characteristics according to IEC 60947-2											
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		
Breaking capacity (line protection)			B	N	S	N	S	M	N	S	M
Rated ultimate short-circuit breaking capacity I_{cu}											
50/60 Hz AC	220 ... 240 V	kA	25	36	55	25	36	55	36	55	85
	380 ... 415 V	kA	16	25	36	5	6	6	25	36	55
	440 V	kA	8	16	25	–	–	–	–	–	–
	500 V	kA	5	5	7	–	–	–	–	–	–
	690 V	kA	5	5	7	–	–	–	–	–	–
DC ¹⁾	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 ²⁾	kA	–	–	–	–	–	–	–	–	–
Rated service short-circuit breaking capacity I_{cs}											
50/60 Hz AC	220 ... 240 V	kA	25	36	55	25	35	55	36	55	85
	380 ... 415 V	kA	16	25	36	5	6	6	25	36	55
	440 V	kA	8	16	25	–	–	–	–	–	–
	500 V	kA	5	5	5	–	–	–	–	–	–
	690 V	kA	5	5	5	–	–	–	–	–	–
DC ¹⁾	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 ²⁾	kA	–	–	–	–	–	–	–	–	–
Dimensions											
	A	mm	76.2 (3P) 101.6 (4P)				25.4		50.8		
	B	mm	130				130		130		
	C	mm	70				70		70		
	D	mm	88				88		88		

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

²⁾ For $I_n = 630$ A/800 A

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

■ Available

– Not available/not present

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

3/4-pole

3/4-pole

3/4-pole

3/4-pole

3/4-pole

160

250

400

630

1000

16 ... 160

160 ... 250

320 ... 400

500 ... 630

630 ... 1000

690

690

690

690

690

800

800

800

800

800

8

8

8

8

8

■

■

■

■

≤ 500

0 ... 400

0 ... 400

0 ... 400

0 ... 400

0 ... 400

N	S	M	H	S	M	H	S	M	H	C	S	M	H	C	M	H	C
36	55	85	100	55	85	100	55	85	100	200	55	85	100	200	85	100	200
25	36	55	70	36	55	70	36	55	70	110	36	55	70	110	55	70	110
16	25	36	55 ³⁾	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 ³⁾	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
Electrical characteristics according to IEC 60947-2						
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
3VA1 molded case circuit breakers for line protection, standard applications (IEC 60947-2)						
Service life/endurance (operating cycles)						
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
Trip units						
TM210	FTFM			■	■	■
TM220	ATFM			–	–	–
TM240	ATAM			–	–	–
3VA1 molded case circuit breakers for starter protection (standards and specifications acc. to IEC 60947-2, annex O)						
Rated current I_n at 50 °C ambient temperature A				–	–	–
Service life/endurance (operating cycles)						
Mechanical (CLOSE-OPEN cycles)				–	–	–
Electrical 380 ... 415 V				–	–	–
Trip units						
TM120M	AM			–	–	–
Switch disconnectors (IEC 60947-3)						
Electrical characteristics according to IEC 60947-3						
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
Protection				
Starter protection	■	—	—	—
Line protection	—	■	■	■
Version available with				
1-pole and 2-pole breakers	—	■	—	—
3-pole breaker	■	■	■	■
4-pole breaker	—	■	■	■
Available protection parameters				
I_r adjustable	—	—	■	■
I_i adjustable	■	—	—	■
I_r fixed	—	■	—	—
I_i fixed	—	■	■	—
I_N ¹⁾	—	■	■	■

¹⁾ 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

Size	3VA20 100 A	3VA21 160 A	3VA22 250 A
Switch disconnectors			
No protection	–	–	–
Electronic			
Line protection	■	■	■
Line and generator protection	■	■	■
Line and generator protection, with display	■	■	■
Line and generator protection, with display, with metering function	■	■	■
Motor protection	–	■	■
Motor protection, with display	–	■	■
Motor protection, with display, with metering function	–	■	■
Starter protection	–	■	■

Accessories

Size	100 A	160 A	250 A
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	■	■	■
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

**3VA23**

400 A

3VA24

630 A

3VA25

1000 A

3VA26

1250 A

3VA27

1600 A

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630 A

1000 A

1250 A

1600 A

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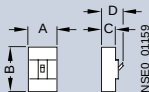
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3VA2 molded case circuit breakers up to 1600 A

Technical specifications

2

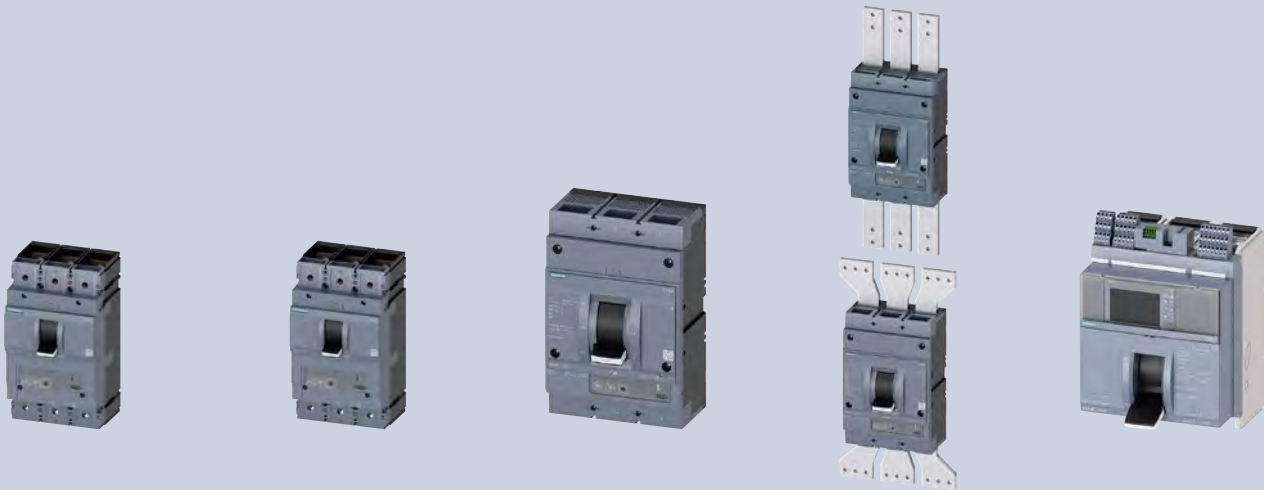


			3VA20				3VA21					3VA22				
Electrical characteristics according to IEC 60947-2																
Number of poles			3/4-pole				3/4-pole					3/4-pole				
Size	A		100				160					250				
Rated current I_n	A		25 ... 100				25 ... 160					160 ... 250				
Rated operational voltage U_e 50/60 Hz AC	V		690		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

¹⁾ 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 ¹⁾	–	–	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

