

SENTRON Switching and Protection Devices – Molded Case Circuit Breakers

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3VL Molded Case Circuit Breakers
up to 1600 A

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Accessories and spare parts

SENTRON Switching and Protection Devices – Molded Case Circuit Breakers

Introduction

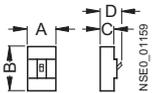
Overview



Type VL160X/3VL1 VL160/3VL2 VL250/3VL3 VL400/3VL4

Molded case circuit breakers

3VL molded case circuit breakers up to 1600 A

Rated current I_n at 50 °C ambient temperature ¹⁾	A	16 ... 160		50 ... 160		200 ... 250		200 ... 400	
Number of poles		3	4	3	4	3	4	3	4
Rated operational voltage U_e AC 50/60 Hz DC ²⁾	V	690	690	690	690	690	690	690	690
Electronic releases									
Thermal-magnetic		✓	✓	✓	✓	✓	✓	✓	✓
Electronic LCD ETU/ETU		--	--	✓	✓	✓	✓	✓	✓
Replaceable		--	--	✓	✓	✓	✓	✓	✓
PROFIBUS module COM10/COM20		--	--	✓	✓	✓	✓	✓	✓
Dimensions									
									
A	mm	105	139	105	139	105	139	139	183
B	mm	157	157	175	175	175	175	279	279
C	mm	81	81	81	81	81	81	102	102
D	mm	107	107	107	107	107	107	138	138

Switching capacity I_{cu}/I_{cs} RMS value acc. to IEC 60947-2

Standard switching capacity N ³⁾					
Up to 240 V AC	kA	65/65	65/65	65/65	65/65
Up to 415 V AC	kA	55/55	55/55	55/55	55/55
Up to 440 V AC	kA	25/20	25/20	25/20	35/26
Up to 500/525 V AC	kA	18/14	25/20	25/20	25/20
Up to 690 V AC	kA	8/4 ⁴⁾	12/6	12/6	15/8
Up to 250 V DC ⁵⁾	kA	30/30	32/32	32/32	32/32
Up to 500 V DC ⁵⁾	kA	--	--	--	--
Up to 600 V DC ⁵⁾	kA	--	--	--	--
NEMA breaking capacity ⁶⁾					
Up to 480 V AC	kA	25	25	25	35
Up to 600 V AC	kA	8 ⁴⁾	12	12	20
High switching capacity H ³⁾					
Up to 240 V AC	kA	100/75	100/75	100/75	100/75
Up to 415 V AC	kA	70/70	70/70	70/70	70/70
Up to 440 V AC	kA	42/32	50/38	50/38	50/38
Up to 500/525 V AC	kA	30/23	40/30	40/30	40/30
Up to 690 V AC	kA	12/6 ⁴⁾	12/6	12/6	15/8
Up to 250 V DC ⁵⁾	kA	30/30	32/32	32/32	32/32
Up to 500 V DC ⁵⁾	kA	30/30	32/32	32/32	32/32
Up to 600 V DC ⁵⁾	kA	--	--	--	--
NEMA breaking capacity ⁶⁾					
Up to 480 V AC	kA	42	50	50	50
Up to 600 V AC	kA	12 ⁴⁾	12	12	20
Very high switching capacity L ³⁾					
Up to 240 V AC	kA	--	200/150	200/150	200/150
Up to 415 V AC	kA	--	100/75	100/75	100/75
Up to 440 V AC	kA	--	75/50	75/50	75/50
Up to 500/525 V AC	kA	--	50/38	50/38	50/38
Up to 690 V AC	kA	--	12/6	12/6	15/8
Up to 250 V DC ⁵⁾	kA	--	32/32	32/32	32/32
Up to 500 V DC ⁵⁾	kA	--	32/32	32/32	32/32
Up to 600 V DC ⁵⁾	kA	--	32/32	32/32	32/32
NEMA breaking capacity ⁶⁾					
Up to 480 V AC	kA	--	75	75	75
Up to 600 V AC	kA	--	12	12	20

✓ Available

-- Not available

For 3VL molded case circuit breakers according to UL 489 see Catalog LV 16.

¹⁾ 3VF2 at 40 °C ambient temperature.

²⁾ Rated DC voltage applies only for circuit breakers with thermal-magnetic release.

Introduction



VL630/3VL5 VL800/3VL6 VL1250/3VL7 VL1600/3VL8 3VF2

3VL molded case circuit breakers up to 1600 A

3VF2 molded case circuit breakers up to 100 A

315 ... 630		800		1000 ... 1250		1600		16 ... 100
3	4	3	4	3	4	3	4	3 and 4
690 600	690 600	690 --	690 --	690 --	690 --	690 --	690 --	Up to 415 --
✓ ✓ ✓	✓ ✓ ✓	-- ✓ ✓	-- ✓ ✓	-- ✓ ✓	-- ✓ ✓	-- ✓ ✓	-- ✓ ✓	✓ -- --
190 279 102 138	253 279 102 138	190 406 114 151	253 406 114 151	229 406 152 207	305 406 152 207	229 406 152 207	305 406 152 207	76/102 124 68 73

65/65 45/45 35/26 25/20 20/10 32/32 -- --	65/65 50/50 35/26 25/20 20/10	65/35 50/25 35/26 25/20 20/10	65/35 50/25 35/26 25/20 20/10	65/33 18/9 -- -- -- -- --
25 20	25 20	25 20	25 20	-- --
100/75 70/70 50/38 40/30 30/15 32/32 32/32 --	100/75 70/70 50/38 40/30 30/15	100/50 70/35 50/38 40/30 30/15	100/50 70/35 50/38 40/30 30/15	-- -- -- -- -- -- -- --
50 30	50 30	50 30	50 30	-- --
200/150 100/75 75/50 50/38 20/10 32/32 32/32 32/32	200/150 100/75 75/50 50/38 20/10	200/100 100/50 75/50 50/38 35/17	200/100 100/50 75/50 50/38 35/17	-- -- -- -- -- -- -- --
65 35	65 35	65 35	65 35	-- --

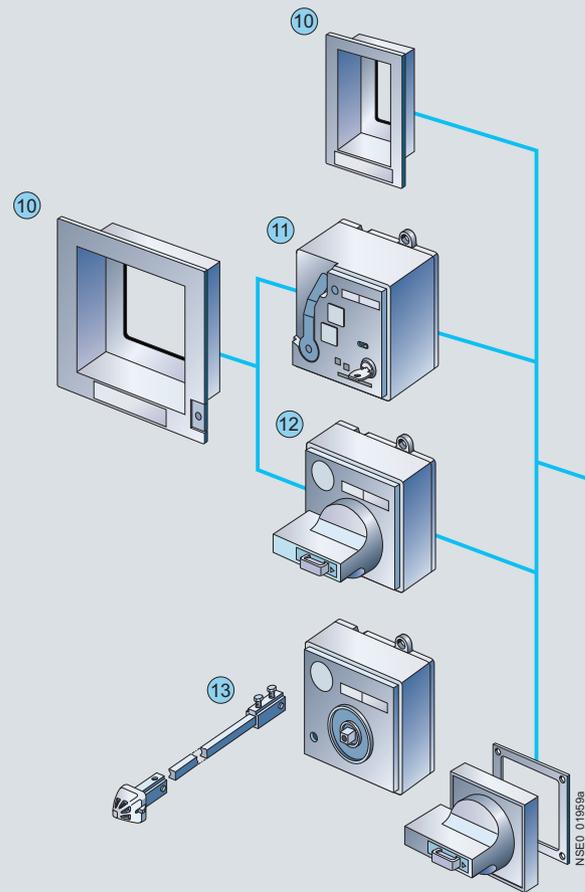
3) At 240 V AC, 415 V AC and 525 V AC max. 5 % overvoltage, at 440 V AC, 500 V AC and 690 V AC max. 10 % overvoltage, at 250/500/600 V DC max. 5 % overvoltage.

4) Rated current $I_n \geq 25$ A.

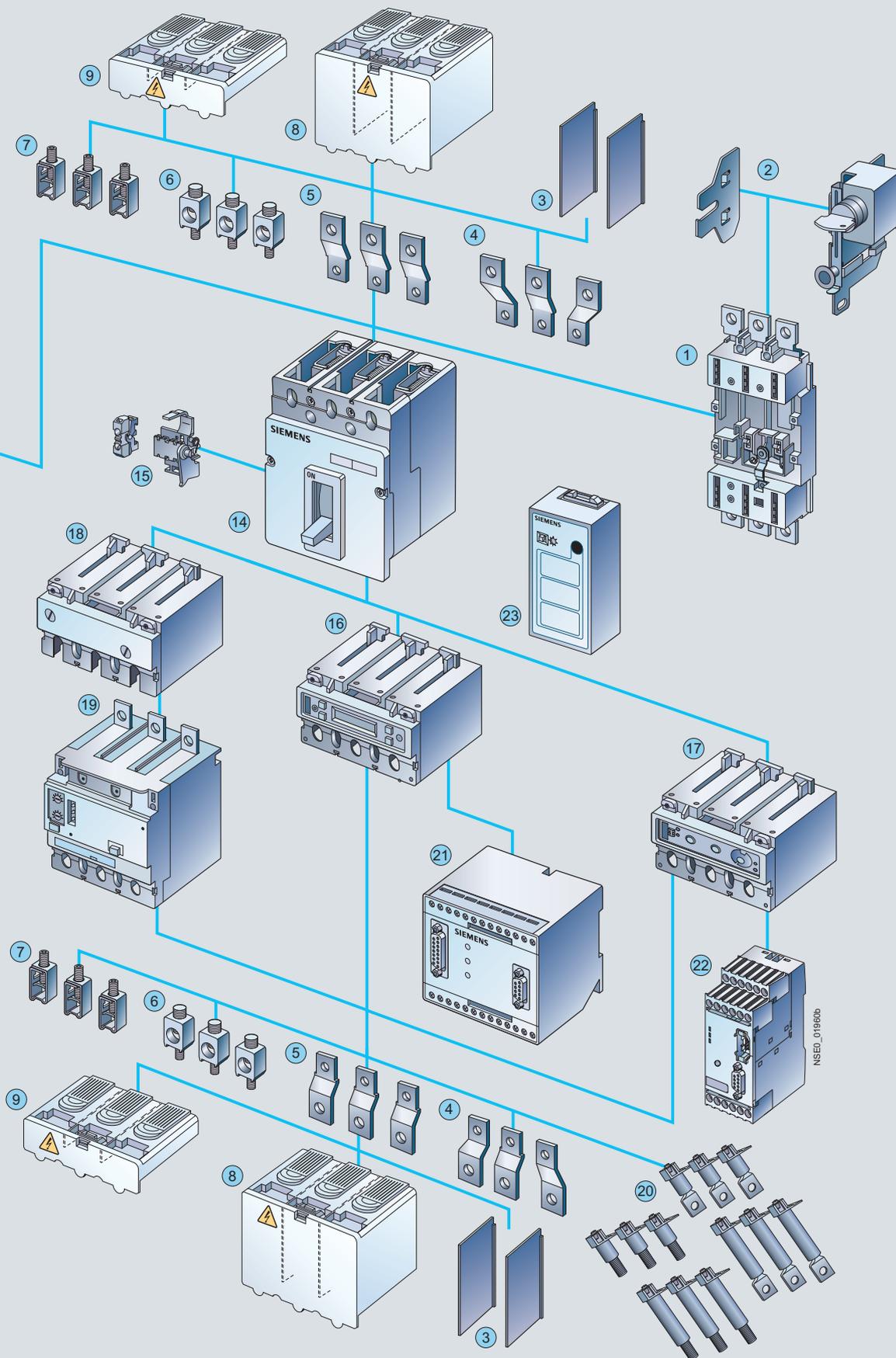
5) The maximum permitted DC voltage for each conducting path needs to be taken into account for DC switching applications, see [Technical Information LV 1T](#), "Configuring", "Switching of DC Currents"; time constant $t = 15$ ms.

6) The NEMA breaking capacity can be found on the rating plate of each IEC circuit breaker.

Introduction



- ① Withdrawable/plug-in bases (pages 16/62 to 16/67)
- ② Side walls for withdrawable version (pages 16/62 to 16/67)
- ③ Phase barriers (pages 16/69 to 16/74)
- ④ Flared front busbar connecting bars (pages 16/69 to 16/74)
- ⑤ Straight connecting bars (pages 16/69 to 16/74)
- ⑥ Circular conductor terminal for Al/Cu (pages 16/72 to 16/74)
- ⑦ Box terminals for Cu (pages 16/69 to 16/74)
- ⑧ Extended terminal covers (pages 16/69 to 16/74)
- ⑨ Standard terminal covers (pages 16/69 to 16/74)
- ⑩ Masking frames/cover frames for door cut-out (pages 16/86 to 16/89)
- ⑪ Motorized operating mechanisms with spring energy store (pages 16/56 to 16/57)
- ⑫ Front-operated rotary operating mechanisms (pages 16/53 to 16/58)
- ⑬ Door-coupling rotary operating mechanisms (pages 16/53 to 16/58)
- ⑭ SENTRON 3VL circuit breakers (pages 16/10 to 16/49)
- ⑮ Internal accessories (pages 16/48, 16/50 to 16/51)
- ⑯ Electronic releases LCD ETU (pages 16/12 to 16/21, 16/25 to 16/27, 16/34 to 16/41, 16/45 to 16/47)
- ⑰ Electronic releases with communication function (pages 16/14 and 16/15, 16/18 and 16/19, 16/26, 16/38 and 16/39, 16/46)
- ⑱ Thermal-magnetic overcurrent releases (pages 16/10 to 16/17, 16/24, 16/28 to 16/37, 16/44)
- ⑲ RCD modules (page 16/68)
- ⑳ Rear terminals – flat and round (pages 16/69 to 16/74)
- ㉑ COM10 communication modules to the PROFIBUS DP (page 16/90)
- ㉒ COM20 communication modules to the PROFIBUS DP (page 16/90)
- ㉓ Battery power supplies with test function for electronic releases (pages 16/76 to 16/80)



3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

General data

Benefits

- The compact design of the SENTRON 3VL circuit breakers coupled with excellent characteristics fulfills the high demands of today's electrical distribution systems.
- These circuit breakers offer a broad product range, improved technology, space savings and easy operation.
- They are available both in thermal-magnetic (16 A to 630 A) and in electronic versions (63 A to 1600 A).

Communication

The use of modern communication-capable circuit breakers opens up completely new possibilities in terms of start-up, parameterization, diagnostics, maintenance and operation. This allows many different ways of reducing costs and improving productivity in industrial plants, buildings and infrastructure projects to be achieved:

- Fast and reliable parameterization
- Timely information and response can prevent plant stoppages
- Effective diagnostics management

Measured values are the basis for efficient load management, for drawing up power demand profiles and for assigning power to cost centers.

Communication:

- For molded case circuit breakers with communication function see pages 16/14, 16/15, 16/18, 16/19, 16/26, 16/34, 16/35, 16/38, 16/39, 16/46.
- For accessories, see page 16/90.
- For more information see also the chapter "Power Management System" and "Software for Power Distribution".

Application

The different versions of SENTRON 3VL circuit breakers are suitable for the following applications:

- Incoming and outgoing circuit breakers in distribution systems
- Switching and protection devices for motors, transformers and capacitors
- Disconnecter units with features for stopping and switching off in an emergency (main control switches and EMERGENCY-STOP switches) in conjunction with lockable rotary operating mechanisms and terminal covers.

The SENTRON 3VL circuit breakers are available in the following versions:

1. For system protection (in 3- and 4-pole versions)
The overload and short-circuit releases are designed for the protection of cables, leads and non-motor loads.
2. For motor protection (in 3-pole version)
The overload and short-circuit releases are designed for optimized protection and direct starting of induction squirrel-cage motors. The circuit breakers for motor protection are susceptible to phase failure and feature an adjustable trip class. The electronic releases operate with a microprocessor.

3. For starter combinations (in 3-pole version)
These circuit breakers are used both for short-circuit protection as well as for isolating functions, which may be required in starter combinations consisting of circuit breakers, overload relays and motor contactors. These circuit breakers exclusively feature adjustable, instantaneous short-circuit releases.
4. As non-automatic air circuit breakers (in 3- and 4-pole versions)
These circuit breakers can be used as feeder circuit breakers, main control switches or non-automatic circuit breakers without overload protection. They incorporate an integrated short-circuit self-protection system, eliminating the need for back-up fuses.

Switching capacity

- N** Circuit breakers with standard switching capacity N (I_{cu} up to 55 kA at 415 V)
- H** Circuit breakers with high switching capacity H (I_{cu} up to 70 kA at 415 V)
- L** Circuit breakers with very high switching capacity L (I_{cu} up to 100 kA at 415 V)

These circuit breakers are indicated in the selection and ordering data by orange backgrounds.

Standards and specifications

SENTRON 3VL circuit breakers comply with:

IEC 60947-1, EN 60947-1,
IEC 60947-2, EN 60947-2,
Isolating features according to IEC 60947-2, EN 60947-2.

Disconnecting features (main control switches) according to EN 60204-1. The SENTRON 3VL circuit breakers comply in addition with requirements for "disconnecter units with features for stopping and switching off in an emergency" (EMERGENCY-STOP switches) in conjunction with lockable rotary operating mechanisms (red-yellow) and terminal covers.

Please contact Siemens for details of other standards.

The electronic releases of the circuit breakers for motor protection also comply with IEC 60947-4-1.

VL160X to VL400 circuit breakers can be equipped with a SENTRON 3VL RCD module. They then comply with IEC 60947-2 Appendix B.

The SENTRON 3VL RCD module complies with IEC 61000-4-2 to IEC 61000-4-6, IEC 61000-4-11 and EN 55011, Class B (equivalent to CISPR 11) with regard to electromagnetic compatibility.

Operating conditions

The SENTRON 3VL circuit breakers are designed for operation in enclosed areas.

Suitable enclosures must be provided for operation in areas with severe ambient conditions (such as dust, caustic vapors, hazardous gases).

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

General data

RCD modules

The RCD module is designed for retrofitting to the switch. It can also be retrofitted by the customer.

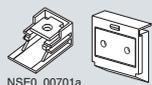
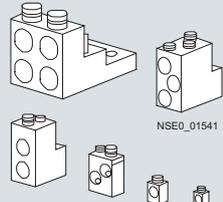
The combination of SENTRON 3VL circuit breaker and RCD module can be fed from the top or bottom.

All SENTRON 3VL circuit breakers with RCD modules are available with auxiliary switches, alarm switches, undervoltage and shunt releases.

Protection of plant and equipment against overload or damage by ground faults (ground-fault protection).

The RCD module trips the circuit breaker through vectorial summation current formation for all phase currents if the vectorial sum of the currents in the poles (= the ground fault current) overshoots the pre-set response and delay time values. AC currents and pulsating DC currents are measured (CBR, design A according to EN 60947-2).

Main circuit connections, basic equipment and options

 NSE0_00700a	 NSE0_00701a	 NSE0_00702a	 NSE0_01541
Box terminal (for copper cables or solid/ flexible busbars)	Connection with screw terminal (available with direct cable lug connection on VL160X, VL160, VL250, VL400)	Connection to front busbar connecting bars (screw terminal required)	Circular conductor terminals/ multiple feed-in terminal (for Al/Cu terminal)

Main circuit connections (see below for conductor cross-sections)

Circuit breaker	Connection overview and further options				
	Box terminals	Screw terminals with metric thread for flat connection	Circular conductor terminals/multiple feed-in terminals	Rear terminals	Front-accessible connecting bars
VL160X	<input type="checkbox"/>	<input type="checkbox"/>	x	x	x
VL160	<input type="checkbox"/>	<input type="checkbox"/>	x	x	x
VL250	<input type="checkbox"/>	<input type="checkbox"/>	x	x	x
VL400	x	○	x ²⁾³⁾	x	x
VL630	x ¹⁾	○	x ²⁾	x	x
VL800	--	○	x ²⁾	x	x
VL1250	--	○	x ²⁾	x	x
VL1600	--	x	--	x	○

- Scope of supply
 Optional scope of supply
 x Available
 -- Not available

- ¹⁾ Connecting terminal plate for flexible busbar; not for 690 V AC/600 V DC.
²⁾ Multiple feed-in terminals.
³⁾ Circular conductor terminal also available.

Conductor cross-sections

Type	VL160X 3VL1	VL160 3VL2	VL250 3VL3	VL400 3VL4	VL630 3VL5	VL800 3VL6	VL1250 3VL7	VL1600 3VL8
Conductor cross-sections								
Box terminals ¹⁾								
• Solid or stranded cable	Copper only	mm ² 2.5 ... 95	2.5 ... 95	25 ... 185	50 ... 300	--	--	--
• Finely stranded with end sleeve		mm ² 2.5 ... 50	2.5 ... 50	25 ... 120	50 ... 240	--	--	--
• Flexible busbar		mm 12 × 10	12 × 10	17 × 10	25 × 10	--	--	--
Connecting terminal plates for flexible busbar ²⁾		mm --	--	--	--	2 units 10 × 32	--	--
Circular conductor terminals for cables ¹⁾								
• Solid or stranded cable	Cu or Al	mm ² 16 ... 70	16 ... 70	25 ... 185	50 ... 300	--	--	--
• Finely stranded with end sleeve		mm ² 10 ... 50	10 ... 50	25 ... 120	50 ... 240	--	--	--
Multiple feed-in terminals ¹⁾								
• Solid or stranded cable	Cu or Al	mm ² --	--	--	2 units 50 ... 120	2 units 50 ... 240	3 units 50 ... 240	4 units 50 ... 240
• Finely stranded with end sleeve		mm ² --	--	--	2 units 50 ... 95	2 units 50 ... 185	3 units 50 ... 185	4 units 50 ... 185
• Direct connection of busbars	Cu or Al	mm 17 × 7	22 × 7	24 × 7	32 × 10	40 × 10	2 × 40 × 10	2 × 50 × 10
• Screw for connection with screw terminal		M6	M6	M8	M8	M6	M8	M8
Conductor cross-sections for control circuits with terminal connection								
Screw terminals								
• Solid		mm ² 0.75 ... 1.5	0.75 ... 1.5	0.75 ... 1.5	0.75 ... 1.5	0.75 ... 1.5	0.75 ... 1.5	0.75 ... 1.5
• Finely stranded with end sleeve		mm ² 0.75 ... 1.0	0.75 ... 1.0	0.75 ... 1.0	0.75 ... 1.0	0.75 ... 1.0	0.75 ... 1.0	0.75 ... 1.0

1) Cross-sections according to IEC 60999.

2) Not for 690 V AC/600 V DC.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

General data

VL160 to VL1600 electronic releases – Overview of functions

Order No. supplement	Releases	System protection	Motor protection	Starter protection	Generator protection	Function	Setting options					
							L	S ¹⁾		I ¹⁾	G	
							Overload protection	Short-circuit protection (short-time delayed)		Short-circuit protection (instantaneous)	Ground-fault protection	
							$I_r = \times I_n$	$I_{sd} = \times I_r$	t_{sd} [s]	$I_I = \times I_n$	$I_G = \times I_n$	t_G [s]
DK	M	--	--	✓	--	I	--	--	--	7 ... 15	--	--
DC	TM ²⁾	✓	--	--	--	LI	0.8 ... 1	--	--	5 ... 10	--	--
EJ	TM ²⁾	✓	--	--	--	LI	0.8 ... 1	--	--	5 ... 10	--	--
EC	TM ²⁾	✓	--	--	--	LIN	0.8 ... 1	--	--	5 ... 10	--	--
EM	TM ²⁾	✓	--	--	--	LIN	0.8 ... 1	--	--	5 ... 10	--	--
SP	ETU10M ³⁾	--	✓	--	✓	LI	0.4 ... 1	--	--	1.25 ... 11	--	--
MP	ETU10M ³⁾	--	✓	--	✓	LI	0.4 ... 1	--	--	1.25 ... 11	--	--
SB	ETU10	✓	--	--	--	LI	0.4 ... 1	--	--	1.25 ... 11	--	--
MB	ETU10	✓	--	--	--	LI	0.4 ... 1	--	--	1.25 ... 11	--	--
TA	ETU10	✓	--	--	--	LIN	0.4 ... 1	--	--	1.25 ... 11	--	--
NA	ETU10	✓	--	--	--	LIN	0.4 ... 1	--	--	1.25 ... 11	--	--
TB	ETU10	✓	--	--	--	LI	0.4 ... 1	--	--	1.25 ... 11	--	--
NB	ETU10	✓	--	--	--	LI	0.4 ... 1	--	--	1.25 ... 11	--	--
SL	ETU12	✓	--	--	--	LIG	0.4 ... 1	--	--	1.25 ... 11	0.6 ... 1, OFF	0.1 ... 0.3
ML	ETU12	✓	--	--	--	LIG	0.4 ... 1	--	--	1.25 ... 11	0.6 ... 1, OFF	0.1 ... 0.3
SF	ETU12	✓	--	--	--	LING	0.4 ... 1	--	--	1.25 ... 11	0.6 ... 1, OFF	0.1 ... 0.3
MF	ETU12	✓	--	--	--	LING	0.4 ... 1	--	--	1.25 ... 11	0.6 ... 1, OFF	0.1 ... 0.3
TN	ETU12	✓	--	--	--	LING	0.4 ... 1	--	--	1.25 ... 11	0.6 ... 1, OFF	0.1 ... 0.3
NN	ETU12	✓	--	--	--	LING	0.4 ... 1	--	--	1.25 ... 11	0.6 ... 1, OFF	0.1 ... 0.3
SE	ETU20	✓	--	--	✓	LSI	0.4 ... 1	1.5 ... 10	0 ... 0.5	11	--	--
ME	ETU20	✓	--	--	✓	LSI	0.4 ... 1	1.5 ... 10	0 ... 0.5	11	--	--
TE	ETU20	✓	--	--	✓	LSI	0.4 ... 1	1.5 ... 10	0 ... 0.5	11	--	--
NE	ETU20	✓	--	--	✓	LSI	0.4 ... 1	1.5 ... 10	0 ... 0.5	11	--	--
TF	ETU20	✓	--	--	✓	LSIN	0.4 ... 1	1.5 ... 10	0 ... 0.5	11	--	--
NF	ETU20	✓	--	--	✓	LSIN	0.4 ... 1	1.5 ... 10	0 ... 0.5	11	--	--
SG	ETU22	✓	--	--	✓	LSIG	0.4 ... 1	1.5 ... 10	0 ... 0.5	11	0.6 ... 1, OFF	0.1 ... 0.3
MG	ETU22	✓	--	--	✓	LSIG	0.4 ... 1	1.5 ... 10	0 ... 0.5	11	0.6 ... 1, OFF	0.1 ... 0.3
SH	ETU22	✓	--	--	✓	LSING	0.4 ... 1	1.5 ... 10	0 ... 0.5	11	0.6 ... 1, OFF	0.1 ... 0.3
MH	ETU22	✓	--	--	✓	LSING	0.4 ... 1	1.5 ... 10	0 ... 0.5	11	0.6 ... 1, OFF	0.1 ... 0.3
TH	ETU22	✓	--	--	✓	LSING	0.4 ... 1	1.5 ... 10	0 ... 0.5	11	0.6 ... 1, OFF	0.1 ... 0.3
NH	ETU22	✓	--	--	✓	LSING	0.4 ... 1	1.5 ... 10	0 ... 0.5	11	0.6 ... 1, OFF	0.1 ... 0.3
SS	ETU30M ³⁾	--	✓	--	✓	LI	0.4 ... 1	--	--	6/8/11	--	--
MS	ETU30M ³⁾	--	✓	--	✓	LI	0.4 ... 1	--	--	6/8/11	--	--
CP	LCD ETU40M ³⁾	--	✓	--	✓	LI	0.4 ... 1	--	--	1.25 ... 11	--	--
CH	LCD ETU40	✓	--	--	--	LI, LSI	0.4 ... 1	1.5 ... 10	0 ... 0.5	1.25 ... 11	--	--
CJ	LCD ETU40	✓	--	--	--	LI, LSIN	0.4 ... 1	1.5 ... 10	0 ... 0.5	1.25 ... 11	--	--
CL	LCD ETU42	✓	--	--	--	LSIG	0.4 ... 1	1.5 ... 10	0 ... 0.5	1.25 ... 11	0.4 ... 1	0.1 ... 0.5
CM	LCD ETU42	✓	--	--	--	LSIG	0.4 ... 1	1.5 ... 10	0 ... 0.5	1.25 ... 11	0.4 ... 1	0.1 ... 0.5
CN	LCD ETU42	✓	--	--	--	LSIG, LSING	0.4 ... 1	1.5 ... 10	0 ... 0.5	1.25 ... 11	0.4 ... 1	0.1 ... 0.5

¹⁾ Size dependent.

²⁾ TM up to $I_n = 630$ A.

³⁾ Motor protection up to $I_n = 500$ A.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

General data

Order No. supplement	Releases	Thermal image	Phase failure	Communication-capable	Ground-fault protection	Number of poles	N pole protected ¹⁾	I^2t (ON/OFF)	Trip class (t_c)	Time-lag class (t_p)	Thermal-magnetic release	Magnetic release	Electronic release	LCD display
DK	M	--	--	--	--	3	--	--	--	--	--	✓	--	--
DC	TM ²⁾	✓	--	--	--	3	--	--	--	--	✓	--	--	--
EJ	TM ²⁾	✓	--	--	--	4	--	--	--	--	✓	--	--	--
EC	TM ²⁾	✓	--	--	--	4	60 %	--	--	--	✓	--	--	--
EM	TM ²⁾	✓	--	--	--	4	100 %	--	--	--	✓	--	--	--
SP	ETU10M ³⁾	✓	40 % I_R	--	--	3	--	--	10	--	--	--	✓	--
MP	ETU10M ³⁾	✓	40 % I_R	✓ ⁴⁾	--	3	--	--	10	--	--	--	✓	--
SB	ETU10	✓	--	--	--	3	--	--	--	2.5 ... 30	--	--	✓	--
MB	ETU10	✓	--	✓ ⁴⁾	--	3	--	--	--	2.5 ... 30	--	--	✓	--
TA	ETU10	✓	--	--	--	4	50/100 %	--	--	2.5 ... 30	--	--	✓	--
NA	ETU10	✓	--	✓ ⁴⁾	--	4	50/100 %	--	--	2.5 ... 30	--	--	✓	--
TB	ETU10	✓	--	--	--	4	--	--	--	2.5 ... 30	--	--	✓	--
NB	ETU10	✓	--	✓ ⁴⁾	--	4	--	--	--	2.5 ... 30	--	--	✓	--
SL	ETU12	✓	--	--	①	3	--	✓	--	2.5 ... 30	--	--	✓	--
ML	ETU12	✓	--	✓ ⁴⁾	①	3	--	✓	--	2.5 ... 30	--	--	✓	--
SF	ETU12	✓	--	--	②	3	50/100 %	✓	--	2.5 ... 30	--	--	✓	--
MF	ETU12	✓	--	✓ ⁴⁾	②	3	50/100 %	✓	--	2.5 ... 30	--	--	✓	--
TN	ETU12	✓	--	--	②	4	50/100 %	✓	--	2.5 ... 30	--	--	✓	--
NN	ETU12	✓	--	✓ ⁴⁾	②	4	50/100 %	✓	--	2.5 ... 30	--	--	✓	--
SE	ETU20	✓	--	--	--	3	--	✓	--	--	--	--	✓	--
ME	ETU20	✓	--	✓ ⁴⁾	--	3	--	✓	--	--	--	--	✓	--
TE	ETU20	✓	--	--	--	4	--	✓	--	--	--	--	✓	--
NE	ETU20	✓	--	✓ ⁴⁾	--	4	--	✓	--	--	--	--	✓	--
TF	ETU20	✓	--	--	--	4	50/100 %	✓	--	--	--	--	✓	--
NF	ETU20	✓	--	✓ ⁴⁾	--	4	50/100 %	✓	--	--	--	--	✓	--
SG	ETU22	✓	--	--	①	3	--	✓	--	--	--	--	✓	--
MG	ETU22	✓	--	✓ ⁴⁾	①	3	--	✓	--	--	--	--	✓	--
SH	ETU22	✓	--	--	②	3	50/100 %	✓	--	--	--	--	✓	--
MH	ETU22	✓	--	✓ ⁴⁾	②	3	50/100 %	✓	--	--	--	--	✓	--
TH	ETU22	✓	--	--	②	4	50/100 %	✓	--	--	--	--	✓	--
NH	ETU22	✓	--	✓ ⁴⁾	②	4	50/100 %	✓	--	--	--	--	✓	--
SS	ETU30M ³⁾	✓	40 % I_R	--	--	3	--	--	10, 20, 30	--	--	--	✓	--
MS	ETU30M ³⁾	✓	40 % I_R	✓ ⁴⁾	--	3	--	--	10, 20, 30	--	--	--	✓	--
CP	LCD ETU40M ³⁾	✓	5 ... 50 % I_R	✓ ⁵⁾	--	3	--	--	5, 10, 15, 20, 30	--	--	--	✓	✓
CH	LCD ETU40	✓	--	✓ ⁵⁾	--	3	--	✓	--	2.5 ... 30	--	--	✓	✓
CJ	LCD ETU40	✓	--	✓ ⁵⁾	--	4	50 ... 100 %, OFF	✓	--	2.5 ... 30	--	--	✓	✓
CL	LCD ETU42	✓	--	✓ ⁵⁾	①	3	--	✓	--	2.5 ... 30	--	--	✓	✓
CM	LCD ETU42	✓	--	✓ ⁵⁾	①/③	3	--	✓	--	2.5 ... 30	--	--	✓	✓
CN	LCD ETU42	✓	--	✓ ⁵⁾	②	4	50 ... 100 %, OFF	✓	--	2.5 ... 30	--	--	✓	✓

Ground-fault protection

- ① Vectorial summation current formation (3-conductor system)
 ② Vectorial summation current formation (4-conductor system)
 ③ Direct detection of ground-fault current in the neutral point of the transformer

1) Size dependent.

2) TM up to $I_n = 630$ A.

3) Motor protection up to $I_n = 500$ A.

4) With COM20/COM21.

