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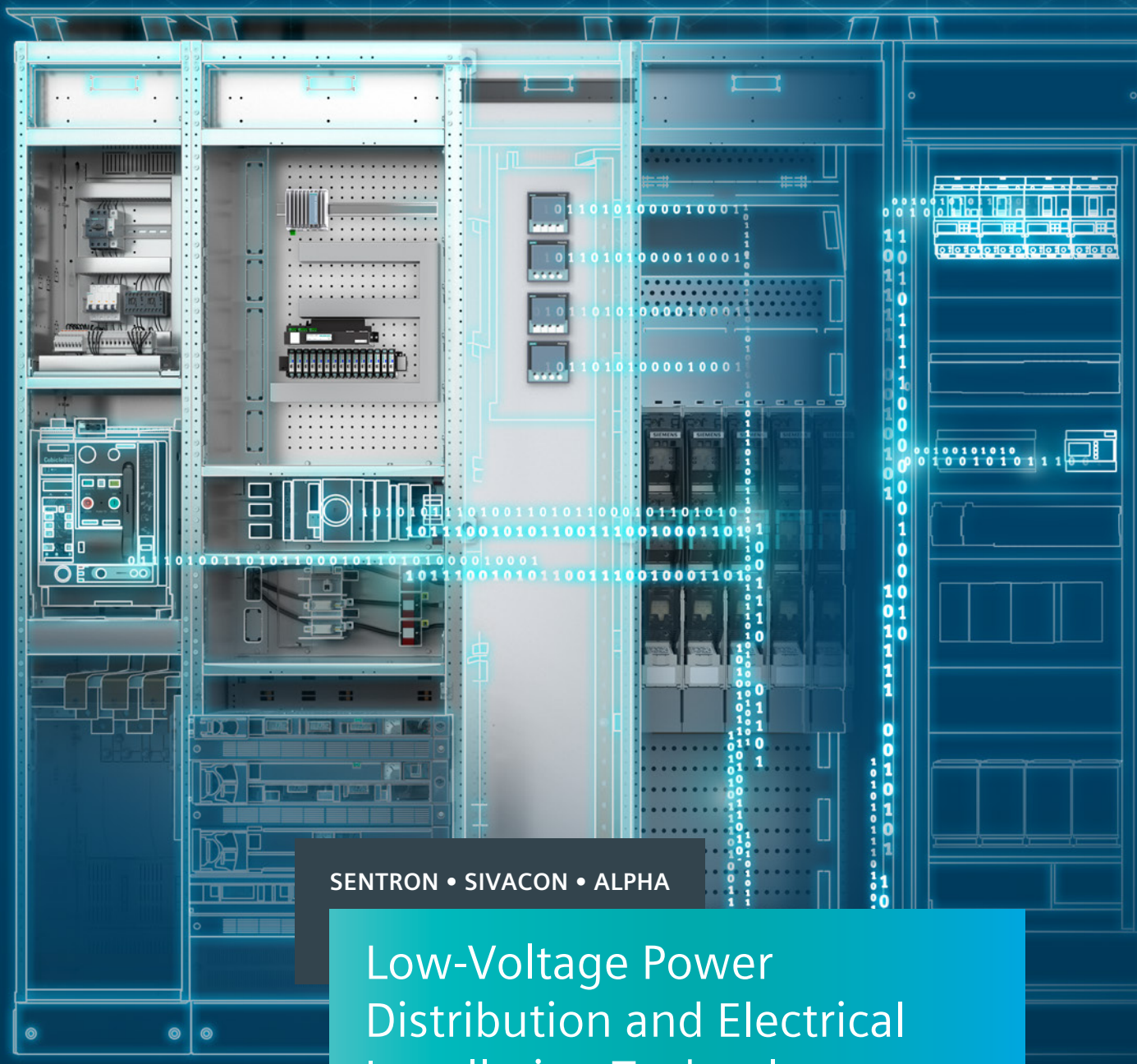

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Low-Voltage Power Distribution and Electrical Installation Technology

Air Circuit Breakers

Catalog Extract LV 10

Edition 04/2020

siemens.com/lowvoltage

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Catalog LV 10 · 04/2020

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The products and systems listed in this catalog are developed and manufactured using a certified quality management system in accordance with DIN EN ISO 9001:2008.

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

All illustrations are not binding.

Low-Voltage Power Distribution and Electrical Installation Technology

Reliable, versatile and perfectly integrated

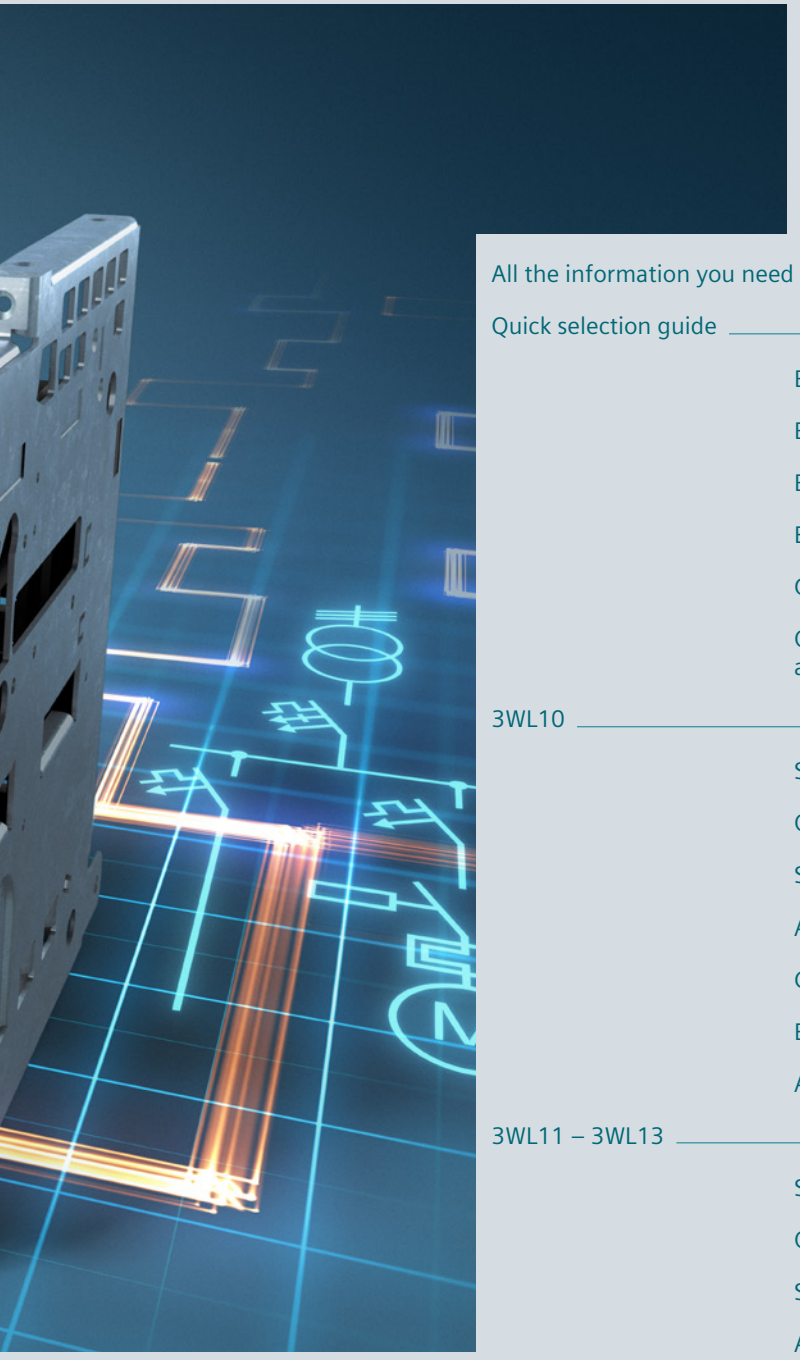
All power distribution systems rely on a secure infeed of electrical energy. The 3WL air circuit breakers reliably protect electrical equipment from damage or fire resulting from short circuit, ground fault or overload failures.

The 3WL air circuit breakers are used as incoming-feeder, tie, and outgoing-feeder circuit breakers in electrical installations in industry, buildings and infrastructure applications. They have the ability to communicate and can easily be integrated into higher-level control and energy management systems.

The 3WL air circuit breakers switch and protect motors, capacitors, generators, transformers, busbars and cables. The modular design and standardized range of accessories enable the circuit breakers to be adapted flexibly to different applications. UL 489-compliant versions are available for international use.

The 3WL air circuit breakers can optionally be equipped with a communication module and integrated into higher-level energy management systems. Auxiliary, signaling and position switches report status and fault diagnostics remotely to higher-level control systems.

Air Circuit Breakers



A multitude of additional information ...

Information + ordering

All the important things at a glance

Information to get you started

For information about air circuit breakers, please visit our website
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Your product in detail

The Siemens Industry Online Support portal provides comprehensive information
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- Technical basic information – 3WL air circuit breakers (109767789)
- Quick selection guide – 3WL air circuit breakers (109751638)

The relevant tender specifications can be found at
www.siemens.com/lowvoltage/tenderspecifications

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Our video range

- 3WL air circuit breakers (general) bit.ly/2ZH1rXH

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- Air circuit breakers sie.ag/2lXiZjB

Direct forwarding to the individual products in the Industry Mall by clicking on the Article No. in the catalog or by entering this web address incl. Article No.
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Exactly the right circuit breaker for your application

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For your configured 3WL air circuit breaker, you can additionally find

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- Operating instructions
- Characteristic curves
- Certificates

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Training and tutorials

Our training courses can be found at
www.siemens.com/sitrain-lowvoltage

- Protection systems in low-voltage power distribution (WT-LVAPS)
- 3WL air circuit breakers (WT-LVA3WL)
- Communication with SENTRON components (LV-COM)
- Maintenance and operation of 3WL circuit breakers (LV-CBMAIN)

Video tutorial on the 3WL air circuit breaker – descriptive supplement to Operating Instructions
www.lowvoltage.siemens.com/wcms/3wl-tutorial

Manuals

Manuals are available for downloading in Siemens Industry Online Support at
www.siemens.com/lowvoltage/manuals

- Configuration manual – 3WL1 air circuit breakers (35681108)
- Configuration manual – Low-voltage protection devices selectivity tables (109748621)
- System manual – 3WL/3VL circuit breakers with communication capability – Modbus (39850157)
- System manual – 3WL/3VL circuit breakers with communication capability – PROFIBUS (12560390)
- Equipment manual – 3VA27 molded case circuit breakers & 3WL10 air circuit breakers (109753821)
- Communications manual – 3WL air circuit breakers via COM35 – PROFINET IO, Modbus TCP (109757987)
- Communication manual – 3WL10 air circuit breakers & 3VA27 molded case circuit breakers (109760220)

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Technical overview – Air circuit breakers

The fast way to get you to our online services

This page provides you with comprehensive information and links on air circuit breakers
www.siemens.com/lowvoltage/product-support (109766020)

Basic units for AC and DC

IEC 60947-2

AC

			3WL10		3WL11	
Basic data						
Rated voltage		V	Up to 690		Up to 1000	
Rated currents		A	630 ... 1250		630 ... 2000	
Size			0		1	
Installation type			Withdrawable	Fixed-mounted	Withdrawable	Fixed-mounted
Number of poles			3/4-pole	3/4-pole	3/4-pole	3/4-pole
Dimensions						
Width (3-pole | 4-pole)		mm	278|348	210|280	320|410	320|410
Height (standard) | A05, A15, A16, DC greater than 600 V)		mm	363.5	296	468|518	462
Depth		mm	271	183	471	357
Approvals						
General product approvals			VDE, EAC, CCC, CE, C-Tick		VDE, EAC, CCC, CE, C-Tick	
Marine / shipbuilding			RMRS		ABS, DNV, LR, BV, GL, PRS, RMRS	
Breaking capacity			B	N	S	N	S	H
Rated short-circuit breaking capacity								
Rated operational voltage U_e up to 415 V AC I_{cu} | I_{cs}		kA	42|42	55|50	66|50	55|55	66|66	85|85
Rated operational voltage U_e up to 500 V AC I_{cu} | I_{cs}		kA	42|42	50|50	50|50	55|55	66|66	85|85
Rated operational voltage U_e up to 690 V AC I_{cu} | I_{cs}		kA	–|–	42|42	50|50	42|42	50|50	66|66
Rated operational voltage up to 690 V AC +20% [6], with Z option: A16 I_{cu} | I_{cs}		kA	–|–	–|–	–|–	–|–	–|–	50|50
Rated operational voltage U_e up to 1000 V AC, with Z option: A05 I_{cu} | I_{cs}		kA	–|–	–|–	–|–	–|–	–|–	50|50
Rated operational voltage U_e up to 1150 V AC, with Z option: A15 I_{cu} | I_{cs}		kA	–|–	–|–	–|–	–|–	–|–	–|–
Rated short-time withstand current I_{cw} [5]								
Rated short-time withstand current I_{cw} at U_e up to 500 V AC	0.5 s	kA	–	–	–	55	66	85
	1 s	kA	42	42	50	50	66	85
	2 s	kA	–	–	–	35 [1] / 45 [2]	45	70
	3 s	kA	24	24	36	35 [1] / 45 [2]	35	60
Rated short-time withstand current I_{cw} at U_e up to 690 V AC	0.5 s	kA	–	–	–	42	50	66
	1 s	kA	42	42	50	42	50	66
	2 s	kA	–	–	–	35 [1] / 42 [2]	45	66
	3 s	kA	24	24	36	30 [1] / 45 [2]	35	60
Rated short-time withstand current I_{cw} at DC	1 s	kA	–	–	–	–	–	–
Rated conditional short-circuit current I_{cc} of the non-automatic air circuit breakers								
Up to 500 V AC		kA	–	42	50	55	66	85
Up to 690 V AC		kA	–	42	50	42	50	66
Up to 1000 V/1150 V AC, with Z option: A05		kA	–	–	–	–	–	50/–
Up to 1000 V/1150 V AC, with Z option: A15		kA	–	–	–	–	–	–
Up to 220 V/300 V DC		kA	–	–	–	–	–	–
Up to 600 V/1000 V DC		kA	–	–	–	–	–	–

1) Size 1 with $I_{n\ max.}$ ≤1250 A
2) Size 1 with $I_{n\ max.}$ ≥1600 A
3) Size 2 with $I_{n\ max.}$ ≤2500 A
4) Size 2 with $I_{n\ max.}$ ≥3200 A
5) At a rated voltage ≥690 V the I_{cw} value of the circuit breaker corresponds with the I_{cu} or I_{cs} value

System overview, pages 1/20 and 1/38

AC

DC

3WL12		3WL13		3WL11	3WL12	
Up to 1150		Up to 1150		1000 DC	Up to 600/1000 DC	
800 ... 4000		4000 ... 6300		2000	1000 ... 4000	
2		3		1	2	
Withdrawable	Fixed-mounted	Withdrawable	Fixed-mounted	Fixed-mounted	Withdrawable	Fixed-mounted
3/4-pole	3/4-pole	3/4-pole	3/4-pole	4-pole	3/4-pole	3/4-pole
460|590	460|590	704|914	704|914	410	460|590	460|590
468|518	462	468|518	462	462	468|518	462
471	357	471	357	357	471	357
VDE, EAC, CCC, CE, C-Tick		VDE, EAC, CCC, VDE, CE, C-Tick		VDE, EAC, CCC, CE, C-Tick	VDE, EAC, CCC, CE, C-Tick	
ABS, DNV, LR, BV, GL, PRS, RMRS		ABS, DNV, LR, BV, GL, PRS, RMRS		ABS, DNV, LR, BV, GL, PRS, RMRS	ABS, DNV, LR, BV, GL, PRS, RMRS	
N	**S**	**H**	**C** [7]	**H**	**C 3p**	**C 4p**	**DC**	**DC**
66|66	85|85	100|100	130|130	100|100	150|150	130|130	–	–
66|66	85|85	100|100	130|130	100|100	150|150	130|130	–	–
50|50	75|75	85|85	100|100	85|85	150|150	130|130	–	–
–|–	–|–	–|–	–|–	–|–	–|–	–|–	–	–
–|–	–|–	85|85	–|–	85|85	125|125	125|125	–	–
–|–	–|–	50|50	–|–	70|70	–|–	–|–	–	–
66	85	100	100	100	130	120	–	–
66	85	85	100	100	130	120	–	–
66	66 [3] / 85 [4]	66 [3] / 85 [4]	85	100	130	120	–	–
55 [3] / 66 [4]	55 [3] / 75 [4]	55 [3] / 75 [4]	75	100	130	120	–	–
50	75	85	100	85	130	120	–	–
50	75	85	100	85	130	120	–	–
50	66 [3] / 75 [4]	66 [3] / 85 [4]	85	85	130	120	–	–
50	55 [3] / 75 [4]	55 [3] / 75 [4]	75	85	130	120	–	–
–	–	–	–	–	–	–	20	35 [8] / 30 [9] / 25 [10] / 20 [11]
66	85	100	130	100	130	120	–	–
50	75	85	100	85	130	120	–	–
–	–	85/85	–	85/85	–	–	–	–
–	–	–/50	–	70/70	–	–	–	–
–	–	–	–	–	–	–	20/20	35/30
–	–	–	–	–	–	–	20/20	25/20

Breaking capacity

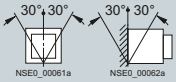
B	Basic
N	ECO
S	Standard
H	High
C	Very high
DC	DC

[6] At 690 V AC +5% the $I_{cu} = I_{cs} = 85$ kA
[7] Up to 3200 A rated current.
[8] At $U_e = 220$ V DC
[9] At $U_e = 300$ V DC
[10] At $U_e = 600$ V DC
[11] At $U_e = 1000$ V DC

System overview, pages 1/20 and 1/38

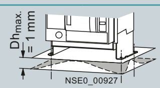
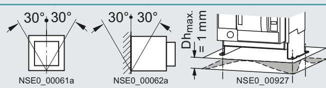
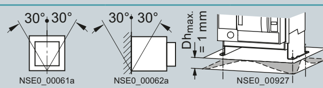
Basic units for AC

IEC 60947-2

			3WL10				3WL11	
								
			630 A	800 A	1000 A	1250 A	1000 A	1250 A
Rated current								
Isolating function acc. to EN 60947-2			Yes					
Utilization category			B					
Permissible ambient temperature	During operation (in operation with LCD max. 55 °C) [1]	°C	–25 ... +70				–40 ... +70	
	Storage	°C	–40 ... +70				–40 ... +80	
Mounting position								
Degree of protection			IP20 without cabinet door, IP30 with door sealing frame, IP54 with cover				IP20 without cabinet door, IP41 with door sealing frame, IP55 with cover	
Supply								
Voltage								
Rated operational voltage U_e at 50/60 Hz	1000 V version	V AC	Up to 690				690/1000	
Rated insulation voltage U_i		V AC	1000				1000	
Rated impulse withstand voltage U_{imp}	Main conducting paths	kV	12				12	
	Auxiliary circuits	kV	4				4	
	Control circuits [9]	kV	2.5				2.5	
Rated rotor operational voltage U_{er}		V					2000	
Permissible load for withdrawable versions [2] [4] [10]								
At rear horizontal main connections	Up to 55 °C (Cu bare)	A	630	800	1000	1250	1000	1250
	Up to 60 °C (Cu bare)	A	630	800	1000	1250	1000	1250
	Up to 70 °C	A	630	800	1000	1250	1000 [8]	1210 [8]
Power loss at I_n								
With three-phase symmetrical load, complete device (3/4p)	Fixed-mounted circuit breaker	W	31	50	78	122	100	105
	Withdrawable circuit breaker	W	62	100	156	244	195	205
Switching cycles								
Switching times								
Make time		ms	<20	<20	<20	<20	35	
Opening time		ms	<20	<20	<20	<20	38	
Electrical make time (through closing coil) [5]		ms	<50	<50	<50	<50	80	
Electrical opening time (through shunt trip)		ms	<35	<35	<35	<35	73	
Electrical opening time (instantaneous undervoltage release)		ms	<50	<50	<50	<50	73	
Opening time due to ETU, instantaneous short-circuit release		ms	25	25	25	25	50	
Service life: Breaking capacity N and S, 3/4-pole								
Mechanical	Without maintenance	Operating cycles	20000	20000	20000	20000	15000	15000
	With maintenance [6]	Operating cycles	–	–	–	–	25000	25000
Electrical	Without maintenance 440 V	Operating cycles	8000 [7]	8000 [7]	8000 [7]	8000 [7]	–	–
	Without maintenance 690 V	Operating cycles	8000 [7]	8000 [7]	8000 [7]	6500 [7]	10000	10000
	With maintenance [6]	Operating cycles	– [7]	– [7]	– [7]	– [7]	25000	25000
Service life: Breaking capacity H, 3-pole								
Mechanical	Without maintenance	Operating cycles	–	–	–	–	10000	10000
	With maintenance [6]	Operating cycles	–	–	–	–	15000	15000
Electrical	Without maintenance 690 V	Operating cycles	–	–	–	–	7500	7500
	Without maintenance 1000 V, with Z option: A05	Operating cycles	–	–	–	–	1000	1000
	Without maintenance 1150 V, with Z option: A15	Operating cycles	–	–	–	–	–	–
	With maintenance [6]	Operating cycles	–	–	–	–	15000	15000

[1] The LCD on the 3WL10 is always active.
[2] 4000 A, size 2 in fixed-mounted version, 3-pole
[4] ETU76B with graphics display can be used up to max. 55 °C.
[5] Make time through closing coil for synchronization purposes (short-time excited) 50 ms.
[6] Maintenance means: Replacing main contact elements and arc chutes (see Operating Manual). Greasing the breaker mechanism on the 3WL10, no replacement of components.