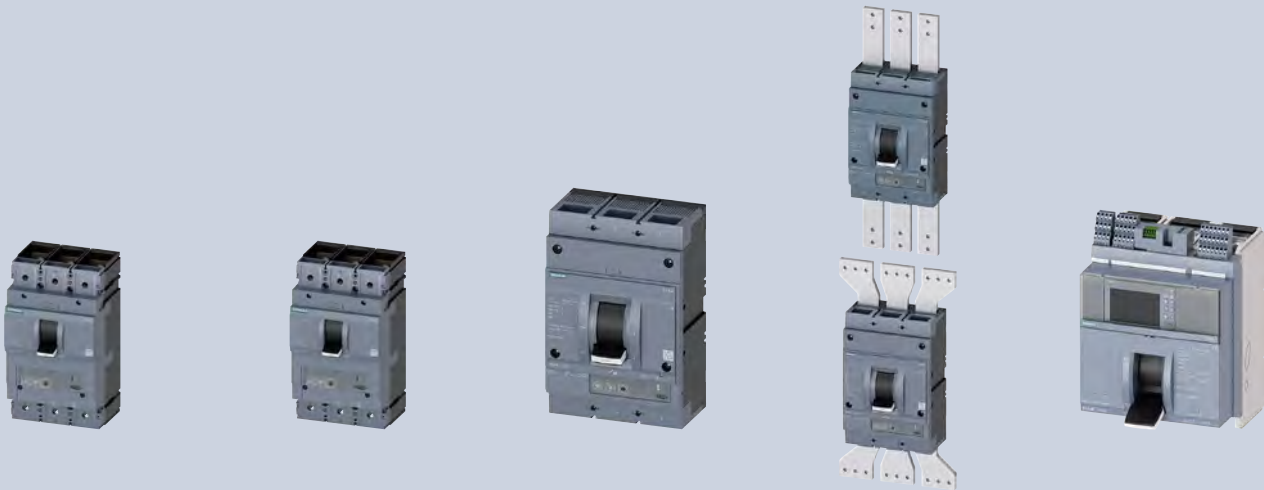
2



				3VA20	3VA21	3VA22
Electrical characteristics according to IEC 60947-2						
Number of poles				3/4-pole	3/4-pole	3/4-pole
Size	A			100	160	250
Rated current I_n	A			25 ... 100	25 ... 160	160 ... 250
Service life/endurance (operating cycles)						
Mechanical (CLOSE-OPEN cycles)				25000	25000	25000
Electrical	380 ... 415 V	I_n		15000	14000	12000
		$I_n/2$		20000	20000	17000
		690 V		10500	9800	7200
Trip units						
ETU320	LI			■	■	■
ETU330	LIG			■	■	■
ETU340	ELISA LI			–	■	■
ETU350	LSI			■	■	■
ETU550/ETU850	LSI			■	■	■
ETU560/ETU860	LSIG			■	■	■
ETU650	LSI			–	–	–
ETU360	LSIG			–	–	–
ETU660	LSIG			–	–	–
3VA2 molded case circuit breakers for motor/starter protection (IEC 60947-4-1 standards and specifications)						
Rated current I_n at 50 °C ambient temperature		A		–	25 ... 100	160 ... 200
Service life/endurance (operating cycles)						
Mechanical (CLOSE-OPEN cycles)				–	25000	25000
Electrical	380 ... 415 V			–	14000	12000
Trip units						
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
Protective function			
Line protection	ETU320, ETU330, ETU340, ETU350	ETU550, ETU560	ETU850, ETU860
Starter protection	ETU310M	—	—
Motor protection	ETU350M	ETU550M	ETU860M
Integrated functions			
Parameterizing	Setting and reading the parameters - Current values - Delay times	Setting and reading the parameters - Via display and communication - Fine setting of the parameters - Reading the measured values	Setting and reading the parameters - Via display and communication - Fine setting of the parameters - Reading the measured values
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
Optional expansions			
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 - PROFIBUS - PROFINET - Modbus RTU - Ethernet (Modbus TCP)	 COM800/COM100 data concentrator with interface to - PROFIBUS - PROFINET - Modbus RTU - Ethernet (Modbus TCP)
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
Protection												
Starter protection	■	—	—	—	—	—	—	—	—	—	—	—
Motor protection	—	—	—	—	—	■	—	■	—	—	—	■
Line protection	—	■	■	■	■	—	■	—	■	■	■	—
Generator protection	—	■	■	—	■	—	■	—	■	■	■	—
Version available with												
3-pole without external neutral conductor transformer	■	■	■	■	■	■	—	■	—	—	—	■
3-pole with external neutral conductor transformer	—	—	—	—	—	—	■	—	■	■	■	—
4-pole with protected neutral conductor transformer	—	■	■	■	■	—	■	—	■	■	■	—
Available protection parameters												
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 ¹⁾	—	■	■	■	■	—	■	—	■	■	■	—
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	—	■	■	■	■	■	■	■	■	■	■	■

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

Available for:

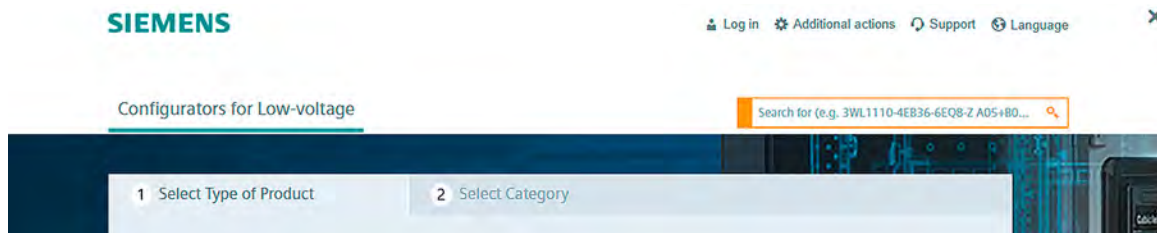
- Circuit breakers with ETU (4-pole)
- Circuit breakers with ETU5/ETU8 3-pole with external neutral conductor transformer or 4-pole

Online configurator highlights

www.siemens.com/lowvoltage/configurators

Search function with global direct input

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



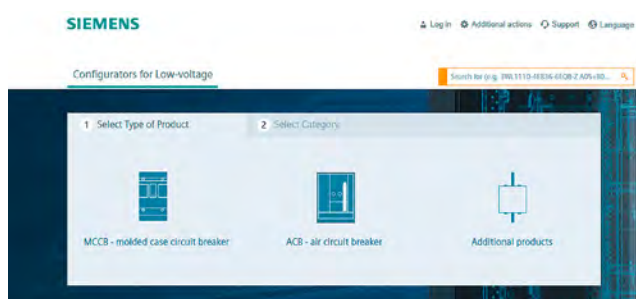
Product list stores multiple configurations and can transfer them collectively to the shopping cart



Recall of completed configurations for modification or additional configuration

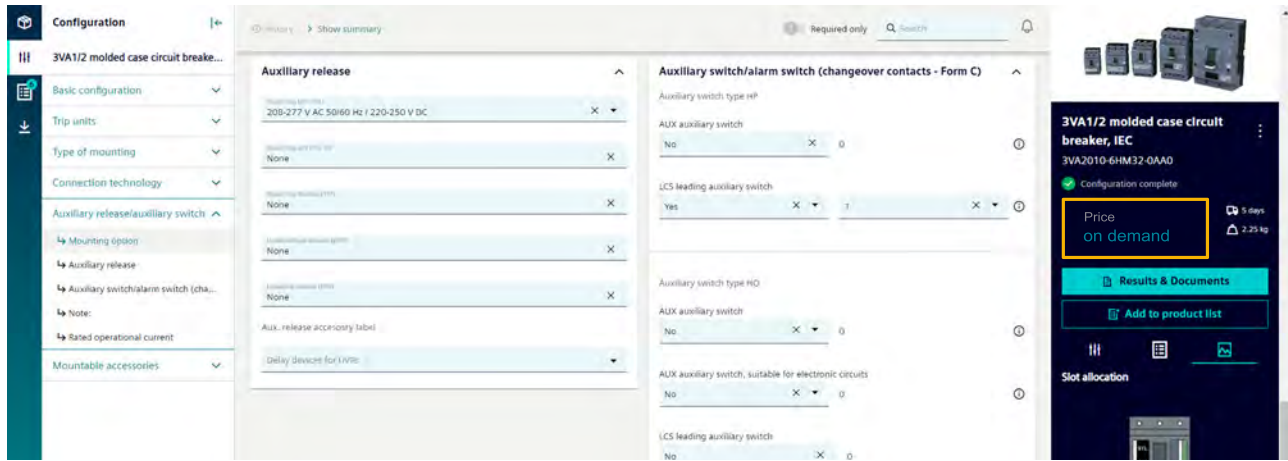


Responsive Design

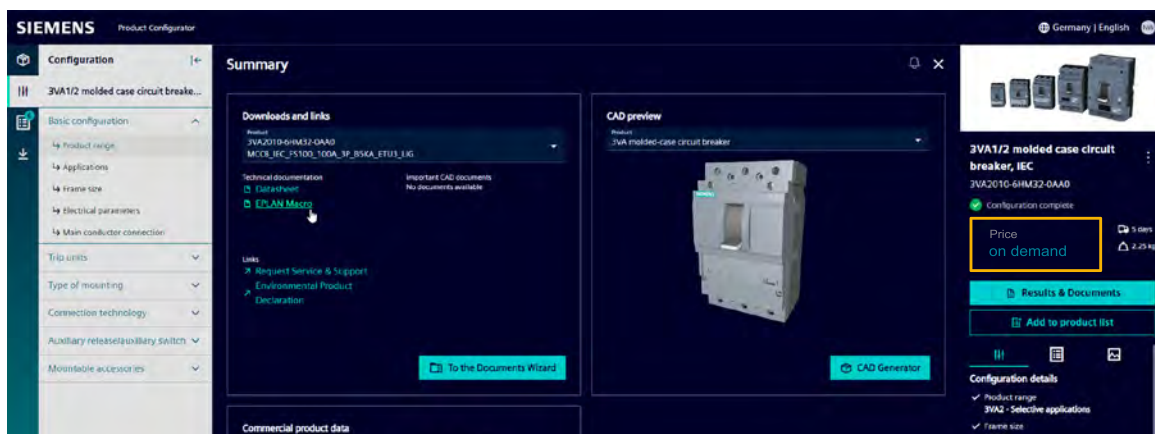


www.siemens.com/lowvoltage/3va-configurator and
www.siemens.com/lowvoltage/3va27-configurator

Visualization of the internally mountable accessories (slot assignment)



