

SENTRON VL Series Product Specifications

VL1250 Frame
1250 Amperes

Electronic Releases

ETU TRIP RELEASE

Ampere Rating	I_N	I_r	Model	Code	Poles
1000	400 - 1000		3VL7710	- A	3 6 - 0AA0
1250	500 - 1250		3VL7712	- A	3 6 - 0AA0

All VL1250 circuit-breakers are shipped with factory supplied Nut Keeper Plates for both incoming and outgoing terminals. Customer determines need for termination devices.

1 = Standard interruption
2 = High interruption
3 = Very high interruption

A = Designates frame only
B = Line protection with LI functions
C = Line protection LIG functions residual earth for 3 phase 4 wire systems
D = Line protection with LIG functions—residual earth for 3 phase 3 wire systems
E = Line protection with LS functions (instantaneous override)
G = Line protection with LSG functions—residual earth for 3 phase 3 wire systems
H = Line protection with LSG functions—residual earth for 3 phase 4 wire systems
J = Line protection with LIG functions—for earth return systems
K = Line protection with LSI functions for earth return systems

ETU TRIP RELEASE

Ampere Rating	I_N	I_r	Model	Code	Poles
1000	400 - 1000		3VL7710	- B	4 6 - 0AA0
1250	500 - 1250		3VL7712	- B	4 6 - 0AA0

1 = Standard interruption
2 = High interruption
3 = Very high interruption

A = Line protection with LI functions—(N) pole protected
B = Line protection with LI functions—(N) pole not protected
C = Line protection LIG functions—residual earth—(N) pole not protected
D = Line protection with LIG functions—residual earth—(N) pole protected
E = Line protection with LS functions—(fixed override)—(N) pole not protected
F = Line protection with LS functions—(fixed override)—(N) pole protected
G = Line protection with LSG functions—(fixed override)—(N) pole not protected
H = Line protection with LSG functions—(fixed override)—(N) pole protected

LCD TRIP RELEASE

Ampere Rating	I_N	I_r	Model	Code	Poles
1000	400 - 1000		3VL7710	- C	6 - 0AA0
1250	500 - 1250		3VL7712	- C	6 - 0AA0

1 = Standard interruption
2 = High interruption
3 = Very high interruption

H = Line protection with customer set LI / LS / LSI functions 3 pole only
J = Line protection with customer set LI / LS / LSI functions 4 pole only
L = Line protection with LSI functions for 3 phase 3 wire systems
M = Line protection with LSI functions for 3 phase 4 wire systems
N = Line protection with LSI functions for 3 phase 4 wire systems—4 pole only
P = Motor / generator protection with LI functions