System overview, pages 1/20 and 1/38

3WL11		3WL12								3WL13		
												
1600 A	2000 A	800 A	1000 A	1250 A	1600 A	2000 A	2500 A	3200 A	4000 A	4000 A	5000 A	6300 A
Yes												
B												
–40 ... +70		–40 ... +70								–40 ... +70		
–40 ... +80		–40 ... +80								–40 ... +80		
												
IP20 without cabinet door, IP41 with door sealing frame, IP55 with cover		IP20 without cabinet door, IP41 with door sealing frame, IP55 with cover								IP20 without cabinet door, IP41 with door sealing frame, IP55 with cover		
690/1000		690/1000								690/1000		
1000		1000								1000		
12		12								12		
4		4								4		
2.5		2.5								2.5		
2000		2000								2000		
1600	2000	800	1000	1250	1600	2000	2500	3200	3950	4000	5000	5920
1600	1930	800	1000	1250	1600	2000	2500	3020	3810	4000	5000	5810
1490 [8)]	1780 [8)]	800 [8)]	1000 [8)]	1250 [8)]	1600 [8)]	2000 [8)]	2280 [8)]	2870 [8)]	3600 [8)]	4000 [8)]	5000 [8)]	5500 [8)]
150	240	40	45	80	85	180	270	410	750	520	630	900
350	440	85	95	165	175	320	520	710	925	810	1050	1600
35		35								35		
38		34								34		
80		100								100		
73		73								73		
73		73								73		
50		50								50		
15000	15000	10000	10000	10000	10000	10000	10000	10000	10000	–	–	–
25000	25000	17500	17500	17500	17500	17500	17500	17500	17500	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–
10000	10000	7500	7500	7500	7500	7500	7500	4000	2000	–	–	–
25000	25000	17500	17500	17500	17500	17500	17500	17500	17500	–	–	–
10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	5000	5000	5000
15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	10000	10000	10000
7500	7500	7500	7500	7500	7500	7500	7500	4000	2000	2000	2000	2000
1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
–	–	500	500	500	500	500	500	500	500	500	500	500
15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	10000	10000	10000

7) Periodic greasing of breaker mechanism on 3WL10 (see Manual), components not to be replaced

8) Cu painted black

9) Motorized operating mechanism U_{imp}=1.2 kV

10) For 3WL size 2 4000A and size 3 6300A with rear vertical main connections.

System overview, pages 1/20 and 1/38

Basic units for AC

IEC 60947-2 (continued)

				3WL10				3WL11	
				630 A	800 A	1000 A	1250 A	1000 A	1250 A
Switching cycles									
Service life: Breaking capacity H, 4-pole									
Mechanical	Without maintenance	Operating cycles		–	–	–	–	10000	10000
	With maintenance [6]	Operating cycles		–	–	–	–	15000	15000
Electrical	Without maintenance 690 V	Operating cycles		–	–	–	–	7500	7500
	Without maintenance 1000 V	Operating cycles		–	–	–	–	1000	1000
	Without maintenance 1150 V [7]	Operating cycles		–	–	–	–	–	–
	With maintenance [6]	Operating cycles		–	–	–	–	10000	10000
Service life: Breaking capacity C									
Mechanical	Without maintenance	Operating cycles		–	–	–	–	–	–
	With maintenance [6]	Operating cycles		–	–	–	–	–	–
Electrical	Without maintenance 690 V	Operating cycles		–	–	–	–	–	–
	With maintenance 690 V [6]	Operating cycles		–	–	–	–	–	–
Switching frequency [8]									
Mechanical / electrical	690 V version	1/h		60 / 30	60 / 30	60 / 30	60 / 30	–	–
	1000 V / 1150 V version	1/h		–	–	–	–	–	–
Connection									
Minimum phase size									
Copper bars, bare		Unit, mm²		2× 40 × 5	2× 50 × 5	2× 50 × 10 [12] 2× 50 × 8 [13]	2× 50 × 10 [12] 2× 50 × 8 [12]	1× 60 × 10	2× 40 × 10
Copper bars, painted black		Unit, mm²		–	–	–	–	1× 60 × 10	2× 40 × 10
Auxiliary conductor (Cu) max. number of auxiliary conductors × cross-section (solid/stranded)									
Standard connection = screw	Without end sleeve					–		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16); 1× 2.5 mm² (AWG 14)	
	With end sleeve acc. to DIN 46228 Part 2					–		1× 0.5 ... 1× 1.5 mm² (AWG 20 ... 16)	
	With twin end sleeve					–		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)	
Screwless connection technology	Without end sleeve					0.5 ... 2.5 mm² (AWG 20 ... 14)		2× 0.5 ... 2× 2.5 mm² (AWG 20 ... 14)	
	With end sleeve acc. to DIN 46228 Part 2					0.5 ... 1.5 mm² (AWG 20 ... 16)		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)	
Position signaling switches									
Screwless connection technology						1× 0.5 ... 1× 2.5 mm² (AWG 20 ... 14)		1× 0.5 ... 1× 2.5 mm² (AWG 20 ... 14)	
Weights									
3-pole	Fixed-mounted circuit breaker	kg				14		43	43
	Withdrawable circuit breaker	kg				17.3		45	45
	Guide frames	kg				21		25	25
4-pole	Fixed-mounted circuit breaker	kg				16		50	50
	Withdrawable circuit breaker	kg				19.3		54	54
	Guide frames	kg				25		30	30

[6] Maintenance means: Replacing main contact elements and arc chutes (see Operating Manual).

[7] Size 2 with order code "A15" and size 3. Data for very high breaking capacity.

[8] Minimum interval time between 2 tripping operations

[9] 3-pole switching with breaking capacity N and S: 45/h.

System overview, pages 1/20 and 1/38

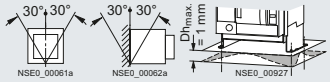
3WL11		3WL12								3WL13		
												
1600 A	**2000 A**	**800 A**	**1000 A**	**1250 A**	**1600 A**	**2000 A**	**2500 A**	**3200 A**	**4000 A**	**4000 A**	**5000 A**	**6300 A**
10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	5000	5000	5000
15000	15000	15000	15000	15000	15000	15000	15000	15000	15000	10000	10000	10000
7500	7500	7500	7500	7500	7500	7500	7500	4000	2000	2000	2000	2000
1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
–	–	500	500	500	500	500	500	500	500	500	500	500
10000	10000	15000	15000	15000	15000	15000	15000	15000	15000	10000	10000	10000
–	–	5000	5000	5000	5000	5000	5000	5000	–	5000	5000	5000
–	–	10000	10000	10000	10000	10000	10000	10000	–	10000	10000	10000
–	–	5000	5000	5000	5000	5000	5000	4000	–	1000	1000	1000
–	–	10000	10000	10000	10000	10000	10000	8000	–	–	–	–
–	20/20	60/60 [9]	60/60 [9]	60/60 [9]	60/60 [9]	60/60 [9]	60/60 [9]	60/60 [9]	60/60 [9]	60/60 [9]	60/60 [9]	60/60 [9]
–	–	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20	20/20
2× 50×10	3× 50×10	1× 50×10	1× 60×10	2× 40×10	2× 50×10	3× 50×10	2× 100×10	3× 100×10	4× 120×10	4× 100×10	6× 100×10	6× 120×10
2× 50×10	3× 50×10	1× 50×10	1× 60×10	2× 40×10	2× 50×10	3× 50×10	2× 100×10	3× 100×10	4× 100×10	4× 100×10	6× 100×10	6× 120×10
2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16); 1× 2.5 mm² (AWG 14)		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16); 1× 2.5 mm² (AWG 14)								2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16); 1× 2.5 mm² (AWG 14)		
1× 0.5 ... 1× 1.5 mm² (AWG 20 ... 16)		1× 0.5 ... 1× 1.5 mm² (AWG 20 ... 16)								1× 0.5 ... 1× 1.5 mm² (AWG 20 ... 16)		
2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)								2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)		
2× 0.5 ... 2× 2.5 mm² (AWG 20 ... 14)		2× 0.5 ... 2× 2.5 mm² (AWG 20 ... 14)								2× 0.5 ... 2× 2.5 mm² (AWG 20 ... 14)		
2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)								2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)		
1× 0.5 ... 1× 2.5 mm² (AWG 20 ... 14)		1× 0.5 ... 1× 2.5 mm² (AWG 20 ... 14)								1× 0.5 ... 1× 2.5 mm² (AWG 20 ... 14)		
43	43	56	56	56	56	56	59	64	85	82	82	90
45	45	60	60	60	60	60	63	68	121	88	88	96
25	25	31	31	31	31	31	39	45	52	60	60	70
50	50	67	67	67	67	67	71	77	103	99	99	108
54	54	72	72	72	72	72	76	82	146	106	106	108
30	30	37	37	37	37	37	47	54	62	84	84	119

[12] Horizontal
[13] Vertical

System overview, pages 1/20 and 1/38

Basic units for DC

IEC 60947-2

			3WL11		3WL12	
						
			2000 A	**1000 A**	**2000 A**	**4000 A**
Rated current						
Size			1		2	
Isolating function acc. to EN 60947-2			Yes			
Utilization category			B			
Permissible ambient temperature	Operation	°C	–40 ... +70			
	Storage	°C	–40 ... +80			
Mounting position						
Degree of protection			IP20 without cabinet door, IP41 with door sealing frame, IP55 with cover			
Supply						
Voltage						
Rated operational voltage U_e at 50/60 Hz	1000 V version	V DC	1000		600/1000	
Rated insulation voltage U_i		V DC	1000		1000	
Rated impulse withstand voltage U_{imp}	Main conducting paths	kV	12		12	
	Auxiliary circuits	kV	4		4	
	Control circuits	kV	2.5		2.5	
Permissible load						
At rear horizontal main connections	Up to 40 °C (Cu black painted)	A	2000	1000	2000	4000
	Up to 55 °C (Cu black painted)	A	1910	1000	2000	3640
	Up to 60 °C (Cu black painted)	A	1850	1000	2000	3500
	Up to 70 °C (Cu black painted)	A	1710	1000	1950	3250
Power loss at I_n						
With symmetrical load	Withdrawable circuit breaker	W	150	280	770	1640
Switching cycles						
Switching times						
Make time		ms	35		35	
Opening time		ms	38		34	
Electrical make time (through activation solenoid) [1]		ms	100		100	
Electrical opening time (through shunt trip)		ms	73		73	
Electrical opening time (instantaneous undervoltage release)		ms	73		73	
Endurance [3]						
Mechanical	Without maintenance	Operating cycles	10000	10000	10000	10000
	With maintenance [2]	Operating cycles	15000	17500	17500	17500
Electrical	Without maintenance	Operating cycles	1000	6000	6000	4000
	Without maintenance 1000 V	Operating cycles	1000	1000	1000	1000
	With maintenance [2]	Operating cycles	2000	17500	17500	17500

[1] Make time through activation solenoid for synchronization purposes (short-time excited) 50 ms.

[2] Maintenance means: Replace main contact elements and arc chutes (see Operating Manual).

[3] Further technical specifications on request.

[4] At U_e = 220 V DC

System overview, pages 1/20 and 1/38

			3WL11	3WL12		
						
			2000 A	**1000 A**	**2000 A**	**4000 A**
Breaking capacity						
Short-circuit breaking capacity I_{cc}						
Up to 220 V DC		kA	20	35		
Up to 300 V DC		kA	20	30		
Up to 600 V DC		kA	20	25		
Up to 1000 V DC		kA	20	20		
Rated short-time withstand current I_{cw}						
0.5 s		kA	–	–		
1 s		kA	20	35 [4] / 30 [5] / 25 [6] / 20 [7]		
2 s		kA	–	–		
3 s		kA	–	–		
Breaking capacity						
Switching frequency						
690 V version		1/h	–	60	60	60
1000 V version		1/h	20	20	20	20
Connection						
Auxiliary conductor (Cu) max. number of auxiliary conductors × cross-section (solid/stranded)						
Standard connection = strain-relief clamp	Without end sleeve		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16); 1× 2.5 mm² (AWG 14)			
	With end sleeve acc. to DIN 46228 Part 2		1× 0.5 ... 1× 1.5 mm² (AWG 20 ... 16)			
	With twin end sleeve		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)			
Optional connection = tension spring	Without end sleeve		2× 0.5 ... 2× 2.5 mm² (AWG 20 ... 14)			
	With end sleeve acc. to DIN 46228 Part 2		2× 0.5 ... 2× 1.5 mm² (AWG 20 ... 16)			
Weights						
3-pole	Fixed-mounted circuit breaker	kg	43	56	56	64
	Withdrawable circuit breaker	kg	–	60	60	68
	Guide frames	kg	–	31	31	45
4-pole	Fixed-mounted circuit breaker	kg	50	67	67	77
	Withdrawable circuit breaker	kg	–	72	72	82
	Guide frames	kg	–	37	37	54

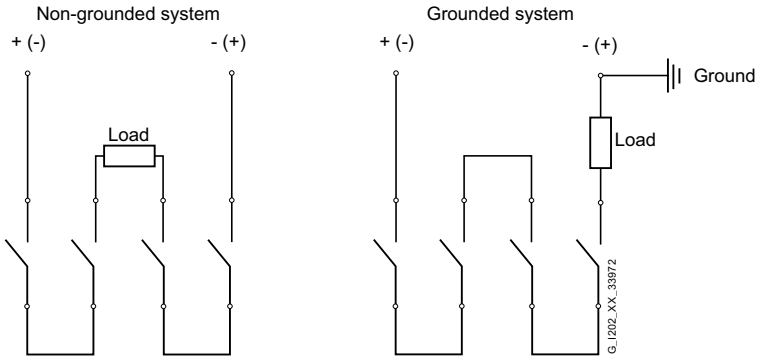
[5] At U_e = 300 V DC
[6] At U_e = 600 V DC
[7] At U_e = 1000 V DC.

System overview, pages 1/20 and 1/38

Basic units for DC

Application examples size 1

Permissible interconnection circuit diagrams for size 1,
1000 V DC non-automatic air circuit breakers



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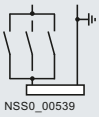
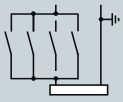
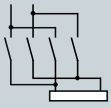
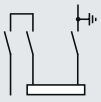
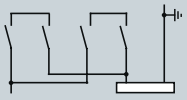
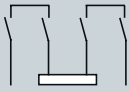
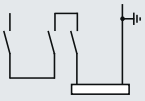
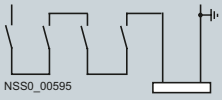
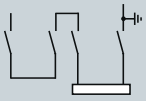
Application examples size 2

The connection to the circuit breakers is not dependent on direction and polarity; the circuit diagrams can be adapted accordingly. If the parallel or series connections are made directly to the connecting bars, for thermal reasons the continuous load on the circuit breakers must only be 80% of the permissible operational current. If the parallel or series connection is made at a distance of 1 m from the connecting bars, the circuit breaker can be used at full operational current load.

Required contact gaps at rated voltage	For 3-pole non-automatic air circuit breakers		For 4-pole non-automatic air circuit breakers	
	1-pole	2-pole	1-pole	2-pole
Rated operational voltage <300 V + 10%				
	 NSS0_00539 only with grounded system [2]		 only with grounded system [3]	
Rated operational voltage >300 V + 10% ... 600 V + 10%				
		 only with grounded system	 only with grounded system [2]	
Rated operational voltage >600 V + 10% ... 1000 V + 10% [4]				
	 only with grounded system		 NSS0_00595 only with grounded system	 only with grounded system

[1] Conducting paths series-connected
[2] 2 parallel conducting paths
[3] 3 parallel conducting paths
[4] Version for 1000 V required, order with "-Z" and order code A05
⊣ Grounded system
▭ Load

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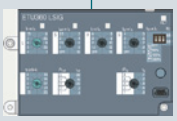
Electronic trip unit ETU

With watchdog monitoring

3WL10



			ETU320 (LI)	ETU350 (LSI)	ETU360 (LSIG)
Basic protection functions					
L	Overload protection (L tripping operation)	Setting range of operating value $I_r = I_n \times ...$	0.4 | 0.5 | 0.6 | 0.7 | 0.75 | 0.8 | 0.85 | 0.9 | 0.95 | 1 | Default 0.4	0.4 | 0.5 | 0.6 | 0.7 | 0.75 | 0.8 | 0.85 | 0.9 | 0.95 | 1 | Default 0.4	0.4 | 0.5 | 0.6 | 0.7 | 0.75 | 0.8 | 0.85 | 0.9 | 0.95 | 1 | Default 0.4
		Switchable overload protection (from I^2t- to I^4t-dependent function)	–	–	–
		Setting range of delay t_r at I^2t (Reference point 6× I_n)	0.75 | 1 | 2 | 5 | 8 | 10 | 14 | 17 | 21 | 25 s | Default 0.75 s	0.75 | 1 | 2 | 5 | 8 | 10 | 14 | 17 | 21 | 25 s | Default 0.75 s	0.75 | 1 | 2 | 5 | 8 | 10 | 14 | 17 | 21 | 25 s | Default 0.75 s
		Setting range of delay t_r at I^4t (Reference point 6× I_n)	–	–	–
		Thermal memory can be switched on/off	Permanently switched on	Permanently switched on	Permanently switched on
		Phase failure sensitivity / asymmetry	–	–	–
S	Short-time delay short-circuit protection (ST tripping)	Setting range of operating value $I_{sd} = I_n \times ...$	–	1 | 1.5 | 2 | 2.5 | 3 | 4 | 6 | 8 | 10 | Default OFF	1 | 1.5 | 2 | 2.5 | 3 | 4 | 6 | 8 | 10 | Default OFF
		Setting range of delay time t_{sd} at I^2t	–	0.1 | 0.2 | 0.3 | 0.4 | 0.5 | (Ref. 10× I_n)	0.1 | 0.2 | 0.3 | 0.4 | 0.5 | (Ref. 10× I_n)
		Setting range of delay time t_{sd} (t = const.)	–	0.08 | 0.15 | 0.22 | 0.3 | 0.4 s	0.08 | 0.15 | 0.22 | 0.3 | 0.4 s
		ZSI function	–	–	–
I	Instantaneous short-circuit protection (INST tripping operation)	Setting range 2 = $I_n \times ...$	OFF | 1.5 | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 15	OFF | 1.5 | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 15	OFF | 1.5 | 2 | 3 | 4 | 6 | 8 | 10 | 12 | 15
N	Neutral conductor protection	Neutral conductor setting range $I_N = I_n \times ...$	OFF | 50% | 100% | 200%	OFF | 50% | 100% | 200%	OFF | 50% | 100% | 200%
G	Ground-fault tripping (GF tripping) Detection of ground-fault current through summation current formation with internal or external N conductor transformer	Tripping function can be switched on/off	–	–	■
		Alarm function can be switched on/off	–	–	Permanently switched on
		Detection of ground-fault current through external current transformer	–	–	–
		Setting range of the operating current $I_g = I_n \times ...$	–	–	0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 1
		Setting range of the operating current I_g for alarm	–	–	–
		Setting range of the delay time t_g	–	–	0.1 | 0.2 | 0.4 | 0.6 | 0.8 s | (fixed delay)
		Switchable grounding protection characteristic (I^2t-dependent function)	–	–	t = const. / I^2t | Default I^2t
		Setting range of delay time t_g at I^2t	–	–	0.1 | 0.2 | 0.4 | 0.6 | 0.8 s (Ref. 2× I_n) (I^2t dependent) | Default 0.1 (I^2t)
		ZSI-G function	–	–	–