Download of the individual edz files for 3VA



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



System overview

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

Molded case circuit breakers and switch disconnectors



3VA1



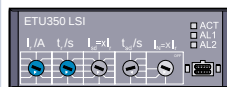
3VA2

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

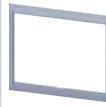


Motor operator



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

		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 disconnect	63 A	–	■	–	–	–		6	3							
		100 A	–	■	–	–	–		1	0							
		125 A	–	■	–	–	–		1	2							
		160 A	–	■	–	–	–		1	6							
		250 A	–	–	■	–	–		2	5							
		400 A	–	–	–	■	–		4	0							
		500 A	–	–	–	–	■		5	0							
		630 A	–	–	–	–	■		6	3							

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

		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			9	10	11	12	
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

		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	–	■ ¹⁾	■	–	–	–		1	6							
		250 A	–	–	■ ¹⁾	■	–	–		2	5							
		400 A	–	–	–	■ ¹⁾	■ ²⁾	–		4	0							
		500 A	–	–	–	–	■ ²⁾	–		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	–	–	–	■	■ ²⁾	–		4	0							
		500 A	–	–	–	–	■ ²⁾	–		5	0							
		630 A	–	–	–	–	■	■		6	3							
		800 A	–	–	–	–	–	■		8	0							
		1000 A	–	–	–	–	–	■		1	0							
		1250 A	–	–	–	–	–	■		1	2							

¹⁾ Rated current not available with ETU340 ELISA LI

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

										5	6	7	8	9	10	11	12	– 0AA0								
										3VA20	3VA21	3VA22	3VA23	3VA24	3VA25	3VA26										
Short-circuit Breaking capacity $I_{cu} = I_{cs}$ at 415 V	55 kA		■	■	■	■	■	■	■	5																
	85 kA		■	■	■	■	■	■	■	6																
	110 kA		■	■	■	■	■	■	■	7																
	150 kA		–	■	■	■	■	–	–	8																
	200 kA ¹⁾		–	■	■	■	■	–	–	0																
Protective function electronic	Line protection		■	■	■	■	■	■	ETU320	LI	(N) ²⁾	H	L													
			■	■	■	■	■	■	ETU330	LIG	(N) ²⁾	H	M													
			–	■	■	■	■	■	ETU340	ELISA LI	(N) ²⁾	H	K													
	Line and generator protection		■	■	■	■	■	■	ETU350	LSI	(N) ²⁾	H	N													
	Line and generator protection, with display		■	■	■	■	■	■	ETU550	LSI	(N) ³⁾	J	P													
			■	■	■	■	■	–	–	ETU560	LSIG	(N) ³⁾	J	Q												
	Line and generator protection, with display, with metering function		■	■	■	■	■	–	–	ETU850	LSI	(N) ³⁾	K	P												
			■	■	■	■	■	■	■	ETU860	LSIG	(N) ³⁾	K	Q												
	Number of poles	3-pole	Line protection	■	■	■	■	■	■							3										
Generator protection			■	■	■	■	■	■							3											
4-pole		Line protection	■	■	■	■	■	■							4											
		Generator protection	■	■	■	■	■	■							4											
Connection technology	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											

²⁾ Neutral conductor protection for 4-pole breakers³⁾ 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.
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			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							
		630 A	–	–	–	–	■		6	3							
		800 A	–	–	–	–	■		8	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										
Protective function electronic	Motor protection		■	■	■	■	■	ETU350M	LSI			M	N				
	Motor protection, with display		■	■	■	■	■	ETU550M	LSI			M	P				
	Motor protection, with display, with metering function		■	■	■	■	■	ETU860M	LSIG			M	Q				
	Line protection		■	■	■	■	–	ETU310M	I			M	S				
Number of poles	3-pole	Line protection	■	■	■	■	–								3		
		Motor protection	■	■	■	■	■								3		
Connection technology	Nut keeper kit	Line protection	■	■	■	■	–									2	
		Motor protection	■	■	■	■	■									2	
	Box terminals	Line protection	■	–	–	–	–									6	
		Motor protection	■	–	–	–	–									6	

Auxiliary switches and alarm switches

2

System overview, page 2/24

Auxiliary releases

2

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

				3VA10					
				3VA11		3VA20			
				3VA12		3VA21			
				3VA13		3VA22			
				3VA14		3VA23		3VA25	
				3VA15		3VA24		3VA26	
Shunt trips left STL									
	- Used for remote-controlled tripping of the molded case circuit breaker - Have particularly low power consumption - Especially suitable for electrical interlocking in the EI variant ¹⁾								
	Version	U_e 50/60 Hz AC	U_e DC						
	Standard	–	12 V					3VA9988-0BL10	
		24 V	24 ... 30 V					3VA9988-0BL30	
		48 ... 60 V	48 ... 60 V					3VA9988-0BL31	
		110 ... 127 V	110 ... 127 V					3VA9988-0BL32	
		208 ... 277 V	220 ... 250 V					3VA9988-0BL33	
		380 ... 600 V	–					3VA9988-0BL20	
	Electrical (EI)	–	24 V					3VA9988-0BM10	
Shunt trips flexible STF									
	- Used for remote-controlled tripping of the molded case circuit breaker - Flexible installation								
	U_e 50/60 Hz AC	U_e DC							
	24 V	–		–		3VA9988-0BA20		–	
	48 ... 60 V	–		–		3VA9988-0BA21		–	
	110 ... 127 V	–		–		3VA9988-0BA22		–	
	208 ... 277 V	–		–		3VA9988-0BA23		–	
	380 ... 500 V	–		–		3VA9988-0BA24		–	
	600 V	–		–		3VA9988-0BA25		–	
Universal releases UNI									
	Combination of shunt trip and undervoltage release								
	U_e 50/60 Hz AC	U_e DC							
	–	12 V				3VA9908-0BD11			
		24 V				3VA9908-0BD12			
		48 V				3VA9908-0BD13			
Undervoltage releases UVR									
	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								
	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			
Time-delay devices for undervoltage releases									
	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			

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

Manual operators

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

Front mounted rotary operators

- Handle
- For IEC
- Degree of protection IP30
- For 3-pole and 4-pole breakers



Version	Illumination kit	Door interlock					
Standard (gray)	Without	Without	3VA9157-0EK11	3VA9257-0EK11	3VA9267-0EK11	3VA9467-0EK11	3VA9687-0EK11
		With	3VA9157-0EK21	3VA9257-0EK21	3VA9267-0EK21	3VA9467-0EK21	3VA9687-0EK21
	With	Without	3VA9157-0EK13	3VA9257-0EK13	3VA9267-0EK13	3VA9467-0EK13	–
		With	3VA9157-0EK23	3VA9257-0EK23	3VA9267-0EK23	3VA9467-0EK23	–
EMERGENCY-OFF (red/yellow)	Without	Without	3VA9157-0EK15	3VA9257-0EK15	3VA9267-0EK15	3VA9467-0EK15	3VA9687-0EK15
		With	3VA9157-0EK25	3VA9257-0EK25	3VA9267-0EK25	3VA9467-0EK25	3VA9687-0EK25
	With	Without	3VA9157-0EK17	3VA9257-0EK17	3VA9267-0EK17	3VA9467-0EK17	–
		With	3VA9157-0EK27	3VA9257-0EK27	3VA9267-0EK27	3VA9467-0EK27	–

Door mounted rotary operators with tolerance compensation

- Shaft 300 mm (325 mm for 3VA15/3VA25/3VA26)
- With mounting tolerance compensation
- Handle with masking plate 75 × 75 mm (100 × 100 mm for 3VA15/3VA25/3VA26)
- Degree of protection IP65
- For 3-pole and 4-pole breakers



Version	Illumination kit	Door interlock					
Standard (gray)	Without	With	3VA9157-0FK21	3VA9257-0FK21	3VA9267-0FK21	3VA9467-0FK21	3VA9687-0FK21
	With	With	3VA9157-0FK23	3VA9257-0FK23	3VA9267-0FK23	3VA9467-0FK23	3VA9687-0FK23
EMERGENCY-OFF (red/yellow)	Without	With	3VA9157-0FK25	3VA9257-0FK25	3VA9267-0FK25	3VA9467-0FK25	3VA9687-0FK25
	With	With	3VA9157-0FK27	3VA9257-0FK27	3VA9267-0FK27	3VA9467-0FK27	3VA9687-0FK27

Door mounted rotary operators without tolerance compensation



- Shaft 300 mm (325 mm for 3VA15/3VA25/3VA26)
- Handle with masking plate 75 × 75 mm (100 × 100 mm for 3VA15/3VA25/3VA26)
- Degree of protection IP65
- For 3-pole and 4-pole breakers

Version	Illumination kit	Door interlock					
Standard (gray)	Without	With	3VA9157-0FK61	3VA9257-0FK61	3VA9267-0FK61	3VA9467-0FK61	3VA9687-0FK61