5) With COM10/COM11.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

3-pole

Selection and ordering data

Type	Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_R	Operating current of the instantaneous short-circuit release "I" I_I	DT **	I_{cu} up to 55 kA at 415 V, standard switching capacity N See "Overview". Ⓝ					
					Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
	A	A	A		Order No. supplement required, see page 16/48					

Fixed-mounted circuit breakers, VL160X to VL630, up to 630 A, thermal-magnetic overcurrent releases



NSEO_00695

VL160X/
3VL1

System protection, TM, LI function

With permanently fixed thermal overload releases, permanently set short-circuit releases

16	16	300	B	3VL17 96-1DA33-....	1	1 unit	113	1.900
20	20	300	B	3VL17 02-1DA33-....	1	1 unit	113	1.900
25	25	300	B	3VL17 25-1DA33-....	1	1 unit	113	2.000
32	32	300	B	3VL17 03-1DA33-....	1	1 unit	113	2.000
40	40	600	B	3VL17 04-1DA33-....	1	1 unit	113	2.000
50	50	600	B	3VL17 05-1DA33-....	1	1 unit	113	2.000
63	63	600	B	3VL17 06-1DA33-....	1	1 unit	113	2.000
80	80	1000	B	3VL17 08-1DA33-....	1	1 unit	113	2.000
100	100	1000	B	3VL17 10-1DA33-....	1	1 unit	113	2.000
125	125	1000	B	3VL17 12-1DA33-....	1	1 unit	113	2.000
160	160	1500	B	3VL17 16-1DA33-....	1	1 unit	113	2.000

Connection type can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal¹⁾

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NSEO_00703

VL160X/
3VL1

System protection, TM, LI function

With adjustable thermal overload releases, permanently set short-circuit releases

20	16 ... 20	300	B	3VL17 02-1DD33-....	1	1 unit	113	1.900
32	25 ... 32	300	B	3VL17 03-1DD33-....	1	1 unit	113	2.000
40	32 ... 40	600	B	3VL17 04-1DD33-....	1	1 unit	113	2.000
50	40 ... 50	600	B	3VL17 05-1DD33-....	1	1 unit	113	2.000
63	50 ... 63	600	B	3VL17 06-1DD33-....	1	1 unit	113	2.000
80	63 ... 80	1000	B	3VL17 08-1DD33-....	1	1 unit	113	2.000
100	80 ... 100	1000	B	3VL17 10-1DD33-....	1	1 unit	113	2.000
125	100 ... 125	1000	B	3VL17 12-1DD33-....	1	1 unit	113	2.000
160	125 ... 160	1500	B	3VL17 16-1DD33-....	1	1 unit	113	2.000

Connection type can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal¹⁾

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NSEO_00704

VL160/
3VL2

System protection, TM, LI function

With adjustable thermal overload releases, adjustable short-circuit releases

50	40 ... 50	300 ... 600	B	3VL27 05-1DC33-....	1	1 unit	113	2.200
63	50 ... 63	300 ... 600	B	3VL27 06-1DC33-....	1	1 unit	113	2.200
80	63 ... 80	400 ... 800	B	3VL27 08-1DC33-....	1	1 unit	113	2.200
100	80 ... 100	500 ... 1000	B	3VL27 10-1DC33-....	1	1 unit	113	2.200
125	100 ... 125	625 ... 1250	B	3VL27 12-1DC33-....	1	1 unit	113	2.200
160	125 ... 160	800 ... 1600	B	3VL27 16-1DC33-....	1	1 unit	113	2.200
VL250/ 3VL3	200	160 ... 200	B	3VL37 20-1DC33-....	1	1 unit	113	2.300
	250	200 ... 250	B	3VL37 25-1DC33-....	1	1 unit	113	2.300

Connection type can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal¹⁾

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VL400/ 3VL4	200	160 ... 200	B	3VL47 20-1DC36-....	1	1 unit	113	5.700
	250	200 ... 250	B	3VL47 25-1DC36-....	1	1 unit	113	5.700
	315	250 ... 315	B	3VL47 31-1DC36-....	1	1 unit	113	5.700
	400	320 ... 400	B	3VL47 40-1DC36-....	1	1 unit	113	5.700
VL630/ 3VL5	315	250 ... 315	B	3VL57 31-1DC36-....	1	1 unit	113	9.000
	400	320 ... 400	B	3VL57 40-1DC36-....	1	1 unit	113	9.000
	500	400 ... 500	B	3VL57 50-1DC36-....	1	1 unit	113	9.000
	630	500 ... 630	B	3VL57 63-1DC36-....	1	1 unit	113	9.000

** Delivery time class A for Order No. supplement "0AA0", see page 16/48.

¹⁾ Cannot be used in conjunction with RCD module.

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

3-pole

DT **	I_{cu} up to 70 kA at 415 V, high switching capacity H						DT **	I_{cu} up to 100 kA at 415 V, very high switching capacity L					
	Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.		Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	Order No. supplement required, see page 16/48					kg		Order No. supplement required, see page 16/48					kg

B	3VL17 96-2DA33-....		1	1 unit	113	1.900	--						
B	3VL17 02-2DA33-....		1	1 unit	113	1.900	--						
B	3VL17 25-2DA33-....		1	1 unit	113	2.000	--						
B	3VL17 03-2DA33-....		1	1 unit	113	2.000	--						
B	3VL17 04-2DA33-....		1	1 unit	113	2.000	--						
B	3VL17 05-2DA33-....		1	1 unit	113	2.000	--						
B	3VL17 06-2DA33-....		1	1 unit	113	2.000	--						
B	3VL17 08-2DA33-....		1	1 unit	113	2.000	--						
B	3VL17 10-2DA33-....		1	1 unit	113	2.000	--						
B	3VL17 12-2DA33-....		1	1 unit	113	2.000	--						
B	3VL17 16-2DA33-....		1	1 unit	113	2.000	--						

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B	3VL17 02-2DD33-....		1	1 unit	113	1.900	--						
B	3VL17 03-2DD33-....		1	1 unit	113	2.000	--						
B	3VL17 04-2DD33-....		1	1 unit	113	2.000	--						
B	3VL17 05-2DD33-....		1	1 unit	113	2.000	--						
B	3VL17 06-2DD33-....		1	1 unit	113	2.000	--						
B	3VL17 08-2DD33-....		1	1 unit	113	2.000	--						
B	3VL17 10-2DD33-....		1	1 unit	113	2.000	--						
B	3VL17 12-2DD33-....		1	1 unit	113	2.000	--						
B	3VL17 16-2DD33-....		1	1 unit	113	2.000	--						

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B	3VL27 05-2DC33-....		1	1 unit	113	2.200	B	3VL27 05-3DC33-....		1	1 unit	113	2.200
B	3VL27 06-2DC33-....		1	1 unit	113	2.200	B	3VL27 06-3DC33-....		1	1 unit	113	2.200
B	3VL27 08-2DC33-....		1	1 unit	113	2.200	B	3VL27 08-3DC33-....		1	1 unit	113	2.200
B	3VL27 10-2DC33-....		1	1 unit	113	2.200	B	3VL27 10-3DC33-....		1	1 unit	113	2.200
B	3VL27 12-2DC33-....		1	1 unit	113	2.200	B	3VL27 12-3DC33-....		1	1 unit	113	2.200
B	3VL27 16-2DC33-....		1	1 unit	113	2.200	B	3VL27 16-3DC33-....		1	1 unit	113	2.200
B	3VL37 20-2DC33-....		1	1 unit	113	2.300	B	3VL37 20-3DC33-....		1	1 unit	113	2.300
B	3VL37 25-2DC33-....		1	1 unit	113	2.300	B	3VL37 25-3DC33-....		1	1 unit	113	2.300

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B	3VL47 20-2DC36-....		1	1 unit	113	5.700	B	3VL47 20-3DC36-....		1	1 unit	113	5.700
B	3VL47 25-2DC36-....		1	1 unit	113	5.700	B	3VL47 25-3DC36-....		1	1 unit	113	5.700
B	3VL47 31-2DC36-....		1	1 unit	113	5.700	B	3VL47 31-3DC36-....		1	1 unit	113	5.700
B	3VL47 40-2DC36-....		1	1 unit	113	5.700	B	3VL47 40-3DC36-....		1	1 unit	113	5.700
B	3VL57 31-2DC36-....		1	1 unit	113	9.000	B	3VL57 31-3DC36-....		1	1 unit	113	9.000
B	3VL57 40-2DC36-....		1	1 unit	113	9.000	B	3VL57 40-3DC36-....		1	1 unit	113	9.000
B	3VL57 50-2DC36-....		1	1 unit	113	9.000	B	3VL57 50-3DC36-....		1	1 unit	113	9.000
B	3VL57 63-2DC36-....		1	1 unit	113	9.000	B	3VL57 63-3DC36-....		1	1 unit	113	9.000

** Delivery time class A for Order No. supplement "0AA0", see page 16/48.

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

3-pole

Type	Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_R	Operating current of the instantaneous short-circuit release "I" I_i	S function (short-time delayed short-circuit release) I_{sd}	DT	I_{cu} up to 55 kA at 415 V, standard switching capacity N See "Overview".					(N)
	A	A	A	A		Order No. Order No. supplement required, see page 16/48	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg

Fixed-mounted circuit breakers, VL160 to VL1600, up to 1600 A, magnetic and electronic releases



System protection and generator protection, ETU20, LSI function for time-based discrimination ($I_{sd} = 0$ to 0.5 s)

VL160/3VL2	63	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL27 06-1SE33-....		1	1 unit	113	2.400
	100	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL27 10-1SE33-....		1	1 unit	113	2.400
	160	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL27 16-1SE33-....		1	1 unit	113	2.400
VL250/3VL3	200	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL37 20-1SE33-....		1	1 unit	113	2.500
	250	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL37 25-1SE33-....		1	1 unit	113	2.500

Connection type can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal

3
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VL400/3VL4	315	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL47 31-1SE36-....		1	1 unit	113	5.900
	400	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL47 40-1SE36-....		1	1 unit	113	5.900
VL630/3VL5	630	0.4 ... 1.0 × I_n	10 × I_n	1.5 ... 9× I_R	B	3VL57 63-1SE36-....		1	1 unit	113	9.300
VL800/3VL6	800	0.4 ... 1.0 × I_n	8 × I_n	1.5 ... 7× I_R	B	3VL67 80-1SE36-....		1	1 unit	113	16.000
VL1250/3VL7	1000	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL77 10-1SE36-....		1	1 unit	113	25.000
	1250	0.4 ... 1.0 × I_n	10 × I_n	1.5 ... 10× I_R	B	3VL77 12-1SE36-....		1	1 unit	113	25.000
VL1600/3VL8 ¹⁾	1600	0.4 ... 1.0 × I_n	9 × I_n	1.5 ... 8× I_R	B	3VL87 16-1SE30-....		1	1 unit	113	31.300



Motor and generator protection, ETU10M, LI function

With permanently set trip class $t_C = 10$, with phase failure sensitivity

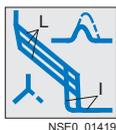
VL160/3VL2	63	25 ... 63	1.25 ... 11 × I_n	--	B	3VL27 06-1SP33-....		1	1 unit	113	2.400
	100	40 ... 100	1.25 ... 11 × I_n	--	B	3VL27 10-1SP33-....		1	1 unit	113	2.400
	160	64 ... 160	1.25 ... 11 × I_n	--	B	3VL27 16-1SP33-....		1	1 unit	113	2.400
VL250/3VL3	200	80 ... 200	1.25 ... 11 × I_n	--	B	3VL37 20-1SP33-....		1	1 unit	113	2.500
	250	100 ... 250	1.25 ... 11 × I_n	--	B	3VL37 25-1SP33-....		1	1 unit	113	2.500

Connection type can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal

3
6

VL400/3VL4	315	125 ... 315	1.25 ... 11 × I_n	--	B	3VL47 31-1SP36-....		1	1 unit	113	5.900
VL630/3VL5	500	200 ... 500	1.25 ... 12.5 × I_n	--	B	3VL57 50-1SP36-....		1	1 unit	113	9.300



Motor protection, ETU30M, LI function

With adjustable trip class $t_C = 10, 20, 30$, with phase failure sensitivity

VL160/3VL2	63	25 ... 63	6/8/11 × I_n	--	B	3VL27 06-1SS33-....		1	1 unit	113	2.400
	100	40 ... 100	6/8/11 × I_n	--	B	3VL27 10-1SS33-....		1	1 unit	113	2.400
	160	63 ... 160	6/8/11 × I_n	--	B	3VL27 16-1SS33-....		1	1 unit	113	2.400
VL250/3VL3	200	80 ... 200	6/8/11 × I_n	--	B	3VL37 20-1SS33-....		1	1 unit	113	2.500
	250	100 ... 250	6/8/11 × I_n	--	B	3VL37 25-1SS33-....		1	1 unit	113	2.500

Connection type can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal

3
6

VL400/3VL4	315	125 ... 315	6/8/11 × I_n	--	B	3VL47 31-1SS36-....		1	1 unit	113	5.900
VL630/3VL5	500	200 ... 500	6/8/12.5 × I_n	--	B	3VL57 50-1SS36-....		1	1 unit	113	9.300

¹⁾ Front busbar connection pieces are included in the scope of supply and are to be fitted by the customer.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

3-pole

DT I_{cu} up to 70 kA at 415 V, high switching capacity H (H)							DT I_{cu} up to 100 kA at 415 V, very high switching capacity L (L)						
Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.		Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
Order No. supplement required, see page 16/48							Order No. supplement required, see page 16/48						
						kg							kg
B	3VL27 06-2SE33-....		1	1 unit	113	2.400	B	3VL27 06-3SE33-....		1	1 unit	113	2.400
B	3VL27 10-2SE33-....		1	1 unit	113	2.400	B	3VL27 10-3SE33-....		1	1 unit	113	2.400
B	3VL27 16-2SE33-....		1	1 unit	113	2.400	B	3VL27 16-3SE33-....		1	1 unit	113	2.400
B	3VL37 20-2SE33-....		1	1 unit	113	2.500	B	3VL37 20-3SE33-....		1	1 unit	113	2.500
B	3VL37 25-2SE33-....		1	1 unit	113	2.500	B	3VL37 25-3SE33-....		1	1 unit	113	2.500
3 6							3 6						
B	3VL47 31-2SE36-....		1	1 unit	113	5.900	B	3VL47 31-3SE36-....		1	1 unit	113	5.900
B	3VL47 40-2SE36-....		1	1 unit	113	5.900	B	3VL47 40-3SE36-....		1	1 unit	113	5.900
B	3VL57 63-2SE36-....		1	1 unit	113	9.300	B	3VL57 63-3SE36-....		1	1 unit	113	9.300
B	3VL67 80-2SE36-....		1	1 unit	113	16.000	B	3VL67 80-3SE36-....		1	1 unit	113	16.000
B	3VL77 10-2SE36-....		1	1 unit	113	25.000	B	3VL77 10-3SE36-....		1	1 unit	113	25.000
B	3VL77 12-2SE36-....		1	1 unit	113	25.000	B	3VL77 12-3SE36-....		1	1 unit	113	25.000
B	3VL87 16-2SE30-....		1	1 unit	113	31.300	B	3VL87 16-3SE30-....		1	1 unit	113	31.300
B	3VL27 06-2SP33-....		1	1 unit	113	2.400	B	3VL27 06-3SP33-....		1	1 unit	113	2.400
B	3VL27 10-2SP33-....		1	1 unit	113	2.400	B	3VL27 10-3SP33-....		1	1 unit	113	2.400
B	3VL27 16-2SP33-....		1	1 unit	113	2.400	B	3VL27 16-3SP33-....		1	1 unit	113	2.400
B	3VL37 20-2SP33-....		1	1 unit	113	2.500	B	3VL37 20-3SP33-....		1	1 unit	113	2.500
B	3VL37 25-2SP33-....		1	1 unit	113	2.500	B	3VL37 25-3SP33-....		1	1 unit	113	2.500
3 6							3 6						
B	3VL47 31-2SP36-....		1	1 unit	113	5.900	B	3VL47 31-3SP36-....		1	1 unit	113	5.900
B	3VL57 50-2SP36-....		1	1 unit	113	9.300	B	3VL57 50-3SP36-....		1	1 unit	113	9.300
B	3VL27 06-2SS33-....		1	1 unit	113	2.400	B	3VL27 06-3SS33-....		1	1 unit	113	2.400
B	3VL27 10-2SS33-....		1	1 unit	113	2.400	B	3VL27 10-3SS33-....		1	1 unit	113	2.400
B	3VL27 16-2SS33-....		1	1 unit	113	2.400	B	3VL27 16-3SS33-....		1	1 unit	113	2.400
B	3VL37 20-2SS33-....		1	1 unit	113	2.500	B	3VL37 20-3SS33-....		1	1 unit	113	2.500
B	3VL37 25-2SS33-....		1	1 unit	113	2.500	B	3VL37 25-3SS33-....		1	1 unit	113	2.500
3 6							3 6						
B	3VL47 31-2SS36-....		1	1 unit	113	5.900	B	3VL47 31-3SS36-....		1	1 unit	113	5.900
B	3VL57 50-2SS36-....		1	1 unit	113	9.300	B	3VL57 50-3SS36-....		1	1 unit	113	9.300

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

3-pole

Type	Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_R	Operating current of the instantaneous short-circuit release "I" I_i	S function (short-time delayed short-circuit release I_{sd})	DT	I_{cu} up to 55 kA at 415 V, standard switching capacity N See "Overview".					(N)	
	A	A	A	A			Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
							Order No. supplement required, see page 16/48					kg

Fixed-mounted circuit breakers, VL160 to VL1600, up to 1600 A, magnetic and electronic releases with communication function



System protection and generator protection, ETU20, LSI function for time-based discrimination

($t_{sd} = 0$ to 0.5 s)

63	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10 I_R B	3VL27 06-1ME33-....	1	1 unit	113	2.400
100	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10 I_R B	3VL27 10-1ME33-....	1	1 unit	113	2.400
160	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10 I_R B	3VL27 16-1ME33-....	1	1 unit	113	2.400

VL160/3VL2

VL250/3VL3	200	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10 I_R B	3VL37 20-1ME33-....	1	1 unit	113	2.500
	250	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10 I_R B	3VL37 25-1ME33-....	1	1 unit	113	2.500

Connection type can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal

3
6

VL400/3VL4	315	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10 I_R B	3VL47 31-1ME36-....	1	1 unit	113	5.900
	400	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10 I_R B	3VL47 40-1ME36-....	1	1 unit	113	5.900
VL630/3VL5	630	0.4 ... 1.0 × I_n	10 × I_n	1.5 ... 9 I_R B	3VL57 63-1ME36-....	1	1 unit	113	9.300
VL800/3VL6	800	0.4 ... 1.0 × I_n	8 × I_n	1.5 ... 7 I_R B	3VL67 80-1ME36-....	1	1 unit	113	16.000
VL1250/3VL7	1000	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10 I_R B	3VL77 10-1ME36-....	1	1 unit	113	25.000
	1250	0.4 ... 1.0 × I_n	10 × I_n	1.5 ... 10 I_R B	3VL77 12-1ME36-....	1	1 unit	113	25.000
VL1600/3VL8 ¹⁾	1600	0.4 ... 1.0 × I_n	9 × I_n	1.5 ... 8 I_R B	3VL87 16-1ME30-....	1	1 unit	113	31.300



Motor and generator protection, ETU10M, LI function

With permanently set trip class $t_C = 10$, with phase failure sensitivity

63	25 ... 63	1.25 ... 11 × I_n	--	B	3VL27 06-1MP33-....	1	1 unit	113	2.400
100	40 ... 100	1.25 ... 11 × I_n	--	B	3VL27 10-1MP33-....	1	1 unit	113	2.400
160	64 ... 160	1.25 ... 11 × I_n	--	B	3VL27 16-1MP33-....	1	1 unit	113	2.400

VL160/3VL2

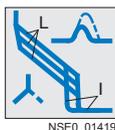
VL250/3VL3	200	80 ... 200	1.25 ... 11 × I_n	--	B	3VL37 20-1MP33-....	1	1 unit	113	2.500
	250	100 ... 250	1.25 ... 11 × I_n	--	B	3VL37 25-1MP33-....	1	1 unit	113	2.500

Connection type can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal

3
6

VL400/3VL4	315	125 ... 315	1.25 ... 11 × I_n	--	B	3VL47 31-1MP36-....	1	1 unit	113	5.900
VL630/3VL5	500	200 ... 500	1.25 ... 12.5 × I_n	--	B	3VL57 50-1MP36-....	1	1 unit	113	9.300



Motor protection, ETU30M, LI function

With adjustable trip class $t_C = 10, 20, 30$, with phase failure sensitivity

63	25 ... 63	6/8/11 × I_n	--	B	3VL27 06-1MS33-....	1	1 unit	113	2.400
100	40 ... 100	6/8/11 × I_n	--	B	3VL27 10-1MS33-....	1	1 unit	113	2.400
160	63 ... 160	6/8/11 × I_n	--	B	3VL27 16-1MS33-....	1	1 unit	113	2.400

VL160/3VL2

VL250/3VL3	200	80 ... 200	6/8/11 × I_n	--	B	3VL37 20-1MS33-....	1	1 unit	113	2.500
	250	100 ... 250	6/8/11 × I_n	--	B	3VL37 25-1MS33-....	1	1 unit	113	2.500

Connection type can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal

3
6

VL400/3VL4	315	125 ... 315	6/8/11 × I_n	--	B	3VL47 31-1MS36-....	1	1 unit	113	5.900
VL630/3VL5	500	200 ... 500	6/8/12.5 × I_n	--	B	3VL57 50-1MS36-....	1	1 unit	113	9.300

¹⁾ Front busbar connection pieces are included in the scope of supply and are to be fitted by the customer.

Communication:

- For accessories see 16/90.
- For more information see also the chapter "Power Management System" and "Software for Power Distribution".

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

3-pole

DT	I_{cu} up to 70 kA at 415 V, high switching capacity H						DT	I_{cu} up to 100 kA at 415 V, very high switching capacity L					
	Order No. Order No. supplement required, see page 16/48	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg		Order No. Order No. supplement required, see page 16/48	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
B	3VL27 06-2ME33-....		1	1 unit	113	2.400	B	3VL27 06-3ME33-....		1	1 unit	113	2.400
B	3VL27 10-2ME33-....		1	1 unit	113	2.400	B	3VL27 10-3ME33-....		1	1 unit	113	2.400
B	3VL27 16-2ME33-....		1	1 unit	113	2.400	B	3VL27 16-3ME33-....		1	1 unit	113	2.400
B	3VL37 20-2ME33-....		1	1 unit	113	2.500	B	3VL37 20-3ME33-....		1	1 unit	113	2.500
B	3VL37 25-2ME33-....		1	1 unit	113	2.500	B	3VL37 25-3ME33-....		1	1 unit	113	2.500
	3 6							3 6					
B	3VL47 31-2ME36-....		1	1 unit	113	5.900	B	3VL47 31-3ME36-....		1	1 unit	113	5.900
B	3VL47 40-2ME36-....		1	1 unit	113	5.900	B	3VL47 40-3ME36-....		1	1 unit	113	5.900
B	3VL57 63-2ME36-....		1	1 unit	113	9.300	B	3VL57 63-3ME36-....		1	1 unit	113	9.300
B	3VL67 80-2ME36-....		1	1 unit	113	16.000	B	3VL67 80-3ME36-....		1	1 unit	113	16.000
B	3VL77 10-2ME36-....		1	1 unit	113	25.000	B	3VL77 10-3ME36-....		1	1 unit	113	25.000
B	3VL77 12-2ME36-....		1	1 unit	113	25.000	B	3VL77 12-3ME36-....		1	1 unit	113	25.000
B	3VL87 16-2ME30-....		1	1 unit	113	31.300	B	3VL87 16-3ME30-....		1	1 unit	113	31.300
B	3VL27 06-2MP33-....		1	1 unit	113	2.400	B	3VL27 06-3MP33-....		1	1 unit	113	2.400
B	3VL27 10-2MP33-....		1	1 unit	113	2.400	B	3VL27 10-3MP33-....		1	1 unit	113	2.400
B	3VL27 16-2MP33-....		1	1 unit	113	2.400	B	3VL27 16-3MP33-....		1	1 unit	113	2.400
B	3VL37 20-2MP33-....		1	1 unit	113	2.500	B	3VL37 20-3MP33-....		1	1 unit	113	2.500
B	3VL37 25-2MP33-....		1	1 unit	113	2.500	B	3VL37 25-3MP33-....		1	1 unit	113	2.500
	3 6							3 6					
B	3VL47 31-2MP36-....		1	1 unit	113	5.900	B	3VL47 31-3MP36-....		1	1 unit	113	5.900
B	3VL57 50-2MP36-....		1	1 unit	113	9.300	B	3VL57 50-3MP36-....		1	1 unit	113	9.300
B	3VL27 06-2MS33-....		1	1 unit	113	2.400	B	3VL27 06-3MS33-....		1	1 unit	113	2.400
B	3VL27 10-2MS33-....		1	1 unit	113	2.400	B	3VL27 10-3MS33-....		1	1 unit	113	2.400
B	3VL27 16-2MS33-....		1	1 unit	113	2.400	B	3VL27 16-3MS33-....		1	1 unit	113	2.400
B	3VL37 20-2MS33-....		1	1 unit	113	2.500	B	3VL37 20-3MS33-....		1	1 unit	113	2.500
B	3VL37 25-2MS33-....		1	1 unit	113	2.500	B	3VL37 25-3MS33-....		1	1 unit	113	2.500
	3 6							3 6					
B	3VL47 31-2MS36-....		1	1 unit	113	5.900	B	3VL47 31-3MS36-....		1	1 unit	113	5.900
B	3VL57 50-2MS36-....		1	1 unit	113	9.300	B	3VL57 50-3MS36-....		1	1 unit	113	9.300

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

3-pole

Type	Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_R	Operating current of the instantaneous short-circuit release "I" I_I	DT	I_{cu} up to 55 kA at 415 V, standard switching capacity N See "Overview".	(N)				
	A	A	A		Order No. Order No. supplement required, see page 16/48	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg

Fixed-mounted circuit breakers, VL160X to VL1600, up to 1600 A, magnetic and electronic releases



NSE0_00707

Starter combinations, I function

Without overload release, with adjustable short-circuit release

VL160/3VL2	63	--	450 ... 900	B	3VL27 06-1DK33-....	1	1 unit	113	2.200
	100	--	750 ... 1500	B	3VL27 10-1DK33-....	1	1 unit	113	2.200
	160	--	1250 ... 2500	B	3VL27 16-1DK33-....	1	1 unit	113	2.200
VL250/3VL3	250	--	1750 ... 3500	B	3VL37 25-1DK33-....	1	1 unit	113	2.300

Connection type can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal

3
6

VL400/3VL4	200	--	1250 ... 2500	B	3VL47 20-1DK36-....	1	1 unit	113	5.700
	250	--	2000 ... 4000	B	3VL47 25-1DK36-....	1	1 unit	113	5.700
	315	--	2000 ... 4000	X	3VL47 31-1DK36-....	1	1 unit	113	5.700
VL630/3VL5	315	--	2000 ... 4000	B	3VL57 31-1DK36-....	1	1 unit	113	9.000
	500	--	3250 ... 6300	B	3VL57 50-1DK36-....	1	1 unit	113	9.000



NSE0_00708

Non-automatic molded case circuit breakers¹⁾

Without overload release, with permanently set short-circuit releases (for intrinsic protection only)

VL160X/3VL1	100	--	1800	B	3VL17 10-1DE33-....	1	1 unit	113	2.000
	160	--	1800	B	3VL17 16-1DE33-....	1	1 unit	113	2.000
VL160/3VL2	100	--	2500	B	3VL27 10-1DE33-....	1	1 unit	113	2.200
	160	--	2500	B	3VL27 16-1DE33-....	1	1 unit	113	2.200
VL250/3VL3	250	--	3500	B	3VL37 25-1DE33-....	1	1 unit	113	2.300

Connection type can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal

3
6

VL400/3VL4	400	--	4000	B	3VL47 40-1DE36-....	1	1 unit	113	5.700
VL630/3VL5	630	--	6300	B	3VL57 63-1DE36-....	1	1 unit	113	9.000
VL800/3VL6	800	--	6500	B	3VL67 80-1DE36-....	1	1 unit	113	15.700
VL1250/3VL7	1250	--	12000	B	3VL77 12-1DE36-....	1	1 unit	113	23.500
VL1600/3VL8 ²⁾	1600	--	14400	B	3VL87 16-1DE30-....	1	1 unit	113	29.800

For further versions, including for short-circuit and ground-fault protection, see pages 16/18 to 16/21.

¹⁾ See also the Chapter "3K, 3KE, 3LD Switch Disconnectors". 3K. switch disconnectors are also available with rear-mounting operating mechanism and leading contacts.

²⁾ Front busbar connection pieces are included in the scope of supply and are to be fitted by the customer.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

3-pole

DT I_{cu} up to 70 kA at 415 V, high switching capacity H (H)							DT I_{cu} up to 100 kA at 415 V, very high switching capacity L (L)						
Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.		Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
Order No. supplement required, see page 16/48							Order No. supplement required, see page 16/48						
						kg							kg
B	3VL27 06-2DK33-....		1	1 unit	113	2.200	B	3VL27 06-3DK33-....		1	1 unit	113	2.200
B	3VL27 10-2DK33-....		1	1 unit	113	2.200	B	3VL27 10-3DK33-....		1	1 unit	113	2.200
B	3VL27 16-2DK33-....		1	1 unit	113	2.200	B	3VL27 16-3DK33-....		1	1 unit	113	2.200
B	3VL37 25-2DK33-....		1	1 unit	113	2.300	B	3VL37 25-3DK33-....		1	1 unit	113	2.300
3 6							3 6						
B	3VL47 20-2DK36-....		1	1 unit	113	5.700	B	3VL47 20-3DK36-....		1	1 unit	113	5.700
B	3VL47 25-2DK36-....		1	1 unit	113	5.700	B	3VL47 25-3DK36-....		1	1 unit	113	5.700
X	3VL47 31-2DK36-....		1	1 unit	113	5.700	X	3VL47 31-3DK36-....		1	1 unit	113	5.700
B	3VL57 31-2DK36-....		1	1 unit	113	9.000	B	3VL57 31-3DK36-....		1	1 unit	113	9.000
B	3VL57 50-2DK36-....		1	1 unit	113	9.000	B	3VL57 50-3DK36-....		1	1 unit	113	9.000
3 6							3 6						
B	3VL17 10-2DE33-....		1	1 unit	113	2.000	--						
B	3VL17 16-2DE33-....		1	1 unit	113	2.000	--						
B	3VL27 10-2DE33-....		1	1 unit	113	2.200	B	3VL27 10-3DE33-....		1	1 unit	113	2.200
B	3VL27 16-2DE33-....		1	1 unit	113	2.200	B	3VL27 16-3DE33-....		1	1 unit	113	2.200
B	3VL37 25-2DE33-....		1	1 unit	113	2.300	B	3VL37 25-3DE33-....		1	1 unit	113	2.300
3 6							3 6						
B	3VL47 40-2DE36-....		1	1 unit	113	5.700	B	3VL47 40-3DE36-....		1	1 unit	113	5.700
B	3VL57 63-2DE36-....		1	1 unit	113	9.000	B	3VL57 63-3DE36-....		1	1 unit	113	9.000
B	3VL67 80-2DE36-....		1	1 unit	113	15.700	B	3VL67 80-3DE36-....		1	1 unit	113	15.700
B	3VL77 12-2DE36-....		1	1 unit	113	23.500	B	3VL77 12-3DE36-....		1	1 unit	113	23.500
B	3VL87 16-2DE30-....		1	1 unit	113	29.800	B	3VL87 16-3DE30-....		1	1 unit	113	29.800

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

3-pole

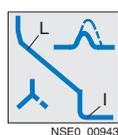
Type	Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_R	DT	I_{cu} up to 55 kA at 415 V, standard switching capacity N See "Overview".					(N)
	A	A		Order No. Order No. supplement required, see page 16/48	Price see page 16/22	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg

Fixed-mounted circuit breakers, VL160 to VL1600, up to 1600 A, electronic releases

Circuit breakers with electronic release ETU

VL160/3VL2	63	25 ... 63	B	3VL27 06-1□□33-....		1	1 unit	113	2.400
Connection with box terminal	100	40 ... 100	B	3VL27 10-1□□33-....		1	1 unit	113	2.400
	160	64 ... 160	B	3VL27 16-1□□33-....		1	1 unit	113	2.400
VL160/3VL2	63	25 ... 63	B	3VL27 06-1□□36-....		1	1 unit	113	2.400
Connection with screw terminal	100	40 ... 100	B	3VL27 10-1□□36-....		1	1 unit	113	2.400
	160	64 ... 160	B	3VL27 16-1□□36-....		1	1 unit	113	2.400
VL250/3VL3	200	80 ... 200	B	3VL37 20-1□□33-....		1	1 unit	113	2.500
Connection with box terminal	250	100 ... 250	B	3VL37 25-1□□33-....		1	1 unit	113	2.500
VL250/3VL3	200	80 ... 200	B	3VL37 20-1□□36-....		1	1 unit	113	2.500
Connection with screw terminal	250	100 ... 250	B	3VL37 25-1□□36-....		1	1 unit	113	2.500
VL400/3VL4	315	128 ... 315	B	3VL47 31-1□□36-....		1	1 unit	113	5.900
	400 ¹⁾	160 ... 400	B	3VL47 40-1□□36-....		1	1 unit	113	5.900 ¹⁾
VL630/3VL5	500 ²⁾	200 ... 500	B	3VL57 50-1□□36-....		1	1 unit	113	9.300 ²⁾
	630 ¹⁾	252 ... 630	B	3VL57 63-1□□36-....		1	1 unit	113	9.300 ¹⁾
VL800/3VL6	800	320 ... 800	B	3VL67 80-1□□36-....		1	1 unit	113	16.000
VL1250/3VL7	1000	400 ... 1000	B	3VL77 10-1□□36-....		1	1 unit	113	25.000
	1250	500 ... 1250	B	3VL77 12-1□□36-....		1	1 unit	113	25.000
VL1600/3VL8 ³⁾	1600	640 ... 1600	B	3VL87 16-1□□30-....		1	1 unit	113	31.300

ETU releases, 3-pole versions



Motor protection with LI function, ETU10M
Up to 500 A (VL160 to VL630)

System protection with LI function, ETU10

Order No. supplements

SP ⁴⁾ MP ⁴⁾

SB MB

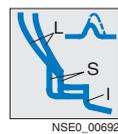


System protection with LIG function, ETU12
For 3-wire three-phase systems⁵⁾

System protection with LING function, ETU12
For 4-wire three-phase systems⁵⁾⁶⁾

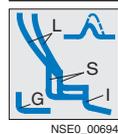
SL ML

SF MF



System and generator protection with LSI function, ETU20

SE ME

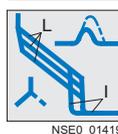


System and generator protection with LSIG function, ETU22
For 3-wire three-phase systems

System and generator protection with LSING function, ETU22
For 4-wire three-phase systems⁶⁾

SG MG

SH MH



Motor protection with LI function, ETU30M
Up to 500 A (VL160 to VL630)

SS ⁴⁾ MS ⁴⁾

With communication preparation⁷⁾

No Yes

L = Overload
S = Short-circuit protection, short-time delayed
I = Short-circuit protection, instantaneous
G = Ground-fault protection

¹⁾ Not for motor protection.
²⁾ Only for motor protection.
³⁾ Front busbar connection pieces are included in the scope of supply and are to be fitted by the customer.