[1] Sizes 1 and 2 / size 3

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3WL10		3WL11 – 3WL13				
						
ETU650 (LSI)	**ETU660 (LSIG)**	**ETU15B (LI)**	**ETU25B (LSI)**	**ETU27B (LSIG)**	**ETU45B (LSIG)**	**ETU76B (LSIG)**
0.4 ... 1 | Default 1 (in steps of 0.001)	0.4 ... 1 | Default 1 (in steps of 0.001)	0.5 | 0.55 | 0.6 | 0.65 | 0.7 | 0.75 | 0.8 | 0.85 | 0.9 | 1	0.4 | 0.45 | 0.5 | 0.55 | 0.6 | 0.65 | 0.7 | 0.8 | 0.9 | 1	0.4 | 0.45 | 0.5 | 0.55 | 0.6 | 0.65 | 0.7 | 0.8 | 0.9 | 1	0.4 | 0.45 | 0.5 | 0.55 | 0.6 | 0.65 | 0.7 | 0.8 | 0.9 | 1	0.4 ... 1
■	■	–	–	–	■	■
0.75 ... 36 s | (in steps of 0.25 s) | Default 36 s	0.75 ... 36 s | (in steps of 0.25 s) | Default 36 s	10 s fixed	10 s fixed	10 s fixed	2 | 3.5 | 5.5 | 8 | 10 | 14 | 17 | 21 | 25 | 30 s	2 ... 30 s
0.75 ... 5 s | (in steps of 0.25 s) | Default 5 s	0.75 ... 5 s | (in steps of 0.25 s) | Default 5 s	–	–	–	1 | 2 | 3 | 4 | 5 s	1 ... 5 s
■	■	–	–	–	■	■
2% ... 90% (default 50%)	2% ... 90% (default 50%)	–	At t_{sd} = 20 ms (M)	At t_{sd} = 20 ms (M)	At t_{sd} = 20 ms (M)	■ (on/off)
0.6 ... 10 | OFF | (in steps of 0.1)	0.6 ... 10 | OFF | (in steps of 0.1)	–	1.25 | 1.5 | 2 | 2.5 | 3 | 4 | 6 | 8 | 10 | 12	1.25 | 1.5 | 2 | 2.5 | 3 | 4 | 6 | 8 | 10 | 12	1.25 | 1.5 | 2 | 2.5 | 3 | 4 | 6 | 8 | 10 | 12 | OFF	1.25 × I_n ... 0.8 × I_{cw} OFF
0.05 ... 0.5 s (Ref. 10× I_n)	0.05 ... 0.5 s (Ref. 10× I_n)	–	–	–	100 | 200 | 300 | 400 ms	100 ... 400 ms
0.05 ... 0.4 s	0.05 ... 0.4 s	–	M (0.02 ms) | 100 | 200 | 300 | 400 ms	M (0.02 ms) | 100 | 200 | 300 | 400 ms	M (0.02 ms) | 100 | 200 | 300 | 400 ms	M (0.02 ms) | 80 ... 4000 ms
–	–	–	–	–	by **Cubicle**BUS module	by **Cubicle**BUS module
OFF | 1.5 ... 15 | (in steps of 0.1)	OFF | 1.5 ... 15 | (in steps of 0.1)	2 | 3 | 4 | 5 | 6 | 7 | 8	Fixed at 2 ≥20 × I_n, max. 50 kA	Fixed at 2 ≥20 × I_n, max. 50 kA	OFF | 1.5 | 2.2 | 3 | 4 | 6 | 8 | 10 | 12 | 0.8 × I_{cs}	OFF | 1.5 × I_n ... 0.8 × I_{cs}
OFF | 50% | 100% | 150% | 200%	OFF | 50% | 100% | 200%	–	–	100%	OFF | 50% | 100%	OFF | 20% ... 200%
–	■	–	–	■	■	■
–	■	–	–	–	–	■
–	Alternative Rc or G-ret ground-fault monitoring	–	–	–	■	■
–	0.1 ... 1 | (in steps of 0.001) $I_g = I_n$ x	–	–	A [1] (100/400 A) | B [1] (300/600 A); C [1] (600/800 A) | D [1] (900/1000 A); E [1] (1200/1200 A)	A [1] (100/400 A) | B [1] (300/600 A); C [1] (600/800 A) | D [1] (900/1000 A); E [1] (1200/1200 A)	SZ 1, 2: 100 ... 1200 A SZ 3: 400 ... 1200 A
–	50% ... 90% × I_r | (in steps of 1%) PreAlarm	–	–	–	A [1] (100/400 A); B [1] (300/600 A); C [1] (600/800 A); D [1] (900/1000 A); E [1] (1200/1200 A)	SZ 1, 2: 100 ... 1200 A SZ 3: 400 ... 1200 A
–	0.1 ... 1 s | Default 0.1 s | (in steps of 0.05 s)	–	–	100 | 200 | 300 | 400 | 500 ms	100 | 200 | 300 | 400 | 500 ms	100 ... 500 ms
–	t = const. / I^2t | Default const.	–	–	–	■	■
–	0.1 ... 1 s | (in steps of 0.05 s) (Ref. 2× I_n)	–	–	–	100 | 200 | 300 | 400 | 500 ms	100 ... 500 ms
–	–	–	–	–	by **Cubicle**BUS module	by **Cubicle**BUS module

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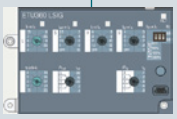
Electronic trip unit ETU

With watchdog monitoring (continued)

3WL10



		ETU320 (LI)	ETU350 (LSI)	ETU360 (LSIG)
Parameter set changeover	Switchable between parameter set A and B	–	–	–
LCD		–	–	–
Voltage tap on top/bottom		–	–	–
Metering function		–	–	–
Tripping operation as a result of extended protection function: (including: phase asymmetry current/voltage, harmonic distortion current/voltage, under/ overvoltage, phase rotation direction, active power in/opposite to normal direction, under/ over-frequency, protection functions dependent on direction of power flow)		–	–	–
Mode of communication				
Communication PROFIBUS | PROFINET | Modbus RTU | Modbus TCP		–	–	–
Output modules				
Signals via relay: Overload warning, load shedding / load carrying, leading signal, overload tripping 200 ms, temperature alarm, phase asymmetry, instantaneous short-circuit release, short time-delayed short-circuit release, overload trip, neutral conductor trip, auxiliary relay, ETU faults, grounding protection tripping and grounding protection alarm (only with grounding protection module)		IOM300	IOM300	IOM300

Increment size when settings are made for the ETU76B using the menu

From ... to	Increment size
0 ... 1	0.1
1 ... 100	1
100 ... 500	5
500 ... 1000	10
1000 ... 1600	50
1600 ... 10000	100
10000 ... max.	1000

System overview, pages 1/20 and 1/38

3WL10		3WL11 – 3WL13				
						
ETU650 (LSI)	**ETU660 (LSIG)**	**ETU15B (LI)**	**ETU25B (LSI)**	**ETU27B (LSIG)**	**ETU45B (LSIG)**	**ETU76B (LSIG)**
■	■	–	–	–	–	■
Integrated	Integrated	–	–	–	Optional	Integrated
Optional	Optional	–	–	–	Optional	Optional
Basic / Advanced	Basic / Advanced	–	–	–	Metering function Plus	Metering function Plus
■	■	–	–	–	■	■
■	■	–	–	–	■	■
IOM040 / IOM300	IOM040 / IOM300	–	–	–	■	■

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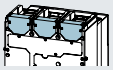
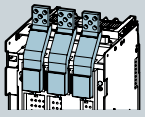
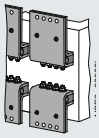
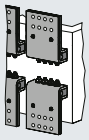
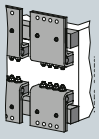
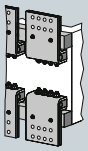
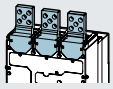
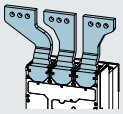
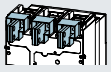
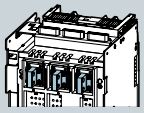
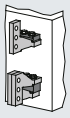
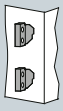
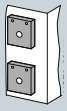
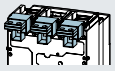
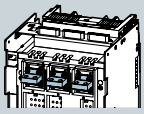
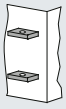
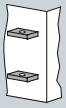
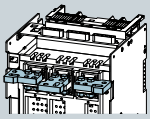
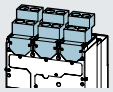
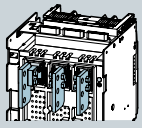
Connection

Main circuit connection

	3WL10		3WL11 – 3WL13			
Connection	**Fixed-mounted**	**Withdrawable**	**Fixed-mounted**		**Withdrawable**	
Front	 Direct	 Extended	 1-hole	 2-hole	 1-hole	 2-hole
	 Extended					
	 Broadened					
Rear	 Vertical	 Vertical	 Vertical		 Vertical	 Flanges
	 Horizontal	 Horizontal	 Horizontal		 Horizontal	
		 Broadened				
cable	 Cable terminals	 Cable lug				

Auxiliary circuit connections

3WL 10: Withdrawable / fixed-mounted version

- Direct engagement of the auxiliary conductor vertically onto the circuit breaker or horizontally in the guide frame

Screwless connection technology (push in)

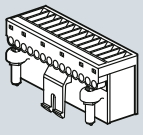
3WL11 – 3WL13: Withdrawable version

- Connection of the internal auxiliary switches to the male connector on the switch side
- When fully inserted, connection with the sliding contact module in the guide frame

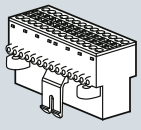
3WL11 – 3WL13: Fixed-mounted version

- Engagement of the auxiliary supply connectors directly onto the circuit breaker

Coding pins on the connectors prevent them being inserted in the wrong slots



Screw connection (SIGUT) (standard)



Screwless connection (tension spring) (optional)

System overview, pages 1/20 and 1/38

Operating mechanism, auxiliary release, auxiliary switch

Operating mechanism

The circuit breakers are available with various optional operating mechanisms:

- Manual operating mechanism with mechanical closing (standard design)
- Manual operating mechanism with mechanical and electrical closing
- Motorized operating mechanism with mechanical and electrical closing

The operating mechanisms with electrical closing are suitable for synchronization tasks.

	Available for air circuit breakers	
	3WL10	3WL11 – 3WL13
Closing coils (CC)	■	■
Undervoltage releases (UVR) / shunt trips (ST)	■	■
Shunt trips (ST)	■	■
Remote reset magnets (RR)	■	■
Spring charging motor (MO)	■	■
Mechanical operating cycles counters	■	■

System overview, pages 1/20 and 1/38

3WL10 system overview

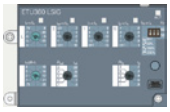
IEC AC ..

For a complete and valid configuration of your air circuit breaker, please use our online configurator at www.siemens.com/lowvoltage/3wl10-configurator

Basic units

Size 0

Trip units



Electronic trip units ETU (LI, LSI, LSIG)

Electronic trip units ETU (LSI, LSIG)

Accessories

Communi-cation and I/O modules

Rating plugs

Breaker Connect modules

Metering function (Basic/ Advanced)

External ground fault transformers

Main conductor connections

Fixed-mounted, withdrawable versions

Rear vertical/horizontal connections

Front connections

Front connections, extended

Terminals for CU/AL cable connection

Motors

Spring charging motor

Accessories

Remote reset magnets

Mechanical operating cycles counters

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

Auxiliary releases / closing coils

Shunt trips, undervoltage releases

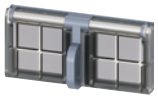
Closing coils

Auxiliary switches and signaling switches

Auxiliary, alarm, and signaling switches

Position signaling switches

Interlocking



Interlocking sets

Locking devices

Locking mechanisms

Door sealing frames

Protective covers

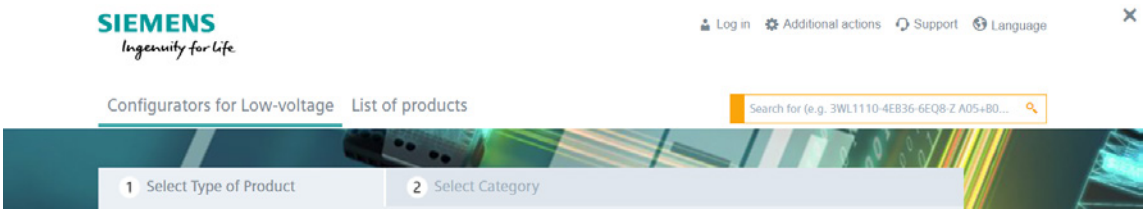
Note:
You will find a detailed range of accessories in the Accessories and spare parts section.

Online configurator highlights

www.siemens.com/lowvoltage/configurators

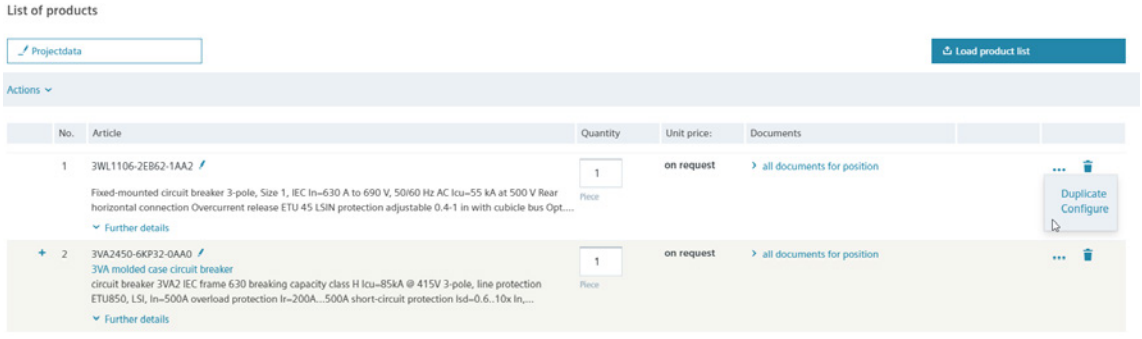
Search function with global direct input

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

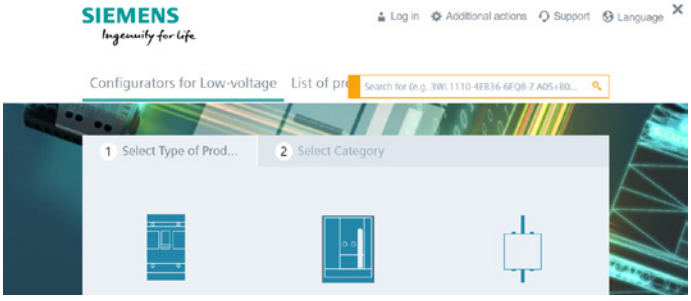


Product list stores multiple configurations and can transfer them collectively to the shopping cart

Recall of completed configurations for modification or additional configuration

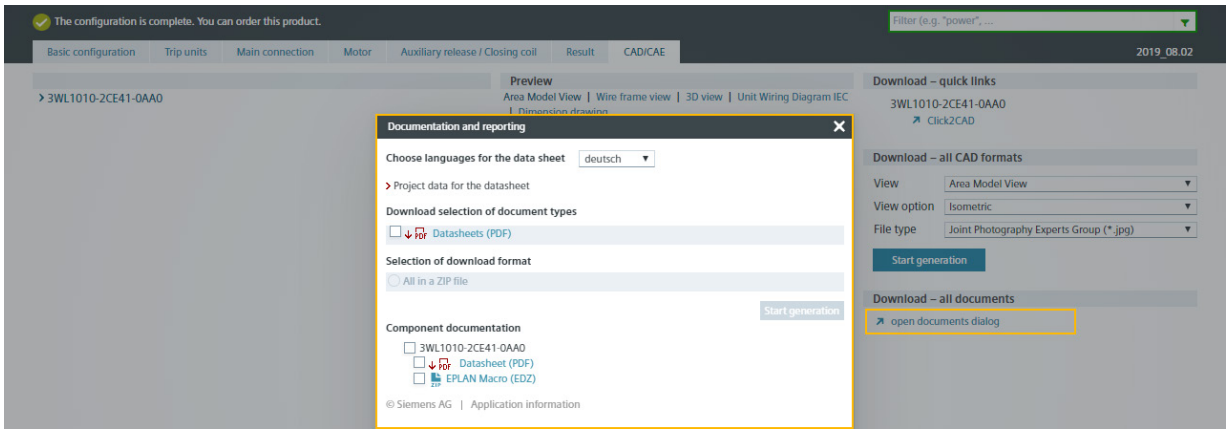


Responsive Design

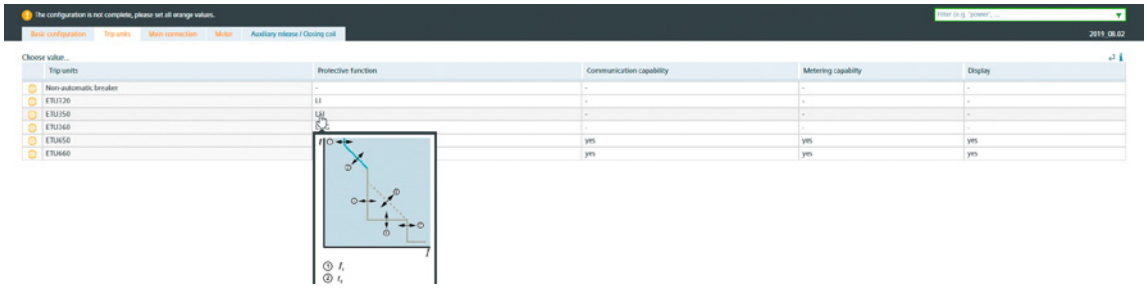


www.siemens.com/lowvoltage/3wl10-configurator

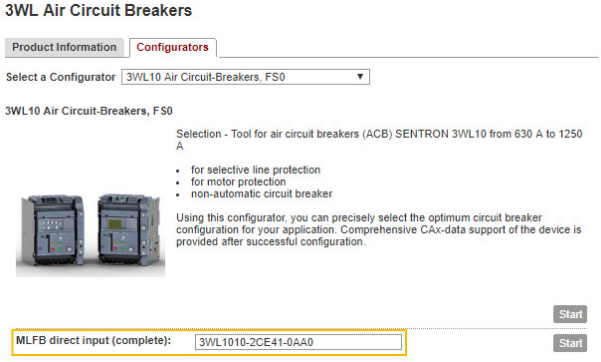
Download an ePlan Selector for 3WL10



Mouseover display of characteristic curves to show the protection function



Direct entry of an already known MLFB or parts of an MLFB



Structure of the article numbers

Basic configuration

**The structure shown below is intended as an overview of each position and its meaning.
For a complete and valid configuration of your air circuit breaker, please use our online configurator at
www.siemens.com/lowvoltage/3wl10-configurator**

1

	6	7		8	9	10	11	12		13	14	15	16
3WL10			–						–				

Basic unit and ETU

Max. rated current I_n	630 A							0	6	
	800 A							0	8	
	1000 A							1	0	
	1250 A							1	2	
Short-circuit breaking capacity I_{cu} at 415 V	B	Basic (42 kA)								1
	N	ECO (55 kA)								2
	S	Standard (66 kA)								3
Non-automatic air circuit breakers	Without metering function, without a communication link		Without trip unit				A	A		
Circuit breakers, ETU 3-series	Without metering function, without a communication link		With trip unit	ETU320 LI	(N) [1]		A	B		
				ETU350 LSI	(N) [1]		A	C		
				ETU360 LSIG	(N) [1]		A	D		
Circuit breakers, ETU 6-series			With trip unit	ETU650 (LSI)				E		
				ETU660 (LSIG)				F		
	Without a communication link		Without metering function				A			
	With a communication link		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 versions	3-pole		0
		4-pole	Neutral left	1
			Neutral right	2
	Withdrawable	3-pole		3
		4-pole	Neutral left	4
			Neutral right	5

Connection [2]

Installation type	Withdrawable	Without frame	0
		Rear vertical connection	1
		Rear horizontal connection	2
		Adapter for compression lug connection (rear)	4
		Front-accessible, extended terminal for main circuit connection	5
	Fixed-mounted versions	Rear vertical connection	1
		Rear horizontal connection	2
		Front terminal for main circuit connection	3
		Circular conductor terminals (front)	4
		Front-accessible, extended terminal for main circuit connection	5

[2] Broadened connections available as accessories.