Door mounted rotary operators without handle



- For IEC
- Degree of protection IP30
- For 3-pole and 4-pole breakers

Version	Illumination kit	Door interlock					
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
Side wall mounted rotary operators							
	- Rotary operator with shaft 300 mm - Handle with masking plate 75 × 75 mm - Degree of protection IP65 - For 3-pole and 4-pole breakers						
	Version	Mounting bracket	Illumination kit				
	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
Side wall mounted rotary operators with mounting bracket							
	- Rotary operator with short shaft and mounting bracket for mounting directly on the side wall - Handle with masking plate 75 × 75 mm - Degree of protection IP65 - For 3-pole and 4-pole breakers						
	Version	Mounting bracket	Illumination kit				
	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	–
Extended DIN rail for N/PE terminals							
	Version	Rated current					
	For mounting bracket	≤ 250 A	3VA9987-0GL30	3VA9987-0GL30	3VA9987-0GL30	–	–
Auxiliary switch modules for rotary operator							
	Version						
	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	–
Mounting adapters for side wall mounted rotary operators							
	Version						
	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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					3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25 3VA26
		3VA10 3VA11	3VA12				
Supplementary handles for door mounted rotary operators							
	• For operation when control cabinet door is open						
	Version						
	Standard (gray)	3VA9287-0GC01	3VA9287-0GC01	3VA9487-0GC01	3VA9487-0GC11	3VA9687-0GC01	
	EMERGENCY-OFF (red/yellow)	3VA9287-0GC05	3VA9287-0GC05	3VA9487-0GC05	3VA9487-0GC15	3VA9687-0GC05	
Handles							
	• With masking plate						
	Version	Tolerance compensation					
	Standard (gray)	With	8UD1721-0AB21		8UD1731-0AB21	8UD1741-0AB21	
		Without	8UD1721-0AB11		8UD1731-0AB11	8UD1741-0AB11	
	EMERGENCY-OFF (red/yellow)	With	8UD1721-0AB25		8UD1731-0AB25	8UD1741-0AB25	
		Without	8UD1721-0AB15		8UD1731-0AB15	8UD1741-0AB15	
Handle lever extensions							
	• 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
Mounting tolerance compensations						
	Type					
	8 × 8 mm	8UD1900-2GA00				–
	12 × 12 mm	–	–	–	–	8UD1900-4GA00
	Fixing brackets for shafts					
			3VA9287-0GA80	3VA9487-0GA80		3VA9687-0GA80
	Variable depth adapters					
	Size					
	8 × 8 mm	3VA9487-0GB10				–

Manual operators

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

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3VA10
3VA11
3VA12

3VA13
3VA14

3VA15

3VA20
3VA21
3VA22

3VA23
3VA24

3VA25
3VA26

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

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

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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 For 3VA1	For 3VA2	Break time, typically For 3VA1	For 3VA2	Rated operational power
■	■	< 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 For 3VA1	For 3VA2	Break time, typically For 3VA1	For 3VA2	Rated operational power
■	■	< 800 ms (160 A, 250 A)	< 1000 ms (250 A), < 1700 ms (630 A)	< 800 ms (160 A, 250 A)	< 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 For 3VA1	For 3VA2	Break time, typically For 3VA1	For 3VA2	Rated operational power
■	■	< 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-OHB10	–	–	–	–
110 ... 230 V AC 110 ... 250 V DC	–	–	3VA9117-OHB20	–	–	–	–
Rated control supply voltage	With communication						
24 ... 60 V DC	–	–	3VA9157-OHA10	3VA9257-OHA10	3VA9267-OHA10	3VA9467-OHA10	3VA9467-OHA10
110 V AC	–	–	–	–	3VA9267-OHA21 ¹⁾	3VA9467-OHA21 ¹⁾	3VA9467-OHA21 ¹⁾
110 ... 230 V AC 110 ... 250 V DC	–	–	3VA9157-OHA20	3VA9257-OHA20	3VA9267-OHA20	3VA9467-OHA20	3VA9467-OHA20
230 V AC	–	–	–	–	3VA9267-OHA22 ¹⁾	3VA9467-OHA22 ¹⁾	3VA9467-OHA22 ¹⁾
		–	3VA9157-OHA00	3VA9257-OHA00	3VA9267-OHA00	3VA9467-OHA00	3VA9467-OHA00
Rated control supply voltage	With communication						
24 V DC	–	–	–	–	3VA9267-OHC10	3VA9467-OHC10 ²⁾	
42 ... 60 V AC/DC	–	–	–	–	3VA9267-OHC20	3VA9467-OHC20 ²⁾	
110 ... 230 V AC 110 ... 250 V DC	–	–	–	–	3VA9267-OHC30	3VA9467-OHC30 ²⁾	
24 V DC	Yes	–	–	–	3VA9267-OHC15	–	3VA9467-OHC15 ²⁾
110 ... 230 V AC 110 ... 250 V DC	Yes	–	–	–	3VA9267-OHC35	–	3VA9467-OHC35 ²⁾
		–	–	–	3VA9267-OHC00	–	–
		–	–	–	3VA9267-OHC05	–	–

¹⁾ Optimized for long control cable lengths, see FAQ at www.siemens.com/lowvoltage/product-support (109804710)

²⁾ 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

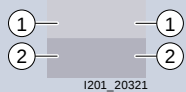
All motor operators have the following reset modes:

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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Box terminals

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

Nut keeper kits

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

Circular conductor terminals, 1 cable

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

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

²⁾ Al cable tested according to IEC 60947-2 annex D

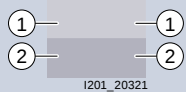
³⁾ Use antioxidants

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

⁵⁾ Maximum current-carrying capacity of copper cables 380 A
Maximum current-carrying capacity of aluminum cables 310 A

				3VA13	3VA15
				3VA14	
3VA10		3VA20		3VA23	3VA25
3VA11	3VA12	3VA21	3VA22	3VA24	3VA26
3VA9153-OJA11	–	–	–	–	–
–	3VA9253-OJA11	3VA9163-OJA12	3VA9163-OJA12	–	–
–	–	3VA9263-OJA12	3VA9263-OJA12	–	–
–	3VA9253-OJA12	–	–	–	–
–	–	–	–	3VA9483-OJA13 ⁴⁾	–
3VA9154-OJA11	–	–	–	–	–
–	3VA9254-OJA11	3VA9164-OJA12	3VA9164-OJA12	–	–
–	–	3VA9264-OJA12	3VA9264-OJA12	–	–
–	3VA9254-OJA12	–	–	–	–
–	–	–	–	3VA9484-OJA13 ⁴⁾	–
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 ⁵⁾	–
3VA9114-OJB10	–	–	–	–	–
–	–	3VA9104-OJB11	3VA9104-OJB11	–	–
3VA9114-OJB11	–	–	–	–	–
–	–	3VA9264-OJB12	3VA9264-OJB12	–	–
–	3VA9254-OJB12	–	–	–	–
–	–	–	–	3VA9384-OJB13 ⁵⁾	–

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 with control wire taps, 1 cable³⁾

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

Circular conductor terminals, 2 cables

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

Circular conductor terminals, 3 cables

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

Control wire taps for box terminals³⁾

Connection options
①
②

Control wire taps for busbars³⁾

Connection options
①
②

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

²⁾ Al cable tested according to IEC 60947-2 annex D

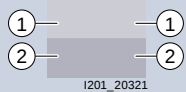
³⁾ Use antioxidants

⁴⁾ Maximum current-carrying capacity 15 A
Maximum cable connection up to 2.5 mm²

⁵⁾ Maximum current-carrying capacity of copper cables 380 A
Maximum current-carrying capacity of aluminum cables 310 A

				3VA13	
				3VA14	
3VA10		3VA20		3VA23	3VA15
3VA11	3VA12	3VA21	3VA22	3VA24	3VA25
3VA9113-OJG10	–	–	–	–	–
–	–	3VA9103-OJG11	3VA9103-OJG11	–	–
3VA9113-OJG11	–	–	–	–	–
–	–	3VA9263-OJG12	3VA9263-OJG12	–	–
–	3VA9253-OJG12	–	–	–	–
–	–	–	–	3VA9383-OJG13 ⁵⁾	–
3VA9114-OJG10	–	–	–	–	–
–	–	3VA9104-OJG11	3VA9104-OJG11	–	–
3VA9114-OJG11	–	–	–	–	–
–	–	3VA9264-OJG12	3VA9264-OJG12	–	–
–	3VA9254-OJG12	–	–	–	–
–	–	–	–	3VA9384-OJG13 ⁵⁾	–
–	–	–	–	–	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