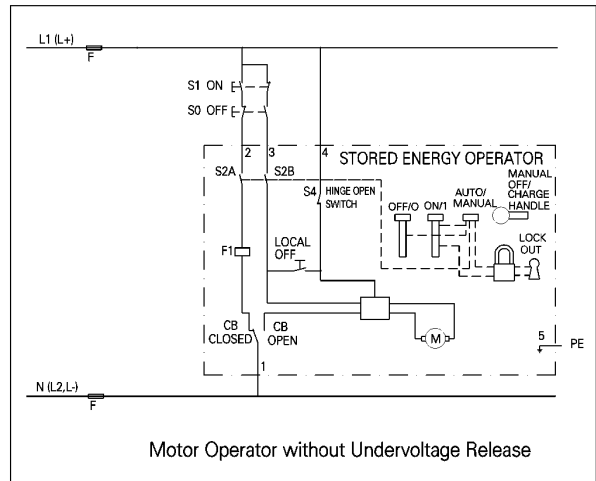
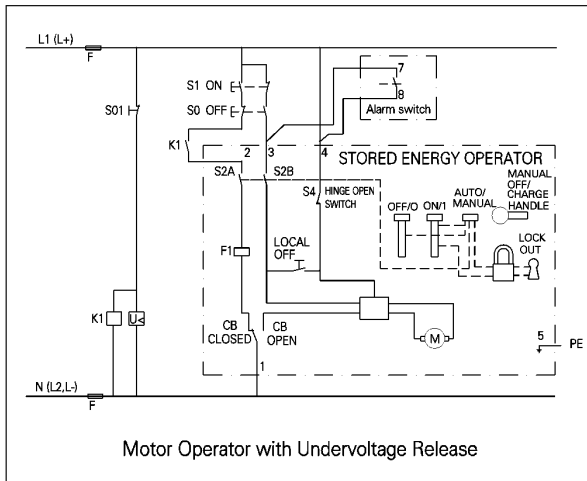
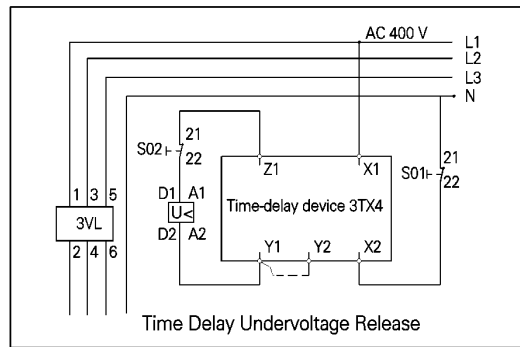
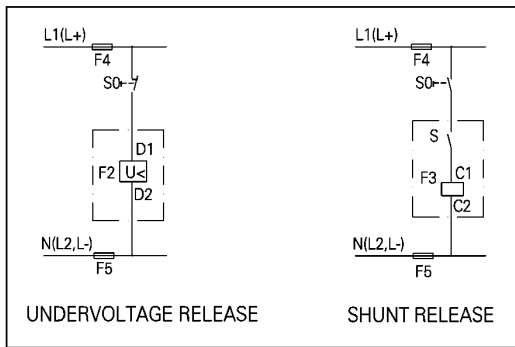
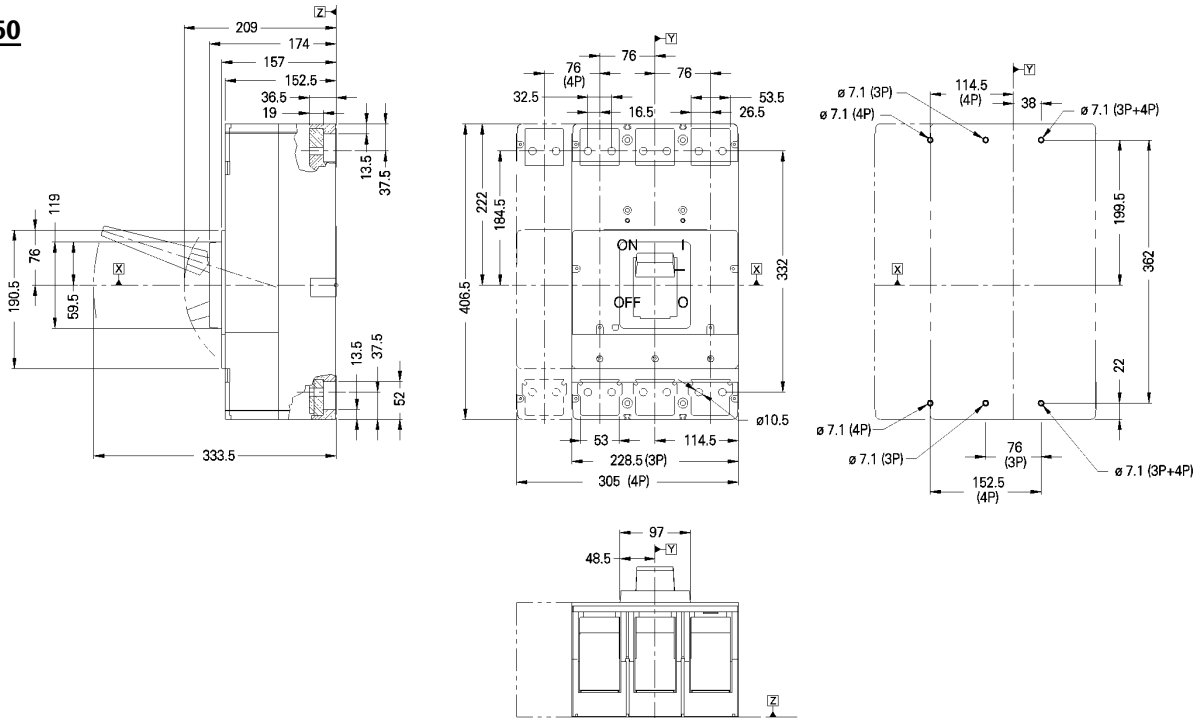
Hand held test kit for electronic trip releases

Test kit: (battery powered) for ETU/LCD releases, as well as interface with laptop or PC
Cat.no 3VL9000-8AK00

Communications adapter:

Allows for testing of ETU/LCD release as well as parameterization of LCD releases by interface with laptop or PC
Cat.no 3VL9000-8AM00

VL1250



Stand: 1/00

<http://www.siemens.de/sentron-vl>
<http://www.siemens.de/energieverteilung>

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SIEMENS

SENTRON® VL1250 Specifications



SENTRON VL Series Product Specifications

VL1250 Frame
1250 Amperes

Specifications:

Category A

IEC 60947-2

EN60947

3-4 Poles

1000-1250 Amperes, 220/240Vac, 380/415Vac,
690Vac

50-60hz.