System overview, page 1/20

3WL10 6 7 – 8 9 10 11 12 13 14 15 16

Motor

Operating mechanisms	Manual operating mechanism		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

Closing coil (CC), remote reset magnet (RR)	Without closing coil (CC), without remote reset magnet (RR)		A
	Closing coils (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 additionally a 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

System overview, page 1/20

Accessory options

For a complete and valid configuration of your air circuit breaker, please use our online configurator at www.siemens.com/lowvoltage/3wl10-configurator

1

To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

3WL....-.....-.... -Z

Accessories for basic configuration

Mounting options for fixed mounting

- In the basic configuration, the fixed-mounted circuit breaker is mounted onto the rear panel; floor mounting is an option; in addition, the device must be modified if it is to be extended with functionalities such as external auxiliary switches or mechanical interlocks.[1)]

			Order code		
Mounting options for fixed mounting [1)]	Floor mounting	Mounting support standard	A	0	7
		Mounting support extended [2)]	S	5	6
	Rear panel mounting onto mounting plate	Side wall extended [2)]	S	5	7

Accessories for electronic trip units ETU

Rating plugs

- The electronic trip units are equipped as standard 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, the rated current of less than $I_{n\,max}$ is selected for the rating plug by means of a Z option.
- Other functions can also be activated using rating plugs (L = OFF or Rc protection).

				Order code		
Rating plug	For setting the rated current I_n	For all ETU	400 A	B	0	4
			630 A	B	0	6
			800 A	B	0	8
			1000 A	B	1	0
	For setting the rated current I_n, with overload protection L = OFF	For ETU 6-series	400 A	L	0	4
			630 A	L	0	6
			800 A	L	0	8
			1000 A	L	1	0
			1250 A	L	1	2
	For setting the rated current I_n, For enabling of the residual current protection function. The residual current function is only possible with the MF Advanced metering function.	For ETU660 only	400 A	G	0	4
			630 A	G	0	6
			800 A	G	0	8
			1250 A	G	1	2

Communication modules

- No more than two different communication modules can be used at the same time.
- When using an IOM040 digital I/O module (Z option K56), only one communication module can be used.

			Order code		
Communication modules	COM040	PROFIBUS	F	0	2
	COM041	PROFINET	F	0	3
	COM043	Modbus TCP	F	1	1
	COM042	Modbus RTU	F	1	2

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.
- 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.

		Order code		
Breaker Connect modules	110 ... 240 V AC/DC	F	2	6

I/O modules internal

			Order code		
I/O modules internal	Digital I/O module IOM040	2 inputs, 2 outputs	K	5	6

[1)] These functionalities can be applied directly to the frame of the withdrawable circuit breaker, without any modification of the side wall.
[2)] Not possible in connection with or as an alternative to the mounting support, standard (A07)

System overview, page 1/20

To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

3WL....-.....-.... -Z

			Order code		
Mechanical operating cycles counter, 5-digit			C	0	1

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)		K	5	5
Signaling switches	Ready-to-close signaling switches		1 CO digital, 24 V DC	K	5	0
	Tripped signaling switches (S24)		1 CO digital, 24 V DC	K	5	3
	Spring charged signaling switches (S21)		1 CO digital, 24 V DC	K	5	4
Auxiliary switches	ON / OFF AUX	4 CO digital, 24 V DC		K	5	1
		2 CO 400 V AC + 2 CO digital, 24 V DC		K	5	2

Locking, blocking and interlocking

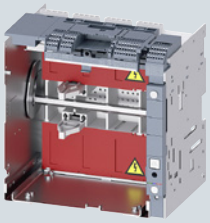
Locking devices [1]	To prevent movement of withdrawable circuit breaker	Cylinder lock	Made by Ronis	R	7	8
		For no more than 3 padlocks, 8 mm		R	6	5
Locking mechanisms	To prevent movement to disconnected position			R	7	9
Locking devices	To prevent unauthorized activation in the operator panel (safe OFF)	Cylinder lock, made by Ronis		S	0	8
		For no more than 3 padlocks, plastic 4 mm		S	2	2
		For no more than 1 padlock, metal 7 mm		S	2	3
		For no more than 2 padlocks, metal 8 mm		S	0	7
Interlocking sets	For mechanical ON and/or OFF on the operator panel	For no more than 3 padlocks, plastic 4 mm		S	4	2
		For no more than 1 padlock, metal 7 mm		S	4	3
		For no more than 2 padlocks, metal 8 mm		S	4	4
Protective covers	For mechanical ON/OFF, not lockable			S	4	1
Door sealing frame IP30	IP3x			T	3	0

[1] Can be used not only when guide frame is ordered separately, but also with complete order (breaker + guide frame).

System overview, page 1/20

Guide frames

Guide frames for ordering separately without circuit breakers



- Guide frames without breakers up to 1250 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 switching device. The 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	3VW8112-0AA01
	Rear horizontal	3VW8112-0AB01
	4× 240 mm² Cu/Al cable connection, for compression lugs	3VW8112-0AD01
	Front connection bars, extended	3VW8112-0AE01
4-pole	Rear vertical	3VW8112-0BA01
	Rear horizontal	3VW8112-0BB01
	4× 240 mm² Cu/Al cable connection, for compression lugs	3VW8112-0BD01
	Front connection bars, extended	3VW8112-0BE01

To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

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

			Order code		
Locking, blocking and interlocking					
Locking devices	To prevent movement of withdrawable circuit breaker	Cylinder lock, made by Ronis	R	7	8
		For no more than 3 padlocks, 8 mm	R	6	5
Locking mechanisms	To prevent movement to disconnected position (only in combination with R78 or R65)		R	7	9
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)	K	5	5

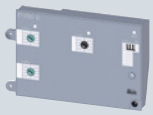
Auxiliary and signaling switches for currents >100 mA and up to 400 V AC are installed as standard.
For currents <100 mA for PLC connections, these auxiliary and signaling switches can be modified.
The auxiliary/signaling switches for 24 V DC digital signals are designed for

- a minimal load from 1 mA at 5 V DC and
- a maximum breaking capacity of 100 mA at 24 V DC.

System overview, page 1/20

Electronic trip units ETU and accessories

Electronic trip units (ETU)



Version	With communications / metering function / enhanced protection 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

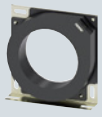
Metering functions for ETU650 or ETU660

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 neutral right	Top or bottom	3VW9011-0AT08
	For 4-pole circuit breakers with neutral left	Top	3VW9011-0AT75
		Bottom	3VW9011-0AT76
	For 3-pole circuit breakers	Top	3VW9011-0AT72
		Bottom	3VW9011-0AT73

External current transformers for N conductor

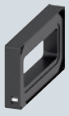
Accessory for	Purpose	Article No.
ETU320, ETU350, ETU360, ETU650, ETU660	For 3-pole circuit breakers only	3VW9011-0AA30

External current transformers for grounded transformer star point



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

Summation current transformers external Rc-CT for residual current measurement



- Only with MF Advanced metering function and Rc rating plug

Accessory for	Purpose	Article No.
ETU660	For external residual current measurement	3VW9011-0RC30

Remote reset magnets RR for the circuit breakers including tripped signal

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

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

Replacement batteries for electronic trip units ETU

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

System overview, page 1/4

Electronic trip units ETU and accessories

Rated current module / rating plug

- Only one module is possible per circuit breaker.

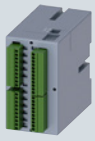
Accessory for	Version	Rated current I_n	Article No.
ETU320, ETU350, ETU360, ETU650, ETU660	Rating plugs for setting (< $I_{n\ max}$) the rated current I_n	400 A	3VW9011-0AA53
		630 A	3VW9011-0AA55
		800 A	3VW9011-0AA56
		1000 A	3VW9011-0AA57
		1250 A	3VW9011-0AA58
ETU 6-series	Rating plugs without overload 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
ETU660	Rating plug Rc for ETU660, for enabling the residual current protection function and setting (< $I_{n\ max}$) of the rated current I_n. The 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 - communication modules

- Contains the communication module
- No more than two different communication modules can be used at the same time.
- When using a digital I/O module IOM040 (Z option K56) only one communication module can be used.
- Can only be used with ETUs of the 6-series and 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.

Communication modules	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 standard mounting rail

Accessory for	Maximum switching current per contact	Inputs	Outputs	Article No.
ETU 6-series	• 2 A at DC ≤30 V • 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 one communication module can be used.

Accessory for	Maximum switching current per contact	Inputs	Outputs	Article No.
ETU 6-series	• 2 A at DC ≤30 V • 0.8 A at 50 V DC • 0.2 A at 150 V DC • 4 A at 250 V AC	2	2	3VW9011-0AT30

Actuator module 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 communication 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	Article No.
ETU 6-series	3VW9011-0AT10

System overview, page 1/4

Breaker Connect modules

- For the external power supply for the electronics components

Voltage	Article No.
110 ... 240 V AC/DC	3VW9011-0AT06
24 ... 48 V DC	3VW9011-0AT07

Auxiliary contact signaling switch 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 communication 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 if the communications interface of the ETU 6-series is selected (COM PSS only with withdrawable versions).

Function	Article No.
Ready-to-close signaling switch for communication COM RTC	3VW9011-0AT11
Position signaling switch COM PSS (for withdrawable breakers only)	3VW9011-0AT12

Test devices and Breaker Data Adapters

- Can be used for all ETU 3-series and 6-series

Function	Type	Article No.
Test device • For the trip test via ETU and tripping solenoid including release • The ETU and the tripping solenoids are activated 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	TD310	3VW9011-0AT32
Breaker Data Adapter • As gateway for parameterization of the ETU with powerconfig • For generation of a report of the set parameters with powerservice	TD410	3VW9011-0AT34
Test devices and Breaker Data Adapters • As gateway for parameterization of the ETU with powerconfig – Testing a tripping operation using powerconfig • For use with the powerservice software – Testing of the basic protection functions LSING – Testing of the enhanced protection functions – Test data storage – Readout of ETU buffer – Generation of a report of the set parameters	TD420	3VW9011-0AT33

System overview, page 1/4

Accessories and spare parts

Accessories for connection

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

- To be ordered separately for top and bottom

Fixing	Version	Mounted onto	Number of poles / quantity	Article No.
Fixed-mounted	Front terminals for main circuit connection		3-pole / 3 units	3VW9011-0AL01
			4-pole / 4 units	3VW9011-0AL02
	Extended main terminals, including insulating plate and phase barriers, standard	Front terminals for main circuit connection	3-pole / 3 units	3VW9011-0AL77
			4-pole / 4 units	3VW9011-0AL78
	Broadened main terminals, including insulating plate and extended phase barriers	Front terminals for main circuit connection, top	3-pole / 3 units	3VW9011-0AL73
		Front terminals for main circuit connection, bottom	3-pole / 3 units	3VW9011-0AL75
		Front terminals for main circuit connection, top, bottom	4-pole / 4 units	3VW9011-0AL74
Withdrawable	Front-accessible terminals for main circuit connection	Flange of the guide frame	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

- To be ordered separately for top and bottom

Fixing	Version	Mounted 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 circuit connections	Rear horizontal main connections	3-pole / 3 units	3VW9011-0AN75
			4-pole / 4 units	3VW9011-0AN76

Cu-/Al cable connections

- To be ordered separately for top and bottom

Fixing	Version	Mounted onto	Number of poles / quantity	Article No.
Fixed-mounted	Circular conductor terminals 4 × 240 mm² for front cable connection, including insulating plate and high, extended terminal cover	Front terminals for main circuit connection	3-pole / 3 units	3VW9011-0AL71
			4-pole / 4 units	3VW9011-0AL72
Withdrawable	Set of circular conductor connection pieces 4 × 240 mm² for compression lugs, rear cable connection	Rear vertical main connections	3-pole / 3 units	3VW9011-0AN71
			4-pole / 4 units	3VW9011-0AN72

Auxiliary supply connectors in push-in version

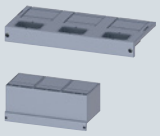
- Auxiliary conductor terminal in push-in version for upgrading fixed-mounted breakers and guide frames.
- The device is always fitted at the factory with the exact number of auxiliary conductor terminals required.

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

System overview, page 1/20

Accessories for connection

Terminal covers for fixed circuit breakers



- Finger-proof for front main circuit connection for fixed-mounting
- 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 breakers

- Necessary isolation measures are always supplied with the corresponding connection technology and do not need to be ordered separately.
- For operating 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

Support for mounting the fixed-mounted breaker on the floor

- For fixed-mounted versions

Version	Purpose	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 W (3VW9011-0AG15) • Locking mechanism for control cabinet door, direct (for 3VW9011-0BB10) • Locking mechanism for control cabinet door, Bowden cable (for 3VW9011-0BB16) • Mutual mechanical interlockings for 3WL/3VA (for 3VW9011-0BB21)	3VW9011-0BB52

Extension kit for modification of the side wall of the fixed-mounted breaker

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

Version	Purpose	Article No.
Extension kit for side wall	• Fixation for external auxiliary switches AUX 15 W (3VW9011-0AG15) • Locking mechanism for control cabinet door, direct (for 3VW9011-0BB10) • Locking mechanism for control cabinet door, Bowden cable (for 3VW9011-0BB16) • Mutual mechanical interlockings for 3WL/3VA (for 3VW9011-0BB21)	3VW9011-0BB53

System overview, page 1/20

Accessories and spare parts

Motor

Spring charging motor (MO)

Description	Voltage	Article No.
For automatic charging of the stored-energy operating 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 counters

Description	Version	Article No.
In combination with a spring charging motor	5 digits	3VW9011-0AH07

Auxiliary releases, closing coils

Closing coils CC / 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 unit for closing coil / shunt trip

- 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 unit
  - 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 trip OK

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

System overview, page 1/20

Auxiliary releases, closing coils

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 breakers a 3VW9011-0BB5x side wall modification.

Type	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
Tripped signaling switch S24	1 CO standard	3VW9011-0AH14
	1 CO digital	3VW9011-0AH15
Spring charged signaling switch S21	1 CO standard	3VW9011-0AH10
	1 CO digital	3VW9011-0AH08
Position signaling switch PSS (for withdrawable devices)	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

Fixing 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 device for undervoltage release

- 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

System overview, page 1/20

Accessories and spare parts

Interlocking

Locking devices to prevent movement of the withdrawable circuit breakers

Version	Article No.
Ronis cylinder lock (replacement for R78)	3VW9011-0BA80
Padlock 8 mm (replacement for R65), for no more than 3 padlocks	3VW9011-0BA87

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

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

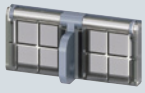
Description	Article No.
Locking mechanism (replacement for R79)	3VW9011-0BA84

Locking devices in OFF position

- For fixed-mounted versions and withdrawable versions
- To prevent unauthorized activation in the operator panel (safe OFF)
- The disconnector unit fulfills the conditions for a supply disconnecting (isolating) device acc. to EN 60204-1.

Description	Artikel-Nr.
Cylinder lock, made by Ronis (replacement for S08)	3VW9011-0BA33

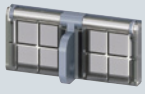
Locking devices in OFF position



- For fixed-mounted versions and withdrawable versions
- To prevent unauthorized activation in the operator panel (safe OFF)
- The disconnector unit fulfills the conditions for a supply disconnecting (isolating) device acc. to EN 60204-1.

Description	Version	
Padlock 4 mm (replacement for S22)	Plastic for no more than 3 padlocks	3VW9011-0BA41
Padlock 7 mm (replacement for S23)	Metal for no more than 1 padlock	3VW9011-0BA42
Padlock 8 mm (replacement for S07)	Metal for no more than 2 padlocks	3VW9011-0BA44

Padlockable protective cover ON/OFF on the operator panel



Description	Version	Article No.
Padlock 4 mm (replacement for S42)	Plastic for no more than 3 locks	3VW9011-0BA22
Padlock 7 mm (replacement for S43)	Metal for no more than 1 lock	3VW9011-0BA23
Padlock 8 mm (replacement for S44)	Metal for no more than 2 locks	3VW9011-0BA24

Protective cover for mechanical ON/OFF

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

Description	Article No.
Not lockable (replacement for S41)	3VW9011-0BA21

Mutual mechanical interlockings

- Mutual mechanical interlocking for 3WL / 3VA with Bowden cable 2 m

Fixing	Mounting	Article No.
Fixed-mounted	Rear panel or floor mounting	3VW9011-0BB21
Withdrawable	Mounting onto guide frame	3VW9011-0BB22

Bowden cable, separate

- One required for each circuit breaker

Variant	Article No.
1000 mm	3VW9011-0BB23
2000 mm	3WL9111-0BB45-0AA0
3000 mm	3WL9111-0BB46-0AA0

System overview, page 1/20

Interlocking

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

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

Fixing	Version	Article No.
Fixed mounting onto 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 frame IP30

- Can be used up to IP3x degree of protection

Version	Befestigung	Version	Article No.
Replacement part for Z option T30.	Fixed-mounted	IP3x	3VW9011-0AP01
	Withdrawable	IP3x	3VW9011-0AP02

Protective cover IP54

- Protective cover / hood IP54 lockable for fixed-mounted 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.

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

System overview, page 1/20

System overview 3WL11 – 3WL13

IEC AC 630 – 6300 A, IEC DC ..

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

Basic units

Sizes 1 to 3

ETU

LI

LSI

LSING

LSIN, LSING

LSIN, LSING

Accessories

Communi-cation modules

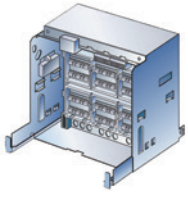
Rating plugs

Remote reset magnets

Breaker status sensors (BSS)

Ground-fault modules

Connection



Fixed-mounted, withdrawable versions

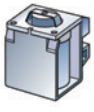
Main connection vertical, horizontal, front, flange

Accessories

Auxiliary conductor plug-in system

Operating mechanisms and auxiliary releases

Motorized operating mechanisms



Auxiliary releases

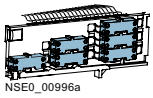
Accessories

Closing coils

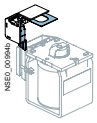
Note:
You will find a detailed range of accessories in the Accessories and spare parts section.