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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 new	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 32 mm 40 mm 50 mm	8 mm 10 mm 12.5 mm 30 mm
		3 short terminals, ¹⁾ 2 phase barriers	50 mm	30 mm
4P	① ②	4 terminals, 3 phase barriers	22 mm 32 mm 40 mm 50 mm	8 mm 10 mm 12.5 mm 30 mm
		4 short terminals, ¹⁾ 3 phase barriers	50 mm	30 mm

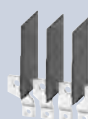
Bus connectors edgewise, with phase barriers



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

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

Front bus connectors broadened, with phase barriers



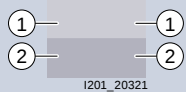
- 3-pole and 4-pole bus connectors broadened only permitted if used with phase barriers!
- Phase barriers are included in the connection technology scope of supply or can be ordered as a spare part (3VA9...-WA00).
- Distance between pole centers:
 - 100/160 A = 35 mm, 250 A = 45 mm, 400/630 A = 70 mm

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

¹⁾ Bus connectors short for use with terminal covers

		3VA20	3VA13 3VA14		
3VA10 3VA11		3VA21	3VA23	3VA15	
	3VA12	3VA22	3VA24	3VA25	3VA26
3VA9151-QB00	–	–	–	–	–
–	–	–	–	3VA9603-QB01	–
–	–	–	–	–	3VA9603-QB03 new
–	–	–	–	–	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 ¹⁾



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	①	②	2 short connection studs flat, 1 long connection stud flat
		– ②	3 short connection studs flat
4P	①	②	2 short connection studs flat, 2 long connection stud flat

Rear connectors vertical



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

Rear connectors horizontal



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

Rear connection studs round

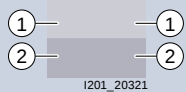


Number of poles	Connection options		Scope of supply
1P	①	②	1 short connection stud round 1 long connection stud round
3P	①	②	1 long connection stud round, 2 short connection studs round
4P	①	②	2 long connection studs round, 2 short connection studs round

¹⁾ 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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2

Circular conductor terminals, 2P



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

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

²⁾ Al cable tested according to IEC 60947-2 annex D

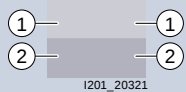
³⁾ Maximum current-carrying capacity 15 A
Maximum cable connection up to 2.5 mm²

⁴⁾ Max. 225 A

⁵⁾ Use antioxidants

3VA10 3VA11		3VA20 3VA21 3VA22		3VA13 3VA14 3VA23 3VA24	3VA15 3VA25 3VA26
		3VA12			
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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Circular conductor terminals, 4P



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

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

²⁾ Al cable tested according to IEC 60947-2 annex D

³⁾ Maximum current-carrying capacity 15 A
Maximum cable connection up to 2.5 mm²

⁴⁾ Max. 225 A

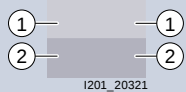
⁵⁾ Including insulating plate

⁶⁾ Suitable for circular conductor terminals 4 cables

⁷⁾ 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 ⁶⁾	–	–
–	–	–	–	–	3VA9601-0WE40 ⁶⁾	–	–
–	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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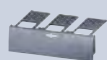
2

3VA10

3VA11

Terminal covers for plug-in or withdrawable sockets

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



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

Insulating plates



Version	Number of poles	Mounting location			
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

Phase barriers



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

Protective sleeve for insulation of rear connections



Mounting location	Scope of supply	
②	3 protective sleeves	–

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



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

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



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

¹⁾ Including insulating plate

		3VA13 3VA14		
	3VA20 3VA21	3VA23 3VA24	3VA15	
3VA12	3VA22	3VA24	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	3VA9602-0WA00
—	—	—	3VA9602-0WA05	3VA9602-0WA05
—	—	—	3VA9603-0WH05	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—

Plug-in and withdrawable technology

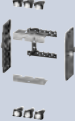
Thanks to plug-in and withdrawable technology:

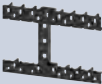
- Molded case circuit breakers can be replaced quickly and easily for overhauls or servicing
- Electrical isolation and clearly visible isolating distance
- The socket can be interlocked to prevent the 3VA molded case circuit breaker from being plugged in or moved in
- Identical connection technology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

In addition, withdrawable technology offers:

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

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	3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25 3VA26
Withdrawable units, complete kits					
 • Scope of supply: – Withdrawable socket – Withdrawable unit, conversion kit – Mounting screw kit • Note: The crank for the withdrawable unit must be ordered separately.					
Number of poles					
3P	–	3VA9213-0KD00	3VA9123-0KD00	3VA9323-0KD00	–
4P	–	3VA9214-0KD00	3VA9124-0KD00	3VA9324-0KD00	–
Withdrawable units, conversion kits					
 • Scope of supply: – Screw-fastened terminal covers for molded case circuit breakers – Side panels – Plug-in contacts – Cable cages – Autotrip plunger • Note: The crank for the withdrawable unit must be ordered separately.					
Number of poles					
3P	–	3VA9213-0KD10	3VA9123-0KD10	3VA9323-0KD10	–
4P	–	3VA9214-0KD10	3VA9124-0KD10	3VA9324-0KD10	–

			3VA20	3VA13	3VA15	
			3VA21	3VA14	3VA25	
			3VA22	3VA24	3VA26	
Plug-in units, complete kits						
	• Scope of supply: – Plug-in socket – Plug-in unit, conversion kit – Mounting screw kit • Note on 3VA9603-0KP00: – 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.					
	Number of poles					
	3P	3VA9113-0KP00	3VA9213-0KP00	3VA9123-0KP00	3VA9323-0KP00	3VA9603-0KP00
	4P	3VA9114-0KP00	3VA9214-0KP00	3VA9124-0KP00	3VA9324-0KP00	–
Plug-in units, conversion kits						
	• Scope of supply: – Screw-fastened terminal covers for molded case circuit breakers – Plug-in contacts – Cable cages – Autotrip plunger					
	Number of poles					
	3P	3VA9113-0KP10	3VA9213-0KP10	3VA9123-0KP10	3VA9323-0KP10	–
	4P	3VA9114-0KP10	3VA9214-0KP10	3VA9124-0KP10	3VA9324-0KP10	–
Plug-in units, conversion kits with blade contacts						
	• Scope of supply: – 6 × blade contacts – Guide frame for circuit breaker – 2 × cover for blade contacts – Position signaling switch – Connecting cable for auxiliary circuits					
	Number of poles					
	3P	–	–	–	–	3VA9603-0KP10
Cable cages for plug-in/withdrawable units (spare part)						
	• For routing of the required cables from the internal accessories on the back of the circuit breaker					
	Number of poles					
	3P/4P	3VA9157-0KB02	3VA9257-0KB02	3VA9167-0KB02	3VA9367-0KB02	–
Door feedthroughs						
		–	3VA9257-0KT00	3VA9167-0KT00	3VA9367-0KT00	–
Autotrip plungers (spare part)						
	Version					
	Plug-in unit	3VA9157-0KP81	3VA9257-0KP81	3VA9267-0KP81	3VA9457-0KP81	–
	Withdrawable unit	–	3VA9257-0KD81	3VA9267-0KD81	3VA9457-0KD81	–

Plug-in and withdrawable technology

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

2

Accessories

		3VA11	3VA12	3VA20 3VA21 3VA22	3VA13 3VA14 3VA23 3VA24	3VA15 3VA25 3VA26
Communications interface for withdrawable unit						
	Scope of supply					
	Set of cables with three special position signaling switches, 3VA9987-0KC10 connecting cables	3VA9987-0KC00	3VA9987-0KC00	3VA9987-0KC00	3VA9987-0KC00	–
Position signaling switches for withdrawable unit and plug-in unit						
	Note on 3VA9603-0KB00: 4 position signaling switches can be installed in the plug-in base.					
		3VA9987-0KB00	3VA9987-0KB00	3VA9987-0KB00	3VA9987-0KB00	3VA9603-0KB00
Connecting cables						
	Use					
	Connection of position signaling switches for communication with COM060	3VA9987-0KC10	3VA9987-0KC10	3VA9987-0KC10	3VA9987-0KC10	–
	For auxiliary circuits	–	–	–	–	3VA9603-0KP80
Cranks for withdrawable units						
	Version					
	Insulated	Including crank holder	3VA9987-0KD81	3VA9987-0KD81	3VA9987-0KD81	3VA9987-0KD81
Auxiliary circuit connectors						
	Each auxiliary circuit connector is designed for 4 cables.					
	Version					
	For all withdrawable units	3VA9987-0KD80	3VA9987-0KD80	3VA9987-0KD80	3VA9987-0KD80	–
Cylinder locks						
	Scope of supply: 1 lock with 2 keys - For locking or interlocking Note: Not for 3VA15/3VA25!					
	Key	Lock number				
	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
Cylinder lock adapters for withdrawable units						
	- To prevent unauthorized withdrawal or insertion of the circuit breaker into the withdrawable unit - Circuit breaker can be locked in the CONNECT, TEST and DISCONNECT positions					
	Use					
	For fitting a cylinder lock in the right-hand side wall of the withdrawable unit	3VA9980-0LF40	3VA9980-0LF40	3VA9980-0LF40	3VA9980-0LF40	–

Residual current devices RCD

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

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

2

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

- Mounted onto the side (left)



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

Residual current devices (RCD) for molded case circuit breakers

- Mounted below (under trip unit)



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

¹⁾ 3-pole version in 4-pole enclosure

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

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

⁴⁾ Sensitivity selectable for type B/B+

⁵⁾ $I_{\Delta n} = 30$ A: type AC

⁶⁾ 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.