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

3-pole

DT **I_{cu} up to 70 kA at 415 V, high switching capacity H**

Order No.	Price see page 16/22	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Order No. supplement required, see page 16/48					

DT **I_{cu} up to 100 kA at 415 V, very high switching capacity L**

Order No.	Price see page 16/22	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Order No. supplement required, see page 16/48					

B	3VL27 06-2□□33-....	1	1 unit	113	2.400	B	3VL27 06-3□□33-....	1	1 unit	113	2.400
B	3VL27 10-2□□33-....	1	1 unit	113	2.400	B	3VL27 10-3□□33-....	1	1 unit	113	2.400
B	3VL27 16-2□□33-....	1	1 unit	113	2.400	B	3VL27 16-3□□33-....	1	1 unit	113	2.400
B	3VL27 06-2□□36-....	1	1 unit	113	2.400	B	3VL27 06-3□□36-....	1	1 unit	113	2.400
B	3VL27 10-2□□36-....	1	1 unit	113	2.400	B	3VL27 10-3□□36-....	1	1 unit	113	2.400
B	3VL27 16-2□□36-....	1	1 unit	113	2.400	B	3VL27 16-3□□36-....	1	1 unit	113	2.400
B	3VL37 20-2□□33-....	1	1 unit	113	2.500	B	3VL37 20-3□□33-....	1	1 unit	113	2.500
B	3VL37 25-2□□33-....	1	1 unit	113	2.500	B	3VL37 25-3□□33-....	1	1 unit	113	2.500
B	3VL37 20-2□□36-....	1	1 unit	113	2.500	B	3VL37 20-3□□36-....	1	1 unit	113	2.500
B	3VL37 25-2□□36-....	1	1 unit	113	2.500	B	3VL37 25-3□□36-....	1	1 unit	113	2.500
B	3VL47 31-2□□36-....	1	1 unit	113	5.900	B	3VL47 31-3□□36-....	1	1 unit	113	5.900
B	3VL47 40-2□□36-....	1	1 unit	113	5.900 ¹⁾	B	3VL47 40-3□□36-....	1	1 unit	113	5.900 ¹⁾
B	3VL57 50-2□□36-....	1	1 unit	113	9.300 ²⁾	B	3VL57 50-3□□36-....	1	1 unit	113	9.300 ²⁾
B	3VL57 63-2□□36-....	1	1 unit	113	9.300 ¹⁾	B	3VL57 63-3□□36-....	1	1 unit	113	9.300 ¹⁾
B	3VL67 80-2□□36-....	1	1 unit	113	16.000	B	3VL67 80-3□□36-....	1	1 unit	113	16.000
B	3VL77 10-2□□36-....	1	1 unit	113	25.000	B	3VL77 10-3□□36-....	1	1 unit	113	25.000
B	3VL77 12-2□□36-....	1	1 unit	113	25.000	B	3VL77 12-3□□36-....	1	1 unit	113	25.000
B	3VL87 16-2□□30-....	1	1 unit	113	31.300	B	3VL87 16-3□□30-....	1	1 unit	113	31.300

Order No. supplements

Order No. supplements

SP ⁴⁾	MP ⁴⁾
SB	MB
SL	ML
SF	MF
SE	ME
SG	MG
SH	MH
SS ⁴⁾	MS ⁴⁾

SP ⁴⁾	MP ⁴⁾
SB	MB
SL	ML
SF	MF
SE	ME
SG	MG
SH	MH
SS ⁴⁾	MS ⁴⁾

No Yes

No Yes

4) Not for VL400 with $I_n = 400$ A, VL800, VL1250, VL1600.
 5) Vectorial summation current formation of the currents.
 6) External current transformers required in addition, see pages 16/82.
 7) For communication you need COM20/COM21 in addition.

Communication:
 • For accessories see 16/90.
 • For more information see also the chapter "Power Management System" and "Software for Power Distribution".

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

3-pole

Type	Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_R	DT	I_{cu} up to 55 kA at 415 V, standard switching capacity N See "Overview".					(N)
	A	A		Order No. Order No. supplement required, see page 16/48	Price see page 16/22	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg

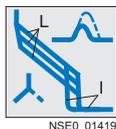
Fixed-mounted circuit breakers, VL160 to VL1600, up to 1600 A, electronic releases

Circuit breakers with electronic release ETU

VL160/3VL2	63	25 ... 63	B	3VL27 06-1□□33-....		1	1 unit	113	2.400
Connection with box terminal	100	40 ... 100	B	3VL27 10-1□□33-....		1	1 unit	113	2.400
	160	64 ... 160	B	3VL27 16-1□□33-....		1	1 unit	113	2.400
VL160/3VL2	63	25 ... 63	B	3VL27 06-1□□36-....		1	1 unit	113	2.400
Connection with screw terminal	100	40 ... 100	B	3VL27 10-1□□36-....		1	1 unit	113	2.400
	160	64 ... 160	B	3VL27 16-1□□36-....		1	1 unit	113	2.400
VL250/3VL3	200	80 ... 200	B	3VL37 20-1□□33-....		1	1 unit	113	2.500
Connection with box terminal	250	100 ... 250	B	3VL37 25-1□□33-....		1	1 unit	113	2.500
VL250/3VL3	200	80 ... 200	B	3VL37 20-1□□36-....		1	1 unit	113	2.500
Connection with screw terminal	250	100 ... 250	B	3VL37 25-1□□36-....		1	1 unit	113	2.500
VL400/3VL4	315	128 ... 315	B	3VL47 31-1□□36-....		1	1 unit	113	5.900
	400 ⁵⁾	160 ... 400	B	3VL47 40-1□□36-....		1	1 unit	113	5.900 ⁵⁾
VL630/3VL5	500 ³⁾	250 ... 500	B	3VL57 50-1□□36-....		1	1 unit	113	9.300 ³⁾
	630 ⁵⁾	252 ... 630	B	3VL57 63-1□□36-....		1	1 unit	113	9.300 ⁵⁾
VL800/3VL6	800	320 ... 800	B	3VL67 80-1□□36-....		1	1 unit	113	16.000
VL1250/3VL7	1000	400 ... 1000	B	3VL77 10-1□□36-....		1	1 unit	113	25.000
	1250	500 ... 1250	B	3VL77 12-1□□36-....		1	1 unit	113	25.000
VL1600/3VL8 ⁶⁾	1600	640 ... 1600	B	3VL87 16-1□□30-....		1	1 unit	113	31.300

Order No.
supple-
ments

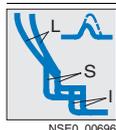
LCD ETU releases, 3-pole version



NSE0_01419

Motor protection with LI function, ETU40M

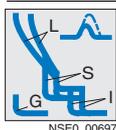
Up to 500 A (VL160 to VL630)

CP ⁴⁾

NSE0_00696

System protection with LI/LS/LSI function, ETU40

CH



NSE0_00697

System protection with LSIG function, ETU42

For 3-wire three-phase systems²⁾For 4-wire three-phase systems¹⁾²⁾

CL

CM

L = Overload
S = Short-circuit protection, short-time delayed
I = Short-circuit protection, instantaneous
G = Ground-fault protection

- External current transformer required in addition, see page 16/82 and Technical Information LV 1 T "Function", "Ground-Fault Protection".
- Vectorial summation current formation of the currents.
- Only for motor protection.
- Not for VL400 with $I_n = 400$ A, VL800, VL1250, VL1600.
- Not for motor protection.
- Front busbar connection pieces are included in the scope of supply and are to be fitted by the customer.

3VL Molded Case Circuit Breakers

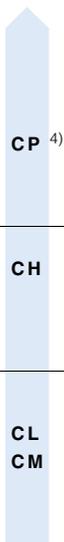
3VL Molded Case Circuit Breakers up to 1600 A

3-pole

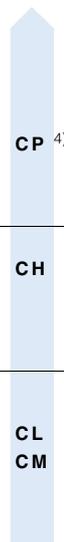
DT I_{cu} up to 70 kA at 415 V, high switching capacity H							DT I_{cu} up to 100 kA at 415 V, very high switching capacity L						
Order No.	Price see page 16/22	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg		Order No.	Price see page 16/22	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg	

B	3VL27 06-2□□33-....		1	1 unit	113	2.400	B	3VL27 06-3□□33-....		1	1 unit	113	2.400
B	3VL27 10-2□□33-....		1	1 unit	113	2.400	B	3VL27 10-3□□33-....		1	1 unit	113	2.400
B	3VL27 16-2□□33-....		1	1 unit	113	2.400	B	3VL27 16-3□□33-....		1	1 unit	113	2.400
B	3VL27 06-2□□36-....		1	1 unit	113	2.400	B	3VL27 06-3□□36-....		1	1 unit	113	2.400
B	3VL27 10-2□□36-....		1	1 unit	113	2.400	B	3VL27 10-3□□36-....		1	1 unit	113	2.400
B	3VL27 16-2□□36-....		1	1 unit	113	2.400	B	3VL27 16-3□□36-....		1	1 unit	113	2.400
B	3VL37 20-2□□33-....		1	1 unit	113	2.500	B	3VL37 20-3□□33-....		1	1 unit	113	2.500
B	3VL37 25-2□□33-....		1	1 unit	113	2.500	B	3VL37 25-3□□33-....		1	1 unit	113	2.500
B	3VL37 20-2□□36-....		1	1 unit	113	2.500	B	3VL37 20-3□□36-....		1	1 unit	113	2.500
B	3VL37 25-2□□36-....		1	1 unit	113	2.500	B	3VL37 25-3□□36-....		1	1 unit	113	2.500
B	3VL47 31-2□□36-....		1	1 unit	113	5.900	B	3VL47 31-3□□36-....		1	1 unit	113	5.900
B	3VL47 40-2□□36-....		1	1 unit	113	5.900 ⁵⁾	B	3VL47 40-3□□36-....		1	1 unit	113	5.900 ⁵⁾
B	3VL57 50-2□□36-....		1	1 unit	113	9.300 ³⁾	B	3VL57 50-3□□36-....		1	1 unit	113	9.300 ³⁾
B	3VL57 63-2□□36-....		1	1 unit	113	9.300 ⁵⁾	B	3VL57 63-3□□36-....		1	1 unit	113	9.300 ⁵⁾
B	3VL67 80-2□□36-....		1	1 unit	113	16.000	B	3VL67 80-3□□36-....		1	1 unit	113	16.000
B	3VL77 10-2□□36-....		1	1 unit	113	25.000	B	3VL77 10-3□□36-....		1	1 unit	113	25.000
B	3VL77 12-2□□36-....		1	1 unit	113	25.000	B	3VL77 12-3□□36-....		1	1 unit	113	25.000
B	3VL87 16-2□□30-....		1	1 unit	113	31.300	B	3VL87 16-3□□30-....		1	1 unit	113	31.300

Order No. supplements



Order No. supplements



* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

3-pole

Order No. supplement (for complete Order No., see pages 16/18 to 16/21) 3VL7 ..- Releases	Switching capacity <input type="checkbox"/> 3-....	Type VL160 3VL2	VL250 3VL3		VL400 3VL4		VL630 3VL5	VL800 3VL6	VL1250 3VL7		VL1600 3VL8		
			Rated current I_n		Rated current I_n		Rated current I_n	Rated current I_n	Rated current I_n	Rated current I_n			
		63 A	100 A	160 A	200 A	250 A	315 A	400 A	630 A	800 A	1000 A	1250 A	1600 A
Price													
ETU10M	S P						--		1)	--	--	--	--
							--		1)	--	--	--	--
							--		1)	--	--	--	--
ETU10	S B												
ETU12	S L												
ETU12	S F												
ETU20	S E												
ETU22	S G												
ETU22	S H												
ETU30M	S S						--		1)	--	--	--	--
							--		1)	--	--	--	--
							--		1)	--	--	--	--
ETU10M	M P						--		1)	--	--	--	--
							--		1)	--	--	--	--
							--		1)	--	--	--	--
ETU10	M B												
ETU12	M L												
ETU12	M F												
ETU20	M E												
ETU22	M G												
ETU22	M H												
ETU30M	M S						--		1)	--	--	--	--
							--		1)	--	--	--	--
							--		1)	--	--	--	--
ETU40M	C P						--		1)	--	--	--	--
							--		1)	--	--	--	--
							--		1)	--	--	--	--
ETU40	C H												
ETU42	C L												
ETU42	C M												

-- Not available

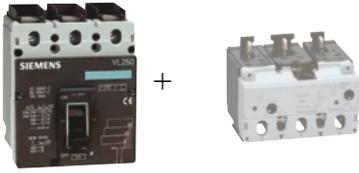
1) Rated current $I_n = 500$ A.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

3-pole

Contact units (only in combination with electronic release! See pages 16/24 and 16/25)
VL160 to VL1600, up to 1600 A²⁾



Type	Rated current I_n	DT	I_{cu} up to 55 kA at 415 V, standard switching capacity N See "Overview".				(N)	
			Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
A								

With box terminals for contact units and electronic releases

VL160/3VL2	160	B	3VL27 16-1AA33-0AA0		1	1 unit	113	2.400
------------	-----	---	----------------------------	--	---	--------	-----	-------

With screw terminal connections for contact units and electronic releases

VL160/3VL2	160	B	3VL27 16-1AA36-0AA0		1	1 unit	113	1.500
VL250/3VL3	250	B	3VL37 25-1AA36-0AA0		1	1 unit	113	2.500
VL400/3VL4	400	B	3VL47 40-1AA36-0AA0		1	1 unit	113	5.900
VL630/3VL5	630	A	3VL57 63-1AA36-0AA0		1	1 unit	113	7.800
VL800/3VL6	800	A	3VL67 80-1AA36-0AA0		1	1 unit	113	14.200
VL1250/3VL7	1250	A	3VL77 12-1AA36-0AA0		1	1 unit	113	21.000
VL1600/3VL8 ¹⁾	1600	A	3VL87 16-1AA30-0AA0		1	1 unit	113	27.300

Type	Rated current I_n	DT	I_{cu} up to 70 kA at 415 V, high switching capacity H See "Overview".				(H)	
			Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
A								

With box terminals for contact units and electronic releases

VL160/3VL2	160	B	3VL27 16-2AA33-0AA0		1	1 unit	113	2.400
------------	-----	---	----------------------------	--	---	--------	-----	-------

With screw terminal connections for contact units and electronic releases

VL160/3VL2	160	B	3VL27 16-2AA36-0AA0		1	1 unit	113	1.500
VL250/3VL3	250	B	3VL37 25-2AA36-0AA0		1	1 unit	113	2.500
VL400/3VL4	400	B	3VL47 40-2AA36-0AA0		1	1 unit	113	5.900
VL630/3VL5	630	A	3VL57 63-2AA36-0AA0		1	1 unit	113	7.800
VL800/3VL6	800	A	3VL67 80-2AA36-0AA0		1	1 unit	113	14.200
VL1250/3VL7	1250	A	3VL77 12-2AA36-0AA0		1	1 unit	113	21.000
VL1600/3VL8 ¹⁾	1600	A	3VL87 16-2AA30-0AA0		1	1 unit	113	27.300

Type	Rated current I_n	DT	I_{cu} up to 100 kA at 415 V, very high switching capacity L See "Overview".				(L)	
			Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
A								

With box terminals for contact units and electronic releases

VL160/3VL2	160	B	3VL27 16-3AA33-0AA0		1	1 unit	113	2.400
------------	-----	---	----------------------------	--	---	--------	-----	-------

With screw terminal connections for contact units and electronic releases

VL160/3VL2	160	B	3VL27 16-3AA36-0AA0		1	1 unit	113	1.500
VL250/3VL3	250	B	3VL37 25-3AA36-0AA0		1	1 unit	113	2.500
VL400/3VL4	400	B	3VL47 40-3AA36-0AA0		1	1 unit	113	4.200
VL630/3VL5	630	A	3VL57 63-3AA36-0AA0		1	1 unit	113	7.800
VL800/3VL6	800	A	3VL67 80-3AA36-0AA0		1	1 unit	113	14.200
VL1250/3VL7	1250	A	3VL77 12-3AA36-0AA0		1	1 unit	113	21.000
VL1600/3VL8 ¹⁾	1600	A	3VL87 16-3AA30-0AA0		1	1 unit	113	27.300

¹⁾ Front busbar connection pieces are included in the scope of supply and are to be fitted by the customer.

²⁾ Non-automatic molded case circuit breakers are available only as complete units from the factory (for selection and ordering data, see page 16/16).

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

3-pole



For circuit breakers	Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_r	Operating current of the instantaneous short-circuit release "I" I_i	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Type	A	A	A							kg

Electronic releases (only in combination with contact unit – see page 16/23)

TM releases

System protection with LI function

Box terminals/screw terminal connections in the scope of supply of the contact units

VL160/3VL2	50	40 ... 50	300 ... 600	A	3VL9 205-7DC30		1	1 unit	113	0.843
	63	50 ... 63	300 ... 600	A	3VL9 206-7DC30		1	1 unit	113	0.846
	80	63 ... 80	400 ... 800	A	3VL9 208-7DC30		1	1 unit	113	0.843
	100	80 ... 100	500 ... 1000	A	3VL9 210-7DC30		1	1 unit	113	0.843
	125	100 ... 125	625 ... 1250	A	3VL9 212-7DC30		1	1 unit	113	0.791
VL250/3VL3	160	125 ... 160	800 ... 1600	A	3VL9 216-7DC30		1	1 unit	113	0.791
	200	160 ... 200	1000 ... 2000	A	3VL9 320-7DC30		1	1 unit	113	0.853
VL250/3VL3	250	200 ... 250	1250 ... 2500	A	3VL9 325-7DC30		1	1 unit	113	0.862
	VL400/3VL4	200	160 ... 200	1000 ... 2000	A	3VL9 420-7DC30		1	1 unit	113
VL400/3VL4	250	200 ... 250	1250 ... 2500	A	3VL9 425-7DC30		1	1 unit	113	1.655
	315	250 ... 315	1575 ... 3150	A	3VL9 431-7DC30		1	1 unit	113	1.625
	400	320 ... 400	2000 ... 4000	A	3VL9 440-7DC30		1	1 unit	113	1.643
VL630/3VL5	315	250 ... 315	1575 ... 3150	A	3VL9 531-7DC30		1	1 unit	113	1.200
	400	320 ... 400	2000 ... 4000	A	3VL9 540-7DC30		1	1 unit	113	1.200
	500	400 ... 500	2500 ... 5000	A	3VL9 550-7DC30		1	1 unit	113	1.200
	630	500 ... 630	3150 ... 6300	A	3VL9 563-7DC30		1	1 unit	113	1.200

Magnetic releases

Starter protection with I function

Box terminals/screw terminal connections in the scope of supply of the contact units

VL160/3VL2	63	--	450 ... 900	A	3VL9 206-7DK30		1	1 unit	113	0.843
	100	--	750 ... 1500	A	3VL9 210-7DK30		1	1 unit	113	0.843
	160	--	1250 ... 2500	A	3VL9 216-7DK30		1	1 unit	113	0.843
VL250/3VL3	250	--	1750 ... 3500	A	3VL9 325-7DK30		1	1 unit	113	0.844
VL400/3VL4	200	--	1250 ... 2500	A	3VL9 420-7DK30		1	1 unit	113	1.670
	250	--	2000 ... 4000	A	3VL9 425-7DK30		1	1 unit	113	1.660
	315	--	2000 ... 4000	A	3VL9 431-7DK30		1	1 unit	113	1.593
VL630/3VL5	315	--	2000 ... 4000	A	3VL9 531-7DK30		1	1 unit	113	1.200
	500	--	3250 ... 6300	A	3VL9 550-7DK30		1	1 unit	113	1.200

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

3-pole



For circuit breakers	Current setting of the inverse-time delayed overload release "L" I_R	DT	Order No.	Price
Type	A		PU = 1 (UNIT, SET, M) PG = 113	

Electronic releases (only in combination with contact unit – see page 16/23)

ETU releases

For tripping functions see 10th position of the circuit breaker Order No. on the previous pages.

Box terminals/screw terminal connections in the scope of supply of the contact units

VL160/ 3VL2 ¹⁾	25 ... 63	A	3VL9 206-6□□30							
	40 ... 100	A	3VL9 210-6□□30							
	64 ... 160	A	3VL9 216-6□□30							
VL250/ 3VL3 ¹⁾	80 ... 200	A	3VL9 320-6□□30							
	100 ... 250	A	3VL9 325-6□□30							
VL400/ 3VL4	126 ... 315	A	3VL9 431-6□□30							
	160 ... 400	A	3VL9 440-6□□30	--						--
VL630/ 3VL5	200 ... 500	A	3VL9 550-6□□30	--	--	--	--	--	--	--
	252 ... 630	A	3VL9 563-6□□30	--						--
VL800/ 3VL6	320 ... 800	A	3VL9 680-6□□30	--						--
VL1250/ 3VL7	400 ... 1000	A	3VL9 710-6□□30	--						--
	500 ... 1250	A	3VL9 712-6□□30	--						--
VL1600/ 3VL8	640 ... 1600	A	3VL9 816-6□□30	--						--

	SP ²⁾	SB ²⁾	SL ²⁾	SF ²⁾	SE ²⁾	SG ²⁾	SH ²⁾	SS ²⁾
Releases	ETU10M	ETU10	ETU12	ETU12	ETU20	ETU22	ETU22	ETU30M

-- Not available

When the electronic release has been installed in the circuit breaker, it is recommended that it is tested with the battery power supply using the 3VL9 000-8AP00 test function.

Package size = 1 unit, i.e. 1 unit or a multiple thereof can be ordered.

Price group 113.

Weight on request

¹⁾ A contact unit with product version "E02" is required.

²⁾ For description see Technical Information LV 1 T "Function", "Electronic releases ETU".

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

3-pole



For circuit breakers	Current setting of the inverse-time delayed overload release "L" I_R	DT	Order No.	Price
Type	A		PU = 1 (UNIT, SET, M) PG = 113	

Electronic releases with communication function (only in combination with contact unit – see page 16/23)

ETU releases

For tripping functions see 10th position of the circuit breaker Order No. on the previous pages.

Box terminals/screw terminal connections in the scope of supply of the contact units

VL160/ 3VL2 ¹⁾	25 ... 63 40 ... 100 64 ... 160	A A A	3VL9 206-6□□30 3VL9 210-6□□30 3VL9 216-6□□30															
VL250/ 3VL3 ¹⁾	80 ... 200 100 ... 250	A A	3VL9 320-6□□30 3VL9 325-6□□30															
VL400/ 3VL4	126 ... 315 160 ... 400	A A	3VL9 431-6□□30 3VL9 440-6□□30	--														
VL630/ 3VL5	200 ... 500 252 ... 630	A A	3VL9 550-6□□30 3VL9 563-6□□30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VL800/ 3VL6	320 ... 800	A	3VL9 680-6□□30	--														
VL1250/ 3VL7	400 ... 1000 500 ... 1250	A A	3VL9 710-6□□30 3VL9 712-6□□30	--														
VL1600/ 3VL8	640 ... 1600	A	3VL9 816-6□□30	--														

Releases **MP²⁾** **MB²⁾** **ML²⁾** **MF²⁾** **ME²⁾** **MG²⁾** **MH²⁾** **MS²⁾**
 ETU10M ETU10 ETU12 ETU12 ETU20 ETU22 ETU22 ETU30M

-- Not available

When the electronic release has been installed in the circuit breaker, it is recommended that it is tested with the battery power supply using the 3VL9 000-8AP00 test function.

Package size = 1 unit, i.e. 1 unit or a multiple thereof can be ordered.
 Price group 113.
 Weight on request

¹⁾ A contact unit with product version "E02" is required.

²⁾ For description see Technical Information LV 1 T "Function", "Electronic releases ETU".

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole

Selection and ordering data

Type	Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_R	Operating current of the instantaneous short-circuit release "I" I_I	DT **	I_{cu} up to 55 kA at 415 V, standard switching capacity N See "Overview"						
	A	A	A			Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
						Order No. supplement see page 16/48					

Fixed-mounted circuit breakers, VL160X to VL630, up to 630 A Thermal-magnetic overcurrent releases



NSE0_00695

System protection, TM, LI function

With permanently set thermal overload releases, permanently set short-circuit releases, without overload and short-circuit releases in 4th pole (N)

VL160X/3VL1	16	16	300	B	3VL17 96-1EH43-....	1	1 unit	113	2.300
	20	20	300	B	3VL17 02-1EH43-....	1	1 unit	113	2.300
	25	25	300	B	3VL17 25-1EH43-....	1	1 unit	113	2.500
	32	32	300	B	3VL17 03-1EH43-....	1	1 unit	113	2.500
	40	40	600	B	3VL17 04-1EH43-....	1	1 unit	113	2.500
	50	50	600	B	3VL17 05-1EH43-....	1	1 unit	113	2.500
	63	63	600	B	3VL17 06-1EH43-....	1	1 unit	113	2.500
	80	80	1000	B	3VL17 08-1EH43-....	1	1 unit	113	2.500
	100	100	1000	B	3VL17 10-1EH43-....	1	1 unit	113	2.500
	125	125	1000	B	3VL17 12-1EH43-....	1	1 unit	113	2.500
	160	160	1500	B	3VL17 16-1EH43-....	1	1 unit	113	2.500

Connection can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal¹⁾

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NSE0_00704

System protection, TM, LI function

With adjustable thermal overload releases, adjustable short-circuit releases, without overload and short-circuit releases in 4th pole (N)

VL160/3VL2	50	40 ... 50	300 ... 600	B	3VL27 05-1EJ43-....	1	1 unit	113	3.000
	63	50 ... 63	300 ... 600	B	3VL27 06-1EJ43-....	1	1 unit	113	3.000
	80	63 ... 80	400 ... 800	B	3VL27 08-1EJ43-....	1	1 unit	113	3.000
	100	80 ... 100	500 ... 1000	B	3VL27 10-1EJ43-....	1	1 unit	113	3.000
	125	100 ... 125	625 ... 1250	B	3VL27 12-1EJ43-....	1	1 unit	113	3.000
	160	125 ... 160	800 ... 1600	B	3VL27 16-1EJ43-....	1	1 unit	113	3.000
VL250/3VL3	200	160 ... 200	1000 ... 2000	B	3VL37 20-1EJ43-....	1	1 unit	113	3.200
	250	200 ... 250	1250 ... 2500	B	3VL37 25-1EJ43-....	1	1 unit	113	3.200

Connection can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal¹⁾

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VL400/3VL4	200	160 ... 200	1000 ... 2000	B	3VL47 20-1EJ46-....	1	1 unit	113	7.400
	250	200 ... 250	1250 ... 2500	B	3VL47 25-1EJ46-....	1	1 unit	113	7.400
	315	250 ... 315	1575 ... 3150	B	3VL47 31-1EJ46-....	1	1 unit	113	7.400
	400	320 ... 400	2000 ... 4000	B	3VL47 40-1EJ46-....	1	1 unit	113	7.400
VL630/3VL5	315	250 ... 315	1575 ... 3150	B	3VL57 31-1EJ46-....	1	1 unit	113	11.200
	400	320 ... 400	2000 ... 4000	B	3VL57 40-1EJ46-....	1	1 unit	113	11.200
	500	400 ... 500	2500 ... 5000	B	3VL57 50-1EJ46-....	1	1 unit	113	11.200
	630	500 ... 630	3150 ... 6300	B	3VL57 63-1EJ46-....	1	1 unit	113	11.200

** Delivery time class A for Order No. supplement "0AA0", see page 16/48.

¹⁾ Cannot be used in conjunction with RCD module.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole

DT **	I_{cu} up to 70 kA at 415 V, high switching capacity H					(H)	DT **	I_{cu} up to 100 kA at 415 V, very high switching capacity L					(L)
	Order No. Order No. supplement required, see page 16/48	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg		Order No. Order No. supplement required, see page 16/48	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg

B	3VL17 96-2EH43-....		1	1 unit	113	2.300
B	3VL17 02-2EH43-....		1	1 unit	113	2.300
B	3VL17 25-2EH43-....		1	1 unit	113	2.500
B	3VL17 03-2EH43-....		1	1 unit	113	2.500
B	3VL17 04-2EH43-....		1	1 unit	113	2.500
B	3VL17 05-2EH43-....		1	1 unit	113	2.500
B	3VL17 06-2EH43-....		1	1 unit	113	2.500
B	3VL17 08-2EH43-....		1	1 unit	113	2.500
B	3VL17 10-2EH43-....		1	1 unit	113	2.500
B	3VL17 12-2EH43-....		1	1 unit	113	2.500
B	3VL17 16-2EH43-....		1	1 unit	113	2.500

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B	3VL27 05-2EJ43-....		1	1 unit	113	3.000
B	3VL27 06-2EJ43-....		1	1 unit	113	3.000
B	3VL27 08-2EJ43-....		1	1 unit	113	3.000
B	3VL27 10-2EJ43-....		1	1 unit	113	3.000
B	3VL27 12-2EJ43-....		1	1 unit	113	3.000
B	3VL27 16-2EJ43-....		1	1 unit	113	3.000
B	3VL37 20-2EJ43-....		1	1 unit	113	3.200
B	3VL37 25-2EJ43-....		1	1 unit	113	3.200

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6

B	3VL47 20-2EJ46-....		1	1 unit	113	7.400
B	3VL47 25-2EJ46-....		1	1 unit	113	7.400
B	3VL47 31-2EJ46-....		1	1 unit	113	7.400
B	3VL47 40-2EJ46-....		1	1 unit	113	7.400
B	3VL57 31-2EJ46-....		1	1 unit	113	11.200
B	3VL57 40-2EJ46-....		1	1 unit	113	11.200
B	3VL57 50-2EJ46-....		1	1 unit	113	11.200
B	3VL57 63-2EJ46-....		1	1 unit	113	11.200

** Delivery time class A for Order No. supplement "0AA0", see page 16/48.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole

Type	Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_R	Operating current of the instantaneous short-circuit release "I" I_I	DT **	I_{cu} up to 55 kA at 415 V, standard switching capacity N See "Overview" (N)					
					Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	A	A	A		Order No. supplement required, see page 16/48					kg

Fixed-mounted circuit breakers, VL160X to VL630, up to 630 A Thermal-magnetic overcurrent releases



System protection, TM, LIN function

With permanently set thermal overload releases, permanently set short-circuit releases, with "N" overload and short-circuit release

N = 100 % protection for overload and short-circuit releases

VL160X/3VL1	Rated current I_n	Overload release I_R	Instantaneous release I_I	DT	Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	16	16	300	B	3VL17 96-1EA43-....		1	1 unit	113	2.300
	20	20	300	B	3VL17 02-1EA43-....		1	1 unit	113	2.300
	25	25	300	B	3VL17 25-1EA43-....		1	1 unit	113	2.500
	32	32	300	B	3VL17 03-1EA43-....		1	1 unit	113	2.500
	40	40	600	B	3VL17 04-1EA43-....		1	1 unit	113	2.500
	50	50	600	B	3VL17 05-1EA43-....		1	1 unit	113	2.500
	63	63	600	B	3VL17 06-1EA43-....		1	1 unit	113	2.500
	80	80	1000	B	3VL17 08-1EA43-....		1	1 unit	113	2.500
	100	100	1000	B	3VL17 10-1EA43-....		1	1 unit	113	2.500
	125	125	1000	B	3VL17 12-1EL43-....		1	1 unit	113	2.500
	160	160	1500	B	3VL17 16-1EL43-....		1	1 unit	113	2.500

Connection can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal¹⁾

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System protection, TM, LIN function

With permanently set thermal overload releases, permanently set short-circuit releases, with "N" overload and short-circuit release

N = 60 % protection for overload and short-circuit releases

VL160X/3VL1	Rated current I_n	Overload release I_R	Instantaneous release I_I	DT	Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	125	125	1000	B	3VL17 12-1EA43-....		1	1 unit	113	2.500
	160	160	1500	B	3VL17 16-1EA43-....		1	1 unit	113	2.500

Connection can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal¹⁾

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6

** Delivery time class A for Order No. supplement "0AA0", see page 16/48.

¹⁾ Cannot be used in conjunction with RCD module.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole

DT ** I_{cu} up to 70 kA at 415 V, high switching capacity H (H)							DT ** I_{cu} up to 100 kA at 415 V, very high switching capacity L (L)						
Order No.	Order No. supplement required, see page 16/48	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg	Order No.	Order No. supplement required, see page 16/48	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg

B	3VL17 96-2EA43-....		1	1 unit	113	2.300	--						
B	3VL17 02-2EA43-....		1	1 unit	113	2.300	--						
B	3VL17 25-2EA43-....		1	1 unit	113	2.500	--						
B	3VL17 03-2EA43-....		1	1 unit	113	2.500	--						
B	3VL17 04-2EA43-....		1	1 unit	113	2.500	--						
B	3VL17 05-2EA43-....		1	1 unit	113	2.500	--						
B	3VL17 06-2EA43-....		1	1 unit	113	2.500	--						
B	3VL17 08-2EA43-....		1	1 unit	113	2.500	--						
B	3VL17 10-2EA43-....		1	1 unit	113	2.500	--						
B	3VL17 12-2EL43-....		1	1 unit	113	2.500	--						
B	3VL17 16-2EL43-....		1	1 unit	113	2.500	--						

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6

B	3VL17 12-2EA43-....		1	1 unit	113	2.500	B	--					
B	3VL17 16-2EA43-....		1	1 unit	113	2.500	B	--					

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6

** Delivery time class A for Order No. supplement "0AA0", see page 16/48.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole

Type	Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_R	Operating current of the instantaneous short-circuit release "I" I_I	DT	I_{cu} up to 55 kA at 415 V, standard switching capacity N See "Overview"	(N)				
	A	A	A		Order No. Order No. supplement required, see page 16/48	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg

Fixed-mounted circuit breakers, VL160X to VL630, up to 630 A Thermal-magnetic overcurrent releases



NSE0_00704

System protection, TM, LIN function

With adjustable thermal overload releases, adjustable short-circuit releases, with "N" overload and short-circuit release