Auxiliary switches

Auxiliary switches



Position signaling switches



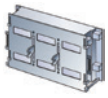
Signaling switches

Accessories

Position signaling switches

Further accessories

Door sealing frames

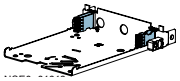


Shutters

EMERGENCY-OFF pushbuttons

Operating cycle counters

Support brackets

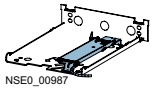


Grounding connections

Interlocking

Interlocking sets

Key operation



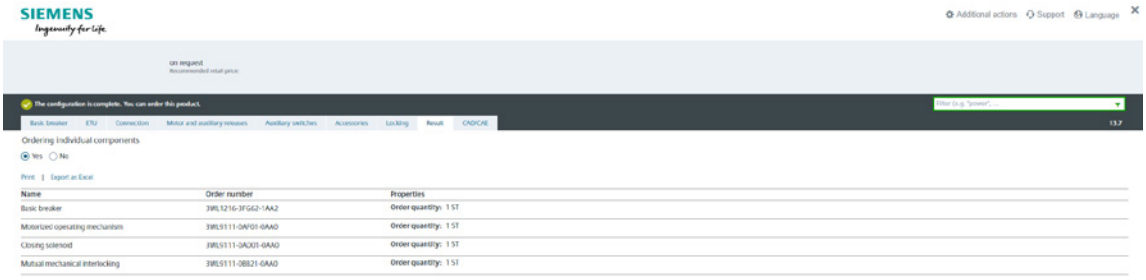
Locking mechanisms

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

Online configurator highlights

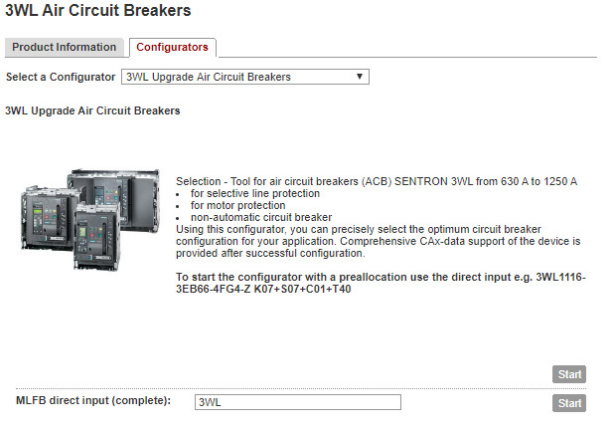
www.siemens.com/lowvoltage/3wl-configurator

Ungroup into individual components:
Divides the finished complete article number into single article numbers



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

Direct entry of an already known article number or parts of an article number



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1

Structure of the article numbers

Basic configuration for AC circuit breakers

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

	5	6	7		8	9	10	11	12		13	14	15	16
3WL1	■	■	■	–	■	■	■	■	■	–	□	□	□	□

Basic unit and ETU

Size		Position 5
	1	1
	2	2
	3	3

Max. rated current I_n		SZ 1	SZ 2	SZ 3	Position 6	Position 7
	630 A	■	–	–	0	6
	800 A	■	■ 6)	–	0	8
	1000 A	■	■ 6)	–	1	0
	1250 A	■	■ 6)	–	1	2
	1600 A	■	■	–	1	6
	2000 A	■	■	–	2	0
	2500 A	–	■	–	2	5
	3200 A	–	■	–	3	2
	4000 A	–	■ 6)	■	4	0
	5000 A	–	–	■	5	0
	6300 A	–	–	■	6	3

Short-circuit breaking capacity I_{cu} at 500 V			SZ 1	SZ 2	SZ 3		Position 8
	N	ECO	■	–	–	55 kA	2
			–	■	–	66 kA	2
	S	Standard	■	–	–	66 kA	3
			–	■	–	85 kA	3
	H	High	■	–	–	85 kA	4
			–	■	■	100 kA	4
	C	Very high	–	■	■ 8)	130 kA	5
			–	–	■ 9)	150 kA	5

Trip units				Position 9	Position 10
	Without trip unit		–	A	A
	With trip unit, without ground-fault tripping	ETU 15B 7)	LI	B	B
		ETU 25B	LSI	C	B
		ETU 45B (without display)	LSIN	E	B
		ETU 45B (with display)	LSIN	F	B
		ETU 76B	LSIN	N	B
	With trip unit, with ground-fault tripping	ETU 27B (without display)	LSING	D	G
		ETU 45B (without display)	LSING	E	G
		ETU 45B (with display)	LSING	F	G
		ETU 76B	LSING	N	G

Number of poles		Position 11
	3-pole (3WL upgrade)	6
	4-pole (3WL upgrade)	7

Connection

Installation type		SZ 1	SZ 2	SZ 3		Position 12
	Fixed-mounted	■	■	■	Vertical	1
		■	□ 2)	□ 3)	Horizontal	2
		□ 4)	□ 1)	□ 5)	Front single hole	3
		■	□ 1)	□ 5)	Front double hole	4
	Withdrawable	■	■	■	Without guide frame	5
		■	□ 2)	□ 3)	Horizontal	6
		■	■	■	Vertical	7
		■	□ 1)	□ 5)	Flanges	8

■ Applies in this case
□ Partially applies in this case

1) Not available for rated current 4000 A and breaking capacity C
2) Not available for rated current 4000 A
3) Not available for rated current 6300 A
4) Not available for rated current 2000 A and breaking capacity H
5) Not available for rated current 5000 A, 6300 A and breaking capacity C
6) Not available for breaking capacity C
7) Not available for size 3
8) Not available for 3-pole
9) Not available for 4-pole

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3WL1 5 6 7 8 – 9 10 11 12 – 13 14 15 16

Operating mechanisms and auxiliary releases

Stored energy mechanism	Manual recharging of the stored energy mechanismc	With mechanical operation		1
		With mechanical and electrical operation	110 V AC 50/60 Hz / 110 V DC	2
			230 V AC 50/60 Hz / 220 V DC	3
	Motorized operating mechanisms	With mechanical and electrical operation	208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	4
			110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	5
			24 V DC	6

1st auxiliary release	Without		A
	With shunt trip 100% OP	24 V DC	B
		30 V DC	C
		48 V DC	D
		60 V DC	E
		110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	F
		208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	G

2nd auxiliary release	Without		A
	With shunt trip 100% OP	24 V DC	B
		30 V DC	C
		48 V DC	D
		60 V DC	E
		110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	F
		208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	G
	With undervoltage release, instantaneous	24 V DC	J
		30 V DC	K
		48 V DC	L
		60 V DC	U
		110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	M
		208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	N
		380 ... 415 V AC 50/60 Hz	P
	With undervoltage release, delay 0.2 ... 3.2 s	48 V DC	Q
		110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	R
		208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	S
		380 ... 415 V AC 50/60 Hz	T

Auxiliary switches

1st auxiliary switch block	2 NO + 2 NC	2
1st + 2nd auxiliary switch block	4 NO + 4 NC	4
	6 NO + 2 NC	7
	5 NO + 3 NC	8

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Structure of the article numbers

Basic configuration for DC circuit breakers

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

	5	6	7		8	9	10	11	12		13	14	15	16
3WL1				–						–				

Basic unit and ETU

Size	1					1
	2					2
		SZ 1	SZ 2			
Max. rated current I_n	1000 A	–	■		1	0
	2000 A	■	■		2	0
	4000 A	–	■		4	0
Short-circuit breaking capacity I_{cu}	1000 V DC 20 kA	■	–			8
	600 V DC 25 kA	–	■			8
Non-automatic air circuit breakers	Without trip unit					A A
Number of poles	3-pole (3WL upgrade)	–	■			6
	4-pole (3WL upgrade)	■	■			7

Connection

		SZ 1	SZ 2		
Installation type	Fixed-mounted	■	■	Vertical	1
		■	■	Horizontal	2
		–	□[1]	Front single hole	3
		–	□[1]	Front double hole	4
	Withdrawable	–	■	Without guide frame	5
		–	■	Horizontal	6
		–	■	Vertical	7
		–	■	Flanges	8

■ Applies in this case
□ Partially applies in this case

[1] Not available for rated current 4000 A

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	5	6	7	8		9	10	11	12	13	14	15	16
3WL1					–					–			

Operating mechanisms and auxiliary releases

				13
Stored energy mechanism	Manual recharging of the stored energy mechanism	With mechanical operation		1
		With mechanical and electrical closing, closing coil suitable for uninterrupted duty, 100% ED	110 V AC 50/60 Hz / 110 V DC	2
			230 V AC 50/60 Hz / 220 V DC	3
	Motorized recharging	With mechanical and electrical closing, closing coil suitable for uninterrupted duty, 100% ED	208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	4
			110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	5
			24 V DC	6

			14
1st auxiliary release	Without		A
	With shunt trip 100% OP	24 V DC	B
		30 V DC	C
		48 V DC	D
		60 V DC	E
		110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	F
		208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	G

			15
2nd auxiliary release	Without		A
	With shunt trip 100% OP	24 V DC	B
		30 V DC	C
		48 V DC	D
		60 V DC	E
		110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	F
		208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	G
	With undervoltage release, instantaneous (≤80 ms), short-delay (≤200 ms)	24 V DC	J
		30 V DC	K
		48 V DC	L
		60 V DC	U
		110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	M
		208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	N
		380 ... 415 V AC 50/60 Hz	P
	With undervoltage release, delay 0.2 ... 3.2 s	48 V DC	Q
		110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	R
		208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	S
		380 ... 415 V AC 50/60 Hz	T

Auxiliary switches

		16
1st auxiliary switch block	2 NO + 2 NC	2
1st + 2nd auxiliary switch block	4 NO + 4 NC	4
	6 NO + 2 NC	7
	5 NO + 3 NC	8

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Accessory options

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

1

To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

3WL....-.....-.... -Z

Accessories for basic configuration

Rated voltage 1000 V AC and 690 V IT networks

- Only for circuit breakers of size 1 - 3 with high breaking capacity H and of size 3 C class.
- Cannot be combined with rated voltage 1150 V AC, order code "A15".

			Order code		
Rated voltage	Size 1 [1]	Up to 2000 A	A	0	5
	Size 2 [1] [2]	Up to 4000 A	A	0	5
	Size 3 [1]	Up to 6300 A	A	0	5

Rated voltage 1150 V AC

- Only for circuit breakers with high breaking capacity H (8th digit of the Article No. is a "4").
- Cannot be combined with rated voltage 1000 V AC, order code "A05".

			Order code		
Rated voltage	Size 2 [1] [2]	Up to 4000 A	A	1	5
	Size 3 [1] [3]	Up to 6300 A	A	1	5

Rated voltage 690 V AC (+ 20%)

- Only for 3WL11 circuit breakers, size 1, with high breaking capacity H (8th digit of the Article No. is a "4").

			Order code		
Rated voltage	Size 1	Up to 2000 A	A	1	6

[1] When ordering withdrawable circuit breaker and guide frame separately, specify order code "A05" for withdrawable circuit breaker and guide frame.

[2] Not possible for circuit breakers with very high breaking capacity C.

[3] Front connections are tinned as standard.

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To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

3WL....-.....-.... -Z Order code

Accessories for electronic trip units ETU

Rating plugs

- Only one module is possible per circuit breaker (not in conjunction with electronic trip unit ETU15B).
- As standard, the electronic trip units are equipped with a rating plug 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 $I_{n\ max.}$.

Module	Sizes 1, 2	250 A	B	0	2
		315 A	B	0	3
		400 A	B	0	4
		500 A	B	0	5
		630 A	B	0	6
		800 A	B	0	8
		1000 A	B	1	0
	Sizes 1, 2, 3	1250 A	B	1	2
		1600 A	B	1	6
		2000 A	B	2	0
	Sizes 2, 3	2500 A	B	2	5
		3200 A	B	3	2
		4000 A	B	4	0
	Size 3	5000 A	B	5	0
		6300 A	B	6	3

Communication and metering function

Breaker status sensor (BSS)	For determining the statuses ON / OFF / Tripped	F	0	1
PROFIBUS DP communication port [1]	Including COM15 and breaker status sensor (BSS)	F	0	2
MODBUS RTU communication port [1]	Including COM16 and breaker status sensor (BSS)	F	1	2
PROFINET IO / Modbus TCP communication port [1] new	Including COM35 and breaker status sensor (BSS)	F	3	5

Metering function Plus (communication modules not included)

Metering function Plus	With internal voltage tap on the lower main conducting paths [2]	F	3	6
	With internal voltage tap on the upper main conducting paths [2]	F	3	7
	For combination with external voltage transformer	F	3	8

EMC filter

- Common-mode interference suppressor filters (e.g. in converter applications)
- Insertion loss (asymmetric) in the range 40 kHz to 10 MHz >40 dB.

EMC filter		F	3	1

Overload and short-circuit protection for neutral conductors

- Only possible with 4-pole circuit breaker with ETU27B to ETU76B

Internal current transformer for N conductor	Size 1	F	2	3
	Size 2	F	2	3
	Size 3	F	2	3

[1] When ordering withdrawable circuit breaker and guide frame separately, specify order code "F02", "F12" or "F35" only for withdrawable circuit breaker.

[2] Can only be used for rated voltages up to 690 V AC.

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Accessory options

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

1

To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

3WL....-.....-.... -Z

			Order code		
Remote resetting					
Automatic reset of the reclosing lockout			K	0	1
• Remote reset for displays and reset buttons including automatic reset of the reclosing lockout					
Remote reset magnets	24 V DC		K	1	0
	48 V DC		K	1	1
	110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC		K	1	2
	208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC		K	1	3

Connection

Tinned version of the customer's connections on the guide frame

- Only for circuit breakers in withdrawable version with horizontal connection or flange connection.
- The normal delivery time increases to 15 work days.

Customer's connections [1) 2)]	Size 1		A	0	8
	Size 2		A	0	8
	Size 3		A	0	8

Connection technology for main connections (fixed mounting)

Top: [3)] **horizontal Bottom: accessible from front, single hole**	Size 1	Up to 1600 A	N	1	1
	Size 2	Up to 3200 A	N	1	1
	Size 3 [4)]	Up to 4000 A	N	1	1
Top: vertical Bottom: horizontal	Size 1	Up to 2000 A	N	2	0
	Size 2	Up to 3200 A	N	2	0
	Size 3	Up to 5000 A	N	2	0
Top: horizontal Bottom: vertical	Size 1	Up to 2000 A	N	2	4
	Size 2	Up to 3200 A	N	2	4
	Size 3	Up to 5000 A	N	2	4

Connection technology for main connections (withdrawable versions)

Top and bottom: [5) 6)] **accessible from front, single hole**	Size 1	Up to 1600 A	P	0	0
	Size 2	Up to 3200 A	P	0	0
	Size 3	Up to 4000 A	P	0	0
Top and bottom: [5)] **accessible from front, double hole**	Size 1	Up to 1600 A	P	0	1
	Size 2	Up to 3200 A	P	0	1
	Size 3	Up to 4000 A	P	0	1
Top: [5) 6)] **horizontal Bottom: accessible from front, single hole**	Size 1	Up to 1600 A	P	0	7
	Size 2	Up to 3200 A	P	0	7
	Size 3	Up to 4000 A	P	0	7

1) Front connections are tinned as standard.
2) The permissible temperature-rise limits according to IEC 60947-2 are 5 K lower for a tin surface than for a silver surface.
3) Not for 3WL1 size 1 with high breaking capacity H and circuit breakers with very high breaking capacity C.
4) Not for size 3 with very high breaking capacity C.
5) Not for size 2 and 3 circuit breakers with very high breaking capacity C.
6) Not for 3WL1 size 1 with high breaking capacity H

System overview, page 1/38

To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

3WL....-.....-.... -Z Order code

Connection

Connection technology for main connections (withdrawable versions)

Top: vertical Bottom: horizontal	Size 1	Up to 2000 A	P	1	8
	Size 2	Up to 3200 A	P	1	8
	Size 3	Up to 5000 A	P	1	8
Top: [1] connecting flange Bottom: horizontal	Size 1	Up to 2000 A	P	1	9
	Size 2	Up to 3200 A	P	1	9
	Size 3	Up to 4000 A	P	1	9
Top: horizontal Bottom: vertical	Size 1	Up to 2000 A	P	2	3
	Size 2	Up to 3200 A	P	2	3
	Size 3	Up to 5000 A	P	2	3
Top: [1] horizontal Bottom: connecting flange	Size 1	Up to 2000 A	P	2	8
	Size 2	Up to 3200 A	P	2	8
	Size 3	Up to 4000 A	P	2	8

Connection technology for auxiliary conductors (for fixed-mounted and withdrawable versions)

Connection technology for screwless terminals (tension spring)	Fixed-mounted		N	6	1
	Withdrawable		P	6	1

Operating mechanisms and auxiliary releases

Motorized operating mechanisms	Only possible if the 13th digit of the Article No. = "1"	24 ... 30 V DC	M	0	1
		48 ... 60 V DC	M	0	3
		110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	M	0	5
		208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	M	0	6
Mechanical operating cycles counter, 5-digit [2]			C	0	1
Closing coils	• Suitable for uninterrupted duty, 100% OP • Only possible if the 13th digit of the Article No. = "1"	24 V DC	M	2	1
		30 V DC	M	2	2
		48 V DC	M	2	3
		60 V DC	M	2	4
		110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	M	2	5
		208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	M	2	6
	• Not suitable for uninterrupted duty, 5% OP, synchronizable [3] • Only possible if the 13th digit of the Article No. = "1"	24 V DC	M	3	1
		48 V DC	M	3	3
		110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	M	3	5
		208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	M	3	6
Opening coils (shunt trips) [3] [4]	Not suitable for uninterrupted duty, 5% OP, synchronizable	24 V DC	M	4	1
		48 V DC	M	4	3
		110 ... 127 V AC 50/60 Hz / 110 ... 125 V DC	M	4	5
		208 ... 240 V AC 50/60 Hz / 220 ... 250 V DC	M	4	6

[1] Not for size 2 and 3 circuit breakers with very high breaking capacity C.

[2] Only possible with motorized operating mechanism.

[3] Overexcited, i.e. switching time 50 ms (standard >80 ms).

[4] Only possible if the 14th digit of the Article No. for the circuit breaker is "A", i.e. "without 1st auxiliary release".

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Accessory options

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

1

To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

3WL....-.....-.... -Z

			Order code		
Auxiliary switches and signaling switches					
Position signaling switches for guide frames	1 CO | 1 CO | 1 CO (connected | test | disconnected position)		R	1	5
	3 CO | 2 CO | 1 CO (connected | test | disconnected position)		R	1	6
Signaling switches	Ready-to-close signaling switches (S20)	1 NO contact	C	2	2
	Spring charged signaling switch [1] (S21)	1 NO contact	C	2	0
	For the first auxiliary release [1] (S22)	1 CO contact	C	2	6
	For the second auxiliary release [1] (S23)	1 CO contact	C	2	7
	1st tripped signaling switch [1] [2] (S24)	1 CO contact	K	0	7
	2nd tripped signaling switch [1] [2] [3] (S25)	1 NO contact	K	0	6
Further accessories					
Pushbuttons / shutdown switches / closing lockouts					
EMERGENCY-OFF pushbuttons	Mushroom pushbutton instead of the mechanical OFF pushbutton		S	2	4
Electrical ON button S10 in the operator panel [1]	Possible only for circuit breakers with closing coil	With sealing cap	C	1	1
		With CES lock	C	1	2
Motor shutdown switch on control panel [4] **(S12)**			S	2	5
Special packaging for increased transport requirements (moisture protection)					
Cardboard packaging with water-repellent coating on corrugated cardboard (moisture protection)			A	6	1
Arc chute covers					
• Not available for – 1000 V version (order code "A05"), – DC version – 4000 A size 2 – 1150 V version (order code "A15") – 130 kA version, size 2 – 150 kA version, size 3					
Arc chute covers	3-pole, 4-pole		R	1	0
Shutters					
Shutter: 2-part, lockable, with padlocks [1]	3-pole, 4-pole		R	2	1

[1] Not possible with "communications interface" option, order code "F02", "F12" or "F35".

[2] Not available for non-automatic air circuit breakers.

[3] Only possible with option "K07".

[4] Only for breakers with motorized operating mechanism, not possible with order codes "C11", "C12".