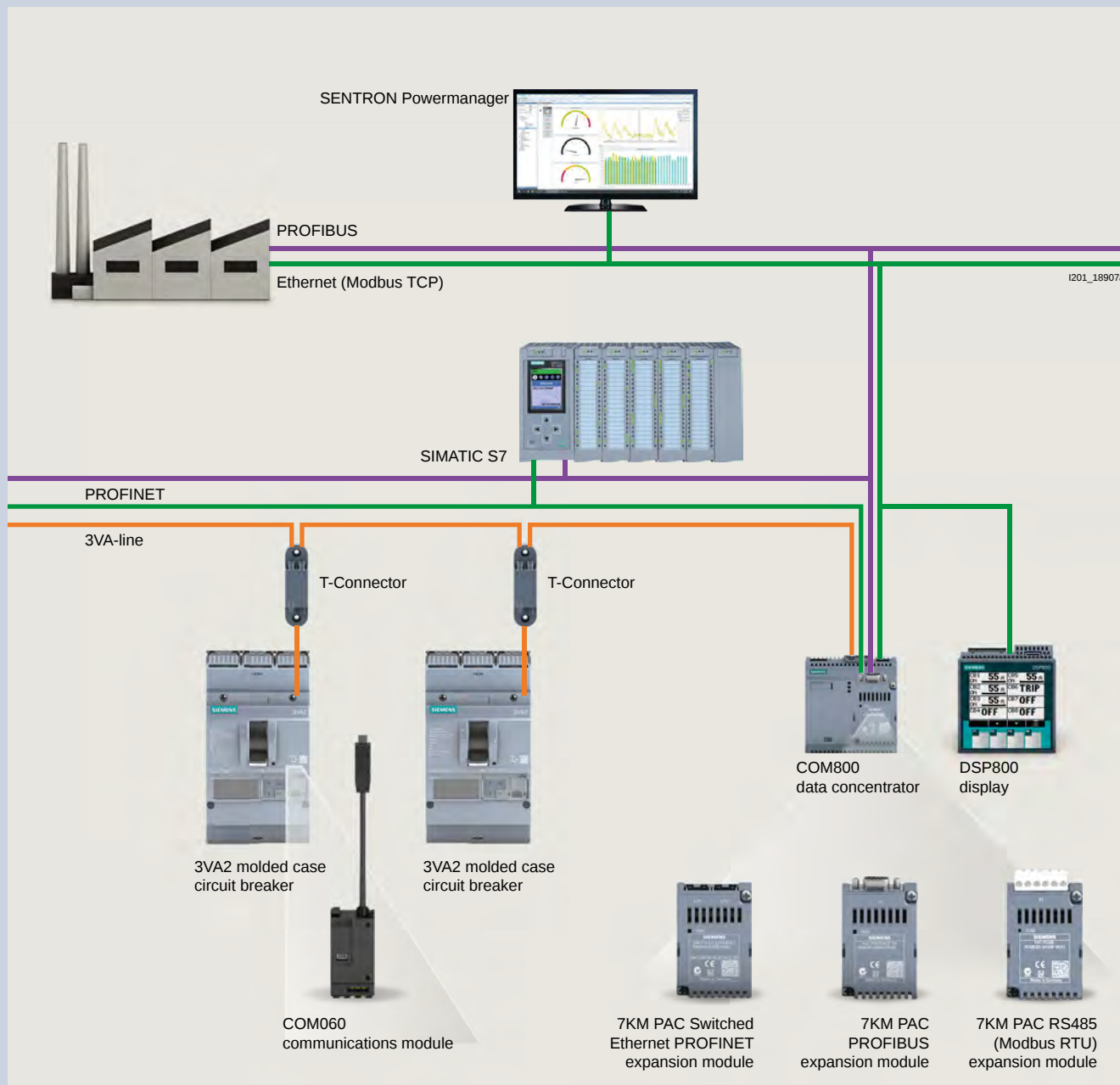
⁷⁾ 1 set of box terminals is included in scope of supply of the RCD510 (3VA921.-0R520).

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

										3VA10
										3VA13
										3VA14
										3VA15
										3VA25
										3VA26
	Monitoring mode (tripping can be disabled as an option)	Remote test/ remote reset	Communi- cation- capable							
■	–	–	3VA9113-ORS20 ⁶⁾	3VA9213-ORS20 ⁷⁾	–	–	–	–	–	
■	–	–	3VA9114-ORS10 ⁶⁾	–	–	–	–	–	–	
■	–	–	3VA9114-ORS20 ⁶⁾	3VA9214-ORS20 ⁷⁾	–	–	–	–	–	
	Monitoring mode (tripping can be disabled as an option)	Remote test/ remote reset	Communi- cation- 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-OBR10				3VA9988-OBR10	–	–	–	–	–	
–				–	3VA9927-ORC00	3VA9927-ORC00	3VA9927-ORC00	3VA9927-ORC00	–	

Communication

For 3VA2 molded case circuit breakers



Metering function ¹⁾			ETU		Display		Communication
			5-series	8-series	in ETU	DSP800	COM800/COM100
Current							
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	$THDI_1, THDI_2, THDI_3$	%	–	■	–	□	■
Voltage							
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	$THDI_1, THDI_2, THDI_3$	%	–	■	–	□	■
Power							
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})	□	■
Energy							
Active energy, infeed and feedback	E_p	kWh	–	■	□	□	■
Reactive energy, infeed and feedback	E_q	kVARh	–	■	–	□	■
Apparent energy	E_s	kVAh	–	■	–	□	■
Frequency							
Present frequency	f	Hz	–	■	□	□	■
Min/max pointer function							
Min./max. current, voltage, power	With time stamp	–	–	–	–	–	■
Condition Monitoring ²⁾							
Operating cycles counter	CLOSE-OPEN cycle		■	■	–	–	■
Operating hours		h	■	■	–	–	■
Trip counter	Differentiated by trip causes		■	■	–	–	■
Health indicator ³⁾	Incl. contact state	%	■	■	■	–	■
Remaining life time ³⁾		Time	■	■	–	–	■

■ Available □ Displayable – Not available

¹⁾ Depending on ETU version

²⁾ Only available with continuous external power supply and COM060 and COM800/100 communication interfaces

³⁾ Firmware 4.4 or higher of ETU, COM060, COM800/100 required

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

COM060 communications modules



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

Use

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

3VA9187-0TB10

3VA9387-0TB10

SLC adapters (spare part)



Scope of supply

5 units

3VA9187-0TB60

3VA9387-0TB60

24 V modules



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

Use

Optional 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

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

Article No.

3VA9987-0TA10

COM100 data concentrators



Version

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

Article No.

3VA9987-0TA20

7KM PAC PROFIBUS DP expansion modules



Use

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

Article No.

7KM9300-0AB01-0AA0

7KM PAC Switched Ethernet PROFINET expansion modules



Use

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

Article No.

7KM9300-0AE02-0AA0

7KM PAC RS485 Modbus RTU expansion modules



Use

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

Article No.

7KM9300-0AM00-0AA0

Interfaces

Interfaces to IEC 61850

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



Type Processor assembly

SICAM CP-8021 ¹⁾

–

Article No.