U_i 750Vac

U_{imp} 8kV

Type	I _N	U _E	I _{CU}	I _{CS}	I _{CM}
VL1250N	1000-1250A	220/240~ 380/415~ 690~	65kA 50kA 20kA	65kA 50kA 10kA	143kA 105kA 42kA
VL1250H	1000-1250A	220/240~ 380/415~ 690~	100kA 70kA 30kA	75kA 70kA 15kA	220kA 143kA 63kA
VL1250L	1000-1250A	220/240~ 380/415~ 690~	200kA 100kA 35kA	150kA 75kA 17kA	440kA 220kA 73.5kA

CE Marked

Calibrations for 50°C ambient

Permissible Load

for various ambient temperatures close to the circuit-breaker, related to the rated current of the circuit-breaker used for line protection.

@ 40°C--100%

@ 50°C--100%

@ 60°C--95%

@ 70°C--86%

Endurance

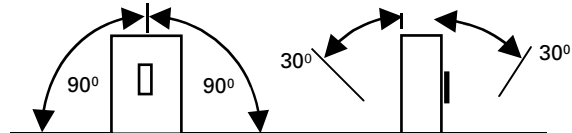
3,000 operations @ 30 per hour

Watts loss (power loss)

at maximum rated current I_n

3 phase symmetrical load for line protection---210 watts--
ETU/LCD

Permissible mounting position



Reverse feed-- All VL1250 frame circuit breakers are suitable for reverse feed applications.

Breaker shipping weight 3 pole = 54 lbs. / 24 kg.

4 pole = 68.3lbs. / 32 kg.

Adj. Overload 40 to 100% x I_N

Adj. Time lag = 2.5 to 30 seconds

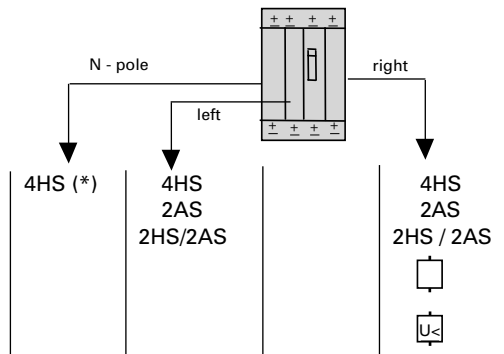
Adj. Short time release 1.5 to 10 x I_N

Adj. Time lag (t_{sd})= 0 to 0.5 seconds

Adj. Short circuit releases I_i 1.25 to 11 x I_N

Internal accessories:

Maximum internal accessory combinations



(*) Do not use N - pole if accessories are installed in left pole

Switch kits:

	<u>Catalog Number</u>
4HS (2NO +2NC)	3VL9800-2AC00
2HS (1NO +1NC) + 1AS (1NO)	3VL9800-2AE00

Individual Auxiliary switch:

3SB3400-0K (NO contact)	Rated thermal current I_{th} -----10Amps Rated making capacity-----10Amps
3SB3400-0J (NC contact)	

AC Volts

Rated operational voltage	24	48	110	230	400	600	
Rate operational current	10	10	10	10	10		(AC-12)
	6	6	6	6	3	1	(AC-15)

Shunt trip releases

	<u>Catalog Number</u>	<u>Power Consumption</u>
48 - 60Vac	3VL9800-1SM00	300 to 480va
110 - 127Vac	3VL9800-1SR00	302 to 352va
208 - 277Vac	3VL9400-1ST00	277 to 350va
380 - 600Vac	3VL9800-1SV00	330 to 349va
12Vdc	3VL9800-1SB00	50 watts
24Vdc	3VL9800-1SC00	360 watts
48 - 60Vdc	3VL9800-1SJ00	500 to 820 watts
110 - 127Vdc	3VL9800-1SK00	302 to 353 watts
220 - 250Vdc	3VL9800-1SQ00	348 to 397 watts

Undervoltage releases

110 - 127Vac	3VL9800-1UG00	4.5va
208Vac	3VL9800-1UM00	4.5va
220 - 250Vac	3VL9800-1UH00	4.5va
227Vac	3VL9800-1UQ00	4.5va
380 - 415Vac	3VL9800-1UJ00	4.5va
440 - 480Vac	3VL9800-1UK00	4.5va
550 - 526Vac	3VL9800-1UL00	4.5va
600Vac	3VL9800-1UL00	4.5va
12Vdc	3VL9800-1UT00	3.5watts
24Vdc	3VL9800-1UN00	3.5watts
48Vdc	3VL9800-1UP00	3.5watts
60Vdc	3VL9800-1UU00	3.5watts
110 - 127Vdc	3VL9800-1UR00	3.5watts
220 - 250Vdc	3VL9400-1US00	3.5watts