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To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

3WL....-.....-.... -Z

Order code

Further accessories

Measuring transformers (without energy transformers), for powering the ETU

- Used in converter applications with high harmonic components; can only be used with ETU45B or ETU76B
  - External 24 V DC supply required
  - Undervoltage release required
- Comprises:
  - 3 (3-pole) or 4 (4-pole) transformers
  - 24 V DC relay
  - Warning signs
  - Manual

Transformer	3-pole, 4-pole	Size 2, size 3	K	6	0

Operating manual, printed version

French/Italian			A	1	1
Spanish/Portuguese			A	1	2

Interlocking

Mechanical interlocks

- Interlocking module with Bowden cable 2 m

Mutual mechanical interlockings		For fixed-mounted breakers	S	5	5
		For withdrawable circuit breakers with guide frame	R	5	5
		For guide frames (ordered separately)	R	5	6
		For withdrawable circuit breakers (ordered separately)	R	5	7

Locking devices (for fixed-mounted and withdrawable versions)

- The disconnector unit fulfills the requirements for main circuit breakers according to EN 60204-1

Locking devices	To prevent unauthorized activation in the operator panel	Made by CES	S	0	1
		Made by IKON	S	0	3
		Assembly kit FORTRESS or Castell [1]	S	0	5
		Assembly kit for padlocks [2]	S	0	7
		Made by Ronis	S	0	8
		Made by Profalux	S	0	9

Locking devices (for fixed-mounted and withdrawable versions)

Locking devices	For operating mechanism handle with padlock [2]		S	3	3

[1] Locks must be ordered from the manufacturer.

[2] Padlock not included in the scope of supply.

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Accessory options

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

1

To specify the options, add "-Z" to the complete Article No. and indicate the appropriate order code(s).

3WL....-.....-.... -Z

			Order code		
Interlocking					
Locking devices (for withdrawable version)					
• The disconnector unit fulfills the requirements for main circuit breakers acc. to EN 60204-1, consisting of a lock in the guide frame, active in the connected position, function is retained when circuit breaker is replaced.					
• Not possible in combination with order code "R81", "R85" or "R86".					
Locking devices	To prevent unauthorized activation in the operator panel	Made by CES	R	6	1
		Made by Ronis	R	6	8
		Made by Profalux	R	6	0
Locking devices (for withdrawable version)					
• Safety lock for mounting onto the circuit breaker					
Locking devices	To prevent movement of withdrawable circuit breaker	Made by CES	S	7	1
		Made by Profalux	S	7	5
		Made by Ronis	S	7	6
Locking mechanisms					
• Not possible in combination with order code "R81", "R85" or "R86".					
For fixed-mounted circuit breakers	To prevent opening of the cabinet door in ON position		S	3	0
For withdrawable circuit breakers	To prevent opening of the cabinet door in connected position		R	3	0
	To prevent activation when the cabinet door is open [1) 3)]		R	4	0
	To prevent movement when the cabinet door is open [2)]		R	5	0
Locking mechanisms to prevent movement of the withdrawable circuit breaker in disconnected position					
• Consisting of Bowden cable and lock in the cabinet door					
• Not possible in combination with order code "R30", "R50", "R61", "R68" or "R60".					
Made by CES			R	8	1
Made by Profalux			R	8	5
Made by Ronis			R	8	6
Seals					
Door sealing frame for degree of protection IP41			T	4	0
Accessories from current catalog					
Use of the withdrawable circuit breaker in combination with an older guide frame					
• Reduction of the technical specifications for withdrawable circuit breakers 3WL1 for use in combination with older guide frames supplied – as complete circuit breaker with 3WL1...-...3.-.... or 3WL1...-...4.-.... or – as 3WL92..-.A..-.... or – as 3WL92..-.B..-.... or – as 3WL92..-.D..-.... or – as 3WL92..-.E..-.... or					
• for sizes 1 to 3.					
Use of the circuit breaker in older guide frames, including the appropriate guide frame coding			A	4	1

[1)] Not available in combination with R50

[2)] Not available in combination with R40

[3)] Combination with R81, R85 and R86 on request

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Further technical specifications

Manual operating mechanism

		3WL11 – 3WL13
Switching on/charging the stored-energy operating mechanism		
Maximum force required to operate the hand lever		≤230 N
Required number of strokes on the hand lever		9

Closing coils

		3WL11 – 3WL13
Primary operating range		
Primary operating range		0.85 ... 1.1 × U_s
Extended operating range for battery operation	At 24 V DC, 48 V DC 60 V DC, 110 V DC 220 V DC	0.7 ... 1.26 × U_s
Rated voltage		
Rated control supply voltage U_s	50/60 Hz AC	110 ... 127 V, 208 ... 240 V
	DC	24 V, 30 V, 48 V, 60 V, 110 ... 125 V, 220 ... 250 V
Operation		
Power consumption	AC/DC	15 VA/15 W
Min. command duration at U_s for the closing coil		60 ms
Short-circuit protection		
Smallest permissible DIAZED fuse (operational class gL)/ automatic circuit breaker with C characteristic; manual operating mechanism with mechanical and electrical closing		1 A TDz (slow)/1 A
Smallest permissible DIAZED fuse (operational class gL)/ automatic circuit breaker with C characteristic; motor and closing coil for the same rated control supply voltages; motorized operating mechanism with mechanical and electrical closing		6 A TDz (slow)/2 A
Smallest permissible DIAZED fuse (operational class gL)/ automatic circuit breaker with C characteristic (for different rated control supply voltages)	At U_s = 24 ... 30 V	6 A
	At U_s = 48 ... 60 V	6 A
	At U_s = 110 ... 125 V DC/ 110 ... 127 V AC	2 A
	At U_s = 220 ... 250 V DC/ 208 ... 240 V AC	2 A

Motor

		3WL11 – 3WL13
Primary operating range		
Primary operating range		0.85 ... 1.1 × U_s
Extended operating range for battery operation	At 24 V DC, 48 V DC 60 V DC, 110 V DC 220 V DC	0.7 ... 1.26 × U_s
Operation		
Power consumption of motor	AC/DC	24/30 V DC, 110 W; 48/60 V DC, 120 W; 110 ... 127 V AC/110 ... 125 V DC, 150 W; 200 ... 240 V AC/220 ... 250 V DC, 130 W
Time required to charge the spring energy store at 1 × U_s		≤10 s
Short-circuit protection		
Smallest permissible DIAZED fuse (operational class gL)/ automatic circuit breaker with C characteristic; motor and closing coil for the same rated control supply voltages		6 A TDz (slow)/2 A
Smallest permissible DIAZED fuse (operational class gL)/ automatic circuit breaker with C characteristic (for different rated control supply voltages)	At U_s = 24 ... 30 V	6 A
	At U_s = 48 ... 60 V	6 A
	At U_s = 110 ... 125 V DC/ 110 ... 127 V AC	2 A
	At U_s = 220 ... 250 V DC/ 208 ... 240 V AC	2 A

Signals of the electronic trip unit

	3WL11 – 3WL13
Signals of the electronic trip unit	
Measuring accuracy of the electronic trip unit	Protection functions acc. to EN 60947; current indication ≤10%; metering function for base quantities ≤1%; metering function for derived quantities ≤4%

System overview, page 1/38

Accessory options

Further technical specifications

Undervoltage releases UVR (F3) and UVR-t_d (F4)

		3WL11 – 3WL13
Primary operating range		
Response values	Pickup	≥0.85 × U_s (circuit breaker can be closed)
	Dropout	0.35 ... 0.7 × U_s (circuit breaker is tripped)
Primary operating range		0.85 ... 1.1 × U_s
Extended operating range for battery operation	At 24 V DC, 30 V DC, 48 V DC, 110 V DC, 220 V DC	0.85 ... 1.26 × U_s
Rated voltage		
Rated control supply voltage U_s	Instantaneous 50/60 Hz AC	110 ... 127 V, 208 ... 240 V, 380 ... 415 V
	Instantaneous DC	24 V, 30 V, 48 V, 60 V, 110 ... 125 V, 220 ... 250 V [1]
	Delayed 50/60 Hz AC	110 ... 127 V, 208 ... 240 V, 380 ... 415 V
	Delayed DC	48 V, 110 ... 125 V, 220 ... 250 V
Operation		
Power consumption (pickup/uninterrupted duty)	AC	20/5 VA
	DC	20/5 W
Opening time of the circuit breaker		
Opening time of the circuit breaker at U_s = 0		200 ms
Version UVR (F3)	Instantaneous	73 ms
	With delay	200 ms
Version UVR-t_d (F8)	With delay, t_d = 0.2 to 3.2 s	0.2 ... 3.2 s
	Reset through additional NC contact – direct tripping	≤100 ms
Short-circuit protection		
Smallest permissible DIAZED fuse (operational class gL)/ miniature circuit breaker with C characteristic		1 A TDz (slow) / 1 A

Shunt trip (ST) (F1, F2)

		3WL11 – 3WL13		
Primary operating range				
Version		For continuous command (100% OP), locks out on momentary-contact commands	5% OP	With spring energy store consisting of shunt trip and capacitor storage device
Response values	Pickup	>0.7 × U_s (circuit breaker is tripped)	>0.7 × U_s (circuit breaker is tripped)	–
Primary operating range		0.7 ... 1.1 × U_s	0.7 ... 1.1 × U_s	0.85 ... 1.1 × U_s
Extended operating range for battery operation	At 24 V DC, 48 V DC 60 V DC, 110 V DC 220 V DC	0.7 ... 1.26 × U_s	0.7 ... 1.26 × U_s	–
Rated voltage				
Rated control supply voltage U_s	50/60 Hz AC	110 ... 127 V, 208 ... 240 V	110 ... 127 V, 208 ... 240 V	110 V, 230 V
	DC	24 V, 30 V, 48 V, 60 V, 110 ... 125 V, 220 ... 250 V	24 V, 48 V, 110 ... 125 V, 220 ... 250 V	110 V, 220 V
Operation				
Power consumption	AC/DC	15 VA/15 W	15 VA/15 W	1 VA/1 W
Min. command duration at U_s		60 ms	25 ms	–
Storage time at Us/$_s$/ Recharging time at U_s		–	–	max. 5 min/ min. 5 s
Opening time of the circuit breaker				
Opening time of the circuit breaker at U_s = 100%	At AC/DC	80 ms	50 ms	80 ms
Short-circuit protection				
Smallest permissible DIAZED fuse (operational class gL)/ automatic circuit breaker with C characteristic		1 A TDz (slow)/1 A	1 A TDz (slow)/1 A	1 A TDz (slow)/1 A

[1] 24 V and 30 V only with undervoltage release UVR (F3)

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Remote reset magnet for mechanical tripped indicator (F7)

		3WL11 – 3WL13
Primary operating range		
Primary operating range		0.85 ... 1.1 × U_s
Extended operating range for battery operation	At 24 V DC, 48 V DC 110 V DC 220 V DC	0.7 ... 1.26 × U_s
Operation		
Power consumption	AC/DC	50 VA/50 W
Min. command duration at U_s for the remote reset magnet		60 ms
Short-circuit protection		
Smallest permissible DIAZED fuse (operational class gL)/ automatic circuit breaker with C characteristic		2 A TDz (slow)/1 A at 24 V DC and 48 V DC, 1 A TDz (slow)/1 A at 110 V and 208 ... 250 V

Contact position-driven auxiliary switches (S1, S2, S3, S4, S7, S8)

		3WL11 – 3WL13			
Rated voltage					
Rated insulation voltage U_i	AC/DC	500 V			
Rated operational voltage U_e	AC/DC	500 V			
Rated impulse withstand voltage U_{imp}		4 kV			
Contact reliability		From 1 mA at 5 V DC			
Breaking capacity					
Alternating current 50/60 Hz	Rated operational voltage U_e	24 ... 230 V		380 V, 400 V	
	Rated operational current I_e/AC-12	10 A		10 A	
	Rated operational current I_e/AC-15	4 A		3 A	
Direct current	Rated operational voltage U_e	24 V	48 V	110 V	220 V
	Rated operational current I_e/DC-12	10 A	8 A	3.5 A	1 A
	Rated operational current I_e/DC-13	8 A	4 A	1.2 A	0.4 A
Short-circuit protection					
Largest permissible DIAZED fuse (operational class gL)		10 A TDz, 10 A Dz			
Largest permissible miniature circuit breaker with C characteristic		10 A			

Ready-to-close signaling switches (S20) (acc. to DIN VDE 0630)

		3WL11 – 3WL13	
Breaking capacity			
Alternating current 50/60 Hz	Rated operational voltage U_e	250 V	
	Rated operational current I_e	8 A	
Direct current	Rated operational voltage U_e	125 V	250 V
	Rated operational current I_e	0.4 A	0.2 A
	Contact reliability	From 1 mA at 5 V DC	
Short-circuit protection			
Largest permissible DIAZED fuse (operational class gL)		2 A Dz (quick)	

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Accessory options

Further technical specifications

Tripped signaling switches (S24) and signaling switches for auxiliary releases (S22, S23) (acc. to DIN VDE 0630)

		3WL11 – 3WL13		
Breaking capacity				
Alternating current 50/60 Hz	Rated operational voltage U_e	250 V		
	Rated operational current I_e/AC-12	8 A		
Direct current	Rated operational voltage U_e	24 V	125 V	250 V
	Rated operational current I_e/DC-12	6 A	0.4 A	0.2 A
	Contact reliability	From 1 mA at 5 V DC		
Short-circuit protection				
Largest permissible DIAZED fuse (operational class gL)		6 A Dz (quick)		
Tripped signaling switches				
Signal duration after tripping		Until manual or electrical remote reset (option)		

Position signaling switches on guide frame

		3WL11 – 3WL13		
Type of contacts				
Message	"Circuit breaker in connected position"	3 CO	or	1 CO
	"Circuit breaker in test position"	2 CO	or	1 CO
	"Circuit breaker in disconnected position"	1 CO	or	1 CO
Contact reliability (valid from April 1, 2020)		From 1 mA at 5 V DC		
Rated voltage				
Rated insulation voltage U_i	50/60 Hz AC	440 V		
	DC	250 V		
Rated operational voltage U_e		250 V		
Rated impulse withstand voltage U_{imp}		4 kV		
Breaking capacity				
Rated operational current I_e	I_e/AC-12	24 V 10 A, 110/127 V 10 A, 220/240 V 10 A, 320/440 V 10 A		
	I_e/AC-15	220/240 V 4 A, 320/440 V 3 A		
	I_e/DC-12	24 V 10 A, 48 V 2.5 A, 220/240 V 0.2 A		
	I_e/DC-13	24 V 3.0 A, 220/240 V 0.1 A		
	A 300 (AC)	120 V 6 A, 240 V 3 A		
	R 300 (DC)	125 V 0.22 A, 250 V 0.11 A		
Short-circuit protection				
Largest permissible DIAZED fuse (operational class gL)		8 A TDz (slow)		
Largest permissible automatic circuit breaker with C characteristic		8 A TDz (slow)		

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Guide frames for AC

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

	5	6	7	8	9	10	11	12	13	14	15	16
3WL9	2	1			–				–			1

			SZ 1	SZ 2	SZ 3	
Size	1					1
	2					2
	3					3
Max. rated current I_n	1000 A [6]		■	–	–	1
	1600 A [6]		■	–	–	2
	2000 A [6]		■	■	–	3
	2500 A [6]		–	■	–	4
	3200 A		–	■	–	5
	4000 A [6]		–	■	■	6
	5000 A		–	–	■	7
	6300 A		–	–	■	8
Number of poles	3-pole					F
	4-pole					G
Main connection	Front, single hole		□ [1]	□ [2]	□ [3]	A
	Front, double hole		■	□ [2]	□ [3]	B
	Horizontal		■	□ [2]	□ [4]	C
	Vertical		■	■	■	D
	Connecting flange		■	□ [2]	□ [3]	E
Breaking capacity $I_{cu} = I_{cs}$	N,	55 kA	■	–	–	N
	S,	66 kA	■	–	–	S
	H,	85 kA	□ [5]	–	–	H
	N, S and H	Up to 100 kA	–	■	■	H
	C	130 kA	–	■	–	C
	C	150 kA	–	–	■	C

■ Applies in this case
□ Partially applies in this case

[1] Not available for rated circuit breaker current 2000 A and breaking capacity H
[2] Not available for rated circuit breaker current 4000 A and breaking capacity C
[3] Not available for rated circuit breaker current 5000 A+6300A+breaking capacity C
[4] Not available for rated circuit breaker current 6300 A
[5] Not available for rated circuit breaker current 1000 A + 1600 A
[6] Not available for breaking capacity C

Options

	5	6	7	8	9	10	11	12	13	14	15	16
3WL9	2	1			–				–			1

Number of auxiliary supply connectors	Without [2]		0		
	1 connector		1		
	2 connectors		2		
	3 connectors		3		
	4 connectors		4		
Type of auxiliary circuit connections	Without [2]			0	
	With screw terminals (SIGUT, standard)			1	
	With screwless terminals (tension spring)			2	
Position signaling switches	Without				0
	1 CO | 1 CO | 1 CO (connected | test | isolated position)				1
	3 CO | 2 CO | 1 CO (connected | test | isolated position)				2
Shutters	Without				A
	With shutter, 2-part, lockable				B

[8] Can only be selected if the number of the auxiliary supply connector is zero.

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Guide frames for DC

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

	5	6	7	8	9	10	11	12	13	14	15	16
3WL9	2	1	2	–					–		0	1

Max. rated current I_n	2000 A	3
	4000 A	6
Number of poles	3-pole	H
	4-pole	J
Main connection	Front, single hole [1]	A
	Front, double hole [1]	B
	Horizontal	C
	Vertical	D
	Connecting flange	E

[1] Not available for rated circuit breaker current 4000 A

Optionen

	5	6	7	8	9	10	11	12	13	14	15	16
3WL9	2	1	2	–					–		0	1

Number of auxiliary supply connectors	Without	0
	1 connector	1
	2 connectors	2
	3 connectors	3
	4 connectors	4
Type of auxiliary circuit connections	Without [2]	0
	With screw terminals (SIGUT, standard)	1
	With screwless terminals (tension spring)	2
Position signaling switches	Without	0
	1 CO | 1 CO | 1 CO (connected | test | isolated position)	1
	3 CO | 2 CO | 1 CO (connected | test | isolated position)	2
Shutters	Without	A
	With shutter, 2-part, lockable	B

[2] Can only be selected if the number of the auxiliary supply connector is zero.

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Accessories and spare parts

Accessories for electronic trip units ETU

Protective devices with device holder and optional metering function

- For replacement in existing circuit breakers, please specify the circuit breaker ID No. when ordering.

Type	With protection function	Metering function	Article No.
ETU15B	LI	Without	3WL9311-5AA00-0AA2
ETU25B	LSI	Without	3WL9312-5AA00-0AA2
ETU27B	LSING	Without	3WL9312-7AA00-0AA2
ETU45B (without display)	LSIN(G)	Without	3WL9314-5AA00-0AA2
		With metering function Plus new	3WL9314-5AA30-0AA2
ETU76B	LSIN(G)	Without	3WL9317-6AA00-0AA2
		With metering function Plus new	3WL9317-6AA30-0AA2

Rating plugs


NSE0_00992b

- With the rating plug selected, the maximum rated current $I_{n\,max}$ of the circuit breaker must not be exceeded. The following applies: $I_n \leq I_{n\,max.}$

Size	Rated current I_n	Article No.
1, 2	250 A	3WL9111-0AA51-0AA0
	315 A	3WL9111-0AA52-0AA0
	400 A	3WL9111-0AA53-0AA0
	500 A	3WL9111-0AA54-0AA0
	630 A	3WL9111-0AA55-0AA0
	800 A	3WL9111-0AA56-0AA0
	1000 A	3WL9111-0AA57-0AA0
1, 2, 3	1250 A	3WL9111-0AA58-0AA0
	1600 A	3WL9111-0AA61-0AA0
	2000 A	3WL9111-0AA62-0AA0
2, 3	2500 A	3WL9111-0AA63-0AA0
	3200 A	3WL9111-0AA64-0AA0
	4000 A	3WL9111-0AA65-0AA0
3	5000 A	3WL9111-0AA66-0AA0
	6300 A	3WL9111-0AA67-0AA0

Ground-fault modules


NSE0_01027a

- Alarm and tripping
- For direct metering of the ground-fault current, e.g. in the star point of the transformer, a 1200 A/1 A current transformer, class 1, is required. The internal load of the 3WL circuit breaker is 0.11 Ω. If the ground-fault current is to be determined using the vectorial sum of the phases, a transformer must be installed in the neutral conductor.