N = 100 % protection for overload and short-circuit releases

VL160/3VL2	50	40 ... 50	300 ... 600	B	3VL27 05-1EM43-....		1	1 unit	113	3.000
	63	50 ... 63	300 ... 600	B	3VL27 06-1EM43-....		1	1 unit	113	3.000
	80	63 ... 80	400 ... 800	B	3VL27 08-1EM43-....		1	1 unit	113	3.000
	100	80 ... 100	500 ... 1000	B	3VL27 10-1EM43-....		1	1 unit	113	3.000
	125	100 ... 125	625 ... 1250	B	3VL27 12-1EM43-....		1	1 unit	113	3.000
VL250/3VL3	160	125 ... 160	800 ... 1600	B	3VL27 16-1EM43-....		1	1 unit	113	3.000
	200	160 ... 200	1000 ... 2000	B	3VL37 20-1EM43-....		1	1 unit	113	3.200
	250	200 ... 250	1250 ... 2500	B	3VL37 25-1EM43-....		1	1 unit	113	3.200

Connection can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal

3
6

VL400/3VL4	200	160 ... 200	1000 ... 2000	B	3VL47 20-1EM46-....		1	1 unit	113	7.400
	250	200 ... 250	1250 ... 2500	B	3VL47 25-1EM46-....		1	1 unit	113	7.400
	315	250 ... 315	1575 ... 3150	B	3VL47 31-1EM46-....		1	1 unit	113	7.400
	400	320 ... 400	2000 ... 4000	B	3VL47 40-1EM46-....		1	1 unit	113	7.400
VL630/3VL5	315	250 ... 315	1575 ... 3150	B	3VL57 31-1EM46-....		1	1 unit	113	11.200
	400	320 ... 400	2000 ... 4000	B	3VL57 40-1EM46-....		1	1 unit	113	11.200
	500	400 ... 500	2500 ... 5000	B	3VL57 50-1EM46-....		1	1 unit	113	11.200
	630	500 ... 630	3150 ... 6300	B	3VL57 63-1EM46-....		1	1 unit	113	11.200



NSE0_00704

System protection, TM, LIN function

With adjustable thermal overload releases, adjustable short-circuit releases, with "N" overload and short-circuit release

N = 60 % protection for overload and short-circuit releases

VL160/3VL2	125	100 ... 125	625 ... 1250	B	3VL27 12-1EC43-....		1	1 unit	113	3.000
	160	125 ... 160	800 ... 1600	B	3VL27 16-1EC43-....		1	1 unit	113	3.000
VL250/3VL3	200	160 ... 200	1000 ... 2000	B	3VL37 20-1EC43-....		1	1 unit	113	3.200
	250	200 ... 250	1250 ... 2500	B	3VL37 25-1EC43-....		1	1 unit	113	3.200

Connection can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal

3
6

VL400/3VL4	200	160 ... 200	1000 ... 2000	B	3VL47 20-1EC46-....		1	1 unit	113	7.400
	250	200 ... 250	1250 ... 2500	B	3VL47 25-1EC46-....		1	1 unit	113	7.400
	315	250 ... 315	1575 ... 3150	B	3VL47 31-1EC46-....		1	1 unit	113	7.400
	400	320 ... 400	2000 ... 4000	B	3VL47 40-1EC46-....		1	1 unit	113	7.400
VL630/3VL5	315	250 ... 315	1575 ... 3150	B	3VL57 31-1EC46-....		1	1 unit	113	11.200
	400	320 ... 400	2000 ... 4000	B	3VL57 40-1EC46-....		1	1 unit	113	11.200
	500	400 ... 500	2500 ... 5000	B	3VL57 50-1EC46-....		1	1 unit	113	11.200
	630	500 ... 630	3150 ... 6300	B	3VL57 63-1EC46-....		1	1 unit	113	11.200

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole

DT	I_{cu} up to 70 kA at 415 V, high switching capacity H						(H)	DT	I_{cu} up to 100 kA at 415 V, very high switching capacity L						(L)
	Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.		Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.		
	Order No. supplement required, see page 16/48					kg		Order No. supplement required, see page 16/48					kg		

B	3VL27 05-2EM43-....		1	1 unit	113	3.000	B	3VL27 05-3EM43-....		1	1 unit	113	3.000
B	3VL27 06-2EM43-....		1	1 unit	113	3.000	B	3VL27 06-3EM43-....		1	1 unit	113	3.000
B	3VL27 08-2EM43-....		1	1 unit	113	3.000	B	3VL27 08-3EM43-....		1	1 unit	113	3.000
B	3VL27 10-2EM43-....		1	1 unit	113	3.000	B	3VL27 10-3EM43-....		1	1 unit	113	3.000
B	3VL27 12-2EM43-....		1	1 unit	113	3.000	B	3VL27 12-3EM43-....		1	1 unit	113	3.000
B	3VL27 16-2EM43-....		1	1 unit	113	3.000	B	3VL27 16-3EM43-....		1	1 unit	113	3.000
B	3VL37 20-2EM43-....		1	1 unit	113	3.200	B	3VL37 20-3EM43-....		1	1 unit	113	3.200
B	3VL37 25-2EM43-....		1	1 unit	113	3.200	B	3VL37 25-3EM43-....		1	1 unit	113	3.200

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B	3VL47 20-2EM46-....		1	1 unit	113	7.400	B	3VL47 20-3EM46-....		1	1 unit	113	7.400
B	3VL47 25-2EM46-....		1	1 unit	113	7.400	B	3VL47 25-3EM46-....		1	1 unit	113	7.400
B	3VL47 31-2EM46-....		1	1 unit	113	7.400	B	3VL47 31-3EM46-....		1	1 unit	113	7.400
B	3VL47 40-2EM46-....		1	1 unit	113	7.400	B	3VL47 40-3EM46-....		1	1 unit	113	7.400
B	3VL57 31-2EM46-....		1	1 unit	113	11.200	B	3VL57 31-3EM46-....		1	1 unit	113	11.200
B	3VL57 40-2EM46-....		1	1 unit	113	11.200	B	3VL57 40-3EM46-....		1	1 unit	113	11.200
B	3VL57 50-2EM46-....		1	1 unit	113	11.200	B	3VL57 50-3EM46-....		1	1 unit	113	11.200
B	3VL57 63-2EM46-....		1	1 unit	113	11.200	B	3VL57 63-3EM46-....		1	1 unit	113	11.200

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63
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B	3VL27 12-2EC43-....		1	1 unit	113	3.000	B	3VL27 12-3EC43-....		1	1 unit	113	3.000
B	3VL27 16-2EC43-....		1	1 unit	113	3.000	B	3VL27 16-3EC43-....		1	1 unit	113	3.000
B	3VL37 20-2EC43-....		1	1 unit	113	3.200	B	3VL37 20-3EC43-....		1	1 unit	113	3.200
B	3VL37 25-2EC43-....		1	1 unit	113	3.200	B	3VL37 25-3EC43-....		1	1 unit	113	3.200
B	3VL47 20-2EC46-....		1	1 unit	113	7.400	B	3VL47 20-3EC46-....		1	1 unit	113	7.400
B	3VL47 25-2EC46-....		1	1 unit	113	7.400	B	3VL47 25-3EC46-....		1	1 unit	113	7.400
B	3VL47 31-2EC46-....		1	1 unit	113	7.400	B	3VL47 31-3EC46-....		1	1 unit	113	7.400
B	3VL47 40-2EC46-....		1	1 unit	113	7.400	B	3VL47 40-3EC46-....		1	1 unit	113	7.400
B	3VL57 31-2EC46-....		1	1 unit	113	11.200	B	3VL57 31-3EC46-....		1	1 unit	113	11.200
B	3VL57 40-2EC46-....		1	1 unit	113	11.200	B	3VL57 40-3EC46-....		1	1 unit	113	11.200
B	3VL57 50-2EC46-....		1	1 unit	113	11.200	B	3VL57 50-3EC46-....		1	1 unit	113	11.200
B	3VL57 63-2EC46-....		1	1 unit	113	11.200	B	3VL57 63-3EC46-....		1	1 unit	113	11.200

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole

Type	Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_R	Operating current of the instantaneous short- circuit release "I" I_I	S function (short-time delayed short-circuit release) I_{sd}	DT	I_{cu} up to 55 kA at 415 V, standard switching capacity N See "Overview" (N)					
	A	A	A	A		Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
						Order No. supplement required, see page 16/48					

Fixed-mounted circuit breakers, VL160X to VL1600, up to 1600 A Magnetic and electronic releases



NSE0_00922

System protection and generator protection, ETU20, LSIN function for time-based discrimination

($t_{sd} = 0$ to 0.5 s),
with overload and short-circuit releases in 4th pole (N)

VL160/3VL2	63	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL27 06-1TF43-....		1	1 unit	113	3.100
	100	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL27 10-1TF43-....		1	1 unit	113	3.100
	160	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL27 16-1TF43-....		1	1 unit	113	3.100
VL250/3VL3	200	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL37 20-1TF43-....		1	1 unit	113	3.300
	250	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL37 25-1TF43-....		1	1 unit	113	3.300

Connection can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal

3
6

VL400/3VL4	315	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL47 31-1TF46-....		1	1 unit	113	7.600
	400	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL47 40-1TF46-....		1	1 unit	113	7.600
VL630/3VL5	630	0.4 ... 1.0 × I_n	10 × I_n	1.5 ... 10× I_R	B	3VL57 63-1TF46-....		1	1 unit	113	11.700
VL800/3VL6	800	0.4 ... 1.0 × I_n	8 × I_n	1.5 ... 8× I_R	B	3VL67 80-1TF46-....		1	1 unit	113	20.500
VL1250/3VL7	1000	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL77 10-1TF46-....		1	1 unit	113	33.500
	1250	0.4 ... 1.0 × I_n	10 × I_n	1.5 ... 10× I_R	B	3VL77 12-1TF46-....		1	1 unit	113	33.500
VL1600/3VL8 ¹⁾	1600	0.4 ... 1.0 × I_n	9 × I_n	1.5 ... 9× I_R	B	3VL87 16-1TF40-....		1	1 unit	113	40.800



NSE0_00922

System protection and generator protection, ETU20, LSIN function for time-based discrimination with communication function

($t_{sd} = 0$ to 0.5 s),
with overload and short-circuit releases in 4th pole (N)

VL160/3VL2	63	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL27 06-1NF43-....		1	1 unit	113	3.100
	100	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL27 10-1NF43-....		1	1 unit	113	3.100
	160	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL27 16-1NF43-....		1	1 unit	113	3.100
VL250/3VL3	200	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL37 20-1NF43-....		1	1 unit	113	3.300
	250	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL37 25-1NF43-....		1	1 unit	113	3.300

Connection can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal

3
6

VL400/3VL4	315	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL47 31-1NF46-....		1	1 unit	113	7.600
	400	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL47 40-1NF46-....		1	1 unit	113	7.600
VL630/3VL5	630	0.4 ... 1.0 × I_n	10 × I_n	1.5 ... 10× I_R	B	3VL57 63-1NF46-....		1	1 unit	113	11.700
VL800/3VL6	800	0.4 ... 1.0 × I_n	8 × I_n	1.5 ... 8× I_R	B	3VL67 80-1NF46-....		1	1 unit	113	20.500
VL1250/3VL7	1000	0.4 ... 1.0 × I_n	11 × I_n	1.5 ... 10× I_R	B	3VL77 10-1NF46-....		1	1 unit	113	33.500
	1250	0.4 ... 1.0 × I_n	10 × I_n	1.5 ... 10× I_R	B	3VL77 12-1NF46-....		1	1 unit	113	33.500
VL1600/3VL8 ¹⁾	1600	0.4 ... 1.0 × I_n	9 × I_n	1.5 ... 9× I_R	B	3VL87 16-1NF40-....		1	1 unit	113	40.800

¹⁾ Front busbar connection pieces are included in the scope of supply and are to be fitted by the customer.

Communication:

- For accessories, see page 16/90.
- For more information see also the chapter "Power Management System" and "Software for Power Distribution".

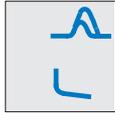
3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole

Type	Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_R	Operating current of the instantaneous short- circuit release "I" I_i	S function (short-time delayed short-circuit release) I_{sd}	DT	I_{cu} up to 55 kA at 415 V, standard switching capacity N See "Overview" (N)					
	A	A	A	A		Order No.	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
						Order No. supplement required, see page 16/48					

Fixed-mounted circuit breakers, VL160X to VL1600, up to 1600 A Magnetic and electronic releases



NSE0_00708

Non-automatic molded case circuit breakers¹⁾

Without overload release, with permanently set short-circuit release (for intrinsic protection only),
without overload and short-circuit releases in 4th pole (N)

VL160X/3VL1	100	--	1800	--	B	3VL17 10-1EE43-....		1	1 unit	113	2.500
	160	--	1800	--	B	3VL17 16-1EE43-....		1	1 unit	113	2.500
VL160/3VL2	100	--	2500	--	B	3VL27 10-1EE43-....		1	1 unit	113	3.000
	160	--	2500	--	B	3VL27 16-1EE43-....		1	1 unit	113	3.000
VL250/3VL3	250	--	3500	--	B	3VL37 25-1EE43-....		1	1 unit	113	3.200

Connection can be selected by assignment of the 12th position of the Order No.

- Connection with box terminal
- Connection with screw terminal

3
6

VL400/3VL4	400	--	4000	--	B	3VL47 40-1EE46-....		1	1 unit	113	7.400
VL630/3VL5	630	--	6300	--	B	3VL57 63-1EE46-....		1	1 unit	113	11.200
VL800/3VL6	800	--	6500	--	B	3VL67 80-1EE46-....		1	1 unit	113	19.900
VL1250/3VL7	1250	--	12000	--	B	3VL77 12-1EE46-....		1	1 unit	113	31.000
VL1600/3VL8 ²⁾	1600	--	14400	--	B	3VL87 16-1EE40-....		1	1 unit	113	38.300

¹⁾ See also the Chapter "3K, 3KE, 3LD Switch Disconnectors".
3K. switch disconnectors are also available with rear-mounting
operating mechanism and leading contacts.

²⁾ Front busbar connection pieces are included in the scope of supply
and are to be fitted by the customer.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole

DT	I_{cu} up to 70 kA at 415 V, high switching capacity H						(H)	DT	I_{cu} up to 100 kA at 415 V, very high switching capacity L						(L)
	Order No. Order No. supplement required, see page 16/48	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg		Order No. Order No. supplement required, see page 16/48	Basic price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg		

B	3VL17 10-2EE43-....		1	1 unit	113	2.500		--						
B	3VL17 16-2EE43-....		1	1 unit	113	2.500		--						
B	3VL27 10-2EE43-....		1	1 unit	113	3.000	B	3VL27 10-3EE43-....		1	1 unit	113	3.000	
B	3VL27 16-2EE43-....		1	1 unit	113	3.000	B	3VL27 16-3EE43-....		1	1 unit	113	3.000	
B	3VL37 25-2EE43-....		1	1 unit	113	3.200	B	3VL37 25-3EE43-....		1	1 unit	113	3.200	
	3 6							3 6						
B	3VL47 40-2EE46-....		1	1 unit	113	7.400	B	3VL47 40-3EE46-....		1	1 unit	113	7.400	
B	3VL57 63-2EE46-....		1	1 unit	113	11.200	B	3VL57 63-3EE46-....		1	1 unit	113	11.200	
B	3VL67 80-2EE46-....		1	1 unit	113	19.900	B	3VL67 80-3EE46-....		1	1 unit	113	19.900	
B	3VL77 12-2EE46-....		1	1 unit	113	31.000	B	3VL77 12-3EE46-....		1	1 unit	113	31.000	
B	3VL87 16-2EE40-....		1	1 unit	113	38.300	B	3VL87 16-3EE40-....		1	1 unit	113	38.300	

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole

Type	Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_R	DT	I_{cu} up to 55 kA at 415 V, standard switching capacity N See "Overview"					(N)
	A	A		Order No. Order No. supplement required, see page 16/48	Price see page 16/42	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg

Fixed-mounted circuit breakers, VL160 to VL1600, up to 1600 A, electronic releases

Circuit breakers with electronic release ETU

VL160/3VL2	63	25 ... 63	B	3VL27 06-1□□43-....			1	1 unit	113	3.100
Connection with box terminal	100	40 ... 100	B	3VL27 10-1□□43-....			1	1 unit	113	3.100
	160	64 ... 160	B	3VL27 16-1□□43-....			1	1 unit	113	3.100
VL160/3VL2	63	25 ... 63	B	3VL27 06-1□□46-....			1	1 unit	113	3.100
Connection with screw terminal	100	40 ... 100	B	3VL27 10-1□□46-....			1	1 unit	113	3.100
	160	64 ... 160	B	3VL27 16-1□□46-....			1	1 unit	113	3.100
VL250/3VL3	200	80 ... 200	B	3VL37 20-1□□43-....			1	1 unit	113	3.300
Connection with box terminal	250	100 ... 250	B	3VL37 25-1□□43-....			1	1 unit	113	3.300
VL250/3VL3	200	80 ... 200	B	3VL37 20-1□□46-....			1	1 unit	113	3.300
Connection with screw terminal	250	100 ... 250	B	3VL37 25-1□□46-....			1	1 unit	113	3.300
VL400/3VL4	315	128 ... 315	B	3VL47 31-1□□46-....			1	1 unit	113	7.600
	400	160 ... 400	B	3VL47 40-1□□46-....			1	1 unit	113	7.600
VL630/3VL5	630	252 ... 630	B	3VL57 63-1□□46-....			1	1 unit	113	11.700
VL800/3VL6	800	320 ... 800	B	3VL67 80-1□□46-....			1	1 unit	113	20.500
VL1250/3VL7	1000	400 ... 1000	B	3VL77 10-1□□46-....			1	1 unit	113	33.500
	1250	500 ... 1250	B	3VL77 12-1□□46-....			1	1 unit	113	33.500
VL1600/3VL8 ¹⁾	1600	640 ... 1600	B	3VL87 16-1□□40-....			1	1 unit	113	40.800

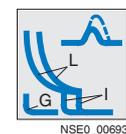
ETU releases, 4-pole versions



System protection with LIN function, ETU10
With overload and short-circuit releases in 4th pole (N)
System protection with LI function, ETU10

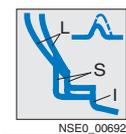
Order No. supplements

TA NA
TB NB



System protection with LING function, ETU12
Residual current for 4-wire three-phase systems²⁾
With overload and short-circuit releases in 4th pole (N)

TN NN



System protection with LSI function, ETU20
System protection with LSIN function, ETU20
With overload and short-circuit releases in 4th pole (N)

TE NE
TF NF



System protection with LSING function, ETU22
Residual current for 4-wire three-phase systems²⁾
With overload and short-circuit releases in 4th pole (N)

TH NH

With communication preparation³⁾

No Yes

¹⁾ Front busbar connection pieces are included in the scope of supply and are to be fitted by the customer.

²⁾ Vectorial summation current formation of the currents.

³⁾ For communication you need COM20/COM21 in addition.

L = Overload
S = Short-circuit protection, short-time delayed
I = Short-circuit protection, instantaneous
G = Ground-fault protection
N = Neutral conductor protection

Communication:

- For accessories see 16/90.
- For more information see also the chapter "Power Management System" and "Software for Power Distribution".

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole

DT I_{cu} up to 70 kA at 415 V, high switching capacity H (H)						DT I_{cu} up to 100 kA at 415 V, very high switching capacity L (L)					
Order No.	Price see page 16/42	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg	Order No.	Price see page 16/42	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg

B	3VL27 06-2□□43-....	1	1 unit	113	3.100	B	3VL27 06-3□□43-....	1	1 unit	113	3.100
B	3VL27 10-2□□43-....	1	1 unit	113	3.100	B	3VL27 10-3□□43-....	1	1 unit	113	3.100
B	3VL27 16-2□□43-....	1	1 unit	113	3.100	B	3VL27 16-3□□43-....	1	1 unit	113	3.100
B	3VL27 06-2□□46-....	1	1 unit	113	3.100	B	3VL27 06-3□□46-....	1	1 unit	113	3.100
B	3VL27 10-2□□46-....	1	1 unit	113	3.100	B	3VL27 10-3□□46-....	1	1 unit	113	3.100
B	3VL27 16-2□□46-....	1	1 unit	113	3.100	B	3VL27 16-3□□46-....	1	1 unit	113	3.100
B	3VL37 20-2□□43-....	1	1 unit	113	3.300	B	3VL37 20-3□□43-....	1	1 unit	113	3.300
B	3VL37 25-2□□43-....	1	1 unit	113	3.300	B	3VL37 25-3□□43-....	1	1 unit	113	3.300
B	3VL37 20-2□□46-....	1	1 unit	113	3.300	B	3VL37 20-3□□46-....	1	1 unit	113	3.300
B	3VL37 25-2□□46-....	1	1 unit	113	3.300	B	3VL37 25-3□□46-....	1	1 unit	113	3.300
B	3VL47 31-2□□46-....	1	1 unit	113	7.600	B	3VL47 31-3□□46-....	1	1 unit	113	7.600
B	3VL47 40-2□□46-....	1	1 unit	113	7.600	B	3VL47 40-3□□46-....	1	1 unit	113	7.600
B	3VL57 63-2□□46-....	1	1 unit	113	11.700	B	3VL57 63-3□□46-....	1	1 unit	113	11.700
B	3VL67 80-2□□46-....	1	1 unit	113	20.500	B	3VL67 80-3□□46-....	1	1 unit	113	20.500
B	3VL77 10-2□□46-....	1	1 unit	113	33.500	B	3VL77 10-3□□46-....	1	1 unit	113	33.500
B	3VL77 12-2□□46-....	1	1 unit	113	33.500	B	3VL77 12-3□□46-....	1	1 unit	113	33.500
B	3VL87 16-2□□40-....	1	1 unit	113	40.800	B	3VL87 16-3□□40-....	1	1 unit	113	40.800

Order No. supplements

TA	NA
TB	NB
TN	NN
TE	NE
TF	NF
TH	NH
No	Yes

Order No. supplements

TA	NA
TB	NB
TN	NN
TE	NE
TF	NF
TH	NH
No	Yes

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole

Type	Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_R	DT	I_{cu} up to 55 kA at 415 V, standard switching capacity N See "Overview"						
	A	A			Order No. Order No. supplement required, see page 16/48	Price on request	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg

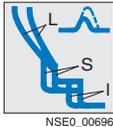
Fixed-mounted circuit breakers, VL160 to VL1600, up to 1600 A, electronic releases

Circuit breakers with electronic release ETU

VL160/3VL2	63	25 ... 63	B	3VL27 06-1□□43-....			1	1 unit	113	3.100
Connection with box terminal	100	40 ... 100	B	3VL27 10-1□□43-....			1	1 unit	113	3.100
	160	64 ... 160	B	3VL27 16-1□□43-....			1	1 unit	113	3.100
VL160/3VL2	63	25 ... 63	B	3VL27 06-1□□46-....			1	1 unit	113	3.100
Connection with screw terminal	100	40 ... 100	B	3VL27 10-1□□46-....			1	1 unit	113	3.100
	160	64 ... 160	B	3VL27 16-1□□46-....			1	1 unit	113	3.100
VL250/3VL3	200	80 ... 200	B	3VL37 20-1□□43-....			1	1 unit	113	3.300
Connection with box terminal	250	100 ... 250	B	3VL37 25-1□□43-....			1	1 unit	113	3.300
VL250/3VL3	200	80 ... 200	B	3VL37 20-1□□46-....			1	1 unit	113	3.300
Connection with screw terminal	250	100 ... 250	B	3VL37 25-1□□46-....			1	1 unit	113	3.300
VL400/3VL4	315	128 ... 315	B	3VL47 31-1□□46-....			1	1 unit	113	7.600
	400	160 ... 400	B	3VL47 40-1□□46-....			1	1 unit	113	7.600
VL630/3VL5	630	252 ... 630	B	3VL57 63-1□□46-....			1	1 unit	113	11.700
VL800/3VL6	800	320 ... 800	B	3VL67 80-1□□46-....			1	1 unit	113	20.500
VL1250/3VL7	1000	400 ... 1000	B	3VL77 10-1□□46-....			1	1 unit	113	33.500
	1250	500 ... 1250	B	3VL77 12-1□□46-....			1	1 unit	113	33.500
VL1600/3VL8 ¹⁾	1600	640 ... 1600	B	3VL87 16-1□□40-....			1	1 unit	113	40.800

Order No.
supple-
ments

LCD ETU releases, 4-pole version



System protection with LI/LSI/LIN/LSIN function, ETU40
with overload and short-circuit releases in 4th pole (N)

CJ



System protection with LSIG/LSING function, ETU42
For 4-wire three-phase systems
with overload and short-circuit releases in 4th pole (N)

CN

¹⁾ Front busbar connection pieces are included in the scope of supply and are to be fitted by the customer.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole

DT I_{cu} up to 70 kA at 415 V, high switching capacity H (H)							DT I_{cu} up to 100 kA at 415 V, very high switching capacity L (L)						
Order No.	Order No. supplement required, see page 16/48	Price see page 16/42	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg	Order No.	Order No. supplement required, see page 16/48	Price on request	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg

B	3VL27 06-2□□43-....		1	1 unit	113	3.100	B	3VL27 06-3□□43-....		1	1 unit	113	3.100
B	3VL27 10-2□□43-....		1	1 unit	113	3.100	B	3VL27 10-3□□43-....		1	1 unit	113	3.100
B	3VL27 16-2□□43-....		1	1 unit	113	3.100	B	3VL27 16-3□□43-....		1	1 unit	113	3.100
B	3VL27 06-2□□46-....		1	1 unit	113	3.100	B	3VL27 06-3□□46-....		1	1 unit	113	3.100
B	3VL27 10-2□□46-....		1	1 unit	113	3.100	B	3VL27 10-3□□46-....		1	1 unit	113	3.100
B	3VL27 16-2□□46-....		1	1 unit	113	3.100	B	3VL27 16-3□□46-....		1	1 unit	113	3.100
B	3VL37 20-2□□43-....		1	1 unit	113	3.300	B	3VL37 20-3□□43-....		1	1 unit	113	3.300
B	3VL37 25-2□□43-....		1	1 unit	113	3.300	B	3VL37 25-3□□43-....		1	1 unit	113	3.300
B	3VL37 20-2□□46-....		1	1 unit	113	3.300	B	3VL37 20-3□□46-....		1	1 unit	113	3.300
B	3VL37 25-2□□46-....		1	1 unit	113	3.300	B	3VL37 25-3□□46-....		1	1 unit	113	3.300
B	3VL47 31-2□□46-....		1	1 unit	113	7.600	B	3VL47 31-3□□46-....		1	1 unit	113	7.600
B	3VL47 40-2□□46-....		1	1 unit	113	7.600	B	3VL47 40-3□□46-....		1	1 unit	113	7.600
B	3VL57 63-2□□46-....		1	1 unit	113	11.700	B	3VL57 63-3□□46-....		1	1 unit	113	11.700
B	3VL67 80-2□□46-....		1	1 unit	113	20.500	B	3VL67 80-3□□46-....		1	1 unit	113	20.500
B	3VL77 10-2□□46-....		1	1 unit	113	33.500	B	3VL77 10-3□□46-....		1	1 unit	113	33.500
B	3VL77 12-2□□46-....		1	1 unit	113	33.500	B	3VL77 12-3□□46-....		1	1 unit	113	33.500
B	3VL87 16-2□□40-....		1	1 unit	113	40.800	B	3VL87 16-3□□40-....		1	1 unit	113	40.800

Order No. supplements

CJ

CN

Order No. supplements

CJ

CN

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole

Order No. supplement (for complete Order No., see pages 16/38 to 16/41) 3VL.7 ..- <input type="checkbox"/> <input type="checkbox"/> 4 -....	Switching capacity	Type		VL250		VL400		VL630	VL800	VL1250		VL1600	
		VL160 3VL2	3VL3	3VL4	3VL5	3VL6	3VL7	3VL8					
Releases		Rated current I_n		200 A		315 A		630 A	800 A	1000 A		1600 A	
		63 A		100 A		160 A							
Price €													
ETU10	T A												
ETU10	T B												
ETU12	T N												
ETU20	T E												
ETU20	T F												
ETU22	T H												
ETU10	N A												
ETU10	N B												
ETU12	N N												
ETU20	N E												
ETU20	N F												
ETU22	N H												
ETU40	C J												
ETU42	C N												

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole

Contact units (only in combination with electronic release! See pages 16/44 and 16/45), VL160 to VL1600, up to 1600 A²⁾



+



Diagram shows 3-pole combination

Type	Rated current I_n	DT	I_{cu} up to 55 kA at 415 V, standard switching capacity N See "Overview" (N)				
			Switching all poles	Basic price per PU	PU (UNIT, SET, M)	PS* PG	Weight per PU approx. kg
			Order No.				

With box terminals for contact units and electronic releases

VL160/3VL2	160	B	3VL27 16-1AA43-0AA0	1	1 unit	113	2.000
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With screw terminal connections for contact units and electronic releases

VL160/3VL2	160	B	3VL27 16-1AA46-0AA0	1	1 unit	113	2.000
VL250/3VL3	250	B	3VL37 25-1AA46-0AA0	1	1 unit	113	2.200
VL400/3VL4	400	B	3VL47 40-1AA46-0AA0	1	1 unit	113	5.500
VL630/3VL5	630	A	3VL57 63-1AA46-0AA0	1	1 unit	113	9.700
VL800/3VL6	800	A	3VL67 80-1AA46-0AA0	1	1 unit	113	18.200
VL1250/3VL7	1250	A	3VL77 12-1AA46-0AA0	1	1 unit	113	27.500
VL1600/3VL8 ¹⁾	1600	A	3VL87 16-1AA40-0AA0	1	1 unit	113	34.800

Type	Rated current I_n	DT	I_{cu} up to 70 kA at 415 V, high switching capacity H See "Overview" (H)				
			Switching all poles	Basic price per PU	PU (UNIT, SET, M)	PS* PG	Weight per PU approx. kg
A			Order No.				

With box terminals for contact units and electronic releases

VL160/3VL2	160	B	3VL27 16-2AA43-0AA0	1	1 unit	113	2.000
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With screw terminal connections for contact units and electronic releases

VL160/3VL2	160	B	3VL27 16-2AA46-0AA0	1	1 unit	113	2.000
VL250/3VL3	250	B	3VL37 25-2AA46-0AA0	1	1 unit	113	2.200
VL400/3VL4	400	B	3VL47 40-2AA46-0AA0	1	1 unit	113	5.500
VL630/3VL5	630	A	3VL57 63-2AA46-0AA0	1	1 unit	113	9.700
VL800/3VL6	800	A	3VL67 80-2AA46-0AA0	1	1 unit	113	18.200
VL1250/3VL7	1250	A	3VL77 12-2AA46-0AA0	1	1 unit	113	27.500
VL1600/3VL8 ¹⁾	1600	A	3VL87 16-2AA40-0AA0	1	1 unit	113	34.800

Type	Rated current I_n	DT	I_{cu} up to 100 kA at 415 V, very high switching capacity L See "Overview" (L)				
			Switching all poles	Basic price per PU	PU (UNIT, SET, M)	PS* PG	Weight per PU approx. kg
A			Order No.				

With box terminals for contact units and electronic releases

VL160/3VL2	160	B	3VL27 16-3AA43-0AA0	1	1 unit	113	2.000
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With screw terminal connections for contact units and electronic releases

VL160/3VL2	160	B	3VL27 16-3AA46-0AA0	1	1 unit	113	2.000
VL250/3VL3	250	B	3VL37 25-3AA46-0AA0	1	1 unit	113	2.200
VL400/3VL4	400	B	3VL47 40-3AA46-0AA0	1	1 unit	113	5.500
VL630/3VL5	630	A	3VL57 63-3AA46-0AA0	1	1 unit	113	9.700
VL800/3VL6	800	A	3VL67 80-3AA46-0AA0	1	1 unit	113	18.200
VL1250/3VL7	1250	A	3VL77 12-3AA46-0AA0	1	1 unit	113	27.500
VL1600/3VL8 ¹⁾	1600	A	3VL87 16-3AA40-0AA0	1	1 unit	113	34.800

¹⁾ Front busbar connections are included in the scope of supply and are to be fitted by the customer.

²⁾ Non-automatic molded case circuit breakers are available only as complete units from the factory (for selection and ordering data, see page 16/36).

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole



Diagram shows 3-pole combination

For circuit breakers	Rated current	Current setting of the inverse-time delayed overload release "L" I_r	Operating current of the instantaneous short-circuit release "I" I_i	DT	Order No.	Price
Type	A	A	A			

Electronic releases
(only in combination with contact unit – see page 16/43)

TM releases

System protection with LI/LIN function

Box terminals/screw terminal connections in the scope of supply of the contact unit

VL160/3VL2	50	40 ... 50	300 ... 600	A	3VL9 205-7□□40	--
	63	50 ... 63	300 ... 600	A	3VL9 206-7□□40	--
	80	63 ... 80	400 ... 800	A	3VL9 208-7□□40	--
	100	80 ... 100	500 ... 1000	A	3VL9 210-7□□40	--
	125	100 ... 125	625 ... 1250	A	3VL9 212-7□□40	--
	160	125 ... 160	800 ... 1600	A	3VL9 216-7□□40	--
VL250/3VL3	200	160 ... 200	1000 ... 2000	A	3VL9 320-7□□40	
	250	200 ... 250	1250 ... 2500	A	3VL9 325-7□□40	
VL400/3VL4	200	160 ... 200	1000 ... 2000	A	3VL9 420-7□□40	
	250	200 ... 250	1250 ... 2500	A	3VL9 425-7□□40	
	315	250 ... 315	1575 ... 3150	A	3VL9 431-7□□40	
	400	320 ... 400	2000 ... 4000	A	3VL9 440-7□□40	
VL630/3VL5	315	250 ... 315	1575 ... 3150	A	3VL9 531-7□□40	
	400	320 ... 400	2000 ... 4000	A	3VL9 540-7□□40	
	500	400 ... 500	2500 ... 5000	A	3VL9 550-7□□40	
	630	500 ... 630	3150 ... 6300	A	3VL9 563-7□□40	

	EC	EM	EJ
Overload and short-circuit release	<u>With</u> overload and short-circuit release in 4th pole (N) <u>N = 60 %</u> protection	<u>With</u> overload and short-circuit release in 4th pole (N) <u>N = 100 %</u> protection	<u>Without</u> overload and short-circuit release in 4th pole (N)

-- Not available

Package size = 1 unit, i.e. 1 unit or a multiple thereof can be ordered.
Price group 113.
Weight on request

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole



Diagram shows 3-pole combination

For circuit breakers	Current setting of the inverse-time delayed overload release "L" I_R	DT	Order No.	Price
Type	A	Left pole = N	PU = 1 (UNIT, SET, M) PG = 113	

**Electronic releases
(only in combination with contact unit –
see page 16/43)**

ETU releases

For tripping functions see 10th position of the circuit breaker Order No. on the previous pages.