DC Volts

Rated operational voltage	24	48	110	230	
Rate operational current	10	5	2.5	1	(DC-12)
	3	1.5	0.7	0.3	(DC-13)

External Accessories

Rotary Drives

Direct drive

Standard-----	3VL9800-3HA00
Emergency Stop-----	3VL9800-3HC00

Rotary drive extended

Standard-----	3VL9800-3HF00
Emergency Stop-----	3VL9800-3HG00
Without knob-----	3VL9800-3HE00

Door-coupling rotary operating mechanism kit to be used with operator ---3VL9600-3HE00

Standard-----	8UC6212-1BD22
Emergency Stop-----	8UC6222-3BD22

Kit consists of ---

- (1) proper handle with masking plate
- (1) coupling driver for 8mm shaft
- (1) 8mm extension shaft 300mm long
- (1) shaft coupling for 8mm shaft

Cylinder lock kit for field installation:

(key removal when circuit-breaker is in the OFF position)

Ronis-----	3VL9815-8HA00
CES-----	3VL9811-8HA00

Standard or Emergency stop rotary drive operator auxiliary switch kits(s). Each switch is a change over contact design

1 - leading OFF to ON	3VL9800-3AS10
2 - leading OFF to ON	3VL9800-3AT10
1 - early-break ON to OFF	3VL9800-3AU10
2 - early-break ON to OFF	3VL9800-3AW10

Changeover switch specifications

Rated thermal current I_{th} -----	2A
Rated making capacity	2A restive - 0.5A inductive
AC-----	pf 0.7
Rated operational voltage-----	220Vac
Rated operational current-----	2A
Rated making capacity	2A restive - 0.5A inductive

Walking-beam interlock mechanism:

Fixed mounted circuit-breakers-----	3VL9800-8LC00
Draw-out/Plug-in mounted-----	3VL9800-8LD00

Cable interlock system:

Kit contains operator plates only for two circuit-breakers-----3VL9800-8LA00
Recommended 1.5m long cable-----3VL9000-8LH30

External accessories

Stored energy operators

Voltage		Power		with cylinder lock installed	Power
24 Vdc	3VL9600-3MJ00	< 500 watts		3VL9815-3MK00	< 500 watts
42-48 Vac/Vdc	3VL9800-3ML00	< 500 watts		3VL9815-3MM00	< 500 watts
60 Vac/Vdc	3VL9800-3MS00	< 500 watts		3VL9815-3MT00	< 500 watts
110-127 Vac/Vdc	3VL9800-3MN00	< 500 watts		3VL9815-3MP00	< 500 watts
220-250Vac/Vdc	3VL9800-3MQ00	< 500 watts		3VL9815-3MR00	< 500 watts
			Ronis cylinder lock kit for field installation-----	3VL9815-8HA00	

Front busbar extensions:

requires the use of a Nut Keeper Plate for each pole

Straight

1 piece-----	3VL9800-4EA00
1 set = 3 pieces -----	3VL9800-4EC30
1 set = 4 pieces -----	3VL9800-4EC40

Rear terminals:

Flat bus

1 piece-----	3VL9700-4RG00
Kit = 3 pieces-----	3VL9700-4RH30
Kit = 4 pieces-----	3VL9700-4RH40

Terminal connectors:

Aluminum body

1 piece-----	3VL9700-4TG00
1 set = 3 pieces-----	3VL9700-4TG30
1 set = 4 pieces-----	3VL9700-4TG40

Wire range for Aluminum body only

4 pieces of cable 50-240mm²

Bolted bus-bar connection-----2 pieces 60mm wide x 10mm thick

Terminal covers:

3 pole extended-----	3VL9800-8CA30
3 pole standard-----	3VL9800-8CB30
4 pole extended-----	3VL9800-8CA40
4 pole standard-----	3VL9800-8CB40

Inter-phase shield:

1 piece----- 3VL9800-8CE00

Draw-out assembly:

Includes base plate, sockets, crank handle, base-interlock, necessary shields

Rear connected

3 pole	3VL9800-4WA30
4 pole	3VL9800-4WA40

Front connected

3 pole	3VL9800-4WC00
4 pole	3VL9800-4WC40

Plug-in socket for accessory voltage supply

each plug-in socket contains 8 positions—maximum of 3 sockets can be used with the VL1250

Catalog no. 3VL9800-4PJ00

Position signaling switch

to indicate connected or unconnected position of plug-in or draw-out assembly. Kit consist of 1 change over switch. Each base can accept up to 2 switches.

Catalog no. 3VL9000-4WL00

Handle padlocking device

Catalog no. 3VL9800-3HL00

Mounting screw kit

4 screws 3VL9800-8SA40