Type	Accessory for	Article No.
GFM AT 45B	ETU45B	3WL9111-0AT53-0AA0
GFM AT 55B – 76B	ETU76B	3WL9111-0AT56-0AA0

Display


NSE0_01609

Accessory for	Version	Article No.
ETU45B	4-line	3WL9111-0AT81-0AA0

Internal current transformers, for N conductor including wiring kit

ETU Release 2	Size	Article No.
–	1	3WL9111-0AA11-0AA0
	2	3WL9111-0AA12-0AA0
	3	3WL9111-0AA13-0AA0
✓	1	3WL9111-0AA14-0AA0
	2	3WL9111-0AA15-0AA0
	3	3WL9111-0AA16-0AA0

External current transformers for N conductor


NSE0_00990a


NSE0_00991a

Copper connection pieces	Size	Article No.
–	1	3WL9111-0AA21-0AA0
	2	3WL9111-0AA22-0AA0
	3	3WL9111-0AA23-0AA0
✓	1	3WL9111-0AA31-0AA0
	2	3WL9111-0AA32-0AA0
	3	3WL9111-0AA33-0AA0

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Accessories and spare parts

Accessories for electronic trip units ETU

EMC filter

- Common-mode interference suppressor filters (e.g. in IT networks, caused by frequency converters)
- Insertion loss (asymmetric) in the range 40 kHz to 10 MHz >40 dB.

Variants	Article No.
Only for ETU Release 2	3WL9111-0AK34-0AA0

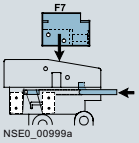
Sealable and lockable covers

Accessory for	Article No.
ETU15B to ETU45B	3WL9111-0AT45-0AA0
ETU76	3WL9111-0AT46-0AA0

Automatic reset of the reclosing lockout

Version	Article No.
Spare part for option K01	3WL9111-0AK21-0AA0

Remote reset magnets



- For mechanical tripped indicator
- Spare part for options K10 to K13
- **Note:**
  - Automatic reset of the reclosing lockout 3WL9111-0AK21-0AA0 is also required

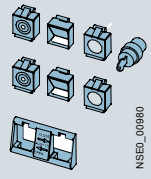
Voltage	Article No.
24 V DC	3WL9111-0AK03-0AA0
48 V DC	3WL9111-0AK04-0AA0
120 V AC / 125 V DC	3WL9111-0AK05-0AA0
208 ... 250 V AC / 208 ... 250 V DC	3WL9111-0AK06-0AA0

Retrofittable internal wiring

Purpose	Male connector	Accessory for	Article No.
Internal CubicleBUS wiring for connection to terminal X8	Without male connector for retrofitting the communication	ETU45B and ETU76B	3WL9111-0AK30-0AA0
For connection of the external N and G transformers to terminal X8	Without male connector	Not for ETU Release 2	3WL9111-0AK31-0AA0
		ETU Release 2	3WL9111-0AK33-0AA0

Locking devices and interlocks

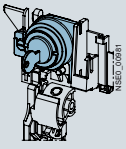
Padlockable protective cover ON / OFF



- Consisting of two transparent covers each for sealing or for attaching padlocks (padlocks not included in scope of supply)
- Cover with 6.35 mm hole (for tool actuation)
- Lock mount for safety lock for key operation

Version	Article No.
Without safety lock	3WL9111-0BA21-0AA0
Made by CES	3WL9111-0BA22-0AA0
Made by IKON	3WL9111-0BA24-0AA0

Locking devices against unauthorized closing, in the operator panels



- The disconnector unit fulfills the requirements for main circuit breakers acc. to EN 60204-1
- Spare part for options S01 to S09

Variant	Scope of supply	Article No.
Assembly kit FORTRESS or Castell	Without locks, cylinders or keys	3WL9111-0BA31-0AA0
Made by Ronis	Locks, cylinders and keys included	3WL9111-0BA33-0AA0
Made by KIRK-Key	Without locks, cylinders or keys	3WL9111-0BA34-0AA0
Made by Profalux	Locks, cylinders and keys included	3WL9111-0BA35-0AA0
Made by CES	Locks, cylinders and keys included	3WL9111-0BA36-0AA0
Made by IKON	Locks, cylinders and keys included	3WL9111-0BA38-0AA0
Assembly kit for padlocks	Without padlock	3WL9111-0BA41-0AA0

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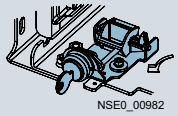
Locking devices and interlocks

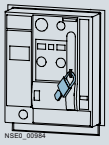
Locking devices against unauthorized closing, for withdrawable circuit breakers


NSE0_00982

- The disconnector unit fulfills the requirements for main circuit breakers acc. to EN 60204-1
- Consisting of lock in the guide frame, active in connected position, function is retained when circuit breaker is replaced
- Spare part for option R60, R61, R68

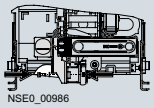
Variant	Scope of supply	Article No.
Made by CES	Locks, cylinders and keys included	3WL9111-0BA51-0AA0
Made by IKON	Locks, cylinders and keys included	3WL9111-0BA53-0AA0
Made by KIRK-Key [1]	Without locks, cylinders or keys	3WL9111-0BA57-0AA0
Made by Ronis	Locks, cylinders and keys included	3WL9111-0BA58-0AA0
Made by Profalux	Locks, cylinders and keys included	3WL9111-0BA50-0AA0

Locking devices for operating mechanism handle with padlock


NSE0_00984

Version	Scope of supply	Article No.
Spare part for S33	Without padlock	3WL9111-0BA71-0AA0

Locking device against movement of the withdrawable circuit breaker


NSE0_00986

- Safety lock for mounting onto the circuit breaker
- Spare part for option S71, S75, S76

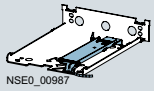
Variant	Scope of supply	Article No.
Made by CES	Locks, cylinders and keys included	3WL9111-0BA73-0AA0
Made by IKON	Locks, cylinders and keys included	3WL9111-0BA75-0AA0
Made by Profalux	Locks, cylinders and keys included	3WL9111-0BA76-0AA0
Made by Ronis	Locks, cylinders and keys included	3WL9111-0BA77-0AA0
Made by KIRK-Key [1]	Without locks, cylinders or keys	3WL9111-0BA80-0AA0

Interlocking systems

- 2 of the same keys for 3 circuit breakers
- Locking device in OFF position
- Lock in the operator panel
- A maximum of 2 circuit breakers can be switched on

Variant	Article No.
Made by CES	3WL9111-0BA43-0AA0

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


NSE0_00987

- Consisting of Bowden cable and lock in the cabinet door on the circuit breaker
- Spare part for option R81, R85, R86
- **Note:**
  - Not possible in combination with "Locking mechanism to prevent opening of the cabinet door" (order code "R30") or "Locking mechanism to prevent movement with the cabinet door open" (order code "R50").).

Variant	Article No.
Made by CES	3WL9111-0BA81-0AA0
Made by IKON	3WL9111-0BA83-0AA0
Made by Profalux	3WL9111-0BA85-0AA0
Made by Ronis	3WL9111-0BA86-0AA0

Locking devices to prevent opening of the cabinet door in ON position


NSE0_00988

- Fixed-mounted
- Defeatable
- **Note:**
  - Not possible in combination with "Locking mechanism to prevent movement of the withdrawable circuit breakers in disconnected position" (order codes "R81", "R85" or "R86").

Version	Article No.
Spare part for option S30	3WL9111-0BB12-0AA0

[1] Locks, cylinders and keys must be ordered from the manufacturer.

System overview, page 1/38

Accessories and spare parts

Locking devices and interlocks

Locking devices to prevent opening of the cabinet door

- Guide frames
- Defeatable
- **Note:**
  - Not possible in combination with "Locking mechanism to prevent movement of the withdrawable circuit breakers in disconnected position" (order codes "R81", "R85" or "R86").

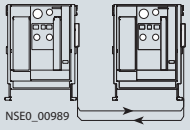
Version	Article No.
Spare part for option R30	3WL9111-0BB13-0AA0

Locking devices to prevent movement with the cabinet door open

- Guide frames
- **Note:**
  - Not possible in combination with "Locking mechanism to prevent movement of the withdrawable circuit breakers in disconnected position" (order codes "R81", "R85" or "R86").

Version	Article No.
Spare part for option R50	3WL9111-0BB15-0AA0

Mutual mechanical interlockings


NSE0_00989

- With Bowden cable 2000 mm (one required for each circuit breaker)

Type	When ordered separately	Spare part for	Article No.
Fixed-mounted circuit breaker	–	Option S55	3WL9111-0BB21-0AA0
Module for withdrawable circuit breakers with guide frame	–	Option R55	3WL9111-0BB24-0AA0
Module for guide frame	✓	Option R56	3WL9111-0BB22-0AA0
Module for withdrawable circuit breaker	✓	Option R57	3WL9111-0BB23-0AA0
Adapter for size 3 withdrawable circuit breaker	✓	–	3WL9111-0BB30-0AA0

Couplings on the circuit breaker (with ring) for mutual interlocking

- Can be used in all circuit breakers

Article No.
3WL9112-8AH47-0AA0

Bowden cables

Length	Article No.
2000 mm	3WL9111-0BB45-0AA0
3000 mm	3WL9111-0BB46-0AA0
4500 mm	3WL9111-0BB47-0AA0

Test devices

Manual tester, Release 2 for electronic trip units ETU15B to ETU76B

- For testing the electronic trip unit functions of all 3WL ETUs (Release 1 and Release 2)

Article No.
3WL9111-0AT32-0AA0

Function test unit

- For testing the tripping characteristics for electronic trip units ETU15B to ETU76B (Release 1 and Release 2)

Article No.
3WL9111-0AT44-0AA0

TD400 Kit IEC

- Commissioning /Service Tool for IEC 3WL (ETU Release 2) and 3VA
- With adapter, cable and case

Article No.
3VW9011-0AT40

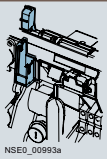
TD400 adapter (spare part)

Version	Article No.
for 3VA	3VW9011-0AT43
for 3WL ETU Release 1	3VW9011-0AT44
for 3WL ETU Release 2	3VW9011-0AT45

System overview, page 1/38

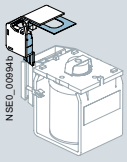
Indicators and control elements

Ready-to-close signaling switches (S20)


NSE0_00993a

Version	Contacts	Article No.
Spare part for option C22	1 NO contact	3WL9111-0AH01-0AA0

Signaling switch (S22 or S23).


NSE0_00994b

- Not possible with communication port, order code "F02", "F12" or "F35"
- Auxiliary supply connection X7 required for circuit breakers or guide frames. If this is not already available, please order additionally

Version	Contacts	Article No.
Spare part for options C26 to C27	1st or 2nd auxiliary release	3WL9111-0AH02-0AA0

1st tripped signaling switch (S24)

- Not possible with communication port, order code "F02", "F12" or "F35"
- Auxiliary supply connection X7 required for circuit breakers or guide frames. If this is not already available, please order additionally

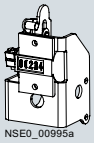
Version	Contacts	Article No.
Spare part for option K07	1 CO contact	3WL9111-0AH14-0AA0

2nd tripped signaling switch (S25)

- Not possible with communication port, order code "F02", "F12" or "F35"
- Auxiliary supply connection X7 required for circuit breakers or guide frames. If this is not already available, please order additionally
- Can only be used in combination with 1st tripped signaling switch

Version	Contacts	Article No.
Spare part for option K06	1 NO contact	3WL9111-0AH17-0AA0

Operating cycle counters


NSE0_00995a

- Only in conjunction with motorized operating mechanism.

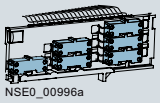
Variant	Version	Article No.
Spare part for option C01	Mechanical	3WL9111-0AH07-0AA0

Spring charged signaling switch

- Not possible with communication port, order code "F02", "F12" or "F35".
- Auxiliary supply connection X7 required for circuit breakers or guide frames. If this is not already available, please order additionally

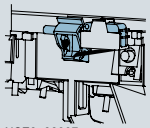
Version	Contacts	Article No.
Spare part for option C20	1 NO contact	3WL9111-0AH08-0AA0

Position signaling switches for guide frames


NSE0_00996a

Version	Contacts	Article No.
Spare part for options R15 to R16	1st block (3 CO contacts)	3WL9111-0AH11-0AA0
	2nd block (6 CO contacts)	3WL9111-0AH12-0AA0

Electrical ON button (S10) for operator panel


NSE0_00997a

- Not possible with communication port, order code "F02", "F12" or "F35"
- Not possible with motor shutdown switch
- Button + wiring (Auxiliary supply connection X7 required for circuit breakers or guide frames. If this is not already available, please order additionally)
- **Note:**
  - Possible only for circuit breakers with closing coil.

Version	Variant	Article No.
Spare part for options C11 to C12	With sealing cap C11	3WL9111-0AJ02-0AA0
	With CES assembly kit C12	3WL9111-0AJ03-0AA0
	With IKON assembly kit	3WL9111-0AJ05-0AA0

System overview, page 1/38

Accessories and spare parts

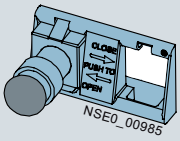
Indicators and control elements

Motor cutout switch (S12)

- Mounting onto operator panel
- Not possible with electrical ON button

Version	Article No.
Spare part for option S25	3WL9111-0AJ06-0AA0

EMERGENCY-OFF pushbuttons

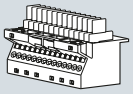


- Mushroom pushbutton instead of the mechanical OFF pushbutton

Variant	Article No.
Spare part for option S24	3WL9111-0BA72-0AA0

Auxiliary conductor connections

Male connectors for circuit breakers ❶



Article No.
3WL9111-0AB01-0AA0

Extension for male connector

- Male connector must be ordered separately

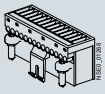
Version	Article No.
1000 V	3WL9111-0AB02-0AA0

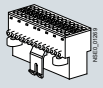
Male connectors and extension

Version	Article No.
1000 V	3WL9111-0AB10-0AA0

Auxiliary supply connection for circuit breakers or guide frames ❷

Version	Article No.
Screw connection (SIGUT)	3WL9111-0AB03-0AA0
Screwless connection (tension spring)	3WL9111-0AB04-0AA0





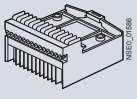
Coding kits ❸

Version	Article No.
For fixed-mounted X5 to X8	3WL9111-0AB07-0AA0

Sliding contact modules for guide frames ❹

Article No.
3WL9111-0AB08-0AA0

One-part sliding contact modules for guide frames ❺



Version	Article No.
Screw terminals (SIGUT)	3WL9111-0AB18-0AA0

Blanking blocks for circuit breakers

Article No.
3WL9111-0AB12-0AA0

For a complete auxiliary current connection you must order:
Fixed-mounted version: ❶ + ❷ + ❸
Withdrawable version: ❶ + ❹ + ❷ and ❶ + ❺

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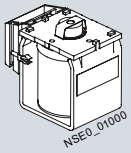
Auxiliary releases

Closing coils / shunt trips



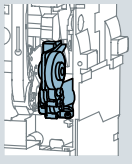
Version	Voltage	Article No.
100% OP	24 V DC	3WL9111-0AD01-0AA0
	30 V DC	3WL9111-0AD02-0AA0
	48 V DC	3WL9111-0AD03-0AA0
	60 V DC	3WL9111-0AD04-0AA0
	110 ... 125 V DC/110 ... 127 V AC	3WL9111-0AD05-0AA0
	220 ... 250 V DC/208 ... 240 V AC	3WL9111-0AD06-0AA0
5% OP Switching time 50 ms (standard >80 ms).	24 V DC	3WL9111-0AD11-0AA0
	48 V DC	3WL9111-0AD12-0AA0
	110 ... 125 V DC/110 ... 127 V AC	3WL9111-0AD13-0AA0
	220 ... 250 V DC/208 ... 240 V AC	3WL9111-0AD14-0AA0

Undervoltage release

Version	Voltage	Article No.
Instantaneous	24 V DC	3WL9111-0AE01-0AA0
	30 V DC	3WL9111-0AE02-0AA0
	48 V DC	3WL9111-0AE03-0AA0
	60 V DC	3WL9111-0AE07-0AA0
	110 ... 125 V DC/110 ... 127 V AC	3WL9111-0AE04-0AA0
	220 ... 250 V DC/208 ... 240 V AC	3WL9111-0AE05-0AA0
	380 ... 415 V AC	3WL9111-0AE06-0AA0
Delayed	48 V DC	3WL9111-0AE11-0AA0
	110 ... 125 V DC/110 ... 127 V AC	3WL9111-0AE12-0AA0
	220 ... 250 V DC/208 ... 240 V AC	3WL9111-0AE13-0AA0
	380 ... 415 V AC	3WL9111-0AE14-0AA0

Operating mechanism

Motorized operating mechanisms

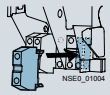


- Auxiliary supply connection X5 required for circuit breakers or guide frames.
  If this is not already available, please order additionally

Voltage	Article No.
24 ... 30 V DC	3WL9111-0AF01-0AA0
48 ... 60 V DC	3WL9111-0AF02-0AA0
110 ... 125 V DC/110 ... 127 V AC	3WL9111-0AF03-0AA0
220 ... 250 V DC/208 ... 240 V AC	3WL9111-0AF04-0AA0

Auxiliary contacts

Auxiliary switch blocks



Contacts	Article No.
2 NO contacts + 2 NC contacts	3WL9111-0AG01-0AA0
2 NO contacts	3WL9111-0AG02-0AA0
1 NO contact + 1 NC contact	3WL9111-0AG03-0AA0

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Accessories and spare parts

Door sealing frames, hoods, shutters

Door sealing frames

Version	Article No.
Spare part for option T40	3WL9111-0AP01-0AA0

Protective cover IP55

- Cannot be used in conjunction with door sealing frames
- Hood removable and can be opened on both sides

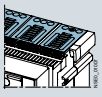
Article No.
3WL9111-0AP02-0AA0

Shutters

Version	Number of poles	Size	Breaking capacity	Article No.
Spare part for option R21	3-pole	1	N, S, H	3WL9111-0AP04-0AA0
		2	N, S, H	3WL9111-0AP06-0AA0
			C	3WL9111-0AP43-0AA0
		3	H, C	3WL9111-0AP07-0AA0
	4-pole	1	N, S, H	3WL9111-0AP08-0AA0
		2	N, S, H	3WL9111-0AP11-0AA0
			C	3WL9111-0AP44-0AA0
		3	H, C	3WL9111-0AP12-0AA0

Arc chute

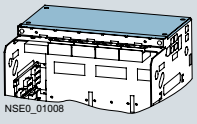
Arc chute



Voltage	Size	Breaking capacity	Article No.
690 V	1	N, S, H	3WL9111-0AS01-0AA0
	2	N, S, H	3WL9111-0AS02-0AA0
		C	3WL9111-0AS10-0AA0
	3	H, C	3WL9111-0AS03-0AA0
1000 V / 1150 V	2	H, C	3WL9111-0AS05-0AA0
	3	H, C	3WL9111-0AS06-0AA0

Arc chute covers

- Parts kit for guide frame
- Spare part for option R10
- Not available for
  - 1000 V version (order code "A05"),
  - 1150 V version (order code "A15")
  - DC version,
  - 4000 A size 2,
  - Circuit breakers with very high breaking capacity C.



Number of poles	Size	Article No.
3-pole	1	3WL9111-0AS32-0AA0
	2	3WL9111-0AS36-0AA0
	3	3WL9111-0AS38-0AA0
4-pole	1	3WL9111-0AS42-0AA0
	2	3WL9111-0AS44-0AA0
	3	3WL9111-0AS46-0AA0

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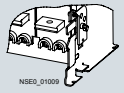
Coding for withdrawable version

Coding for withdrawable version

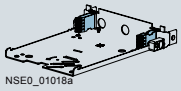


- By customer, for 36 coding variants

Size	Article No.
1 and 2	3WL9111-0AR12-0AA0
3	3WL9111-0AR13-0AA0

Grounding connections

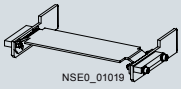
Grounding connection between the guide frame and the withdrawable circuit breaker



- Order 2× for 30 kA ground short-circuit current
- Contacting modules for guide frame

Size	Article No.
1 and 2 [1]	3WL9111-0BA01-0AA0
3	3WL9111-0BA02-0AA0

Contacting modules for withdrawable circuit breakers



Number of poles	Size	Article No.
3-pole	1	3WL9111-0BA05-0AA0
	2 [1]	3WL9111-0BA06-0AA0
	3	3WL9111-0BA07-0AA0
4-pole	1	3WL9111-0BA08-0AA0
	2 [1]	3WL9111-0BA04-0AA0
	3	3WL9111-0BA10-0AA0

[1] Cannot be used for size 2 with very high breaking capacity C and size 2, 4000 A.