Box terminals/screw terminal connections in the scope of supply of the contact unit

VL160/3VL2 ¹⁾	25 ... 63	A	3VL9 206-6□□40
	40 ... 100	A	3VL9 210-6□□40
	64 ... 160	A	3VL9 216-6□□40
VL250/3VL3 ¹⁾	80 ... 200	A	3VL9 320-6□□40
	100 ... 250	A	3VL9 325-6□□40
VL400/3VL4	126 ... 315	A	3VL9 431-6□□40
	160 ... 400	A	3VL9 440-6□□40
VL630/3VL5	252 ... 630	A	3VL9 563-6□□40
VL800/3VL6	320 ... 800	A	3VL9 680-6□□40
VL1250/3VL7	400 ... 1000	A	3VL9 710-6□□40
	500 ... 1250	A	3VL9 712-6□□40
VL1600/3VL8	640 ... 1600	A	3VL9 816-6□□40

Releases	TA ²⁾	TB ²⁾	TN ²⁾	TE ²⁾	TF ²⁾	TH ²⁾
	ETU10	ETU10	ETU12	ETU20	ETU20	ETU22

When the electronic release has been installed in the circuit breaker, it is recommended that it is tested with the battery power supply using the 3VL9 000-8AP00 test function.

Package size = 1 unit, i.e. 1 unit or a multiple thereof can be ordered.
Price group 113.
Weight on request

- 1) A contact unit with product version "E02" is required.
- 2) For description see Technical Information LV 1 T "Function", "Electronic releases ETU".

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole



Diagram shows 3-pole combination

For circuit breakers	Current setting of the inverse-time delayed overload release "L" I_R	DT	Order No.	Price
Type	A	Left pole = N	PU = 1 (UNIT, SET, M) PG = 113	

Electronic releases with communication function (only in combination with contact unit – see page 16/43)

ETU releases

For tripping functions see 10th position of the circuit breaker Order No. on the previous pages.

Box terminals/screw terminal connections in the scope of supply of the contact unit

VL160/3VL2 ¹⁾	25 ... 63	A	3VL9 206-6□□40
	40 ... 100	A	3VL9 210-6□□40
	64 ... 160	A	3VL9 216-6□□40
VL250/3VL3 ¹⁾	80 ... 200	A	3VL9 320-6□□40
	100 ... 250	A	3VL9 325-6□□40
VL400/3VL4	126 ... 315	A	3VL9 431-6□□40
	160 ... 400	A	3VL9 440-6□□40
VL630/3VL5	252 ... 630	A	3VL9 563-6□□40
VL800/3VL6	320 ... 800	A	3VL9 680-6□□40
VL1250/3VL7	400 ... 1000	A	3VL9 710-6□□40
	500 ... 1250	A	3VL9 712-6□□40
VL1600/3VL8	640 ... 1600	A	3VL9 816-6□□40

	NA ²⁾	NB ²⁾	NN ²⁾	NE ²⁾	NF ²⁾	NH ²⁾
Releases	ETU10	ETU10	ETU12	ETU20	ETU20	ETU22

When the electronic release has been installed in the circuit breaker, it is recommended that it is tested with the battery power supply using the 3VL9 000-8AP00 test function.

Package size = 1 unit, i.e. 1 unit or a multiple thereof can be ordered.
Price group 113.
Weight on request

- ¹⁾ A contact unit with product version "E02" is required.
- ²⁾ For description see Technical Information LV 1 T "Function", "Electronic releases ETU".

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

4-pole



Diagram shows 3-pole combination

For circuit breakers	Current setting of the inverse-time delayed overload release "L" I_R	DT	Order No.	Price
Type	A	Left pole = N	PU = 1 (UNIT, SET, M) PG = 113	

**Electronic releases
(only in combination with contact unit –
see page 16/43)**

LCD ETU releases

For tripping functions see 10th position of the circuit breaker Order No. on the previous pages.

Box terminals/screw terminal connections in the scope of supply of the contact unit

VL160/3VL2	25 ... 63	A	3VL9 206-6□□40
	40 ... 100	A	3VL9 210-6□□40
	64 ... 160	A	3VL9 216-6□□40
VL250/3VL3	80 ... 200	A	3VL9 320-6□□40
	100 ... 250	A	3VL9 325-6□□40
VL400/3VL4	126 ... 315	A	3VL9 431-6□□40
	160 ... 400	A	3VL9 440-6□□40
VL630/3VL5	252 ... 630	A	3VL9 563-6□□40
VL800/3VL6	320 ... 800	A	3VL9 680-6□□40
VL1250/3VL7	400 ... 1000	A	3VL9 710-6□□40
	500 ... 1250	A	3VL9 712-6□□40
VL1600/3VL8	640 ... 1600	A	3VL9 816-6□□40

	CJ ¹⁾	CN ¹⁾
Releases	ETU40	ETU42

When the electronic release has been installed in the circuit breaker, it is recommended that it is tested with the battery power supply using the 3VL9 000-8AP00 test function.

LCD release – N protection selectable
50 % - 100 % or can be switched off

Package size = 1 unit, i.e. 1 unit or a multiple thereof can be ordered.
Price group 113.
Weight on request

¹⁾ For description see Technical Information LV 1 T "Function", "Electronic releases LCD ETU".

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Options

Selection and ordering data

1st Order No. supplement:
Undervoltage or shunt release,
wiring directly to accessories

Rated control supply voltage U_g /frequency		Order No. supplement	Circuit breakers	
AC 50/60 Hz DC		3VL.....-.....- □ □ ..	Type	
			VL160X to VL400/ 3VL1 to 3VL4	VL630 to VL1600/ 3VL5 to 3VL8
			Additional price	Additional price
Without auxiliary releases		0 A	Without	Without
With undervoltage releases Only right pole				
V AC	V DC			
--	12	2 N	x	x
--	24	2 P	x	x
--	48	2 U	x	x
--	60	2 V	x	x
--	110 ... 127	2 R	x	x
--	220 ... 250	2 S	x	x
24	--	2 D	x	x
110 ... 127	--	2 G	x	x
220 ... 250	--	2 H	x	x
208	--	2 M	x	x
277	--	2 Q	x	x
380 ... 415	--	2 J	x	x
440 ... 480	--	2 K	x	x
500 ... 525	--	2 L	x	x
With shunt releases Only right pole				
V AC	V DC			
24	24	8 C	x	x
--	48 ... 60	8 J	x	x
--	110 ... 127	8 K	x	x
--	220 ... 250	8 Q	x	x
48 ... 60	--	8 M	x	x
110 ... 127	--	8 R	x	x
208 ... 277	--	8 T	x	x
380 ... 600	--	8 V	x	x

2nd Order No. supplement:
Auxiliary switches (HS) and alarm switches (AS),
left/right pole,
wiring directly to accessories

Equipment	Order No. supplement	Circuit breakers	
HS = 1 NO or 1 NC switching block AS = 1 NO switching block	3VL.....-.....- .. □ □	Type	
		VL160X to VL400 ¹⁾ / 3VL1 to 3VL4	VL630 to VL1600/ 3VL5 to 3VL8
		Additional price	Additional price
Without auxiliary/alarm switches	-- --	Without	Without
2 HS (1 NO/1 NC) ²⁾	B 1	x ¹⁾⁴⁾	--
4 HS (2 NO/2 NC)	C 1	--	x
2 HS (1 NO/1 NC) + 1 AS (1 NO)	D 1	x ¹⁾⁴⁾	--
2 HS (1 NO/1 NC) + 1 AS (1 NO) ³⁾	E 1	--	x

-- Not available

x Additional price

¹⁾ Except for installing in the left accessory compartment of the SENTRON VL160X circuit breakers with RCD module.

²⁾ With mounting adapter up to 3 HS.

³⁾ With mounting adapter up to 2 HS + 2 AS.

⁴⁾ Not possible when using the LCD ETU with SENTRON VL 160 and VL250.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Options

When ordering, add "-Z" to the complete Order No. and add the relevant order code(s).

Order No. with "-Z"

Additional price

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
3VL -Z
 and additional order code(s)

+ . . . + . . .

Code for further versions -Z

For fixed-mounted circuit breakers (wired in factory)

<p>Wiring for internal accessories (auxiliary switches, alarm switches, auxiliary releases not included in scope of supply) With connecting cables (3 m long) brought out at the rear</p>	<p>VL160X to VL1600 (3VL1 to 3VL8)</p>	<p>L 0 2</p>	
<p>Wiring for motorized operating mechanisms¹⁾ (motorized operating mechanism not included in scope of supply, to order see pages 16/53 to 16/58) With connecting cables (3 m long), brought out at the top on VL160X to VL400, or brought out at the right on VL630 to VL1600 Can be ordered only in conjunction with motorized operating mechanisms.</p>	<p>VL160X to VL1600 (3VL1 to 3VL8)</p>	<p>L 1 2</p>	
<p>Motorized operating mechanisms¹⁾ (24 V DC) Mounted on the circuit breaker (motorized operating mechanism included in scope of supply) With wiring for internal accessories of the circuit breaker with connecting cables (3 m long) brought out at the rear, (auxiliary switches, alarm switches, auxiliary releases not included in scope of supply)</p>	<p>VL160X, VL160, VL250 (3VL1, 3VL2, 3VL3) VL400 (3VL4) VL630, VL800 (3VL5, 3VL6) VL1250, VL1600 (3VL7, 3VL8)</p>	<p>M 2 4</p>	
<p>Motorized operating mechanisms¹⁾ (42 ... 48 V AC/DC) Mounted on the circuit breaker (motorized operating mechanism included in scope of supply) With wiring for internal accessories of the circuit breaker with connecting cables (3 m long) brought out at the rear, (auxiliary switches, alarm switches, auxiliary releases not included in scope of supply)</p>	<p>VL160X, VL160, VL250 (3VL1, 3VL2, 3VL3) VL400 (3VL4) VL630, VL800 (3VL5, 3VL6) VL1250, VL1600 (3VL7, 3VL8)</p>	<p>M 4 2</p>	
<p>Motorized operating mechanisms¹⁾ (60 V AC/DC) Mounted on the circuit breaker (motorized operating mechanism included in scope of supply) With wiring for internal accessories of the circuit breaker with connecting cables (3 m long) brought out at the rear, (auxiliary switches, alarm switches, auxiliary releases not included in scope of supply)</p>	<p>VL160X, VL160, VL250 (3VL1, 3VL2, 3VL3) VL400 (3VL4) VL630, VL800 (3VL5, 3VL6) VL1250, VL1600 (3VL7, 3VL8)</p>	<p>M 6 0</p>	
<p>Motorized operating mechanisms¹⁾ (110 ... 127 V AC/DC) Mounted on the circuit breaker (motorized operating mechanism included in scope of supply) With wiring for internal accessories of the circuit breaker with connecting cables (3 m long) brought out at the rear, (auxiliary switches, alarm switches, auxiliary releases not included in scope of supply)</p>	<p>VL160X, VL160, VL250 (3VL1, 3VL2, 3VL3) VL400 (3VL4) VL630, VL800 (3VL5, 3VL6) VL1250, VL1600 (3VL7, 3VL8)</p>	<p>M 1 1</p>	
<p>Motorized operating mechanisms¹⁾ (220 ... 250 V AC/DC) Mounted on the circuit breaker (motorized operating mechanism included in scope of supply) With wiring for internal accessories of the circuit breaker with connecting cables (3 m long) brought out at the rear, (auxiliary switches, alarm switches, auxiliary releases not included in scope of supply)</p>	<p>VL160X, VL160, VL250 (3VL1, 3VL2, 3VL3) VL400 (3VL4) VL630, VL800 (3VL5, 3VL6) VL1250, VL1600 (3VL7, 3VL8)</p>	<p>M 2 2</p>	

¹⁾ Version not for VL160X/3VL1 to VL250/3VL3 with 3VL9 300-3MA00 to 3VL9 300-3ME00 motorized operating mechanism.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Selection and ordering data

Wiring directly at accessories	DT	For VL160X to VL400 (3VL1 to 3VL4)	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		Order No.	Price per PU			kg

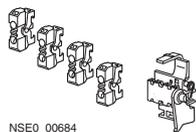
Auxiliary switches and auxiliary releases

3- or 4-pole

For retrofitting (for possible complements, see figure in Technical Information LV 1 T "Design", "Auxiliary Releases and Auxiliary Switches")

Auxiliary switches (HS) and alarm switches (AS)

For retrofitting



NSE0_00684

Assembly kits	Mounting side						
2 HS (1 NO + 1 NC)	N, left ¹⁾ , right	A	3VL9 400-2AB00	1	1 unit	113	0.027
4 HS (2 NO + 2 NC)	N, left ¹⁾ , right		--				
2 HS (1 NC + 1 NO) + 1 AS (1 NO) (kit)	left ¹⁾ , right ³⁾ left ¹⁾	A	3VL9 400-2AD00	1	1 unit	113	0.051

Additional auxiliary switch/alarm switch combinations

See page 16/52.

3VL9 400-2A.00

Shunt releases²⁾

For retrofitting

V AC	V DC	Mounting side						
24	24	Right pole only	A	3VL9 400-1SC00	1	1 unit	113	0.075
--	48 ... 60	Right pole only	A	3VL9 400-1SJ00	1	1 unit	113	0.075
--	110 ... 127	Right pole only	A	3VL9 400-1SK00	1	1 unit	113	0.075
--	220 ... 250	Right pole only	A	3VL9 400-1SQ00	1	1 unit	113	0.075
48 ... 60	--	Right pole only	A	3VL9 400-1SM00	1	1 unit	113	0.075
110 ... 127	--	Right pole only	A	3VL9 400-1SR00	1	1 unit	113	0.075
208 ... 277	--	Right pole only	A	3VL9 400-1ST00	1	1 unit	113	0.075
380 ... 600	--	Right pole only	A	3VL9 400-1SV00	1	1 unit	113	0.075

Undervoltage releases

For retrofitting

V AC	V DC	Mounting side						
--	12	Right pole only	A	3VL9 400-1UN00	1	1 unit	113	0.075
--	24	Right pole only	A	3VL9 400-1UP00	1	1 unit	113	0.075
--	48	Right pole only	A	3VL9 400-1UU00	1	1 unit	113	0.075
--	60	Right pole only	A	3VL9 400-1UV00	1	1 unit	113	0.075
24	--	Right pole only	A	3VL9 400-1UD00	1	1 unit	113	0.075
110 ... 127	--	Right pole only	A	3VL9 400-1UG00	1	1 unit	113	0.075
--	110 ... 127	Right pole only	A	3VL9 400-1UR00	1	1 unit	113	0.075
208	--	Right pole only	A	3VL9 400-1UM00	1	1 unit	113	0.075
220 ... 250	--	Right pole only	A	3VL9 400-1UH00	1	1 unit	113	0.075
--	220 ... 250	Right pole only	A	3VL9 400-1US00	1	1 unit	113	0.075
277	--	Right pole only	A	3VL9 400-1UQ00	1	1 unit	113	0.075
380 ... 415	--	Right pole only	A	3VL9 400-1UJ00	1	1 unit	113	0.075
440 ... 480	--	Right pole only	A	3VL9 400-1UK00	1	1 unit	113	0.075
500 ... 525	--	Right pole only	A	3VL9 400-1UL00	1	1 unit	113	0.075

Time-delay devices for undervoltage releases (220 ... 250 V DC)

Rated control supply voltage U_s

220 V ... 250 V AC/DC

Delay time > 200 ms

	A	3TX4 701-0AN1	1	1 unit	101	0.170
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Storage devices for shunt releases (208 ... 277 V AC / 220 ... 250 V DC)

Rated control supply voltage U_s

220 ... 240 V AC/220 V ... 250 V DC

Storage time 5 min

	B	3WL9 111-0BA14-0AA0	1	1 unit	103	0.520
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¹⁾ Except for installing in the left accessory compartment of the SENTRON VL160X (3VL1) circuit breakers with RCD module and SENTRON VL160/250 with LCD ETU.

²⁾ Shunt release with disconnection contact (3SB3 for ON/OFF position) not floating (see Technical Information LV 1 T, "Schematics").

³⁾ In the case of VL400 (3VL4):
Unsuitable for mounting in the right-hand accessory sub-section.
The 3VL9 400-2AB00 assembly kit with auxiliary switches only is recommended.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Wiring directly at accessories	DT	For VL630 up to VL1600 (3VL5 to 3VL8)	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		Order No.	Price per PU			kg

Auxiliary switches and auxiliary releases

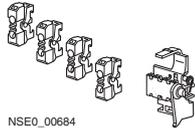
3- or 4-pole

For retrofitting (for possible complements, see figure in Technical Information LV 1 T "Design", "Auxiliary Releases and Auxiliary Switches")

Auxiliary switches (HS) and alarm switches (AS)

For retrofitting

Assembly kits	Mounting side					
2 HS (1 NO + 1 NC)	N, left, right	--				
4 HS (2 NO + 2 NC)	N, left, right	A	3VL9 800-2AC00	1	1 unit	113 0.058
2 HS (1 NC + 1 NO) + 1 AS (1 NO) (kit)	Left, right Left	A	3VL9 800-2AE00	1	1 unit	113 0.060



NSE0_00684
3VL9 800-2A.00

Additional auxiliary switch/alarm switch combinations

See page 16/52.

Shunt releases¹⁾

For retrofitting

V AC	V DC	Mounting side				
24	24	Right pole only	A	3VL9 800-1SC00	1	1 unit 113 0.120
--	48 ... 60	Right pole only	A	3VL9 800-1SJ00	1	1 unit 113 0.120
--	110 ... 127	Right pole only	A	3VL9 800-1SK00	1	1 unit 113 0.120
--	220 ... 250	Right pole only	A	3VL9 800-1SQ00	1	1 unit 113 0.120
48 ... 60	--	Right pole only	A	3VL9 800-1SM00	1	1 unit 113 0.120
110 ... 127	--	Right pole only	A	3VL9 800-1SR00	1	1 unit 113 0.120
208 ... 277	--	Right pole only	A	3VL9 800-1ST00	1	1 unit 113 0.120
380 ... 600	--	Right pole only	A	3VL9 800-1SV00	1	1 unit 113 0.120

Undervoltage releases

For retrofitting

V AC	V DC	Mounting side				
--	12	Right pole only	A	3VL9 800-1UN00	1	1 unit 113 0.088
--	24	Right pole only	A	3VL9 800-1UP00	1	1 unit 113 0.088
--	48	Right pole only	A	3VL9 800-1UU00	1	1 unit 113 0.088
--	60	Right pole only	A	3VL9 800-1UV00	1	1 unit 113 0.088
24	--	Right pole only	A	3VL9 800-1UD00	1	1 unit 113 0.088
110 ... 127	--	Right pole only	A	3VL9 800-1UG00	1	1 unit 113 0.088
--	110 ... 127	Right pole only	A	3VL9 800-1UR00	1	1 unit 113 0.088
208	--	Right pole only	A	3VL9 800-1UM00	1	1 unit 113 0.088
220 ... 250	--	Right pole only	A	3VL9 800-1UH00	1	1 unit 113 0.088
--	220 ... 250	Right pole only	A	3VL9 800-1US00	1	1 unit 113 0.088
277	--	Right pole only	A	3VL9 800-1UQ00	1	1 unit 113 0.088
380 ... 415	--	Right pole only	A	3VL9 800-1UJ00	1	1 unit 113 0.088
440 ... 480	--	Right pole only	A	3VL9 800-1UK00	1	1 unit 113 0.088
500 ... 525	--	Right pole only	A	3VL9 800-1UL00	1	1 unit 113 0.088

Time-delay devices for undervoltage releases

(220 ... 250 V DC)

Rated control supply voltage U_s
220 V ... 250 V AC/DC

Delay time > 200 ms

	A	3TX4 701-0AN1	1	1 unit	101	0.170
--	---	----------------------	---	--------	-----	-------

Storage devices for shunt releases

(208 ... 277 V AC / 220 ... 250 V DC)

Rated control supply voltage U_s
220 ... 240 V AC/220 V ... 250 V DC

Storage time 5 min

	B	3WL9 111-0BA14-0AA0	1	1 unit	103	0.520
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¹⁾ Shunt release with disconnection contact (3SB3 for ON/OFF position) not isolated (see Technical Information LV 1 T, "Schematics").

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

For circuit breakers	Maximum combination of auxiliary switches (HS) and alarm switches (AS)	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Type								kg
3SB adapters and 3SB contact blocks								
<i>Mounting adapters for auxiliary and alarm switch combinations</i>								
For installation in the N pole of the circuit breaker								
VL160X, VL160, VL250, VL400 (3VL1 to 3VL4)	Up to 3 HS ¹⁾	A	3VL9 400-2AH00		1	1 unit	113	0.009
	2 HS + 1 AS ¹⁾²⁾		--					
VL630, VL800, VL1250, VL1600 (3VL5 to 3VL8)	Up to 4 HS	A	3VL9 816-2AL00		1	1 unit	113	0.075
	2 HS + 2 AS		--					
For installation in the left pole of the circuit breaker								
VL160X, VL160, VL250, VL400 (3VL1 to 3VL4)	Up to 3 HS ¹⁾	A	3VL9 400-2AH00		1	1 unit	113	0.009
	2 HS + 1 AS ¹⁾²⁾	A	3VL9 400-2AJ10		1	1 unit	113	0.001
VL630, VL800, VL1250, VL1600 (3VL5 to 3VL8)	Up to 4 HS	A	3VL9 816-2AL00		1	1 unit	113	0.075
	2 HS + 2 AS	A	3VL9 816-2AN10		1	1 unit	113	0.072
For installation in the right pole of the circuit breaker								
VL160X, VL160, VL250, VL400 (3VL1 to 3VL4) ²⁾	Up to 3 HS ¹⁾	A	3VL9 400-2AH00		1	1 unit	113	0.009
	2 HS + 1 AS ¹⁾²⁾	A	3VL9 400-2AJ20		1	1 unit	113	0.001
VL630, VL800, VL1250, VL1600 (3VL5 to 3VL8)	Up to 4 HS	A	3VL9 816-2AL00		1	1 unit	113	0.075
	2 HS + 2 AS		--					

¹⁾ Except for installing in the left pole for SENTRON VL160X circuit breakers (3VL1) with RCD module.

²⁾ In the case of VL400: 3VL9 400-2AJ20 unsuitable for mounting in the right-hand accessory sub-section.

For auxiliary/alarm switches	DT	Circuit breakers Type	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		VL160X to VL1600 (3VL1 to 3VL8)				
		Order No.	Price per PU			kg
Contact blocks for auxiliary and alarm switch combinations						
1 NO	B	3SB34 00-OJ		1	1 unit	102 0.010
1 NC	B	3SB34 00-OK		1	1 unit	102 0.010

For auxiliary switch or alarm switch combinations not included in the kits provided as standard, the mounting adapters specified can be ordered separately together with the required contact blocks:

- 1 HS or 1 AS with NO contact 3SB34 00-OJ
- 1 HS or 1 AS with NC contact 3SB34 00-OK

Note:

A maximum of 6 contact blocks (HS) per circuit breaker (VL160X, VL160, VL250, VL400; 3VL1 to 3VL4) and a maximum of 8 contact blocks (HS) per circuit breaker (VL630, VL800, VL1250, VL1600; 3VL5 to 3VL8) are possible.

Four 3SB34 auxiliary contact blocks and one mounting adapter (right), suitable for VL630, VL800, VL1250, VL1600 (3VL5 to 3VL8) circuit breakers.



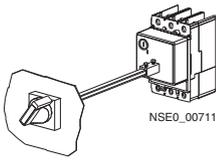
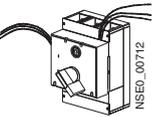
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For retrofitting/possible complements, Technical Information LV 1 T "Design", "Auxiliary Releases and Auxiliary Switches".

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Version	DT	For VL160X to VL250 (3VL1 to 3VL3) Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Operating mechanisms							
 NSE0_00679 3VL9 .00-3H.00	3- or 4-pole						
	Front-operated rotary operating mechanisms¹⁾						
	For direct mounting on the circuit breaker, without leading auxiliary switch, degree of protection IP30 ²⁾ , <u>black</u> , max. 3 padlocks		A	3VL9 300-3HA00	1	1 unit	113
		EMERGENCY-STOP version Red knob, yellow indicator plate	A	3VL9 300-3HC00	1	1 unit	113 0.362
		Safety locks for installation by the customer For installation see pages 16/76 to 16/80.					
 NSE0_00711 3VL9 .00-3H.05	Door-coupling rotary operating mechanisms, complete¹⁾, installation in doors and covers						
	Degree of protection IP65, including handle ti-grey, with masking plate, indicator plate, removable door coupling, 300 mm extension shaft and front-operated rotary operating mechanism for the respective circuit breaker, lockable with up to 3 padlocks, with door interlocking		A	3VL9 300-3HF05	1	1 unit	113 0.970
	EMERGENCY-STOP version, Red knob, yellow indicator plate, without leading auxiliary switch		A	3VL9 300-3HG05	1	1 unit	113 0.980
		Safety locks for installation by the customer For installation see pages 16/76 to 16/80.					
 NSE0_00712 3VL9 .00-3A.10	Leading auxiliary switches for installation in a front-operated rotary operating mechanism, door-coupling rotary operating mechanism or side panel rotary operating mechanism						
	Standard or EMERGENCY-STOP version						
	"OFF after ON"						
	Leading auxiliary switches when switching on						
	1 changeover contact with 1.5 m long cables	A	3VL9 300-3AS10	1	1 unit	113	0.080
	2 changeover contacts with 1.5 m long cables	A	3VL9 300-3AT10	1	1 unit	113	0.130
"ON after OFF"							
Leading auxiliary switches when switching off							
1 changeover contact with 1.5 m long cables	A	3VL9 300-3AU10	1	1 unit	113	0.080	
2 changeover contacts with 1.5 m long cables	A	3VL9 300-3AW10	1	1 unit	113	0.130	
Side panel rotary operating mechanisms, complete							
Degree of protection IP65, including black knob with masking plate, indicator plate, Bowden wire, lockable with up to 3 padlocks							
- With 600 mm Bowden wire	A	3VL9 300-3HR10	1	1 unit	113	1.400	
- With 1000 mm Bowden wire	A	3VL9 300-3HR20	1	1 unit	113	1.400	
- With 1500 mm Bowden wire	A	3VL9 300-3HR30	1	1 unit	113	1.400	
Side panel rotary operating mechanisms, complete							
EMERGENCY-STOP version							
Degree of protection IP65, including red knob with masking plate, yellow indicator plate, Bowden wire, lockable with up to 3 padlocks							
- With 600 mm Bowden wire	A	3VL9 300-3HR11	1	1 unit	113	1.400	
- With 1000 mm Bowden wire	A	3VL9 300-3HR21	1	1 unit	113	1.400	
- With 1500 mm Bowden wire	A	3VL9 300-3HR31	1	1 unit	113	1.400	
Retaining brackets	A	3VL9 300-3HP00	1	1 unit	113	0.253	
Retaining bracket is mounted on the operating mechanism, recommended for extension shafts >250 mm, with locking device for max. 3 padlocks							
Rotary operating mechanisms with shaft stub, without knob¹⁾	A	3VL9 300-3HE00	1	1 unit	113	0.267	
Without leading auxiliary switch, for auxiliary switches see above							

For more accessories and components for door-coupling rotary operating mechanisms, see Chapter "Distribution with SIVACON", "Components for 8UC Distribution Systems".

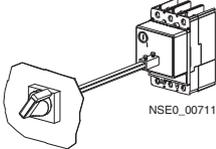
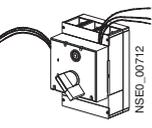
¹⁾ Not possible on VL160X with RCD module.

²⁾ IP40 with additional masking frame mounted on the door cutout.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Version	DT	For VL400 (3VL4) Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Operating mechanisms							
3- or 4-pole							
 NSE0_00679 3VL9 .00-3H.00		Front-operated rotary operating mechanisms For direct mounting on the circuit breaker, without leading auxiliary switch, degree of protection IP30 ¹⁾ , <u>black</u> , max. 3 padlocks					
	A	3VL9 400-3HA00		1	1 unit	113	0.725
	A	EMERGENCY-STOP version Red knob, yellow indicator plate					
	A	3VL9 400-3HC00		1	1 unit	113	0.725
Safety locks for installation by the customer For installation see pages 16/76 to 16/80.							
 NSE0_00711 3VL9 .00-3H.05		Door-coupling rotary operating mechanisms, complete, installation in doors and covers Degree of protection IP65, including handle ti-grey, with masking plate, indicator plate, removable door coupling, 300 mm extension shaft and front-operated rotary operating mechanism for the respective circuit breaker, lockable with up to 3 padlocks, with door interlocking					
	A	3VL9 400-3HF05		1	1 unit	113	0.970
	A	EMERGENCY-STOP version , Red knob, yellow indicator plate, without leading auxiliary switch					
	A	3VL9 400-3HG05		1	1 unit	113	1.100
Safety locks for installation by the customer For installation see pages 16/76 to 16/80.							
 NSE0_00712 3VL9 .00-3A.10		Leading auxiliary switches for installation in a front-operated rotary operating mechanism, door-coupling rotary operating mechanism or side panel rotary operating mechanism Standard or EMERGENCY-STOP version					
		"OFF after ON" Leading auxiliary switches when switching on					
	A	1 changeover contact with 1.5 m long cables	3VL9 400-3AS10	1	1 unit	113	0.080
	A	2 changeover contacts with 1.5 m long cables	3VL9 400-3AT10	1	1 unit	113	0.130
	"ON after OFF" Leading auxiliary switches when switching off						
A	1 changeover contact with 1.5 m long cables	3VL9 400-3AU10	1	1 unit	113	0.080	
A	2 changeover contacts with 1.5 m long cables	3VL9 400-3AW10	1	1 unit	113	0.130	
Side panel rotary operating mechanisms, complete Degree of protection IP65, including black knob with masking plate, indicator plate, Bowden wire, lockable with up to 3 padlocks							
	A	- With 600 mm Bowden wire	3VL9 400-3HR10	1	1 unit	113	2.000
	A	- With 1000 mm Bowden wire	3VL9 400-3HR20	1	1 unit	113	2.000
	A	- With 1500 mm Bowden wire	3VL9 400-3HR30	1	1 unit	113	2.000
Side panel rotary operating mechanisms, complete EMERGENCY-STOP version Degree of protection IP65, including red knob with masking plate, yellow indicator plate, Bowden wire, lockable with up to 3 padlocks							
	A	- With 600 mm Bowden wire	3VL9 400-3HR11	1	1 unit	113	2.000
	A	- With 1000 mm Bowden wire	3VL9 400-3HR21	1	1 unit	113	2.000
	A	- With 1500 mm Bowden wire	3VL9 400-3HR31	1	1 unit	113	2.000
Retaining brackets							
	A	3VL9 400-3HP00		1	1 unit	113	0.379
Retaining bracket is mounted on the operating mechanism, recommended for extension shafts >250 mm, with locking device for max. 3 padlocks							
	A	Rotary operating mechanisms with shaft stub, without knob Without leading auxiliary switch, for auxiliary switches see above	3VL9 400-3HE00	1	1 unit	113	0.267

For more accessories and components for door-coupling rotary operating mechanisms, see Chapter "Distribution with SIVACON", "Components for 8UC Distribution Systems".

¹⁾ IP40 with additional masking frame mounted on the door cutout.

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

DT	For VL630 (3VL5)				DT	For VL800 (3VL6)							
	Order No.	Price per PU	PU (UNIT, SET, M)	Weight per PU approx. kg		Order No.	Price per PU	PU (UNIT, SET, M)	Weight per PU approx. kg				
A	3VL9 600-3HA00		1	1 unit	113	0.834	A	3VL9 600-3HA00		1	1 unit	113	0.834
A	3VL9 600-3HC00		1	1 unit	113	0.834	A	3VL9 600-3HC00		1	1 unit	113	0.834
A	3VL9 600-3HF05		1	1 unit	113	2.465	A	3VL9 600-3HF05		1	1 unit	113	2.465
A	3VL9 600-3HG05		1	1 unit	113	2.460	A	3VL9 600-3HG05		1	1 unit	113	2.460
A	3VL9 600-3AS10		1	1 unit	113	0.080	A	3VL9 600-3AS10		1	1 unit	113	0.080
A	3VL9 600-3AT10		1	1 unit	113	0.130	A	3VL9 600-3AT10		1	1 unit	113	0.130
A	3VL9 600-3AU10		1	1 unit	113	0.080	A	3VL9 600-3AU10		1	1 unit	113	0.080
A	3VL9 600-3AW10		1	1 unit	113	0.130	A	3VL9 600-3AW10		1	1 unit	113	0.130
A	3VL9 500-3HR10		1	1 unit	113	2.400	--						
A	3VL9 500-3HR20		1	1 unit	113	2.400	--						
A	3VL9 500-3HR30		1	1 unit	113	2.400	--						
A	3VL9 500-3HR11		1	1 unit	113	2.400	--						
A	3VL9 500-3HR21		1	1 unit	113	2.400	--						
A	3VL9 500-3HR31		1	1 unit	113	2.400	--						
A	3VL9 600-3HP00		1	1 unit	113	0.437	A	3VL9 600-3HP00		1	1 unit	113	0.437
A	3VL9 600-3HE00		1	1 unit	113	0.755	A	3VL9 600-3HE00		1	1 unit	113	0.755

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Version	DT	For VL160X to VL250 (3VL1 to 3VL3)	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		Order No.	Price per PU			kg

Operating mechanisms

3- or 4-pole

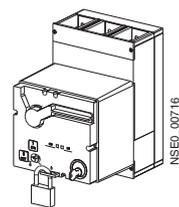
Motorized operating mechanisms with spring energy store¹⁾²⁾

Degree of protection IP30, with locking device for 3 padlocks, suitable for synchronizing

AC 50/60 Hz V

V DC

AC 50/60 Hz V	V DC						
--	24	C	3VL9 300-3MJ00	1	1 unit	113	2.140
42 ... 48	42 ... 48	C	3VL9 300-3ML00	1	1 unit	113	2.140
60	60	C	3VL9 300-3MS00	1	1 unit	113	2.140
110 ... 127	110 ... 127	C	3VL9 300-3MN00	1	1 unit	113	2.140
220 ... 250	220 ... 250	C	3VL9 300-3MQ00	1	1 unit	113	2.140



3VL9 .00-3M.00

Toggle handle extensions

--

¹⁾ Not possible on VL160X with RCD module.