6MF2802-1AA00

SICAM CP-8031 ²⁾

–

6MF2803-1AA00

SICAM CP-8050 ³⁾

–

6MF2805-0AA00

SICAM PS-8620

24 ... 60 V DC (12 W)

6MF2862-0AA00

SICAM PS-8622

110 ... 220 V DC (12 W)

6MF2862-2AA00

¹⁾ Dimensioned for device quantities of max. 1 × 3WA and 1 × 3VA

²⁾ Dimensioned for device quantities of 1 × 3WA and 8 × 3VA

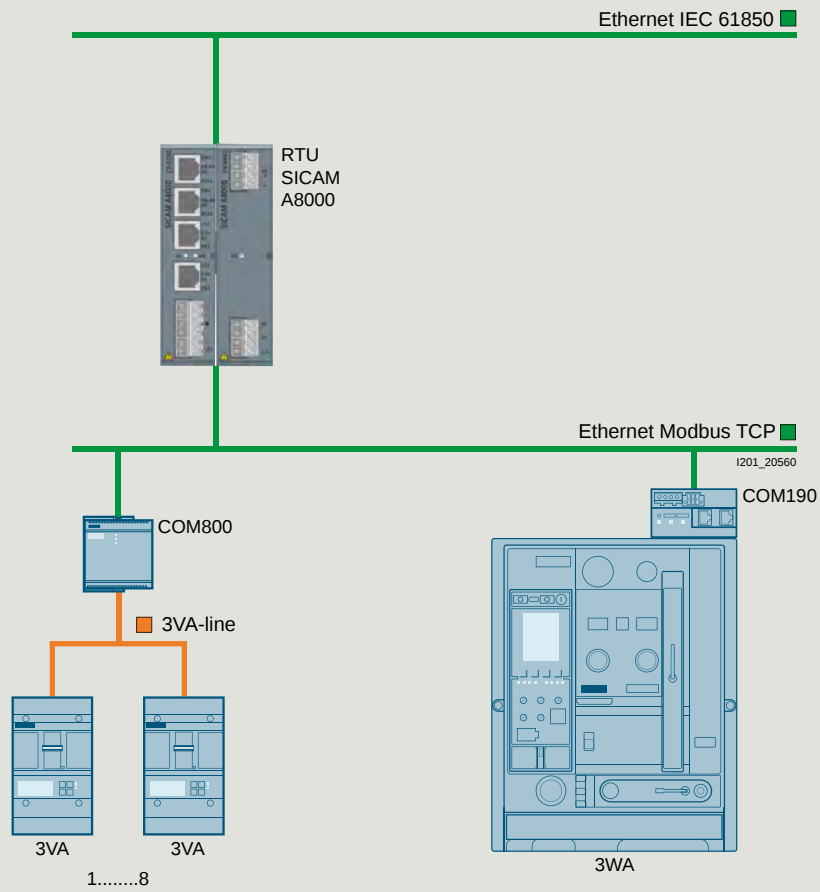
³⁾ Dimensioned for device quantities of 3 × 3WA and 8 × 3VA or 2 × 3WA and 8 × 3VA and 1 × PAC4200

You will find further information at:

www.siemens.com/sicam-a8000

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 (109816057).



Communication

For 3VA2 molded case circuit breakers

Accessories for communication

T-connectors (spare part)			
	Use	Article No.	
	Provides a stub connection to the COM060 and loops through to the next circuit breaker.	3VA9987-0TG10	
DIN-rail adapters			
	Use	Article No.	
	For snapping the T-Connector onto a DIN rail.	3VA9987-0TG11	
Prefabricated connecting cables, T-connector – T-connector or T-connector – COM800/COM100			
	Length	Article No.	
	0.4 m	3VA9987-0TC10	
	1 m	3VA9987-0TC20	
	2 m	3VA9987-0TC30	
	4 m	3VA9987-0TC40	
Prefabricated connecting cables for extending the COM060 – T-connector stub connection			
	Length	Article No.	
	0.4 m	3VA9987-0TF20	
	0.8 m	3VA9987-0TF10	
Additional bus terminating resistors (spare part)			
	Use	Article No.	
	For COM800 and COM060	3VA9987-0TE10	
Voltage tap to external N conductors (spare part)			
	Use	Article No.	
	Cable for connection of the star point for the metering function of the 8-series ETU, length 1.5 m	3VA9987-0UC10	
External current transformer for N conductors			
	Use	Rated current	Article No.
	For 3VA2 3-pole molded case circuit breakers, for 5 and 8-series ETUs, including connecting cables	25 ... 150 A	3VA9007-0NA10
		160 ... 350 A	3VA9107-0NA10
		400 ... 630 A	3VA9307-0NA10
External current transformers as straight-through transformers			
	Rated current	Article No.	
	25 ... 150 A	3VA9077-0NA10	
	160 ... 350 A	3VA9177-0NA10	
	400 ... 630 A	3VA9377-0NA10	
	600 ... 1250 A	3VA9677-0NA10	
Connecting cables for external current transformers for N conductors (spare part)			
			Article No.
			3VA9907-0NB10

Display

DSP800 displays		
	Use	Article No.
	For displaying the status and measured values of up to eight devices	3VA9987-0TD10
	• 3VA2 via COM800/100 • 3VA27 • 3WL10 • 3WL11-13 • PAC3200T	

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

For connection to the ETU of 3VA2 molded case circuit breakers

Article No.

3VA9987-0UA10

Connecting cables for EFB300



Length

1.5 m

Use

For 3VA2 with EFB

Article No.

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

For activation of the ETU and initiation of a test tripping operation

Connection

On the front interface of the ETU

Article No.

3VA9987-0MA10

TD400 test devices ¹⁾



- 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

On the front interface of the ETU

Article No.

3VW9011-0AT40

TD400 adapter (spare part)

Version

For 3VA

Article No.

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

Initiation of various test tripping operations (LSING), ETU parameterization

Connection

On the front interface of the ETU

Article No.

3VA9987-0MB10

External power supplies for TD500 (spare part)



Voltage

110 ... 240 V

Article No.

3VA9987-0MX10

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



Article No.

3VA9987-0MY10

¹⁾ 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

Locking, blocking and interlocking

2

Locking

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

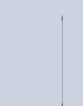
Version

  	Cylinder lock	Key 1 (lock number 1)	3VA9980-OVL10	
		Key 3 (lock number 3)	3VA9980-OVL30	
		Key 4 (lock number 4)	3VA9980-OVL40	
	Adapter kit for mounting the cylinder lock (type RONIS) in the accessories compartment of the molded case circuit breaker		3VA9157-OLF10	3VA9257-OLF10 3VA9167-OLF10
	Locking provision for handle operating mechanism		3VA9088-OLB10	3VA9388-OLB10

Interlocking

- 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-OVL10	
		Key 3 (lock number 3)	3VA9980-OVL30	
		Key 4 (lock number 4)	3VA9980-OVL40	
	Sliding bar interlock		3VA9158-0VF30	3VA9258-0VF30 3VA9168-0VF30
	Handle interlocking module with Bowden cable		3VA9157-0VF10	3VA9257-0VF10 3VA9167-0VF10
	Bowden cable	Length 0.6 m	3VA9980-OVC10	
		Length 1.0 m	3VA9980-OVC20	
		Length 1.5 m	3VA9980-OVC30	
	Rear interlock with rod	Circuit breaker, fixed-mounted	3VA9088-OVM10	
		Plug-in/withdrawable technology	3VA9088-OVM30	
	Mounting frame for rear interlock with rod	Mounting rails	3VA9088-OVK10	
		Mounting plate	3VA9158-0VK20	3VA9258-0VK20 3VA9268-0VK20

¹⁾ 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	Breakers, motor operators, manual operators, withdrawable technology	■	■	■	–	–
3VA9367-0LF10 3VA9587-0LF10	Circuit breaker	■	■	■	–	–
3VA9388-0LB10 3VA9588-0LB10	Circuit breaker	■	■	■	–	–

Interlocking

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

Cover frame and mounting

2

3VA10

3VA11

3VA12

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



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

Cover frames for motor operators



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

Cover frames for RCD320, RCD520 and RCD820 residual current devices



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

Cover frames for front mounted rotary operators



		3VA9053-OSB10	3VA9253-OSB10

Cover frames for door feedthroughs



		–	3VA9253-OSB20

Labeling plates for cover frame



			3VA9087-OSX10

DIN-rail adapter for 3VA1 molded case circuit breakers



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

Mounting screw kits



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

¹⁾ 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

Molded case circuit breakers



Handle



Stored energy mechanism

Trip units



Electronic trip unit (ETU)

Accessories



Communications module



Rating plugs



Breaker Connect module



Test devices and breaker data adapters

Main conductor connections

Rear vertical/
horizontalRear
broadenedFront
extendedFront
broadened

Cable lug

Accessories



Phase barriers



Terminal cover

Motors



Spring charging motor

Accessories



Mechanical operating cycles counter (MOC)

Auxiliary releases/closing coils

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

Note:

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

Auxiliary switches



Trip alarm switch



Ready-to-close
signaling switch (RTC)



Auxiliary switch
ON/OFF (AUX)



Trip alarm switch
(S24)



Trip alarm switch
(TAS)

Other accessories



Interlocking sets



Locking provision



Locking mechanism



Door sealing frame



Protective cover



Mechanical
interlock



Manual operator

Note:

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

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)	B
	24 V AC/DC	C
	30 V AC/DC	D
	48 V AC/DC	E
	60 V AC/DC	F
	110 ... 120 V AC/DC	G
	120 ... 127 V AC/DC	H
	220 ... 240 V AC/DC	J
	240 ... 250 V AC/DC	K
	380 ... 400 V AC/DC	L
	415 ... 440 V AC/DC	M
	With undervoltage release (UVR), delayable with external time-delay device	N
	Scope of supply: UVR + time-delay device	P
	220 ... 250 V AC/DC	Q
	With 2nd shunt trip (ST2)	R
	24 V AC/DC	S
	30 V AC/DC	T
	48 V AC/DC	U
	60 V AC/DC	V
	110 ... 120 V AC/DC	W
	120 ... 127 V AC/DC	X
	220 ... 240 V AC/DC	
	240 ... 250 V AC/DC	

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

Structure of the article numbers

Basic configuration with stored energy mechanism

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

					6	7	8	9	10	11	12	13	14	15	16	
					3VA27											
Molded case circuit breakers and ETUs																
Max. rated current $I_{n\ max}$	800 A				8	0										
	1000 A				1	0										
	1250 A				1	2										
	1600 A				1	6										
Short-circuit breaking capacity $I_{cu} = I_{cs}$ at 415 V	Stored energy mechanism	55 kA			1											
		85 kA			2											
		110 kA			3											
Molded case switches	Without metering function, without communications interface	Without trip unit						A	A							
Circuit breakers, ETU 3-series	Without metering function, without communications interface	With trip unit	ETU320 LI	(N) ¹⁾			A	B								
			ETU350 LSI	(N) ¹⁾			A	C								
			ETU360 LSI	(N) ¹⁾			A	D								
Circuit breakers, ETU 6-series		With trip unit	ETU650 LSI	(N) ¹⁾				E								
			ETU660 LSI	(N) ¹⁾				F								
	Without a communications interface	Without metering function					A									
	With a communications interface	Without metering function					B									
		Metering function Basic	Voltage tap on bottom				C									
			Voltage tap on top				D									
Metering function Advanced		Voltage tap on bottom				E										
	Voltage tap on top				F											
¹⁾ Neutral conductor protection for 3-pole breakers with an external neutral conductor transformer or 4-pole breakers																
Number of poles	Fixed-mounted	3-pole								0						
		4-pole	Neutral left						1							
			Neutral right						2							
	Withdrawable	3-pole							3							
		4-pole	Neutral left						4							
			Neutral right						5							
Connections																
Type of mounting	Withdrawable	Withdrawable circuit breaker without guide frame (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						

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

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	K
		110 V AC/DC	L
		220 V AC/DC	M

2nd auxiliary release	Without 2nd auxiliary release		A
	With undervoltage release (UVR)	24 V AC/DC	B
		30 V AC/DC	C
		48 V AC/DC	D
		60 V AC/DC	E
		110 ... 120 V AC/DC	F
		120 ... 127 V AC/DC	G
		220 ... 240 V AC/DC	H
		240 ... 250 V AC/DC	J
		380 ... 400 V AC/DC	K
		415 ... 440 V AC/DC	L
	With undervoltage release (UVR), 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

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

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.¹⁾

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

Accessories for electronic trip units ETU

Rating plugs

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

Rating plug	For setting the rated current I_n	For all ETUs	400 A			B04
			630 A			B06
			800 A			B08
			1000 A			B10
			1200 A			B12
	For setting the rated current I_n , with overload protection L = OFF	For 6-series ETUs	400 A			L04
			630 A			L06
			800 A			L08
			1000 A			L10
			1250 A			L12
			1600 A			L16
	For setting the rated current I_n , 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	COM040	PROFIBUS			F02
	COM041	PROFINET			F03
	COM043	Modbus TCP			F11
	COM042	Modbus RTU			F12

Breaker Connect modules

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

Breaker Connect module	110 ... 240 V AC/DC			F26
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I/O modules internal

I/O modules internal	IOM040 digital I/O module	2 inputs, 2 outputs			K56
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 For molded case circuit breakers with stored energy mechanism

¹⁾ 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

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

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

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

Order code

2

Accessories for motors

Mechanical operating cycles counter, 5-digit



-

C01

Auxiliary switches and signaling switches

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

Position signaling switches for guide frames ¹⁾

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 ¹⁾

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

¹⁾ 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
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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

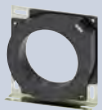
Metering functions for ETU650 or ETU660

	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

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

Remote reset magnets RR for the circuit breakers including tripped signaling

	• Remote reset magnet (RR) for resetting the circuit breaker after tripping as a result of overcurrent conditions		Article No.
	Accessory for	Voltage	Article No.
	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	2 A at ≤ 30 V DC 0.8 A at 50 V DC 0.2 A at 150 V DC 4 A at 250 V AC	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	2 A at ≤ 30 V DC 0.8 A at 50 V DC 0.2 A at 150 V DC 4 A at 250 V AC	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
	Extended main terminals, including insulation plate and phase barriers, standard	Front main connections	3-pole/3 units		3VW9011-0AL77
			4-pole/4 units		3VW9011-0AL78
	Broadened main terminals, including insulation plate and extended phase barriers	Front main connections, top	3-pole/3 units		3VW9011-0AL73
		Front main connections, bottom	3-pole/3 units		3VW9011-0AL75
		Front main connections, top/bottom	4-pole/4 units		3VW9011-0AL74
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		3VW9011-0AN75
			4-pole/4 units		3VW9011-0AN76

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

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



Mounting	Version	Mounting onto	Number of poles/quantity		Article No.
Fixed-mounted	Circular conductor terminals 4 × 240 mm ² for front cable connection ¹⁾ , 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 ² for cable lugs for rear cable connection	Rear vertical main connections	3-pole/3 units		3VW9011-0AN71
			4-pole/4 units		3VW9011-0AN72

¹⁾ 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

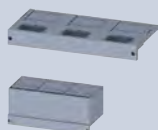
Auxiliary supply connectors in push-in version



- 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)	- Fixation for external auxiliary switches AUX 15 CO (3VW9011-0AG15) - Locking mechanism for control cabinet door, direct (for 3VW9011-0BB10) - Locking mechanism for control cabinet door, Bowden cable (for 3VW9011-0BB16), - Mechanical interlock to 3WA/3WL/3VA (for 3VW9011-0BB21)	3VW9011-0BB52
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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	- Fixation for external auxiliary switches AUX 15 CO (3VW9011-0AG15) - Locking mechanism for control cabinet door, direct (for 3VW9011-0BB10) - Locking mechanism for control cabinet door, Bowden cable (for 3VW9011-0BB16), - Mechanical interlock to 3WA/3WL/3VA (for 3VW9011-0BB21)	3VW9011-0BB53

For molded case circuit breakers with stored energy mechanism

For molded case circuit breakers with handle operating mechanism

Motor operators and manual operators

3VA27

Spring charging motor (MO)



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

Mechanical operating cycles counter MOC



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

Manual operators for handle operating mechanism



Description	Version	Color	Degree of protection		Article No.
Front mounted rotary operator incl. door sealing frame	Standard	Gray	IP30	–	3VW9727-0EK11
	EMERGENCY-OFF	Yellow-red	IP30	–	3VW9727-0EK15



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



Basic without handle			IP30	–	3VW9727-0GK00
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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

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

RONIS cylinder lock (spare part for R78)



Article No.

3VW9011-0BA80

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



3VW9011-0BA87

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



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

Description

Locking mechanism (spare part for R79)



Article No.

3VW9011-0BA84

Locking provisions in OFF position



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

Description

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



Article No.

3VW9011-0BA33

Locking provisions in OFF position



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

Description

Version

Article No.

Padlock 4 mm (spare part for S22) Plastic for no more than 3 locks



3VW9011-0BA41

Padlock 7 mm (spare part for S23) Metal for no more than 1 lock



3VW9011-0BA42

Padlock 8 mm (spare part for S07) Metal for no more than 2 locks



3VW9011-0BA44

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



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

Description

For RONIS



Article No.

3VW9727-0VL10

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

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

Description

For padlocks



Article No.

3VW9727-0LB10



For RONIS



Article No.

3VW9727-0LF10



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



Description

Version

Article No.

Padlock 4 mm (spare part for S42) Plastic for no more than 3 locks



3VW9011-0BA22

Padlock 7 mm (spare part for S43) Metal for no more than 1 lock



3VW9011-0BA23

Padlock 8 mm (spare part for S44) Metal for no more than 2 locks



3VW9011-0BA24

For molded case circuit breakers with stored energy mechanism

For molded case circuit breakers with handle operating mechanism

Locking provisions and interlocks

3VA27

Protective covers for mechanical ON/OFF



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

Description	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
	Withdrawable	IP3x	3VW9011-0AP02
			3VW9011-0AP04

Protective covers IP54



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

Description	Version	Article No.
Lock with unique key	IP54	3VW9011-0AP03
Lock with standard key	IP54	3VW9011-0AP13

For molded case circuit breakers with stored energy mechanism

For molded case circuit breakers with handle operating mechanism