Support brackets

Support brackets

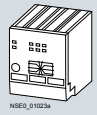
- For mounting fixed-mounted circuit breakers on vertical plane
- Only for sizes 1 and 2 (1 set = 2 units)

Article No.
3WL9111-0BB50-0AA0

CubicleBUS modules

- Each CubicleBUS module is supplied with a 0.2 m pre-assembled cable to connect the modules with each other. A longer pre-assembled cable is required for connection to the circuit breaker.
- All communication components, CubicleBUS modules and metering functions are available for the electronic trip units ETU45B and ETU76B.

CubicleBUS modules



Type	Article No.
Digital output modules with rotary coding switch, relay outputs	3WL9111-0AT26-0AA0
Digital output modules, configurable, relay outputs	3WL9111-0AT20-0AA0
Digital input module	3WL9111-0AT27-0AA0
Analog output module	3WL9111-0AT23-0AA0
ZSI module	3WL9111-0AT21-0AA0

Preassembled cables for CubicleBUS modules

For connection to 3WL	Length	Article No.
With COM15/COM16/COM35	0.5 m	3WL9111-0BC04-0AA0
	1 m	3WL9111-0BC02-0AA0
	2 m	3WL9111-0BC03-0AA0
Without COM15/COM16/COM35	2 m	3WL9111-0BC05-0AA0

Voltage transformers

- Required for 3WL circuit breakers with metering function Plus, if no direct voltage tap is available.
- 380 ... 690 V/100 V, class 0.5

Number of poles	Metering function	Article No.
3-pole	With metering function Plus	3WL9111-0BB68-0AA0

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Accessories and spare parts

Retrofitting and spare parts

- For retrofitting the COM15, COM16 or COM35 communication modules in withdrawable 3WL circuit breakers with Z options A05 (1000 V AC), A15 (1150 V AC) or A16 (690 V + 20%), the following additional assembly kits are required: 3WL9111-0AT62-0AA0 for circuit breakers size 1 or 3WL9111-0AT63-0AA0 for circuit breakers size 2/3

COM35 PROFINET IO / Modbus TCP modules new

Version	Article No.
For electronic trip units ETU45B and ETU76B	3WL9111-0AT65-0AA0

PROFINET IO / Modbus TCP retrofit kits new

- Retrofit kit for the PROFINET IO / Modbus TCP communication including COM35, BSS and set of cables for all 3WL air circuit breakers with ETU45B and ETU76B electronic trip units

Article No.
3WL9111-0AT66-0AA0

PROFIBUS retrofit kits

- Retrofit kit for the PROFIBUS communication including COM15, BSS and set of cables for all 3WL air circuit breakers with ETU45B and ETU76B electronic trip units

Article No.
3WL9111-0AT12-0AA0

COM15 PROFIBUS modules

Version	Article No.
For electronic trip units ETU45B and ETU76B	3WL9111-0AT15-0AA0

COM16 Modbus RTU modules

Version	Article No.
For electronic trip units ETU45B and ETU76B	3WL9111-0AT17-0AA0

Modbus RTU retrofit kits IEC

- Retrofit kit for the Modbus communication including COM16, BSS and set of cables for all 3WL air circuit breakers with ETU45B and ETU76B electronic trip units

Article No.
3WL9111-0AT18-0AA0

Additional parts for retrofitting the COM15/COM16/COM35 communication modules

- In withdrawable 3WL circuit breakers with Z options:
  - A05 (1000 V AC) or
  - A15 (1150 V AC) or
  - A16 (690 V + 20%)

Size	Article No.
1	3WL9111-0AT62-0AA0
2/3	3WL9111-0AT63-0AA0

Breaker status sensors (BSS)

Version	Article No.
• For acquisition via communication of the circuit breaker states ON / OFF / tripped • For electronic trip units ETU45B and ETU76B	3WL9111-0AT16-0AA0

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Interfaces

Interface to the IEC 61850 new

- The SICAM A8000 as an intelligent data concentrator ensures the connection of the circuit breakers from the SENTRON portfolio via the MODBUS TCP/IP protocol and the forwarding of the data via communication protocols (such as IEC61850,IEC60870-5-104,IEC60870-5-101, MODBUS and DNP) to higher-level systems.

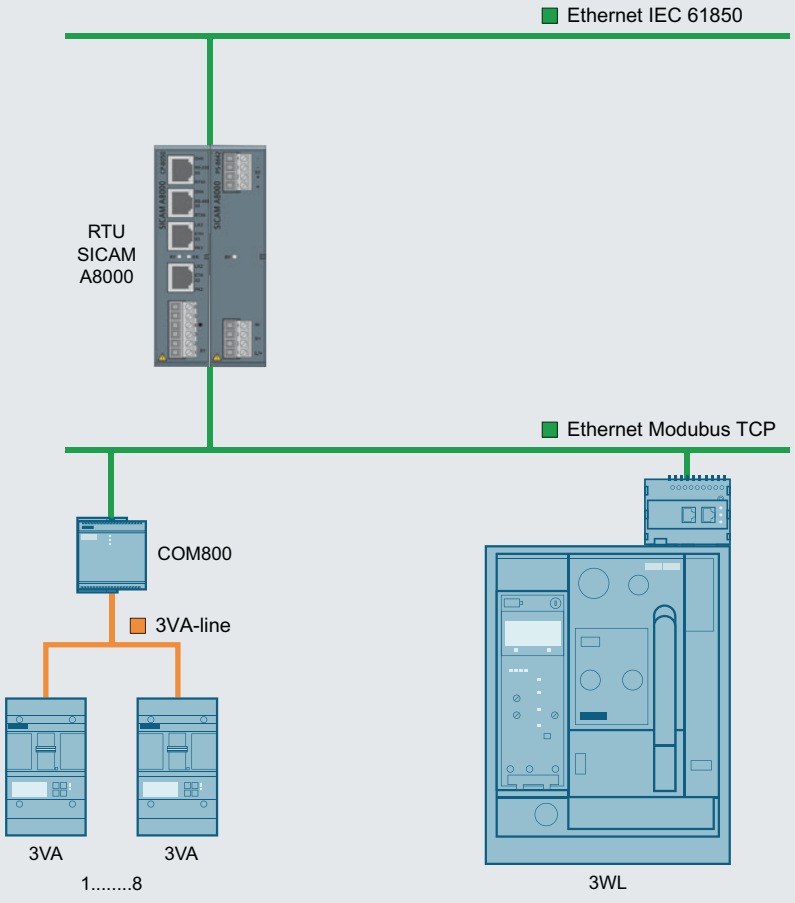
Type	Operating voltage	Article No.
SICAM CP-8021 [1]	–	6MF28021AA00
SICAM CP-8050 [2]	–	6MF2805-0AA00 new
SICAM PS-8620	24 ... 60 V DC (12 W)	6MF28620AA00
SICAM PS-8622	110 ... 220 V DC (12 W)	6MF28622AA00

[1] Designed for maximum data volumes of 20 devices each with 50 data points

[2] Dimensioned for device quantities of 3× 3WL and 8× 3VA

You will find further information at:
www.siemens.com/sicam-a8000

For the SICAM CP-8021 and SICAM CP-8050, predefined modules were created to reduce commissioning work to a minimum. The modules can be obtained free of charge from the following link.
https://support.industry.siemens.com/cs/ww/de/ps/24618/ae



System overview, page 1/38

Accessories and spare parts

Storage devices

Capacitor storage devices

- For shunt trips
- Storage time 5 min
- Also suitable for 3VL, 3VA and 3WN circuit breakers
- **Note:**
  - Rated control supply voltage must match the rated control supply voltage of the shunt trip.

Rated control supply voltage/rated operational voltage		Article No.
50/60 Hz AC	DC	
220 ... 240 V	220 ... 250 V	3WL9111-0BA14-0AA0

Spare parts new

Metering function Plus for retrofitting

- As spare part or for retrofitting the metering function Plus with an external voltage transformer
  - For ETU45B or ETU76B Release 2
  - Voltage transformer required
  - Voltage converter required
  - A measuring accuracy of 3% is achieved if retrofitted.

	Article No.
	3WL9111-0AT05-0AA0

Voltage converter

Version	Article No.
As spare part or for retrofitting the metering function Plus	3WL9111-0AT06-0AA0

Components for conversion of an existing internal voltage tap [2)]

- Conversion requires 3 components for 3-pole 3WL
- Conversion requires 4 components for 4-pole 3WL
- Conversion of a metering function (Z option A05) is not possible.

Conversion of internal voltage tap to main contact	Size	Article No.
From bottom to top	1	3WL9111-0AT71-0AA0
	2	3WL9111-0AT72-0AA0
	3	3WL9111-0AT73-0AA0
From top to bottom	1	3WL9111-0AT74-0AA0
	2	3WL9111-0AT75-0AA0
	3	3WL9111-0AT76-0AA0

Transformers (without iron core), Rogowski coil only (instrument transformer for the protection function)

- Used in converter applications with high harmonic components; can only be used with ETU45B or ETU76B
  - External 24 V DC supply required
  - Undervoltage release required (e.g. 3WL9111-0AE01-0AA0)
- As retrofit kit or as spare part. With new circuit breakers, please use the Z option K60
- **Scope of supply:**
  - Transformer
  - Warning signs
  - Manual

Number of poles	Size	Article No.
3-pole	1	3WL9111-0AA42-0AA0
	2	3WL9111-0AA43-0AA0
	3	3WL9111-0AA44-0AA0
4-pole	1	3WL9111-0AA45-0AA0
	2	3WL9111-0AA46-0AA0
	3	3WL9111-0AA47-0AA0

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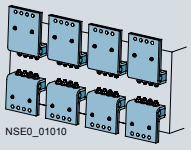
Main conductor connections, fixed-mounted versions (essential accessory)

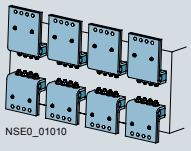
Front-accessible main connections, single hole at top



- Not for 3WL1 size 1 with high breaking capacity H

Size	Rated current I_n	Article No.
1	Up to 1000 A	3WL9111-0AL01-0AA0
	1250 ... 1600 A	3WL9111-0AL02-0AA0
2 [4]	Up to 2000 A	3WL9111-0AL03-0AA0
	Up to 2500 A	3WL9111-0AL04-0AA0
	Up to 3200 A	3WL9111-0AL05-0AA0
3	Up to 4000 A	3WL9111-0AL06-0AA0

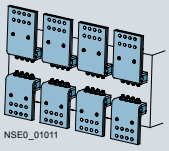
Front-accessible main connections, single hole at bottom



- Not for 3WL1 size 1 with high breaking capacity H

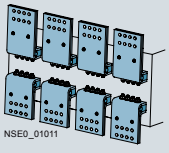
Size	Rated current I_n	Article No.
1	Up to 1000 A	3WL9111-0AL51-0AA0
	1250 ... 1600 A	3WL9111-0AL52-0AA0
2 [4]	Up to 2000 A	3WL9111-0AL53-0AA0
	Up to 2500 A	3WL9111-0AL54-0AA0
	Up to 3200 A	3WL9111-0AL55-0AA0
3	Up to 4000 A	3WL9111-0AL56-0AA0

Front-accessible main connections according to DIN 43673, double hole at top



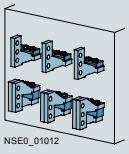
Size	Rated current I_n	Article No.
1	Up to 1000 A [1]	3WL9111-0AL07-0AA0
	1250 ... 2000 A [5]	3WL9111-0AL08-0AA0
2 [4]	Up to 2000 A	3WL9111-0AL11-0AA0
	Up to 2500 A	3WL9111-0AL12-0AA0
	Up to 3200 A	3WL9111-0AL13-0AA0
3	Up to 4000 A	3WL9111-0AL14-0AA0

Front-accessible main connections according to DIN 43673, double hole at bottom



Size	Rated current I_n	Article No.
1	Up to 1000 A [1]	3WL9111-0AL57-0AA0
	1250 ... 2000 A [5]	3WL9111-0AL58-0AA0
2 [4]	Up to 2000 A	3WL9111-0AL61-0AA0
	Up to 2500 A	3WL9111-0AL62-0AA0
	Up to 3200 A	3WL9111-0AL63-0AA0
3	Up to 4000 A	3WL9111-0AL64-0AA0

Rear vertical main connections



Size	Rated current I_n	Article No.
1 [2]	Up to 2000 A	3WL9111-0AM01-0AA0
2 [3]	Up to 3200 A	3WL9111-0AM02-0AA0
3	Up to 6300 A	3WL9111-0AM03-0AA0

[1] Nor for 3WL1 size 1 with high breaking capacity H
[2] In the case of vertical connection size 1 with breaking capacity N and S, up to 1000 A one 3WL9 111-0AM01-0AA0 vertical connection is required, up to 2000 A or with breaking capacity H two 3WL9 111-0AM01-0AA0 vertical connections are required.
[3] In the case of vertical connection size 2, up to 2500 A one 3WL9 111-0AM02-0AA0 vertical connection is required, up to 3200 A two 3WL9 111-0AM02-0AA0 vertical connections are required.
[4] Not for circuit breakers with very high breaking capacity C.
[5] Can be used for size 1 with H breaking capacity of 630 A ... 2000 A.

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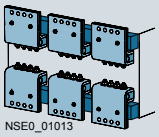
Accessories and spare parts

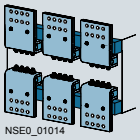
Main conductor connections, withdrawable versions (essential accessory)

Front-accessible main connections, single hole at top or at bottom [1] [2]


NSE0_01013

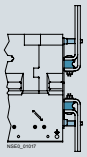
Size	Rated current I_n	Article No.
1	Up to 1000 A	3WL9111-0AN01-0AA0
	1250 ... 1600 A	3WL9111-0AN02-0AA0
2 [3]	Up to 2000 A	3WL9111-0AN03-0AA0
	Up to 2500 A	3WL9111-0AN04-0AA0
	Up to 3200 A	3WL9111-0AN05-0AA0
3	Up to 4000 A	3WL9111-0AN06-0AA0

Front-accessible main circuit connections, according to DIN 43673, double hole at top or at bottom [1]


NSE0_01014

Size	Rated current I_n	Article No.
1	Up to 1000 A [2]	3WL9111-0AN07-0AA0
	1250 ... 2000 A [5]	3WL9111-0AN08-0AA0
2 [3]	Up to 2000 A	3WL9111-0AN11-0AA0
	Up to 2500 A	3WL9111-0AN12-0AA0
	Up to 3200 A	3WL9111-0AN13-0AA0
3	Up to 4000 A	3WL9111-0AN14-0AA0

Supports for front and DIN connecting bars



Number of poles	Size	Article No.
3-pole for 3 bars	1	3WL9111-0AN41-0AA0
	2	3WL9111-0AN42-0AA0
	3	3WL9111-0AN43-0AA0
4-pole for 4 bars	1	3WL9111-0AN44-0AA0
	2	3WL9111-0AN45-0AA0
	3	3WL9111-0AN46-0AA0

Rear vertical main connections

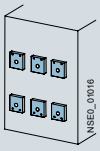

NSE0_01015

Size	Rated current I_n	Terminal pieces	Article No.
1	Up to 1000 A [2]		3WL9111-0AN15-0AA0
	1250 ... 2000 A [5]		3WL9111-0AN16-0AA0
2	Up to 2000 A [3]		3WL9111-0AN17-0AA0
	Up to 2500 A [3]		3WL9111-0AN18-0AA0
	Up to 3200 A [3]		3WL9111-0AN21-0AA0
	1600 ... 3200 A [4]		3WL9111-0AN38-0AA0
3	Up to 5000 A		3WL9111-0AN22-0AA0
	Up to 6300 A	3 units for 3-pole switches	3WL9111-0AN23-0AA0
	Up to 6300 A, top	4 units for 4-pole switches	3WL9111-0AN20-0AA0
	Up to 6300 A, bottom	4 units for 4-pole switches	3WL9111-0AN10-0AA0

Rear horizontal main connections

Size	Rated current I_n	Article No.
1	Up to 1000 A [2]	3WL9111-0AN32-0AA0
	1250 ... 2000 A [5]	3WL9111-0AN33-0AA0
2	Up to 2000 A [3]	3WL9111-0AN34-0AA0
	Up to 2500 A [3]	3WL9111-0AN35-0AA0
	Up to 3200 A [3]	3WL9111-0AN36-0AA0
	1600 ... 3200 A [4]	3WL9111-0AN47-0AA0
3	Up to 5000 A	3WL9111-0AN37-0AA0

Connecting flange


NSE0_01016

Size	Rated current I_n	Article No.
1	Up to 1000 A [2]	3WL9111-0AN24-0AA0
	1250 ... 2000 A [5]	3WL9111-0AN25-0AA0
2 [3]	Up to 2000 A	3WL9111-0AN26-0AA0
	Up to 2500 A	3WL9111-0AN27-0AA0
	Up to 3200 A	3WL9111-0AN28-0AA0
3	Up to 4000 A	3WL9111-0AN31-0AA0

[1] When using front-accessible main connections (withdrawable circuit breakers) supports are required.
[2] Not for 3WL1 size 1 with high breaking capacity H
[3] Not for circuit breakers with very high breaking capacity C.
[4] Only for circuit breakers with very high breaking capacity C.
[5] Can be used for size 1 with H breaking capacity of 630 A ... 2000 A.

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Conversion kit

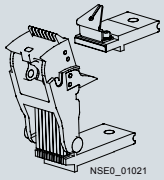
Conversion kit for converting fixed-mounted circuit breakers into withdrawable circuit breakers

- Guide frames and sliding contact modules must be ordered separately.
- Conversion from fixed-mounted to withdrawable is not possible for 3WL1 circuit breakers with very high breaking capacity C

Number of poles	Size	Article No.
3-pole	1	3WL9111-0BC11-0AA0
	2	3WL9111-0BC12-0AA0
	3	3WL9111-0BC13-0AA0
4-pole	1	3WL9111-0BC14-0AA0
	2	3WL9111-0BC15-0AA0
	3	3WL9111-0BC16-0AA0

Main contact elements

Main contact elements [2) 4)]



- **Notes:**
  - The circuit breaker ID No. must be specified when ordering [3)]
  - Specified for each connection (depending on the number of poles on the circuit breaker, order 3 or 4 units)
  - Article No. is automatically adapted to the circuit breaker ID No.

Size	$I_{n\ max.}$	Article No.
1	Up to 1600 A [1)]	3WL9111-0AM90 L1Y
2	Up to 2500 A	3WL9111-0AM91 L1Y
	Up to 4000 A	3WL9111-0AM92 L1Y
3	Up to 6300 A	3WL9111-0AM93 L1Y

1) Not for size 1 circuit breakers with breaking capacity H and circuit breakers with I_n=2000A.
2) Not for circuit breakers with very high breaking capacity C.
3) Please specify the circuit breaker ID No. in plain text when ordering.
4) Replacement of the main contact elements for 3WL1 circuit breakers with very high breaking capacity C is only possible at the factory.

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Link directory

Catalog LV 10

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Information on low-voltage power distribution and electrical installation technology	www.siemens.com/lowvoltage
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Catalogs and further information

LV 10
Low-Voltage Power Distribution and Electrical Installation Technology
SENTRON • SIVACON • ALPHA

Protection, Switching, Measuring and Monitoring Devices, Switchboards and Distribution Systems

PDF (E86060-K8280-A101-B1-7600)
Print (E86060-K8280-A101-A6-7600)

LV 14
Power Monitoring Made Simple
SENTRON

PDF/Print (E86060-K1814-A101-A6-7600)

LV 18
Air Circuit Breakers and Molded Case Circuit Breakers with UL Certification
SENTRON

PDF (E86060-K8280-E347-A4-7600)

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

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