²⁾ For safety lock as an assembly kit for retrofitting see pages 16/76 to 16/80.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

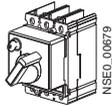
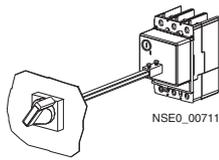
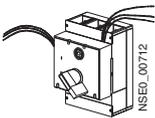
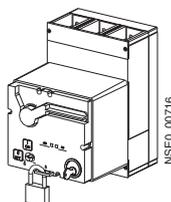
DT For VL400 (3VL4)						DT For VL630 to VL800 (3VL5 to 3VL6)							
Order No.		Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	Order No.		Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
						kg							kg
C	3VL9 400-3MJ00		1	1 unit	113	3.910	C	3VL9 600-3MJ00		1	1 unit	113	4.800
C	3VL9 400-3ML00		1	1 unit	113	3.910	C	3VL9 600-3ML00		1	1 unit	113	4.800
C	3VL9 400-3MS00		1	1 unit	113	3.910	C	3VL9 600-3MS00		1	1 unit	113	4.800
C	3VL9 400-3MN00		1	1 unit	113	3.910	C	3VL9 600-3MN00		1	1 unit	113	4.800
C	3VL9 400-3MQ00		1	1 unit	113	3.910	C	3VL9 600-3MQ00		1	1 unit	113	4.800
A	3VL9 400-3HN00		1	1 unit	113	0.100	A	3VL9 600-3HN00		1	1 unit	113	0.140

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Version	DT	For 1250 to VL1600 (3VL7 and 3VL8) Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Operating mechanisms							
3- or 4-pole							
Front-operated rotary operating mechanisms							
For direct mounting on the circuit breaker, without leading auxiliary switch, degree of protection IP30 ¹⁾ , <u>black</u> , max. 3 padlocks							
	A	3VL9 800-3HA00		1	1 unit	113	2.831
3VL9 .00-3H.00	A	3VL9 800-3HC00		1	1 unit	113	2.831
EMERGENCY-STOP version Red knob, yellow indicator plate Safety locks for installation by the customer For installation see pages 16/76 to 16/80.							
Door-coupling rotary operating mechanisms, complete, installation in doors and covers							
Degree of protection IP65, including handle ti-grey, with masking plate, indicator plate, removable door coupling, 300 mm extension shaft and front-operated rotary operating mechanism for the respective circuit breaker, lockable with up to 3 padlocks, with door interlocking							
	A	3VL9 800-3HF05		1	1 unit	113	4.102
3VL9 .00-3H.05	A	3VL9 800-3HG05		1	1 unit	113	4.100
EMERGENCY-STOP version, Red knob, yellow indicator plate, without leading auxiliary switch Safety locks for installation by the customer For installation see pages 16/76 to 16/80.							
Leading auxiliary switches for installation in a front-operated rotary operating mechanism or door-coupling rotary operating mechanism							
Standard or EMERGENCY-STOP version							
"OFF after ON"							
Leading auxiliary switches when switching on							
	A	3VL9 800-3AS10		1	1 unit	113	0.080
3VL9 .00-3A.10	A	3VL9 800-3AT10		1	1 unit	113	0.130
2 changeover contacts with 1.5 m long cables							
"ON after OFF"							
Leading auxiliary switches when switching off							
	A	3VL9 800-3AU10		1	1 unit	113	0.080
	A	3VL9 800-3AW10		1	1 unit	113	0.130
2 changeover contacts with 1.5 m long cables							
	A	3VL9 800-3HP00		1	1 unit	113	0.529
Retaining brackets							
Retaining bracket is mounted on the operating mechanism, recommended for extension shafts > 250 mm, with locking device for max. 3 padlocks							
	A	3VL9 800-3HE00		1	1 unit	113	2.175
Rotary operating mechanisms with shaft stub, without knob							
Without leading auxiliary switch, for auxiliary switches see above							
Motorized operating mechanisms²⁾							
Degree of protection IP30, with locking device for 3 padlocks, not suitable for synchronizing							
AC 50/60 Hz V		V DC					
--	24	C	3VL9 800-3MJ00	1	1 unit	113	6.800
42 ... 48	42 ... 48	C	3VL9 800-3ML00	1	1 unit	113	6.800
60	60	C	3VL9 800-3MS00	1	1 unit	113	6.800
110 ... 127	110 ... 127	C	3VL9 800-3MN00	1	1 unit	113	6.800
220 ... 250	220 ... 250	C	3VL9 800-3MQ00	1	1 unit	113	6.800
	A	3VL9 800-3HN00		1	1 unit	113	0.234
3VL9 .00-3M.00							
Toggle handle extensions							

For more accessories and components for door-coupling rotary operating mechanisms, see Chapter "Distribution with SIVACON", "Components for 8UC Distribution Systems".

1) IP40 with additional masking frame mounted on the door cutout.

2) For safety lock as an assembly kit for retrofitting see pages 16/76 to 16/80.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

For operating mechanism	Cross-section of the actuating shaft	Color of indicator/handle	DT	Individual parts for 8UC7 door-coupling rotary operating mechanisms	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Type	mm × mm	mm		Order No.	Price per PU			kg

8UC door-coupling rotary operating mechanisms

Individual parts

Handles with masking plate (including flat gasket and fixing screws)



8UC71 10-1BB



8UC72 10-6BD



8UC73 10-1BB

8UC71	6 × 6	Gray Red/Yellow	C C	8UC71 10-6BD 8UC71 20-8BD	1 1	1 unit 1 unit	103 103	0.200 0.200
8UC72	8 × 8	Gray Red/Yellow	C C	8UC72 10-6BD 8UC72 20-8BD	1 1	1 unit 1 unit	103 103	0.200 0.200
8UC73	10 × 10	Gray Red/Yellow	C C	8UC73 10-6BD 8UC73 20-8BD	1 1	1 unit 1 unit	103 103	0.200 0.200

For operating mechanism	Cross-section of the actuating shaft	DT	Individual parts for 8UC6 door-coupling rotary operating mechanisms	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
Type	mm × mm		Order No.	Price per PU			kg

8UC door-coupling rotary operating mechanisms

Individual parts

Coupling drivers for 3VL

8UC71 (for 3VL1 ... 3)	6 × 6		C	8UC70 11-2AA	1	1 unit	103	0.200
8UC72 ²⁾ (for 3VL4 ... 6)	8 × 8		A	8UC60 17-2AA	1	1 unit	103	0.047
8UC73/74	12 × 12		B	8UC60 14	1	1 unit	103	0.253

Extension shafts 300 mm long

8UC71	6 × 6		B	8UC60 31	1	1 unit	103	0.068
8UC72	8 × 8		B	8UC60 32	1	1 unit	103	0.132
8UC73	10 × 10		C	8UC60 33	1	1 unit	103	0.217
8UC73/74	12 × 12		B	8UC60 34	1	1 unit	103	0.315

Extension shafts 600 mm long

8UC71	6 × 6		B	8UC60 81	1	1 unit	103	0.136
8UC72	8 × 8		B	8UC60 82	1	1 unit	103	0.265
8UC73	10 × 10		B	8UC60 83	1	1 unit	103	0.430
8UC73/74	12 × 12		B	8UC60 84	1	1 unit	103	0.640

Shaft couplings

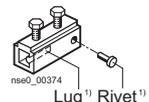
8UC71	6 × 6		B	8UC60 21	1	1 unit	103	0.031
8UC72	8 × 8		B	8UC60 22	1	1 unit	103	0.023
8UC73	10 × 10		B	8UC60 23	1	1 unit	103	0.085
8UC73/74	12 × 12		B	8UC60 24	1	1 unit	103	0.077

Reducers

8UC71	8 × 8 to 6 × 6		C	8UC70 58	1	1 unit	103	0.200
8UC72	12 × 12 to 8 × 8		C	8UC70 50	1	1 unit	103	0.200



8UC60 31



8UC60 21 to 8UC60 24



8UC92 53

¹⁾ Non-interchangeability features.

²⁾ Shortened coupling driver with reduced tolerance compensation.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

8UC door-coupling rotary operating mechanisms

Door-coupling rotary operating mechanisms, complete (ti-grey handle, light-gray masking plate with black inscription)

Can be padlocked, with door interlocking

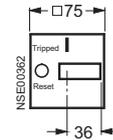
Supplied with seal and fixing screws

Switching devices ¹⁾	Rated current	Cross-section of the actuating shaft	Torque	Rotary operating mechanisms	Illustrated: Handle, masking plate
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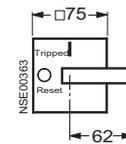
Type	A	mm	Nm	Size
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3VF and 3VL circuit breakers²⁾

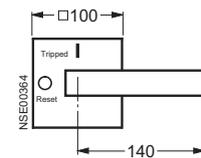
3VL1	16 ... 160	6 × 6	4	1
3VL2	50 ... 160	6 × 6	4	
3VL3	200... 250	6 × 6	4	



3VL4	200 ... 400	8 × 8	9	2
3VL5	315 ... 600	8 × 8	9	
3VL6	320 ... 800	8 × 8	9	



3VL7	400 ... 1250	12 × 12	25	3
3VL8	640 ... 1600	12 × 12	25	



EMERGENCY-STOP door-coupling rotary operating mechanisms, complete (red handle, yellow indicator plate with black inscription)

Can be padlocked, with door interlocking

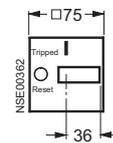
Supplied with seal and fixing screws

Switching devices ¹⁾	Rated current	Cross-section of the actuating shaft	Torque	Rotary operating mechanisms	Illustrated: Handle, masking plate
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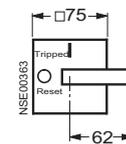
Type	A	mm	Nm	Size
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3VF and 3VL circuit breakers²⁾

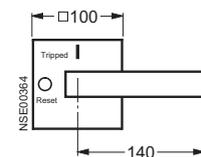
3VL1	16 ... 160	6 × 6	4	1
3VL2	50 ... 160	6 × 6	4	
3VL3	200... 250	6 × 6	4	



3VL4	200 ... 400	8 × 8	9	2
3VL5	315 ... 600	8 × 8	9	
3VL6	320 ... 800	8 × 8	9	



3VL7	400 ... 1250	12 × 12	25	3
3VL8	640 ... 1600	12 × 12	25	



¹⁾ For 3RV motor starter protectors, see "Protection Equipment, Motor Starter Protectors".

²⁾ 3VF and 3VL circuit breakers require in addition a front-operated rotary operating mechanism with shaft end for direct mounting to the breaker. For ordering the complete operating mechanism see pages 16/53 to 16/58.

³⁾ With shortened coupling driver and reduced tolerance compensation.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

DT	Rotary operating mechanisms, complete	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	Individual parts of the 8UC6 rotary operating mechanism	Order No.	
	Order No.	Price per PU			kg			
2)	C	8UC71 11-6BD15	1	1 unit	103	0.200	Handle with masking plate Coupling driver for shaft □ 6 mm Extension shaft □ 6 mm, 300 mm long Reducer □ 8 mm to □ 6 mm	8UC71 10-6BD ²⁾ 8UC70 11-2AA 8UC60 31 8UC70 58
2)	C	8UC72 62-6BD26	1	1 unit	103	0.200	Handle with masking plate Coupling driver ³⁾ for shaft □ 8 mm Extension shaft □ 8 mm, 300 mm long Reducer □ 12 mm to □ 8 mm	8UC72 10-6BD ²⁾ 8UC60 17-2AA ³⁾ 8UC60 32 8UC70 50
2)	C	8UC73 14-6BD44	1	1 unit	103	0.200	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC73 10-6BD ²⁾ 8UC60 14 8UC60 34 8UC60 24

DT	Rotary operating mechanisms, complete	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	Individual parts of the 8UC6 rotary operating mechanism	Order No.	
	Order No.	Price per PU			kg			
2)	C	8UC71 21-8BD15	1	1 unit	103	0.200	Handle with masking plate Coupling driver for shaft □ 6 mm Extension shaft □ 6 mm, 300 mm long Reducer □ 8 mm to □ 6 mm	8UC71 20-8BD ²⁾ 8UC70 11-2AA 8UC60 31 8UC70 58
2)	C	8UC72 62-8BD26	1	1 unit	103	0.200	Handle with masking plate Coupling driver ³⁾ for shaft □ 8 mm Extension shaft □ 8 mm, 300 mm long Reducer □ 12 mm to □ 8 mm	8UC72 20-8BD ²⁾ 8UC60 17-2AA ³⁾ 8UC60 32 8UC70 50
2)	C	8UC73 24-8BD44	1	1 unit	103	0.200	Handle with masking plate Coupling driver for shaft □ 12 mm Extension shaft □ 12 mm, 300 mm long Shaft coupling □ 12 mm to □ 12 mm	8UC73 20-8BD ²⁾ 8UC60 14 8UC60 34 8UC60 24

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Version	DT	For VL160X (3VL1)	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		Order No.	Price per PU			kg
Plug-in versions/withdrawable versions						
3- or 4-pole						
Plug-in base assembly kits						
Complete with base plate, base, blade contacts for circuit breakers, terminal covers for degree of protection IP20, fixing screws, trip pin						
Rear terminals						
3-pole	A	3VL9 100-4PA30		1	1 unit	113 2.170
3-pole with RCD module	A	3VL9 100-4PB30		1	1 unit	113 2.460
4-pole	A	3VL9 100-4PA40		1	1 unit	113 2.850
4-pole with RCD module	A	3VL9 100-4PB40		1	1 unit	113 3.200
90° angle connecting adapters						
For rear connection, 3-pole	A	3VL9 300-4PE30		1	1 unit	113 0.375
For rear connection, 4-pole	A	3VL9 300-4PE40		1	1 unit	113 0.500
Front-accessible terminals						
3-pole	A	3VL9 100-4PC30		1	1 unit	113 1.980
3-pole with RCD module	A	3VL9 100-4PD30		1	1 unit	113 2.260
4-pole	A	3VL9 100-4PC40		1	1 unit	113 2.620
4-pole with RCD module	A	3VL9 100-4PD40		1	1 unit	113 2.960
Withdrawable version assembly kits						
Upgrade of the plug-in base assembly kit to						
Withdrawable version	3-pole	--				
including side panels and racking mechanism	3-pole with RCD	--				
	4-pole	--				
	4-pole with RCD	--				
Withdrawable versions						
Same as plug-in base assembly kit, with additional side panels and racking mechanism						
Rear terminals						
3-pole	--					
3-pole with RCD module	--					
4-pole	--					
4-pole with RCD module	--					
Front-accessible terminals						
3-pole	--					
3-pole with RCD module	--					
4-pole	--					
4-pole with RCD module	--					
Blade contacts						
As replacement for converting fixed-mounted circuit breakers into plug-in/withdrawable circuit breakers, including trip pin						
1 set = 6 units	3-pole	A	3VL9 100-4PS30	1	1 unit	113 0.226
1 set = 8 units	4-pole	A	3VL9 100-4PS40	1	1 unit	113 0.295
Trip pins and springs						
As replacement for plug-in/withdrawable circuit breaker	A	3VL9 100-4PF00		1	1 unit	113 0.012
Auxiliary circuit plug connections for plug-in bases						
Accessory connections for plug-in circuit breakers (factory-wired connectors) and for plug-in bases or withdrawable version (coupling with screw terminal)						
8 terminals	A	3VL9 300-4PJ00		1	1 unit	113 0.134
Position signaling switches						
(connected/disconnected position)						
For plug-in/withdrawable base, 1 changeover contact, max. 2 signal switches possible						
	A	3VL9 000-4WL00		1	1 unit	113 0.019

1) It is recommended to use a maximum of 2 auxiliary circuit plug-in systems per circuit breaker (16 terminals).

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

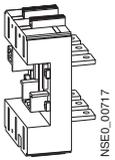
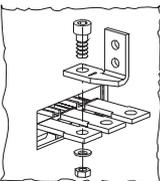
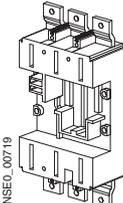
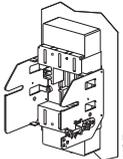
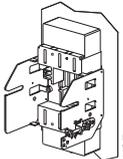
DT	For VL160 (3VL2)				DT	For VL250 (3VL3)									
	Order No.	Price per PU	PU (UNIT, SET, M)	PS*		PG	Weight per PU approx. kg	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg		
A	3VL9 200-4PA30			1	1 unit	113	2.170	A	3VL9 300-4PA30			1	1 unit	113	2.280
A	3VL9 200-4PB30			1	1 unit	113	2.460	A	3VL9 300-4PB30			1	1 unit	113	2.570
A	3VL9 200-4PA40			1	1 unit	113	2.850	A	3VL9 300-4PA40			1	1 unit	113	3.000
A	3VL9 200-4PB40			1	1 unit	113	3.200	A	3VL9 300-4PB40			1	1 unit	113	3.330
A	3VL9 300-4PE30			1	1 unit	113	0.375	A	3VL9 300-4PE30			1	1 unit	113	0.375
A	3VL9 300-4PE40			1	1 unit	113	0.500	A	3VL9 300-4PE40			1	1 unit	113	0.500
A	3VL9 200-4PC30			1	1 unit	113	1.980	A	3VL9 300-4PC30			1	1 unit	113	2.090
A	3VL9 200-4PD30			1	1 unit	113	2.260	A	3VL9 300-4PD30			1	1 unit	113	2.370
A	3VL9 200-4PC40			1	1 unit	113	2.620	A	3VL9 300-4PC40			1	1 unit	113	2.770
A	3VL9 200-4PD40			1	1 unit	113	2.960	A	3VL9 300-4PD40			1	1 unit	113	3.070
A	3VL9 300-4WF30			1	1 unit	113	1.260	A	3VL9 300-4WF30			1	1 unit	113	1.260
A	3VL9 300-4WG30			1	1 unit	113	2.031	A	3VL9 300-4WG30			1	1 unit	113	2.031
A	3VL9 300-4WF40			1	1 unit	113	1.280	A	3VL9 300-4WF40			1	1 unit	113	1.280
A	3VL9 300-4WG40			1	1 unit	113	2.050	A	3VL9 300-4WG40			1	1 unit	113	2.050
A	3VL9 200-4WA30			1	1 unit	113	3.430	A	3VL9 300-4WA30			1	1 unit	113	3.540
A	3VL9 200-4WB30			1	1 unit	113	4.000	A	3VL9 300-4WB30			1	1 unit	113	4.601
A	3VL9 200-4WA40			1	1 unit	113	4.130	A	3VL9 300-4WA40			1	1 unit	113	4.280
A	3VL9 200-4WB40			1	1 unit	113	4.940	A	3VL9 300-4WB40			1	1 unit	113	5.361
A	3VL9 200-4WC30			1	1 unit	113	3.240	A	3VL9 300-4WC30			1	1 unit	113	3.350
A	3VL9 200-4WD30			1	1 unit	113	3.810	A	3VL9 300-4WD30			1	1 unit	113	4.398
A	3VL9 200-4WC40			1	1 unit	113	3.940	A	3VL9 300-4WC40			1	1 unit	113	4.050
A	3VL9 200-4WD40			1	1 unit	113	4.710	A	3VL9 300-4WD40			1	1 unit	113	5.158
A	3VL9 200-4PS30			1	1 unit	113	0.248	A	3VL9 300-4PS30			1	1 unit	113	0.342
A	3VL9 200-4PS40			1	1 unit	113	0.330	A	3VL9 300-4PS40			1	1 unit	113	0.426
A	3VL9 300-4PF00			1	1 unit	113	0.013	A	3VL9 300-4PF00			1	1 unit	113	0.013
A	1) 3VL9 300-4PJ00			1	1 unit	113	0.134	A	1) 3VL9 300-4PJ00			1	1 unit	113	0.134
A	3VL9 000-4WL00			1	1 unit	113	0.019	A	3VL9 000-4WL00			1	1 unit	113	0.019

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Version	DT	For VL400 (3VL4) Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Plug-in versions/withdrawable versions							
3- or 4-pole							
Plug-in base assembly kits							
Complete with base plate, base, blade contacts for circuit breakers, terminal covers for degree of protection IP20, fixing screws, trip pin							
Rear terminals							
 NSE0_00717 3VL9 .00-4PA30		3-pole	A	3VL9 400-4PA30 _1)	1	1 unit	113 5.869
		3-pole with RCD module	A	3VL9 400-4PA40	1	1 unit	113 8.008
		4-pole	A	3VL9 400-4PB40	1	1 unit	113 10.100
		4-pole with RCD module	A	3VL9 400-4PB40	1	1 unit	113 10.100
90° angle connecting adapters							
For rear connection, 3-pole							
For rear connection, 4-pole							
Front-accessible terminals							
 NSE00581 3VL9 .00-4PE30		3-pole	A	3VL9 400-4PC30 _1)	1	1 unit	113 5.424
		3-pole with RCD module	A	3VL9 400-4PC40	1	1 unit	113 7.408
		4-pole	A	3VL9 400-4PD40	1	1 unit	113 9.500
		4-pole with RCD module	A	3VL9 400-4PD40	1	1 unit	113 9.500
Withdrawable version assembly kits							
Upgrade of the plug-in base assembly kit to							
Withdrawable versions							
Same as plug-in base assembly kit, with additional side panels and racking mechanism							
Rear terminals³⁾							
 NSE0_00719 3VL9 .00-4WF30		3-pole	A	3VL9 400-4WF30 _1)	1	1 unit	113 3.400
		3-pole with RCD including side panels and racking mechanism	A	3VL9 400-4WF40	1	1 unit	113 3.600
		4-pole	A	3VL9 400-4WG40	1	1 unit	113 3.800
		4-pole with RCD	A	3VL9 400-4WG40	1	1 unit	113 3.800
Withdrawable versions							
Same as plug-in base assembly kit, with additional side panels and racking mechanism							
Rear terminals³⁾							
 NSE0_00683 3VL9 .00-4WA30		3-pole	A	3VL9 400-4WA30 _1)	1	1 unit	113 8.769
		3-pole with RCD module	A	3VL9 400-4WA40	1	1 unit	113 11.549
		4-pole	A	3VL9 400-4WB40	1	1 unit	113 13.200
		4-pole with RCD module	A	3VL9 400-4WB40	1	1 unit	113 13.200
Front-accessible terminals							
 NSE0_00683 3VL9 .00-4WC30		3-pole	A	3VL9 400-4WC30 _1)	1	1 unit	113 8.324
		3-pole with RCD module	A	3VL9 400-4WC40	1	1 unit	113 10.949
		4-pole	A	3VL9 400-4WD40	1	1 unit	113 12.600
		4-pole with RCD module	A	3VL9 400-4WD40	1	1 unit	113 12.600
Blade contacts							
As replacement for converting fixed-mounted circuit breakers into plug-in/withdrawable circuit breakers, including trip pin							
1 set = 6 units 3-pole							
1 set = 8 units 4-pole							
Trip pins and springs							
As replacement for plug-in/withdrawable circuit breakers							
Auxiliary circuit plug connections for plug-in bases							
Accessory connections for plug-in circuit breakers (factory-wired connectors) and for plug-in bases or withdrawable version (coupling with screw terminal)							
8 terminals							
Position signaling switches (connected/disconnected position) For plug-in/withdrawable base, 1 changeover contact, max. 2 signal switches possible							

¹⁾ For 3-pole applications please use 4-pole withdrawable version with 4-pole RCD module and 4-pole circuit breaker.

²⁾ It is recommended to use a maximum of 3 auxiliary circuit plug-in systems per circuit breaker (24 terminals).

³⁾ With VL800 (3VL6) to VL1600 (3VL8) as vertical connection.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

DT	For VL630 (3VL5)	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	DT	For VL800 (3VL6)	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	Order No.					kg		Order No.					kg
A	3VL9 500-4PA30		1	1 unit	113	8.200	--						
A	3VL9 500-4PA40		1	1 unit	113	11.200	--						
	--						--						
A	3VL9 500-4PC30		1	1 unit	113	7.400	--						
A	3VL9 500-4PC40		1	1 unit	113	9.600	--						
	--						--						
A	3VL9 500-4WF30		1	1 unit	113	3.600	--						
A	3VL9 500-4WF40		1	1 unit	113	3.800	--						
	--						--						
A	3VL9 500-4WA30		1	1 unit	113	11.000	A	3VL9 600-4WA30		1	1 unit	113	40.104
A	3VL9 500-4WA40		1	1 unit	113	15.000	A	3VL9 600-4WA40		1	1 unit	113	48.060
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A	3VL9 500-4WC30		1	1 unit	113	10.300	A	3VL9 600-4WC30		1	1 unit	113	40.716
A	3VL9 500-4WC40		1	1 unit	113	13.400	A	3VL9 600-4WC40		1	1 unit	113	48.876
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A	3VL9 500-4PS30		1	1 unit	113	1.260	A	3VL9 600-4PS30		1	1 unit	113	1.500
A	3VL9 500-4PS40		1	1 unit	113	1.680	A	3VL9 600-4PS40		1	1 unit	113	2.000
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A	3VL9 500-4PF00		1	1 unit	113	0.018	A	3VL9 600-4PF00		1	1 unit	113	0.025
	--							--					
	2)							2)					
A	3VL9 600-4PJ00		1	1 unit	113	0.144	A	3VL9 600-4PJ00		1	1 unit	113	0.144
	--							--					
A	3VL9 000-4WL00		1	1 unit	113	0.019	A	3VL9 000-4WL00		1	1 unit	113	0.019
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* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Version	DT	For VL1250 (3VL7)	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		Order No.	Price per PU			kg
Plug-in versions/withdrawable versions						
3- or 4-pole						
Plug-in base assembly kits						
Complete with base plate, base, blade contacts for circuit breakers, terminal covers for degree of protection IP20, fixing screws, trip pin						
Rear terminals						
		3-pole	--			
		3-pole with RCD module	--			
		4-pole	--			
		4-pole with RCD module	--			
90° angle connecting adapters						
		For rear connection, 3-pole	--			
		For rear connection, 4-pole	--			
Front-accessible terminals						
		3-pole	--			
		3-pole with RCD module	--			
		4-pole	--			
		4-pole with RCD module	--			
Withdrawable version assembly kits						
Upgrade of the plug-in base assembly kit to						
		Withdrawable version 3-pole	--			
		including side panels 3-pole with RCD	--			
		and racking 4-pole	--			
		mechanism. 4-pole with RCD	--			
Withdrawable versions						
Same as plug-in base assembly kit, with additional side panels and racking mechanism						
Rear terminals¹⁾						
	A	3-pole	3VL9 800-4WA30	1	1 unit	113 39.996
		3-pole with RCD module	--			
	A	4-pole	3VL9 800-4WA40	1	1 unit	113 47.148
		4-pole with RCD module	--			
Front-accessible terminals						
	A	3-pole	3VL9 800-4WC30	1	1 unit	113 40.608
		3-pole with RCD module	--			
	A	4-pole	3VL9 800-4WC40	1	1 unit	113 47.964
		4-pole with RCD module	--			
Blade contacts						
As replacement for converting fixed-mounted circuit breakers into plug-in/withdrawable circuit breakers, including trip pin						
	A	1 set = 6 units 3-pole	3VL9 800-4PS30	1	1 unit	113 2.000
	A	1 set = 8 units 4-pole	3VL9 800-4PS40	1	1 unit	113 2.660
Trip pins and springs						
	A	As replacement for plug-in/withdrawable circuit breaker	3VL9 800-4PF00	1	1 unit	113 0.030
Auxiliary circuit plug connections for plug-in bases						
Accessory connections for plug-in circuit breakers (factory-wired connectors) and for plug-in bases or withdrawable version (coupling with screw terminal)						
	A	8 terminals	3VL9 800-4PJ00	1	1 unit	113 0.144
Position signaling switches						
(connected/disconnected position)						
For plug-in/withdrawable base, 1 changeover contact, max. 2 signal switches possible						
	A		3VL9 000-4WL00	1	1 unit	113 0.019

¹⁾ With VL800 (3VL6) to VL1600 (3VL8) as vertical connection.

²⁾ It is recommended to use a maximum of 3 auxiliary circuit plug-in systems per circuit breaker (24 terminals).

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

DT	For VL1600 (3VL8) Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
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A	3VL9 800-4WA30 --		1	1 unit	113	39.996
A	3VL9 800-4WA40 --		1	1 unit	113	47.148
A	3VL9 800-4WC30 --		1	1 unit	113	40.608
A	3VL9 800-4WC40 --		1	1 unit	113	47.964

A	3VL9 800-4PS30		1	1 unit	113	2.000
A	3VL9 800-4PS40		1	1 unit	113	2.660
A	3VL9 800-4PF00		1	1 unit	113	0.030

A	2) 3VL9 800-4PJ00		1	1 unit	113	0.144
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A	3VL9 000-4WL00		1	1 unit	113	0.019
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* You can order this quantity or a multiple thereof.

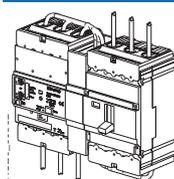
3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Circuit breakers for system protection, only for TM, starters, disconnectors	Rated current I_n	Residual currents I_{Δ} adjustable	Delay time t_d adjustable	Rated operational voltage U_e	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	A	A	s	V AC							kg

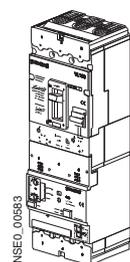
RCD modules



SENTRON VL160X with RCD module mounted laterally on the circuit breaker (on left side)

3-pole

VL160X (3VL1)		0.03	Instantaneous								
Bottom mounting ¹⁾³⁾	160	0.10	0.06	127 ... 480	C	3VL9 112-5GA30		1	1 unit	113	1.340
Mounting kit for left side, without RCD ¹⁾²⁾³⁾		0.30	0.10		A	3VL9 112-5GB30		1	1 unit	113	1.525
		0.50	0.25								
VL160 (3VL2)	160	1.00	0.50	127 ... 480	C	3VL9 216-5GC30		1	1 unit	113	1.320
		3.00	1.00	230 ... 690	C	3VL9 216-5GD30		1	1 unit	113	1.320
VL250 (3VL3)	250			127 ... 480	C	3VL9 325-5GE30		1	1 unit	113	1.400
				230 ... 690	C	3VL9 325-5GF30		1	1 unit	113	1.400
VL400 (3VL4)	400			127 ... 480	--						
				230 ... 690	--						



SENTRON VL160X up to VL400 with RCD module mounted below the circuit breaker

4-pole

VL160X (3VL1)		0.03	Instantaneous								
Bottom mounting ¹⁾³⁾	160	0.10	0.06	127 ... 480	C	3VL9 112-5GA40		1	1 unit	113	1.590
Mounting kit for left side, without RCD ¹⁾²⁾³⁾		0.30	0.10		A	3VL9 112-5GB40		1	1 unit	113	1.824
		0.50	0.25								
VL160 (3VL2)	160	1.00	0.50	127 ... 480	C	3VL9 216-5GC40		1	1 unit	113	1.570
		3.00	1.00	230 ... 690	C	3VL9 216-5GD40		1	1 unit	113	1.570
VL250 (3VL3)	250			127 ... 480	C	3VL9 325-5GE40		1	1 unit	113	1.650
				230 ... 690	C	3VL9 325-5GF40		1	1 unit	113	1.650
VL400 (3VL4)	400			127 ... 480	C	3VL9 440-5GG40		1	1 unit	113	2.980
				230 ... 690	C	3VL9 440-5GH40		1	1 unit	113	2.980

Circuit breakers for system protection, only for TM, starters, disconnectors	Rated current I_n	Residual currents I_{Δ} adjustable	Delay time t_d adjustable	Rated operational voltage U_e	3-pole circuit breaker	4-pole circuit breaker
	A	A	s	V AC		
					Order No. with "-Z" and additional order code	Order No. with "-Z" and additional order code
					3VL.....D.....-Z	3VL.....E.....-Z
					Additional price	Additional price
					<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Code for further versions	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Code for further versions
					-Z	-Z

Circuit breakers with RCD module

3- and 4-pole

VL160X (3VL1)		0.03	Instantaneous			
(Bottom mounting)	160	0.10	0.06	127 ... 480	A 0 1	A 0 1
		0.30	0.10			
		0.50	0.25			
VL160 (3VL2)	160	1.00	0.50	127 ... 480	A 0 1	A 0 1
		3.00	1.00	230 ... 690	A 0 2	A 0 2
VL250 (3VL3)	250			127 ... 480	A 0 1	A 0 1
				230 ... 690	A 0 2	A 0 2
VL400 (3VL4)	400			127 ... 480	--	A 0 1
				230 ... 690	--	A 0 2

¹⁾ Only the right-hand accessory sub-section and the N conductor (4-pole) accessory sub-section can be used for the installation of accessories, see [Technical Information LV 1 T "Design", "Auxiliary Releases and Auxiliary Switches"](#).

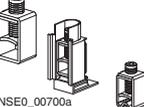
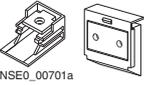
²⁾ The assembly kit consists of the mounting plate, wiring and covers for circuit breakers and RCD module (for 75 mm standard mounting rail). The RCD module (3VL9 112-5GA30/-5GA40) must be ordered separately.

³⁾ VL160X (3VL1) + RCD module cannot be combined with motorized operating mechanism, front operating mechanism, door-coupling rotary operating mechanism, locking device for toggle levers and screw terminal connections (3VL17...-...6-...).

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Version	DT	For VL160X (3VL1) Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Connection parts for fixed-mounted circuit breakers							
3- or 4-pole							
 NSE0_00702a	Front connecting bars¹⁾ Phase barriers included. Standard						
3VL9 .00-4EC40		1 set = 3 units	3-pole	A	3VL9 216-4EC30	1 1 unit	113 0.198
		1 set = 4 units	4-pole	A	3VL9 216-4EC40	1 1 unit	113 0.198
 NSE0_00722	For increased pole spacing						
3VL9 .00-4ED40		1 set = 3 units	3-pole	A	3VL9 216-4ED30	1 1 unit	113 0.189
		1 set = 4 units	4-pole	A	3VL9 216-4ED40	1 1 unit	113 0.252
Rear terminals							
		Short terminal (1 unit)		A	3VL9 100-4RA00	1 1 unit	113 0.126
		Long terminal (1 unit)		A	3VL9 100-4RB00	1 1 unit	113 0.229
 NSE0_00723		Terminal kit (2 short + 1 long)	3-pole	A	3VL9 100-4RC30	1 1 unit	113 0.481
3VL9 .00-4RA00, 3VL9 .00-4RB00		Terminal kit (2 short + 2 long)	4-pole	A	3VL9 100-4RF40	1 1 unit	113 0.711
		Short flat connector (1 unit)		A	3VL9 100-4RK00	1 1 unit	113 0.104
 NSE0_00724		Long flat connector (1 unit)		A	3VL9 100-4RL00	1 1 unit	113 0.200
3VL9 .00-4RK00, 3VL9 .00-4RL00		Flat connector kit (2 short + 1 long)	3-pole	A	3VL9 100-4RM30	1 1 unit	113 0.408
		Flat connector kit (2 short + 2 long)	4-pole	A	3VL9 100-4RN40	1 1 unit	113 0.608
 NSE0_00725		Flat connecting bar (1 unit)			--		
3VL9 .00-4RG00		Flat connecting bar Set = 3 units, 3-pole			--		
		Flat connecting bar Set = 4 units, 4-pole			--		
Box terminals							
 NSE0_00700a	Connection for flexible flat copper busbar or cable, see Technical Information LV 1 T, "Design", "Main Circuit Connections, Basic Equipment and Options" .						
3VL9 .00-4TC.0		1 set = 3 units		A	3VL9 100-4TC30	1 1 unit	113 0.084
		1 set = 4 units		A	3VL9 100-4TC40	1 1 unit	113 0.112
Circular conductor terminals							
 NSE0_01529	Only for cables (Al or Cu) <u>Aluminum terminal (tinned)</u>						
3VL9 .00-4TD.0		1 set = 3 units		A	3VL9 100-4TD30	1 1 unit	113 0.041
		1 set = 4 units		A	3VL9 100-4TD40	1 1 unit	113 0.055
Auxiliary conductor terminals							
 NSE0_00701a	For box terminals/aluminum terminals 1 set = 10 units						
3VL9 .00-4TD.0				A	3VL9 200-3TN00	1 1 unit	113 0.130
Terminals with screw connection - metric thread							
 NSE0_00730	With insulator (for rear) for use with busbars and cable lugs, see Technical Information LV 1 T, "Design", "Main Circuit Connections, Basic Equipment and Options" .						
3VL9 .00-4TA.0		1 set = 3 units		A	3VL9 116-4TA30	1 1 unit	113 0.055
		1 set = 4 units		A	3VL9 116-4TA40	1 1 unit	113 0.070
Terminal covers for circuit breakers							
 NSE0_00731	Degree of protection IP30 for main circuit connections 1 set = 2 units						
3VL9 .00-3CB.0		Extended	3-pole	A	3VL9 300-8CA30	1 1 unit	113 0.204
		Standard	3-pole	A	3VL9 300-8CB30	1 1 unit	113 0.053
		Extended	4-pole	A	3VL9 300-8CA40	1 1 unit	113 0.264
3VL9 .00-8CE00		Standard	4-pole	A	3VL9 300-8CB40	1 1 unit	113 0.071
Phase barriers for circuit breakers, fixed-mounted, plug-in or withdrawable versions							
		1 set = 2 units		A	3VL9 300-8CE00	1 1 unit	113 0.023

¹⁾ Screw terminal connections are required for SENTRON VL160X and VL160 (3VL1 and 3VL2) circuit breakers, [see Technical Information LV 1 T, "Design", "Main Circuit Connections, Basic Equipment and Options"](#).

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Version	DT	For VL160 (3VL2) Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg		
Connection parts for fixed-mounted circuit breakers									
3- or 4-pole									
 NSE0_00702a 3VL9 .00-4EC40		Front connecting bars¹⁾ Phase barriers included. Standard							
		1 set = 3 units	3-pole	A	3VL9 216-4EC30	1	1 unit	113	0.198
		1 set = 4 units	4-pole	A	3VL9 216-4EC40	1	1 unit	113	0.198
 NSE0_00722 3VL9 .00-4ED40		For increased pole spacing							
		1 set = 3 units	3-pole	A	3VL9 216-4ED30	1	1 unit	113	0.189
		1 set = 4 units	4-pole	A	3VL9 216-4ED40	1	1 unit	113	0.252
Rear terminals									
 NSE0_00723 3VL9 .00-4RA00, 3VL9 .00-4RB00		Short terminal (1 unit)		A	3VL9 200-4RA00	1	1 unit	113	0.126
		Long terminal (1 unit)		A	3VL9 200-4RB00	1	1 unit	113	0.229
		Terminal kit (2 short + 1 long) 3-pole		A	3VL9 200-4RC30	1	1 unit	113	0.481
		Terminal kit (2 short + 2 long) 4-pole		A	3VL9 200-4RF40	1	1 unit	113	0.711
 NSE0_00724 3VL9 .00-4RK00, 3VL9 .00-4RL00		Short flat connector (1 unit)		A	3VL9 200-4RK00	1	1 unit	113	0.104
		Long flat connector (1 unit)		A	3VL9 200-4RL00	1	1 unit	113	0.200
		Flat connector kit (2 short + 1 long) 3-pole		A	3VL9 200-4RM30	1	1 unit	113	0.408
		Flat connector kit (2 short + 2 long) 4-pole		A	3VL9 200-4RN40	1	1 unit	113	0.608
		Flat connecting bar (1 unit)		--	--				
		Flat connecting bar		--	--				
		Set = 3 units, 3-pole		--	--				
		Flat connecting bar		--	--				
		Set = 4 units, 4-pole		--	--				
 NSE0_00725 3VL9 .00-4RG00		Box terminals Connection for flexible flat copper busbar or cable. see Technical Information LV 1 T "Design", "Main Circuit Connections, Basic Equipment and Options" .							
		1 set = 3 units		A	3VL9 200-4TC30	1	1 unit	113	0.084
		1 set = 4 units		A	3VL9 200-4TC40	1	1 unit	113	0.112
 NSE0_00700a 3VL9 .00-4TC.0		Circular conductor terminals Only for cables (Al or Cu) Aluminum terminal (tinned)							
		1 set = 3 units		A	3VL9 200-4TD30	1	1 unit	113	0.041
		1 set = 4 units		A	3VL9 200-4TD40	1	1 unit	113	0.055
 NSE0_01529 3VL9 .00-4TD.0		Multiple feed-in terminals							
		3 units		--	--				
		4 units		--	--				
 NSE0_01542 3VL9 .00-4TF.0		Auxiliary conductor terminals For box terminals/aluminum terminals 1 set = 10 units		A	3VL9 200-3TN00	1	1 unit	113	0.130
 NSE0_01543									
 NSE0_01530 3VL9 .00-4TT.0		Terminal plates¹⁾ Connection for flexible flat copper busbar with auxiliary conductor connection 0.5 – 4 mm ² (extended terminal covers or phase barriers required)							
		1 set = 3 units		--	--				
		1 set = 4 units		--	--				
 NSE0_00701a 3VL9 .00-4TA.0		Terminals with screw connection - metric thread With insulator (for rear) for use with busbars and cable lugs, see Technical Information LV 1 T, "Design", "Main Circuit Connections, Basic Equipment and Options" .							
		1 set = 3 units		A	3VL9 216-4TA30	1	1 unit	113	0.055
		1 set = 4 units		A	3VL9 216-4TA40	1	1 unit	113	0.070
 NSE0_00730 3VL9 .00-3CB.0		Terminal covers for circuit breakers Degree of protection IP30 for main circuit connections 1 set = 2 units							
		Extended	3-pole	A	3VL9 300-8CA30	1	1 unit	113	0.204
		Standard	3-pole	A	3VL9 300-8CB30	1	1 unit	113	0.053
		Extended	4-pole	A	3VL9 300-8CA40	1	1 unit	113	0.264
		Standard	4-pole	A	3VL9 300-8CB40	1	1 unit	113	0.071
 NSE0_00731 3VL9 .00-8CE00		Phase barriers for circuit breakers, fixed-mounted, plug-in or withdrawable versions							
		1 set = 2 units		A	3VL9 300-8CE00	1	1 unit	113	0.023

¹⁾ Screw terminal connections are required for SENTRON VL160X and VL160 (3VL1 and 3VL2) circuit breakers,
[see Technical Information LV 1 T, "Design", "Main Circuit Connections, Basic Equipment and Options"](#).

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

DT	For VL250 (3VL3)				DT	For VL400 (3VL4)							
	Order No.	Price per PU	PU (UNIT, SET, M)	Weight per PU approx. kg		Order No.	Price per PU	PU (UNIT, SET, M)	Weight per PU approx. kg				
A	3VL9 300-4EC30		1	1 unit	113	0.256	A	3VL9 400-4EC30		1	1 unit	113	0.889
A	3VL9 300-4EC40		1	1 unit	113	0.345	A	3VL9 400-4EC40		1	1 unit	113	1.193
A	3VL9 300-4ED30		1	1 unit	113	0.256	A	3VL9 400-4ED30		1	1 unit	113	0.916
A	3VL9 300-4ED40		1	1 unit	113	0.345	A	3VL9 400-4ED40		1	1 unit	113	1.229
A	3VL9 300-4RA00		1	1 unit	113	0.126	A	3VL9 400-4RA00		1	1 unit	113	0.219
A	3VL9 300-4RB00		1	1 unit	113	0.229	A	3VL9 400-4RB00		1	1 unit	113	0.377
A	3VL9 300-4RC30		1	1 unit	113	0.481	A	3VL9 400-4RC30		1	1 unit	113	0.816
A	3VL9 300-4RF40		1	1 unit	113	0.711	A	3VL9 400-4RF40		1	1 unit	113	1.192
A	3VL9 300-4RK00		1	1 unit	113	0.104	A	3VL9 400-4RK00		1	1 unit	113	0.343
A	3VL9 300-4RL00		1	1 unit	113	0.200	A	3VL9 400-4RL00		1	1 unit	113	0.502
A	3VL9 300-4RM30		1	1 unit	113	0.408	A	3VL9 400-4RM30		1	1 unit	113	1.190
A	3VL9 300-4RN40		1	1 unit	113	0.608	A	3VL9 400-4RN40		1	1 unit	113	1.690
--								--					
--								--					
--								--					
A	3VL9 300-4TC30		1	1 unit	113	0.192	A	3VL9 400-4TC30		1	1 unit	113	0.423
A	3VL9 300-4TC40		1	1 unit	113	0.256	A	3VL9 400-4TC40		1	1 unit	113	0.573
A	3VL9 300-4TD30		1	1 unit	113	0.159	A	3VL9 400-4TD30		1	1 unit	113	0.260
A	3VL9 300-4TD40		1	1 unit	113	0.212	A	3VL9 400-4TD40		1	1 unit	113	0.340
--							A	3VL9 400-4TF30		1	1 unit	113	0.420
--							A	3VL9 400-4TF40		1	1 unit	113	0.560
A	3VL9 300-3TN00		1	1 unit	113	0.150	A	3VL9 400-3TN00		1	1 unit	113	0.140
--								--					
--								--					
A	3VL9 300-4TA30		1	1 unit	113	0.090	A	3VL9 400-4TA30		1	1 unit	113	0.112
A	3VL9 300-4TA40		1	1 unit	113	0.120	A	3VL9 400-4TA40		1	1 unit	113	0.149
A	3VL9 300-8CA30		1	1 unit	113	0.204	A	3VL9 400-8CA30		1	1 unit	113	0.450
A	3VL9 300-8CB30		1	1 unit	113	0.053	A	3VL9 400-8CB30		1	1 unit	113	0.120
A	3VL9 300-8CA40		1	1 unit	113	0.264	A	3VL9 400-8CA40		1	1 unit	113	0.594
A	3VL9 300-8CB40		1	1 unit	113	0.071	A	3VL9 400-8CB40		1	1 unit	113	0.164
A	3VL9 300-8CE00		1	1 unit	113	0.023	A	3VL9 600-8CE00		1	1 unit	113	0.042

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Version	DT	For VL630 (3VL5) Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Connection parts for fixed-mounted circuit breakers							
3- or 4-pole							
Front connecting bars							
Phase barriers included.							
Standard							
 NSE0_00702a 3VL9 .00-4EC40							
					1	1 unit	113 1.028
					1	1 unit	113 1.371
 NSE0_00722 3VL9 .00-4ED40							
					1	1 unit	113 1.059
					1	1 unit	113 1.412
Rear terminals							
Short terminal (1 unit)							
					--		
Long terminal (1 unit)							
					--		
Terminal kit (2 short + 1 long) 3-pole							
					--		
Terminal kit (2 short + 2 long) 4-pole							
					--		
Short flat connector (1 unit)							
					--		
Long flat connector (1 unit)							
					--		
Flat connector kit (2 short + 1 long) 3-pole							
					--		
Flat connector kit (2 short + 2 long) 4-pole							
					--		
 NSE0_00723 3VL9 .00-4RA00, 3VL9 .00-4RB00							
					1	1 unit	113 0.358
 NSE0_00724 3VL9 .00-4RK00, 3VL9 .00-4RL00							
					1	1 unit	113 1.075
					1	1 unit	113 1.433
Multiple feed-in terminals							
Only for cables (Al or Cu)							
Aluminum terminal (tinned)							
 NSE0_00725 3VL9 .00-4RG00							
					1	1 unit	113 0.461
					1	1 unit	113 0.614
Auxiliary conductor terminals							
For box terminals/aluminum terminals							
					1	1 unit	113 0.140
1 set = 10 units							
Terminal plates¹⁾							
Connection for flexible flat copper busbar with auxiliary conductor connection 0.5 – 4 mm ² (extended terminal covers or phase barriers required)							
					1	1 unit	113 1.350
					1	1 unit	113 1.800
 NSE0_01542 3VL9 .00-4TF.0							
 NSE0_01543 3VL9 .00-4TF.0							
 NSE0_01544 3VL9 .00-4TG.0							
					1	1 unit	113 1.350
					1	1 unit	113 1.800
Terminals with screw connection - metric thread							
With insulator (for rear) for use with busbars and cable lugs, see Technical Information LV 1 T, "Design", "Main Circuit Connections, Basic Equipment and Options" .							
 NSE0_01530 3VL9 .00-4TT.0							
					1	1 unit	113 0.150
					1	1 unit	113 0.200
Terminal covers for circuit breakers							
Degree of protection IP30 for main circuit con- nections							
 NSE0_00701a 3VL9 .00-4TA.0							
					1	1 unit	113 0.696
					1	1 unit	113 0.210
					1	1 unit	113 0.960
					1	1 unit	113 0.270
 NSE0_00730 3VL9 .00-3CB.0							
					1	1 unit	113 0.270
 NSE0_00731 3VL9 .00-8CE00							
					1	1 unit	113 0.042

¹⁾ Front connecting bars included in scope of supply; not for 690 V AC/600 V DC.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

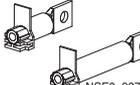
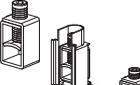
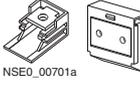
DT	For VL800 (3VL6)	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	DT	For VL1250 (3VL7)	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	
	Order No.					kg		Order No.					kg	
A	3VL9 600-4EC30			1	1 unit	113	1.602	A	3VL9 800-4EC30		1	1 unit	113	3.313
A	3VL9 600-4EC40			1	1 unit	113	2.136	A	3VL9 800-4EC40		1	1 unit	113	4.438
A	3VL9 600-4ED30			1	1 unit	113	1.613	--						
A	3VL9 600-4ED40			1	1 unit	113	2.154	--						
--								--						
--								--						
--								--						
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A	3VL9 600-4RG00			1	1 unit	113	1.604	A	3VL9 700-4RG00		1	1 unit	113	1.604
A	3VL9 600-4RH30			1	1 unit	113	4.812	A	3VL9 700-4RH30		1	1 unit	113	4.812
A	3VL9 600-4RH40			1	1 unit	113	6.416	A	3VL9 700-4RH40		1	1 unit	113	6.416
A	3VL9 600-4TG30			1	1 unit	113	0.918	A	3VL9 700-4TG30		1	1 unit	113	2.175
A	3VL9 600-4TG40			1	1 unit	113	1.224	A	3VL9 700-4TG40		1	1 unit	113	2.900
A	3VL9 400-3TN00			1	1 unit	113	0.140	A	3VL9 400-3TN00		1	1 unit	113	0.140
--								--						
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A	3VL9 600-4TA30			1	1 unit	113	0.289	A	3VL9 800-4TA30		1	1 unit	113	0.319
A	3VL9 600-4TA40			1	1 unit	113	0.386	A	3VL9 800-4TA40		1	1 unit	113	0.426
A	3VL9 600-8CA30			1	1 unit	113	0.696	A	3VL9 800-8CA30		1	1 unit	113	1.060
A	3VL9 600-8CB30			1	1 unit	113	0.210	A	3VL9 800-8CB30		1	1 unit	113	0.360
A	3VL9 600-8CA40			1	1 unit	113	0.960	A	3VL9 800-8CA40		1	1 unit	113	1.326
A	3VL9 600-8CB40			1	1 unit	113	0.270	A	3VL9 800-8CB40		1	1 unit	113	0.470
A	3VL9 600-8CE00			1	1 unit	113	0.042	A	3VL9 800-8CE00		1	1 unit	113	0.130

²⁾Plug-in version not for VL1250 (3VL7),
withdrawable version: Not for VL800 (3VL6) and VL1250 (3VL7).

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

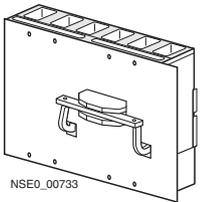
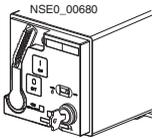
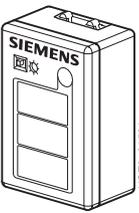
Version	DT	For VL1600 (3VL8) Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Connection parts for fixed-mounted circuit breakers							
3- or 4-pole							
Front connecting bars							
Phase barriers included.							
Standard							
 NSE0_00702a 3VL9 .00-4EC40	1 set = 3 units	3-pole	A	3VL9 800-4EC30	1	1 unit	113 3.313 ¹⁾
	1 set = 4 units	4-pole	A	3VL9 800-4EC40	1	1 unit	113 4.438 ¹⁾
 NSE0_00722 3VL9 .00-4ED40	For increased pole spacing						
	1 set = 3 units	3-pole		--			
	1 set = 4 units	4-pole		--			
Rear terminals							
 NSE0_00723 3VL9 .00-4RA00, 3VL9 .00-4RB00	Short terminal (1 unit)			--			
	Long terminal (1 unit)			--			
	Terminal kit (2 short + 1 long)	3-pole		--			
	Terminal kit (2 short + 2 long)	4-pole		--			
 NSE0_00724 3VL9 .00-4RK00, 3VL9 .00-4RL00	Short flat connector (1 unit)			--			
	Long flat connector (1 unit)			--			
	Flat connector kit (2 short + 1 long)	3-pole		--			
	Flat connector kit (2 short + 2 long)	4-pole		--			
 NSE0_00725 3VL9 .00-4RG00	Flat connecting bar (1 unit)		A	3VL9 800-4RG00	1	1 unit	113 1.527
	Flat connecting bar Set = 3 units, 3-pole		A	3VL9 800-4RH30	1	1 unit	113 4.581
	Flat connecting bar Set = 4 units, 4-pole		A	3VL9 800-4RH40	1	1 unit	113 6.108
Box terminals							
Connection for flexible flat copper busbar or cable, see Technical Information LV 1 T "Design", "Main Circuit Connections, Basic Equipment and Options" .							
 NSE0_00700a 3VL9 .00-4TC.0	1 set = 3 units			--			
	1 set = 4 units			--			
Multiple feed-in terminals							
Only for cables (Al or Cu)							
<u>Aluminum terminal (tinned)</u>							
 NSE0_01544 3VL9 .00-4TG.0	1 set = 3 units			--			
	1 set = 4 units			--			
Auxiliary conductor terminals							
For box terminals/aluminum terminals							
Terminals with screw connection - metric thread							
With insulator (for rear) for use with busbars and cable lugs, see Technical Information LV 1 T, "Design", "Main Circuit Connections, Basic Equipment and Options" .							
 NSE0_00701a 3VL9 .00-4TA.0	1 set = 3 units		A	3VL9 800-4TA30	1	1 unit	113 0.319
	1 set = 4 units		A	3VL9 800-4TA40	1	1 unit	113 0.426
Terminal covers for circuit breakers							
Degree of protection IP30 for main circuit connections							
 NSE0_00730 3VL9 .00-3CB.0	1 set = 2 units						
 NSE0_00731 3VL9 .00-8CE00	Extended	3-pole	A	3VL9 800-8CA30	1	1 unit	113 1.060
	Standard	3-pole	A	3VL9 800-8CB30	1	1 unit	113 0.360
	Extended	4-pole	A	3VL9 800-8CA40	1	1 unit	113 1.326
	Standard	4-pole	A	3VL9 800-8CB40	1	1 unit	113 0.470
Phase barriers for fixed-mounted circuit breakers							
	1 set = 2 units		A	3VL9 800-8CE00	1	1 unit	113 0.130

¹⁾ In scope of supply of circuit breaker.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

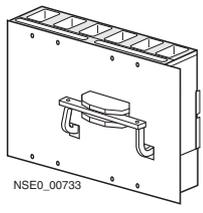
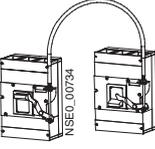
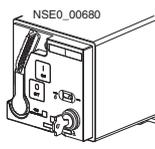
Version	DT	For VL160X (3VL1) Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Interlocks							
3- or 4-pole							
Locking devices for toggle levers							
For locking the circuit breaker in the "OFF" position. Up to 3 padlocks with Ø 5–8 mm can be used. Removable (padlocks not included)							
 NSE0_00732 3VL9 .00-3HL00	A	3VL9 300-3HL00		1	1 unit	113	0.052
Rear interlocking modules							
For the mechanical interlocking of two adjacent circuit breakers. The circuit breakers must be of the same installation type and size. (Mounting plate not included in scope of supply)							
Fixed-mounted circuit breakers							
 NSE0_00733 3VL9 .00-8L.00	A	3VL9 300-8LC00		1	1 unit	113	0.215
Plug-in/withdrawable circuit breakers							
	A	3VL9 300-8LD00		1	1 unit	113	0.223
Interlocking modules for Bowden wire interlocking¹⁾							
For the mechanical interlocking of two circuit breakers. Interlocking module for one circuit breaker							
	A	3VL9 300-8LA00		1	1 unit	113	0.174
Bowden wires for Bowden wire interlocking¹⁾							
Wire length 0.5 m							
	A	3VL9 000-8LH10		1	1 unit	113	0.206
Wire length 1.0 m							
	A	3VL9 000-8LH20		1	1 unit	113	0.298
Wire length 1.5 m							
	A	3VL9 000-8LH30		1	1 unit	113	0.412
Safety lock assembly kits							
Key can be removed with the circuit breaker in the "OFF" position							
For front-operated rotary operating mechanisms							
Lock types							
Ronis							
 NSE0_00680 3VL9 ...-8HA00	A	3VL9 715-8HA00		1	1 unit	113	0.309
For motorized operating mechanism with spring energy store							
Lock types							
Ronis							
	A	3VL9 321-8HA00		1	1 unit	113	0.053
Filli Giussani							
Sets of fixing screws (metric thread)							
Including the screws, washers and nuts required to secure a 3- or 4-pole circuit breaker to a prepared surface							
Set with 4 screws							
	A	3VL9 300-8SA40		1	1 unit	113	0.030
Transparent covers for releases, sealable							
To prevent access by unqualified personnel and unauthorized changes to settings (seal not included)							
Electronic release							
	--						
Thermal-magnetic							
 NSE0_01531a 3VL9 000-8AP00	A	3VL9 300-8BM00		1	1 unit	113	0.015
Battery power supplies for activating/parameterizing the LCD ETU release, with test function for all ETUs							
(two 9 V blocks are required in addition)							
	--						

¹⁾ Two interlocking modules and one Bowden wire are required. Cannot be used in conjunction with motorized operating mechanism.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Version	DT	For VL160 (3VL2) Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Interlocks							
<i>3- or 4-pole</i>							
 NSE0_00732 3VL9 .00-3HL00		Locking devices for toggle levers For locking the circuit breaker in the "OFF" position. Up to 3 padlocks with Ø 5–8 mm can be used. Removable (padlocks not included)	A	3VL9 300-3HL00	1	1 unit	113 0.052
 NSE0_00733 3VL9 .00-8L.00		Rear interlocking modules For the mechanical interlocking of two adjacent circuit breakers. The circuit breakers must be of the same installation type and size. (Mounting plate not included in scope of supply)	A	3VL9 300-8LC00	1	1 unit	113 0.215
		Fixed-mounted circuit breakers	A	3VL9 300-8LD00	1	1 unit	113 0.223
		Plug-in/withdrawable circuit breakers	A				
 NSE0_00734 3VL9 .00-8LA00		Interlocking modules for Bowden wire interlocking¹⁾ For the mechanical interlocking of two circuit breakers. Interlocking module for one circuit breaker	A	3VL9 300-8LA00	1	1 unit	113 0.174
 NSE0_00680 3VL9 ...-8HA00		Bowden wires for Bowden wire interlocking¹⁾ Wire length 0.5 m	A	3VL9 000-8LH10	1	1 unit	113 0.206
		Wire length 1.0 m	A	3VL9 000-8LH20	1	1 unit	113 0.298
		Wire length 1.5 m	A	3VL9 000-8LH30	1	1 unit	113 0.412
 NSE0_01531a 3VL9 000-8AP00		Safety lock assembly kits Key can be removed with the circuit breaker in the "OFF" position <u>For front-operated rotary operating mechanisms</u> Lock types Ronis	A	3VL9 715-8HA00	1	1 unit	113 0.309
		<u>For motorized operating mechanism with spring energy store</u> Lock types Ronis		--			
		Filli Giussani	A	3VL9 321-8HA00	1	1 unit	113 0.053
		Sets of fixing screws (metric thread) Including the screws, washers and nuts required to secure a 3- or 4-pole circuit breaker to a prepared surface Set with 4 screws	A	3VL9 300-8SA40	1	1 unit	113 0.030
		Transparent covers for releases, sealable To prevent access by unqualified personnel and unauthorized changes to settings (seal not included)					
		Electronic release	A	3VL9 700-8BL00	1	1 unit	113 0.002
		Thermal-magnetic	A	3VL9 300-8BM00	1	1 unit	113 0.015
		Battery power supplies for activating/parameterizing the LCD ETU release, with test function for all ETUs (two 9 V blocks are required in addition)	A	3VL9 000-8AP00	1	1 unit	113 0.605

¹⁾ Two interlocking modules and one Bowden wire are required. Cannot be used in conjunction with motorized operating mechanism.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

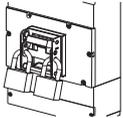
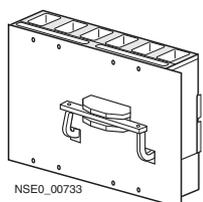
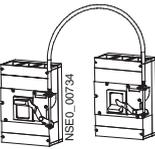
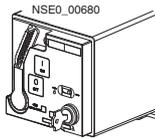
DT	For VL250 (3VL3) Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg	DT	For VL400 (3VL4) Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
A	3VL9 300-3HL00		1	1 unit	113	0.052	A	3VL9 400-3HL00		1	1 unit	113	0.122
A	3VL9 300-8LC00		1	1 unit	113	0.215	A	3VL9 400-8LC00		1	1 unit	113	0.386
A	3VL9 300-8LD00		1	1 unit	113	0.223	A	3VL9 400-8LD00		1	1 unit	113	0.436
A	3VL9 300-8LA00		1	1 unit	113	0.174	A	3VL9 400-8LA00		1	1 unit	113	0.196
A	3VL9 000-8LH10		1	1 unit	113	0.206	--						
A	3VL9 000-8LH20		1	1 unit	113	0.298	A	3VL9 000-8LH20		1	1 unit	113	0.298
A	3VL9 000-8LH30		1	1 unit	113	0.412	A	3VL9 000-8LH30		1	1 unit	113	0.412
A	3VL9 715-8HA00		1	1 unit	113	0.309	A	3VL9 715-8HA00		1	1 unit	113	0.309
A	-- 3VL9 321-8HA00		1	1 unit	113	0.053	A	3VL9 715-8HA00 --		1	1 unit	113	0.309
A	3VL9 300-8SA40		1	1 unit	113	0.030	A	3VL9 500-8SA40		1	1 unit	113	0.090
A	3VL9 700-8BL00		1	1 unit	113	0.002	A	3VL9 700-8BL00		1	1 unit	113	0.002
A	3VL9 300-8BM00		1	1 unit	113	0.015	A	3VL9 400-8BM00		1	1 unit	113	0.017
A	3VL9 000-8AP00		1	1 unit	113	0.605	A	3VL9 000-8AP00		1	1 unit	113	0.605

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Version	DT	For VL630 (3VL5) Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Interlocks							
<i>3- or 4-pole</i>							
 NSE0_00732		Locking devices for toggle levers For locking the circuit breaker in the "OFF" position. Up to 3 padlocks with Ø 5–8 mm can be used. Removable (padlocks not included)	A	3VL9 600-3HL00	1	1 unit	113 0.130
3VL9 .00-3HL00		Rear interlocking modules For the mechanical interlocking of two adjacent circuit breakers. The circuit breakers must be of the same installation type and size. (Mounting plate not included in scope of supply)	A	3VL9 600-8LC00	1	1 unit	113 1.499
 NSE0_00733		Fixed-mounted circuit breakers	A	3VL9 600-8LD00	1	1 unit	113 5.076
		Plug-in/withdrawable circuit breakers	A				
3VL9 .00-8L.00		Interlocking modules for Bowden wire interlocking¹⁾ For the mechanical interlocking of two circuit breakers. Interlocking module for one circuit breaker	A	3VL9 600-8LA00	1	1 unit	113 0.244
 NSE0_00734		Bowden wires for Bowden wire interlocking¹⁾ Wire length 0.5 m		--			
		Wire length 1.0 m	A	3VL9 000-8LH20	1	1 unit	113 0.298
3VL9 .00-8LA00		Wire length 1.5 m	A	3VL9 000-8LH30	1	1 unit	113 0.412
		Safety lock assembly kits Key can be removed with the circuit breaker in the "OFF" position <u>For front-operated rotary operating mechanisms</u> Lock types					
		Ronis	A	3VL9 715-8HA00	1	1 unit	113 0.309
		<u>For motorized operating mechanism with spring energy store</u> Lock types					
		Ronis	A	3VL9 715-8HA00	1	1 unit	113 0.309
		Filli Giussani		--			
 NSE0_00680		Sets of fixing screws (metric thread) Including the screws, washers and nuts required to secure a 3- or 4-pole circuit breaker to a prepared surface					
3VL9 ...-8HA00		Set with 4 screws	A	3VL9 500-8SA40	1	1 unit	113 0.090
		Transparent covers for releases, sealable To prevent access by unqualified personnel and unauthorized changes to settings (seal not included)					
		Electronic release	A	3VL9 700-8BL00	1	1 unit	113 0.002
		Thermal-magnetic	A	3VL9 600-8BM00	1	1 unit	113 0.019
 NSE0_01631a		Battery power supplies for activating/parameterizing the LCD ETU release, with test function for all ETUs (two 9 V blocks are required in addition)	A	3VL9 000-8AP00	1	1 unit	113 0.605
3VL9 000-8AP00							

¹⁾ Two interlocking modules and one Bowden wire are required.
Cannot be used in conjunction with motorized operating mechanism.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

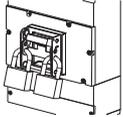
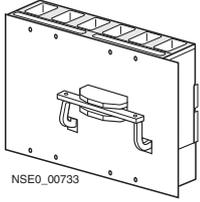
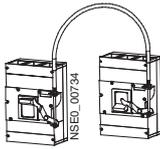
DT	For VL800 (3VL6)	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.	DT	For VL1250 (3VL7)	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
	Order No.				kg		Order No.				kg
	Price per PU						Price per PU				
A	3VL9 600-3HL00	1	1 unit	113	0.130	A	3VL9 800-3HL00	1	1 unit	113	0.238
A	3VL9 600-8LC00	1	1 unit	113	1.499	A	3VL9 800-8LC00	1	1 unit	113	2.935
A	3VL9 600-8LD00	1	1 unit	113	5.076	A	3VL9 800-8LD00	1	1 unit	113	3.825
A	3VL9 600-8LA00	1	1 unit	113	0.244	A	3VL9 800-8LA00	1	1 unit	113	0.283
A	-- 3VL9 000-8LH20	1	1 unit	113	0.298	A	-- 3VL9 000-8LH30	1	1 unit	113	0.412
A	3VL9 715-8HA00	1	1 unit	113	0.309	A	3VL9 715-8HA00	1	1 unit	113	0.309
A	3VL9 715-8HA00	1	1 unit	113	0.309	A	3VL9 715-8HA00	1	1 unit	113	0.309
A	3VL9 600-8SA40	1	1 unit	113	0.090	A	3VL9 800-8SA40	1	1 unit	113	0.090
A	3VL9 700-8BL00	1	1 unit	113	0.002	A	3VL9 700-8BL00	1	1 unit	113	0.002
A	3VL9 000-8AP00	1	1 unit	113	0.605	A	3VL9 000-8AP00	1	1 unit	113	0.605

* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

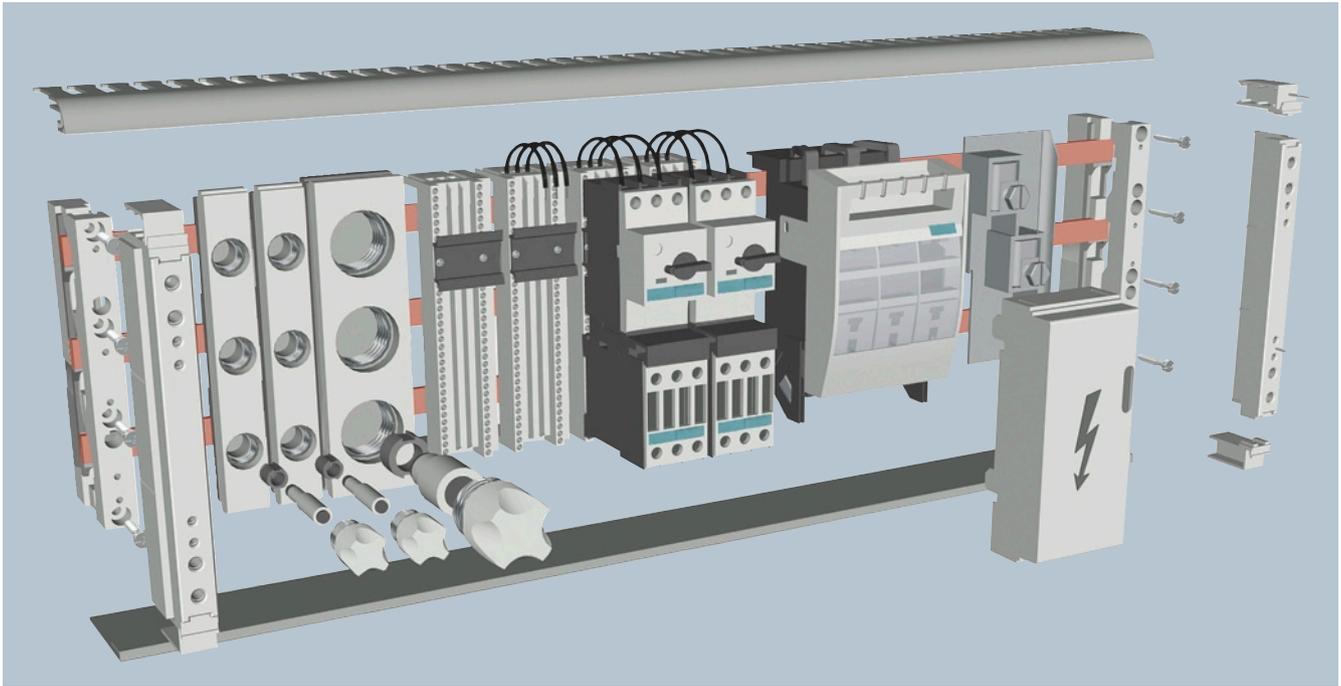
Version	DT	For VL1600 (3VL8) Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Interlocks							
<i>3- or 4-pole</i>							
Locking devices for toggle levers							
For locking the circuit breaker in the "OFF" position. Up to 3 padlocks with Ø 5–8 mm can be used. Removable (padlocks not included)							
 NSE0_00732 3VL9 .00-3HL00	A	3VL9 800-3HL00		1	1 unit	113	0.238
Rear interlocking modules							
For the mechanical interlocking of two adjacent circuit breakers. The circuit breakers must be of the same installation type and size.							
Fixed-mounted circuit breakers							
 NSE0_00733 3VL9 .00-8L.00	A	3VL9 800-8LC00		1	1 unit	113	2.935
Plug-in/withdrawable circuit breakers							
	A	3VL9 800-8LD00		1	1 unit	113	3.825
Interlocking modules for Bowden wire interlocking¹⁾							
For the mechanical interlocking of two circuit breakers. Interlocking module for one circuit breaker							
	A	3VL9 800-8LA00		1	1 unit	113	0.283
Bowden wires for Bowden wire interlocking¹⁾							
Wire length 0.5 m							
	--						
Wire length 1.0 m							
	--						
Wire length 1.5 m							
 NSE0_00734 3VL9 .00-8LA00	A	3VL9 000-8LH30		1	1 unit	113	0.412
Safety lock assembly kits							
Key can be removed with the circuit breaker in the "OFF" position							
For front-operated rotary operating mechanisms							
Lock types							
Ronis							
	A	3VL9 715-8HA00		1	1 unit	113	0.309
For motorized operating mechanisms							
Lock types							
Ronis							
	A	3VL9 715-8HA00		1	1 unit	113	0.309
Filli Giussani							
	--						
Sets of fixing screws (metric thread)							
Including the screws, washers and nuts required to secure a 3- or 4-pole circuit breaker to a prepared surface							
Set with 4 screws							
	A	3VL9 800-8SA40		1	1 unit	113	0.090
Transparent covers for releases, sealable							
To prevent access by unqualified personnel and unauthorized changes to settings (seal not included)							
Electronic release							
	A	3VL9 700-8BL00		1	1 unit	113	0.002
Thermal-magnetic							
	--						
Battery power supplies for activating/parameterizing the LCD ETU release, with test function for all ETUs							
(two 9 V blocks are required in addition)							
 NSE0_015318 3VL9 000-8AP00	A	3VL9 000-8AP00		1	1 unit	113	0.605

¹⁾ Two interlocking modules and one Bowden wire are required. Cannot be used in conjunction with motorized operating mechanism.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts



Busbar adapter systems with 40 mm or 60 mm busbar center-to-center spacing with components for busbar runs, adapters and switching device holders for individual equipment possibilities, devices with an integrated adapter, as well as accessories and flat copper profiles. Observe the short-circuit strength of the busbar system. Short-circuit strength greater than 50 kA on request.

See also "SIVACON Power Distribution Boards, Busway and Cubicle Systems", "Components for 8US Distribution Systems".

Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
40 mm busbar adapter systems							
<i>According to DIN 43870 Part 2 for copper busbars with sharp (DIN 1759) and with rounded (DIN 46433) edges, width 12 mm and 15 mm, thickness 5 mm and 10 mm.</i>							
<i>Up to 160 A</i>							
Busbar adapters , length 175 mm							
With plug connection tags at top, 3-pole							
With terminal cover (degree of protection IP10) ¹⁾							
For one VL160X (3VL1) circuit breaker ²⁾							
108 mm wide							
A		8US10 11-4SL01		1	1 unit	143	0.585

¹⁾ For degree of protection IP30, the terminal covers on pages 16/69 to 16/74 should be ordered.

²⁾ Usable only for 3VL circuit breakers with line-side box terminals.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg	
60 mm busbar adapter systems								
<i>For copper busbars with sharp (DIN 1759) and with rounded (DIN 46433) edges, width 12 mm to 30 mm, thickness 5 mm and 10 mm, also for T and I special profiles</i>								
 <p>8US12 11-4SL01</p>		Up to 160 A						
		Busbar adapters , length 175 mm With plug connection tags at top, 3-pole With terminal cover (degree of protection IP10) ¹⁾ For one VL160X/VL160 (3VL1, 3VL2) 108 mm wide A circuit breaker ²⁾		8US12 11-4SL01	1	1 unit	143 0.597	
		Up to 250 A						
		Busbar adapters , length 175 mm With plug connection tags at top, 3-pole With terminal cover (degree of protection IP10) ¹⁾ For one VL250 (3VL3) circuit breaker 108 mm wide A		8US12 11-4SL00	1	1 unit	143 0.662	
 <p>8US12 10-4AF00</p>		Up to 400 A						
		Busbar adapters , length 320 mm With threaded inserts M4, M6 and M8 For various types of switching devices, 3-pole Without connecting cables, with M10 terminal screws at top and bottom ¹⁾ Adapters 185 mm wide A		8US12 10-4AF00	1	1 unit	143 2.769	
		Mounting plates for 8US12 10-4AF00 For VL400 circuit breakers (3VL4) (also for VL160X+RCD, VL160, VL250 circuit breakers (3VL1 + RCD, 3VL2, 3VL3))		A	8US19 27-4AF01	1	1 unit	143 0.575
		For VL630 (3VL5) circuit breakers ($I_{n \max} = 580 \text{ V}$) The connecting cable between adapter and switching device should be manufactured in accordance with the rated current as a round cable, e.g. H07V-R, with a cable lug or as a flat conductor for bolt terminal M10 (adapter).		A	8US12 13-4AF00	1	1 unit	143 2.880

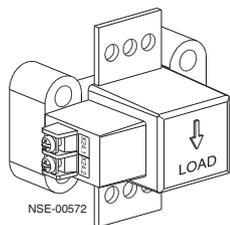
¹⁾ For degree of protection IP30, the terminal covers on pages 16/69 to 16/74 should be ordered.

²⁾ Usable only for 3VL circuit breakers with line-side box terminals.

Type	Rated current I_n	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
	A							

Further accessories

Current transformers (-T6) for N conductor/grounded neutral point of the transformer for ground-fault protection in 4-wire three-phase systems¹⁾



VL160/3VL2	63, 80	A	3VL9 280-8TC00		1	1 unit	113	0.500
	100	A	3VL9 210-8TC00		1	1 unit	113	0.450
	160	A	3VL9 216-8TC00		1	1 unit	113	0.485
VL250/3VL3	200	A	3VL9 320-8TC00		1	1 unit	113	0.445
	250	A	3VL9 325-8TC00		1	1 unit	113	0.493
VL400/3VL4	315	A	3VL9 440-8TC00		1	1 unit	113	0.493
	400	A	3VL9 440-8TC00		1	1 unit	113	0.493
VL630/3VL5	630	A	3VL9 563-8TC00		1	1 unit	113	0.760
VL800/3VL6	800	A	3VL9 680-8TC00		1	1 unit	113	0.778
VL1250/3VL7	1000	A	3VL9 712-8TC00		1	1 unit	113	2.080
	1250	A	3VL9 712-8TC00		1	1 unit	113	2.080
VL1600/3VL8	1600	A	3VL9 816-8TC00		1	1 unit	113	2.110

¹⁾ Please note the rated current of the circuit breaker.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

General criteria for the selection of current transformers for measurement purposes



4NC53 current transformers

Standards	EN 60044-1 (VDE 0414-44-1)
Window-type current transformers	The conductor to be measured (busbar or cable) is passed through the window opening and constitutes the primary circuit of the window-type current transformer. Pin-wound transformers: An economical solution especially for small primary currents of 5 A to 75 A is achieved when the conductor to be measured is pin-wound several times.
Rated primary current I_{pn}	Current transformers can be continuously loaded with 1.3 times the rated primary current (I_{pn}).
Rated secondary current I_{sn} 1 A 5 A	Particularly suitable for longer measuring leads. Cable losses of only 4% in contrast to 5 A current transformers. 5 A current transformers generate 25 times the power losses on measuring leads as compared with 1 A current transformers. These stray losses result in higher power in the case of long cables. Only recommended for use with short measuring leads.
Accuracy class Class 1 Class 3	Operation measurement, internal metering Current error $\pm 1\%$ at $1 \times I_{pn}$ and $1.2 \times I_{pn}$ Coarse measurement Current error $\pm 3\%$ at $0.5 \times I_{pn}$ and $1.2 \times I_{pn}$
Rated power P_n	The rated power of transformers is specified in VA. The actual load rating should be similar to the rated power; a lower actual load rating (underburden) increases the overcurrent factor and measuring devices may be damaged in case of a short-circuit, a higher actual load rating (overburden) has a negative effect on the accuracy. With a frequency of 60 Hz the rated power increases to 1.2 times. With $16^{2/3}$ Hz the output power decreases to $1/3$ of the rated power.
Maximum voltage for equipment U_m	This is the rms value of the maximum voltage between the conductors of a system. For this voltage the insulation must be rated at normal operating conditions. 4NC5 current transformers are suitable for 720 V.
Overcurrent limiting factor FS	The overcurrent limiting factor is expressed using the characters FS and a factor, e.g. FS5 or FS10. When a short-circuit current flows through the primary winding of a current transformer, the load on the measuring devices connected to the current transformer is the lower the smaller the overcurrent limiting factor is.
Rated short-time thermal current I_{th}	The rated short-time thermal current I_{th} is the rms value of the primary current with a duration of one second, whose heat effect the current transformer can resist without being damaged in the event of a short-circuited secondary winding.
Rated impulse current I_{dyn}	The rated impulse current I_{dyn} is the highest instantaneous value of the current after a short-circuit whose force the current transformer can resist without being damaged. The rated impulse current is specified as peak value.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

4NC current transformers for measuring purposes

Rated primary current I_{pn}	Rating P_n	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
A	VA							kg
Classes 1 and 3, from 50 A to 1500 A								
Rated secondary current 1 A								
Class 3								
<ul style="list-style-type: none"> For circular conductors with max. diameter 17.5 mm For busbars up to max. 12 mm × 10 mm 								
50	2.5	A	4NC51 12-0BC20		1	1 unit	103	0.428
60	2.5	A	4NC51 13-0BC20		1	1 unit	103	0.432
75	2.5	A	4NC51 15-0BC20		1	1 unit	103	0.425
Class 1								
<ul style="list-style-type: none"> For circular conductors with max. diameter 17.5 mm For 1 busbar up to max. 12 mm × 10 mm 								
100	2.5	A	4NC51 17-0CC20		1	1 unit	103	0.335
150	2.5	A	4NC51 21-0CC20		1	1 unit	103	0.327
200	5	A	4NC51 22-0CE20		1	1 unit	103	0.356
250	5	A	4NC51 23-0CE20		1	1 unit	103	0.352
<ul style="list-style-type: none"> For circular conductors with max. diameter 28 mm For 1 busbar up to max. 30 mm × 10 mm For 2 busbars up to max. 25 mm × 5 mm 								
200	5	A	4NC52 22-0CE20		1	1 unit	103	0.464
250	5	A	4NC52 23-0CE20		1	1 unit	103	0.477
300	5	A	4NC52 24-0CE20		1	1 unit	103	0.363
400	5	A	4NC52 25-0CE20		1	1 unit	103	0.373
<ul style="list-style-type: none"> For circular conductors with max. diameter 36 mm For 1 busbar up to max. 50 mm × 10 mm For 2 busbars up to max. 40 mm × 5 mm 								
400	5	A	4NC53 25-0CE20		1	1 unit	103	0.469
500	5	A	4NC53 26-0CE20		1	1 unit	103	0.410
600	5	A	4NC53 27-0CE20		1	1 unit	103	0.424
750	5	A	4NC53 28-0CE20		1	1 unit	103	0.391
<ul style="list-style-type: none"> For circular conductors with max. diameter 45 mm For 1 busbar up to max. 60 mm × 10 mm For 2 busbars up to max. 60 mm × 10 mm For 3 busbars up to max. 60 mm × 5 mm 								
1000	10	A	4NC54 31-0CH20		1	1 unit	103	0.644
1250	10	A	4NC54 33-0CH20		1	1 unit	103	0.667
1500	10	A	4NC54 34-0CH20		1	1 unit	103	0.713



4NC51 12-0BC20



4NC51 17-0CC20



4NC52 22-0CE20



4NC53 25-0CE20



4NC54 31-0CH20

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Rated primary current I_{pn}	Rating P_n	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
A	VA							kg
Rated secondary current 5 A								
Class 3								
<ul style="list-style-type: none"> For circular conductors with max. diameter 17.5 mm For 1 busbar up to max. 12 mm × 10 mm 								
50	2.5	A	4NC51 12-2BC20		1	1 unit	103	0.426
60	2.5	A	4NC51 13-2BC20		1	1 unit	103	0.430
75	2.5	A	4NC51 15-2BC20		1	1 unit	103	0.431
Class 1								
<ul style="list-style-type: none"> For circular conductors with max. diameter 17.5 mm For 1 busbar up to max. 12 mm × 10 mm 								
100	2.5	A	4NC51 17-2CC20		1	1 unit	103	0.340
150	2.5	A	4NC51 21-2CC20		1	1 unit	103	0.327
200	5	A	4NC51 22-2CE20		1	1 unit	103	0.339
250	5	A	4NC51 23-2CE20		1	1 unit	103	0.345
<ul style="list-style-type: none"> For circular conductors with max. diameter 28 mm For 1 busbar up to max. 30 mm × 10 mm For 2 busbars up to max. 25 mm × 5 mm 								
200	5	A	4NC52 22-2CE20		1	1 unit	103	0.467
250	5	A	4NC52 23-2CE20		1	1 unit	103	0.474
300	5	A	4NC52 24-2CE20		1	1 unit	103	0.356
400	5	A	4NC52 25-2CE20		1	1 unit	103	0.379
<ul style="list-style-type: none"> For circular conductors with max. diameter 36 mm For 1 busbar up to max. 50 mm × 10 mm For 2 busbars up to max. 40 mm × 5 mm 								
400	5	A	4NC53 25-2CE20		1	1 unit	103	0.452
500	5	A	4NC53 26-2CE20		1	1 unit	103	0.406
600	5	A	4NC53 27-2CE20		1	1 unit	103	0.425
750	5	A	4NC53 28-2CE20		1	1 unit	103	0.379
<ul style="list-style-type: none"> For circular conductors with max. diameter 45 mm For 1 busbar up to max. 60 mm × 10 mm For 2 busbars up to max. 60 mm × 10 mm For 3 busbars up to max. 60 mm × 5 mm 								
1000	10	A	4NC54 31-2CH20		1	1 unit	103	0.660
1250	10	A	4NC54 33-2CH20		1	1 unit	103	0.631
1500	10	A	4NC54 34-2CH20		1	1 unit	103	0.669

4NC51 window-type current transformers, used as pin-wound transformers, Classes 1 and 3, from 5 A to 75 A

Pin-winding increases the primary current of the current transformer. Consequently, window-type current transformers can also be used for low primary currents.

Basic type		4NC51 12	4NC51 13	4NC51 15	4NC51 17	4NC51 21	4NC51 22	4NC51 23	
Rated primary current	A	50	60	75	100	150	200	250	
Rating	VA	2.5	2.5	2.5	2.5	2.5	5	5	
Primary current to be measured	Number of required pin windings								
	Class 3				Class 1				
	5	10	--	--	--	--	--	--	
	10	5	6	--	10	--	--	--	
	15	--	4	5	--	10	--	--	
	20	--	3	--	5	--	10	--	
	25	2	--	3	4	6	8	8	
	30	--	2	--	--	5	--	--	
	40	--	--	--	--	--	5	--	
	50	--	--	--	2	3	4	5	
75	--	--	--	--	2	--	--		



4NC51 used as pin-wound transformer

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Version	DT	For VL160X (3VL1)	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		Order No.	Price per PU			kg

Further accessories

3- or 4-pole

Masking frames (cover frames) For door cut-outs



A IP40	Fixed-mounted or plug-in circuit breaker	A	3VL9 300-8BC00	1	1 unit	113	0.038
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B¹⁾ IP40	Fixed-mounted, plug-in or withdrawable circuit breaker with front-operated rotary operating mechanism or motorized operating mechanism	A	3VL9 300-8BG00	1	1 unit	113	0.099
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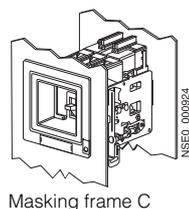
C IP20	Withdrawable circuit breaker with toggle lever actuation. Assembly kit contains masking frame and extended escutcheon (cannot be used together with a motorized operating mechanism/rotary operating mechanism)	--					
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D IP40	Fixed-mounted circuit breaker or plug-in circuit breaker	A	3VL9 300-8BD00	1	1 unit	113	0.034
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	RCD circuit breaker masking frame	A	3VL9 300-8BD00	1	1 unit	113	0.034
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E¹⁾ IP40	Circuit breaker with RCD module and front-operated rotary operating mechanism Assembly kit contains masking frame and extended escutcheon	--					
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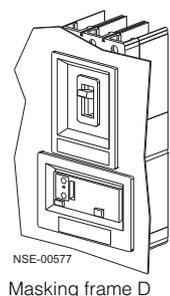
	Circuit breaker with RCD module and motorized operating mechanism Assembly kit contains masking frame and extended escutcheon	--					
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Version	DT	For VL400 (3VL4)	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
		Order No.	Price per PU			

Further accessories

3- or 4-pole

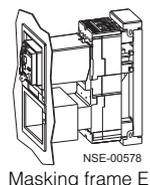
Masking frames (cover frames) For door cut-outs



A IP40	Fixed-mounted or plug-in circuit breaker	A	3VL9 400-8BC00	1	1 unit	113	0.027
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B¹⁾ IP40	Fixed-mounted, plug-in or withdrawable circuit breaker with front-operated rotary operating mechanism or motorized operating mechanism	A	3VL9 400-8BG00	1	1 unit	113	0.149
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C IP20	Withdrawable circuit breaker with toggle lever actuation. Assembly kit contains masking frame and extended escutcheon (cannot be used together with a motorized operating mechanism/rotary operating mechanism)	A	3VL9 400-8BH00	1	1 unit	113	0.426
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D IP40	Fixed-mounted circuit breaker or plug-in circuit breaker	A	3VL9 400-8BC00	1	1 unit	113	0.027
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	RCD circuit breaker masking frame	A	3VL9 400-8BC00	1	1 unit	113	0.027
	RCD masking frame	A	3VL9 400-8BD00	1	1 unit	113	0.047

E¹⁾ IP40	Circuit breaker with RCD module and front-operated rotary operating mechanism Assembly kit contains masking frame and extended escutcheon	A	3VL9 400-8BH00	1	1 unit	113	0.426
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	Circuit breaker with RCD module and motorized operating mechanism Assembly kit contains masking frame and extended escutcheon	A	3VL9 400-8BJ00	1	1 unit	113	0.395
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¹⁾ For withdrawable version IP20.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

DT	For VL160 (3VL2)	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg	DT	For VL250 (3VL3)	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
A	3VL9 300-8BC00		1	1 unit	113	0.038	A	3VL9 300-8BC00		1	1 unit	113	0.038
A	3VL9 300-8BG00		1	1 unit	113	0.099	A	3VL9 300-8BG00		1	1 unit	113	0.099
A	3VL9 300-8BH00		1	1 unit	113	0.267	A	3VL9 300-8BH00		1	1 unit	113	0.267
A	3VL9 300-8BD00		1	1 unit	113	0.034	A	3VL9 300-8BD00		1	1 unit	113	0.034
A	3VL9 300-8BD00		1	1 unit	113	0.034	A	3VL9 300-8BD00		1	1 unit	113	0.034
A	3VL9 300-8BH00		1	1 unit	113	0.267	A	3VL9 300-8BH00		1	1 unit	113	0.267
A	3VL9 300-8BJ00		1	1 unit	113	0.230	A	3VL9 300-8BJ00		1	1 unit	113	0.230
DT	For VL630 (3VL5)	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg	DT	For VL800 (3VL6)	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
A	3VL9 600-8BC00		1	1 unit	113	0.055	A	3VL9 600-8BC00		1	1 unit	113	0.055
A	3VL9 600-8BG00		1	1 unit	113	0.177	A	3VL9 600-8BG00		1	1 unit	113	0.177
A	3VL9 600-8BH00		1	1 unit	113	0.575	A	3VL9 600-8BH00		1	1 unit	113	0.575
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* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

Version	DT	For VL1250 (3VL7) Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
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Further accessories

3- or 4-pole

Masking frames (cover frames) For door cut-outs



A Fixed-mounted or plug-in
IP40 circuit breaker

A

3VL9 800-8BC00

1 1 unit 113 0.043

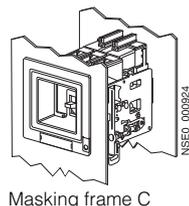


B¹⁾ Fixed-mounted, plug-in or withdrawable
IP40 circuit breaker with front-operated rotary
operating mechanism or motorized operat-
ing mechanism

A

3VL9 800-8BG00

1 1 unit 113 0.192

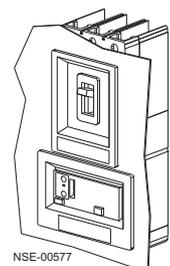


C Withdrawable circuit breaker with toggle
IP20 lever actuation. Assembly kit contains
masking frame and extended escutcheon
(cannot be used together with a motorized
operating mechanism/rotary operating
mechanism)

A

3VL9 800-8BH00

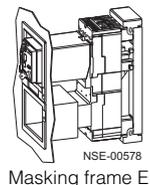
1 1 unit 113 0.531



D Fixed-mounted circuit breaker or
IP40 plug-in circuit breaker
RCD circuit breaker masking frame
RCD masking frame

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E¹⁾ Circuit breaker with
IP40 RCD module and
front-operated rotary operating mechanism
Assembly kit contains
masking frame and extended escutcheon

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Circuit breaker with
RCD module and
motorized operating mechanism
Assembly kit contains
masking frame and extended escutcheon

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¹⁾ For withdrawable version IP20.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

DT	For VL1600 (3VL8) Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
A	3VL9 800-8BC00		1	1 unit	113	0.043
A	3VL9 800-8BG00		1	1 unit	113	0.192
A	3VL9 800-8BH00		1	1 unit	113	0.531
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* You can order this quantity or a multiple thereof.

3VL Molded Case Circuit Breakers

3VL Molded Case Circuit Breakers up to 1600 A

Accessories and spare parts

For type	Version	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Accessories for communication								
<i>3- or 4-pole</i>								
<i>Data transmission through COM10, COM20, COM21</i>								
VL160 (3VL2) to VL1600 (3VL8)								
COM20 (PROFIBUS module for SENTRON 3VL) for ETU release with communication function								
		A	3VL9 000-8AU00		1	1 unit	113	1.038
Module for connecting the SENTRON 3VL to the PROFIBUS DP, including switching function and Zone Selective Interlocking functionality, connection cable to ETU included in delivery of the ETU, length 2 m.								
COM21 (MODBUS module for SENTRON 3VL) for ETU release with communication function								
		B	3VL9 000-8AV00		1	1 unit	113	1.038
Module for connecting the SENTRON 3VL to the MODBUS DP, including switching function and Zone Selective Interlocking functionality, connection cable to ETU included in delivery of the ETU, length 2 m.								
COM10 (PROFIBUS module for SENTRON 3VL) for LCD ETU release (ETU40 und ETU42)								
		A	3VL9 000-8AR00		1	1 unit	113	1.038
Module for connecting the SENTRON 3VL to the PROFIBUS DP, including switching function and Zone Selective Interlocking functionality, including connection cable to LCD ETU.								
Connection cables ETU – COM20/COM21								
For VL400 ... VL 630, length 3 m		A	3VL9 000-8AQ61		1	1 unit	113	0.210
For VL800 ... VL1600, length 3 m		A	3VL9 000-8AQ71		1	1 unit	113	0.210
For VL160 ... VL250, length 3 m		A	3VL9 000-8AQ81		1	1 unit	113	0.210
Breaker Data Adapter (BDA)¹⁾								
		B	3WL9 111-0AT28-0AA0		1	1 unit	103	0.900
Parameterization, operation, monitoring and diagnostics of SENTRON circuit breakers using the local interface; Breaker Data Adapter, connection cable to the SENTRON 3WL circuit breaker and to the programming device (e.g. notebook); can be run with Internet Explorer with JAVA2 VM 1.4.0-01 and higher								
BDA Plus¹⁾								
		B	3WL9 111-0AT33-0AA0		1	1 unit	103	1.200
Same as BDA, but with additional Ethernet interface for connection to Ethernet/ Intranet/Internet								
Connection cables for BDA and BDA Plus								
		C	3WL9 111-0BC20-0AA0		1	1 unit	103	0.200
Connection cables for connection of BDA and BDA Plus to LCD ETU release of the SENTRON 3VL circuit breaker; length 1 m								
Addressing plugs								
		A	3UF7 910-0AA00-0		1	1 unit	131	0.030
For assigning the PROFIBUS addresses without using a PC or programming device. On SIMOCODE pro through the system interface								
Switch ES Power parameterization software								
		A	3ZS2 311-0CC10-0YA0		1	1 unit	133	0.200
Calibration, operation, monitoring, and diagnostics of SENTRON circuit breakers via PROFIBUS DP; runs under Windows 95, Windows 98, Windows NT, Windows 2000 and Windows XP Professional, requires additional PROFIBUS card e.g. CP5613								

¹⁾ A 24 V DC power supply unit is required.

Communication:

- For molded case circuit breakers with communication function see pages 16/14, 16/15, 16/18, 16/19, 16/26, 16/34, 16/35, 16/38, 16/39, 16/46.
- For more information see also the chapter "Power Management System" and "Software for Power Distribution".

More information

Manuals for the SENTRON 3VL circuit breakers

This manual contains additional technical information, covering a product description, mode of operation, electrical wiring system and retrofitting.

The manual and operating instructions are available in PDF format at:

<http://www.siemens.com/lowvoltage/manuals>

SENTRON manuals for communication solutions

Free download from
<http://www.siemens.com/lowvoltage/manuals>

See also chapter "SENTRON Switching and Protection Devices - Air Circuit Breakers", "3WL Air Circuit Breakers", "3WL Air Circuit Breakers/Non-Automatic Air Circuit Breakers up to 6300 A (AC)", "Accessories and Spare Parts".

3VF2 Molded Case Circuit Breakers

3VF2 Molded Case Circuit Breakers up to 100 A

3-pole, fixed-mounted versions

Selection and ordering data



Making/breaking capacity class A

Rated ultimate short-circuit breaking capacity I_{cu}	Up to 240 V	kA	65
	Up to 415 V	kA	18
Rated service short-circuit breaking capacity I_{cs}	Up to 240 V	kA	33
	Up to 415 V	kA	9
Rated short-circuit making capacity I_{cm}	Up to 240 V	kA	143
	Up to 415 V	kA	36

Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_r	Operating current of instantaneous short-circuit release "I" I_i	DT	VF100 circuit breakers Making/breaking capacity class A	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
A	A	A		Order No.	Price per PU			kg

3VF2 circuit breakers, up to 18 kA

System protection, TM

With permanently set thermal overload releases



16	16	350	A	3VF22 13-0FC41-0AA0	1	1 unit	113	0.948
20	20	450	A	3VF22 13-0FD41-0AA0	1	1 unit	113	0.953
25	25	500	A	3VF22 13-0FE41-0AA0	1	1 unit	113	0.961
32	32	600	A	3VF22 13-0FG41-0AA0	1	1 unit	113	0.949
40	40	750	A	3VF22 13-0FJ41-0AA0	1	1 unit	113	0.973
45	45	750	A	3VF22 13-0FK41-0AA0	1	1 unit	113	0.960
50	50	800	A	3VF22 13-0FL41-0AA0	1	1 unit	113	0.963
63	63	800	A	3VF22 13-0FN41-0AA0	1	1 unit	113	0.967
70	70	900	A	3VF22 13-0FP41-0AA0	1	1 unit	113	0.980
80	80	900	A	3VF22 13-0FQ41-0AA0	1	1 unit	113	0.976
90	90	1000	A	3VF22 13-0FR41-0AA0	1	1 unit	113	0.968
100	100	1000	A	3VF22 13-0FS41-0AA0	1	1 unit	113	0.977

4-pole, fixed-mounted versions

Selection and ordering data



Making/breaking capacity class A

Rated ultimate short-circuit breaking capacity I_{cu}	Up to 240 V	kA	65
	Up to 415 V	kA	18
Rated service short-circuit breaking capacity I_{cs}	Up to 240 V	kA	33
	Up to 415 V	kA	9
Rated short-circuit making capacity I_{cm}	Up to 240 V	kA	143
	Up to 415 V	kA	36

Rated current I_n	Current setting of the inverse-time delayed overload release "L" I_r	Operating current of instantaneous short-circuit release "I" I_i	DT	VF100 circuit breakers Making/breaking capacity class A	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx.
A	A	A		Order No.	Price per PU			kg

3VF2 circuit breakers, up to 18 kA

System protection, TM

With permanently set thermal overload releases, with overload and short-circuit releases in the 4th pole (N = 100 %).



16	16	350	A	3VF22 14-0JC41-0AA0	1	1 unit	113	1.299
20	20	450	A	3VF22 14-0JD41-0AA0	1	1 unit	113	1.271
25	25	500	A	3VF22 14-0JE41-0AA0	1	1 unit	113	1.252
32	32	600	A	3VF22 14-0JG41-0AA0	1	1 unit	113	1.257
40	40	750	A	3VF22 14-0JJ41-0AA0	1	1 unit	113	1.300
45	45	750	A	3VF22 14-0JK41-0AA0	1	1 unit	113	1.299
50	50	800	A	3VF22 14-0JL41-0AA0	1	1 unit	113	1.272
63	63	800	A	3VF22 14-0JN41-0AA0	1	1 unit	113	1.277
70	70	900	A	3VF22 14-0JP41-0AA0	1	1 unit	113	1.299
80	80	900	A	3VF22 14-0JQ41-0AA0	1	1 unit	113	1.288
90	90	1000	A	3VF22 14-0JR41-0AA0	1	1 unit	113	1.295
100	100	1000	A	3VF22 14-0JS41-0AA0	1	1 unit	113	1.299

* You can order this quantity or a multiple thereof.

3VF2 Molded Case Circuit Breakers

3VF2 Molded Case Circuit Breakers up to 100 A

Accessories and spare parts

Selection and ordering data

For 3VF2 circuit breakers

Operating mechanisms	DT	Order No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	Weight per PU approx. kg
Operating mechanisms							
Front-operated rotary operating mechanisms							
For direct mounting on circuit breakers Degree of protection IP30, black knob Max. 3 padlocks	A	3VF9 223-1AA00		1	1 unit	113	0.232
EMERGENCY-STOP version Red knob, yellow indicator plate	A	3VF9 223-1BA00		1	1 unit	113	0.232
Version with shaft end, without knob (8UC61 operating mechanism required, see below)	A	3VF9 223-1JA00		1	1 unit	113	0.204
Door-coupling rotary operating mechanisms							
Standard version, black	B	8UC61 12-1BD22		1	1 unit	103	0.417
EMERGENCY-STOP version, red/yellow	B	8UC61 22-3BD22		1	1 unit	103	0.402
To be ordered separately: front-operated rotary operating mechanism with shaft end	A	3VF9 223-1JA00		1	1 unit	113	0.204
Connection parts, covers							
3VF22 rear terminals							
For 45 to 100 A (for cover, see below)							
For 3-pole circuit breakers 1 set = 6 units	A	3VF9 224-1LD10		1	1 unit	113	0.252
For 4-pole circuit breakers 1 set = 8 units	A	3VF9 224-1LD20		1	1 unit	113	0.333
Terminal covers							
For main circuit connection, cable connection							
For 3-pole circuit breakers 1 set = 2 units	A	3VF9 224-1NB10		1	1 unit	113	0.063
For 4-pole circuit breakers 1 set = 2 units	A	3VF9 224-1NB20		1	1 unit	113	0.079
Covers with cap dimension 45 mm							
For distribution boards							
For 3-pole circuit breakers	A	3VF9 220-1CA10		1	1 unit	113	0.019
For 4-pole circuit breakers	A	3VF9 220-1CA20		1	1 unit	113	0.021
Cover frames for door cut-out							
For circuit breakers 1 set = 1 unit	A	3VF9 220-1AA00		1	1 unit	113	0.048
Shunt releases¹⁾							
<i>Version with terminal blocks</i>							
Shunt releases							
AC 50/60 Hz	DC						
--	24 V	A	3VF9 221-1JD10	1	1 unit	113	0.297
110-127 V	--	A	3VF9 221-1JP10	1	1 unit	113	0.292
220-240 V	--	A	3VF9 221-1JM10	1	1 unit	113	0.311
380-415 V	--	A	3VF9 221-1JV10	1	1 unit	113	0.282
Shunt releases with auxiliary switch 1 CO							
AC 50/60 Hz	DC						
--	24 V	A	3VF9 221-1KD10	1	1 unit	113	0.302
110-127 V	--	A	3VF9 221-1KP10	1	1 unit	113	0.300
220-240 V	--	A	3VF9 221-1KM10	1	1 unit	113	0.288
380-415 V	--	A	3VF9 221-1KV10	1	1 unit	113	0.297
Auxiliary switches and alarm switches¹⁾							
<i>Version with terminal blocks</i>							
Tripped signaling/alarm switches							
1 CO		A	3VF9 222-1AC10	1	1 unit	113	0.240
Alarm switches (AS) and auxiliary switches (HS)							
1 CO (AS) + 1 CO (HS)		A	3VF9 222-1DC10	1	1 unit	113	0.243
Auxiliary switches							
1 CO		A	3VF9 222-1BC10	1	1 unit	113	0.275
2 CO		A	3VF9 222-1CC10	1	1 unit	113	0.235

¹⁾ Only one accessory part possible per 3VF2 circuit breaker; mounting on left side of circuit breaker.