



# Genvolt

High Voltage Power Supplies



## CCL Capacitor Charging Power Supply

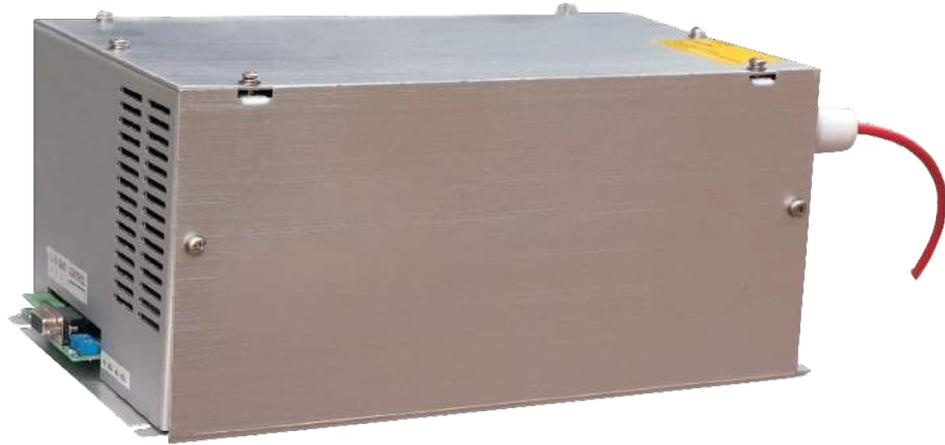


## Product Brochure

**Web:** [www.Genvolt.com](http://www.Genvolt.com) **Email:** [info@Genvolt.co.uk](mailto:info@Genvolt.co.uk) **Tel:** +44 (0) 1746 862555  
New Road, Bridgnorth, Shropshire. WV16 6NN.



## CCL Capacitor Charging Power Supply



### Summary

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CCL series high voltage power supply is a high reliability, high performance and cost effective power supply specially designed by Genvolt for capacitor charging applications.

The rated output power is 500W with a peak output power of 1000W.

The power supply has a single output and is available in output voltages of 5kV, 10kV, 20kV, 30kV, 40kV. Both positive and negative output polarity (with respect to ground) are available please specify which at the time of order.

#### Features

- Optional remote control output voltage or local control
- Potentiometer adjustment
- Charge and discharge frequency can be customized
- Repeatability is better than 0.5%.
- Ground potential is increased.
- Output voltage and current can be continuously adjusted.
- Output polarity can be specified by user
- Small size, light weight, stable output, high performance (85%)



## Technical Specification

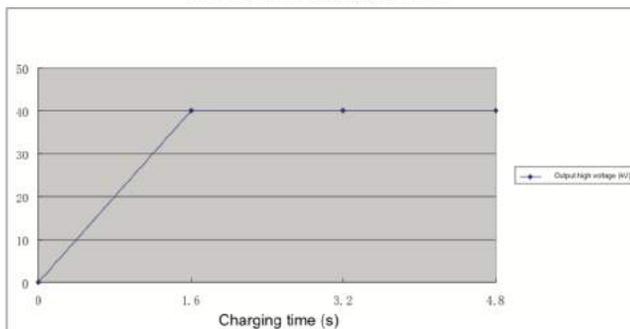
Input Specifications						
Input Voltage	220 VAC (200-240 VAC)					
Input Current	<6A at 220VAC					
Output Specifications						
Model	5kV	10kV	20kV	30kV	40kV	50kV
Output Voltage Range	0-5kV	0-10kV	0-20kV	0-30kV	0-40kV	0-50kV
Power	1000W	1000W	1000W	1000W	1000W	1000W
Output Current	200mA	100mA	50mA	33mA	25mA	20mA
Line Regulation	<0.5%					
Load Regulation	<0.5%					
Temperature drift	When operating temperature is below 55 °C <300ppm / °C					
Voltage Stability	Better than 1% under load conditions					
Operating Temperature	-10 °C - 50 °C					
Storage Temperature	-20 °C - 80 °C					
Dimensions	(L) 360mm x (W) 180mm x (H) 136mm					
Weight	Between 2kg - 6kg depending on output voltage					

### Charging curve

### Continuous charge and discharge curve

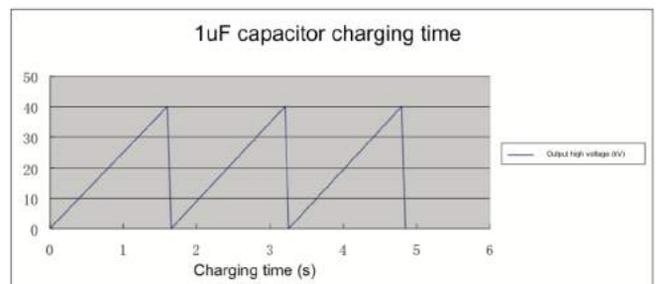
40kV 1000W

1uF capacitor charging time



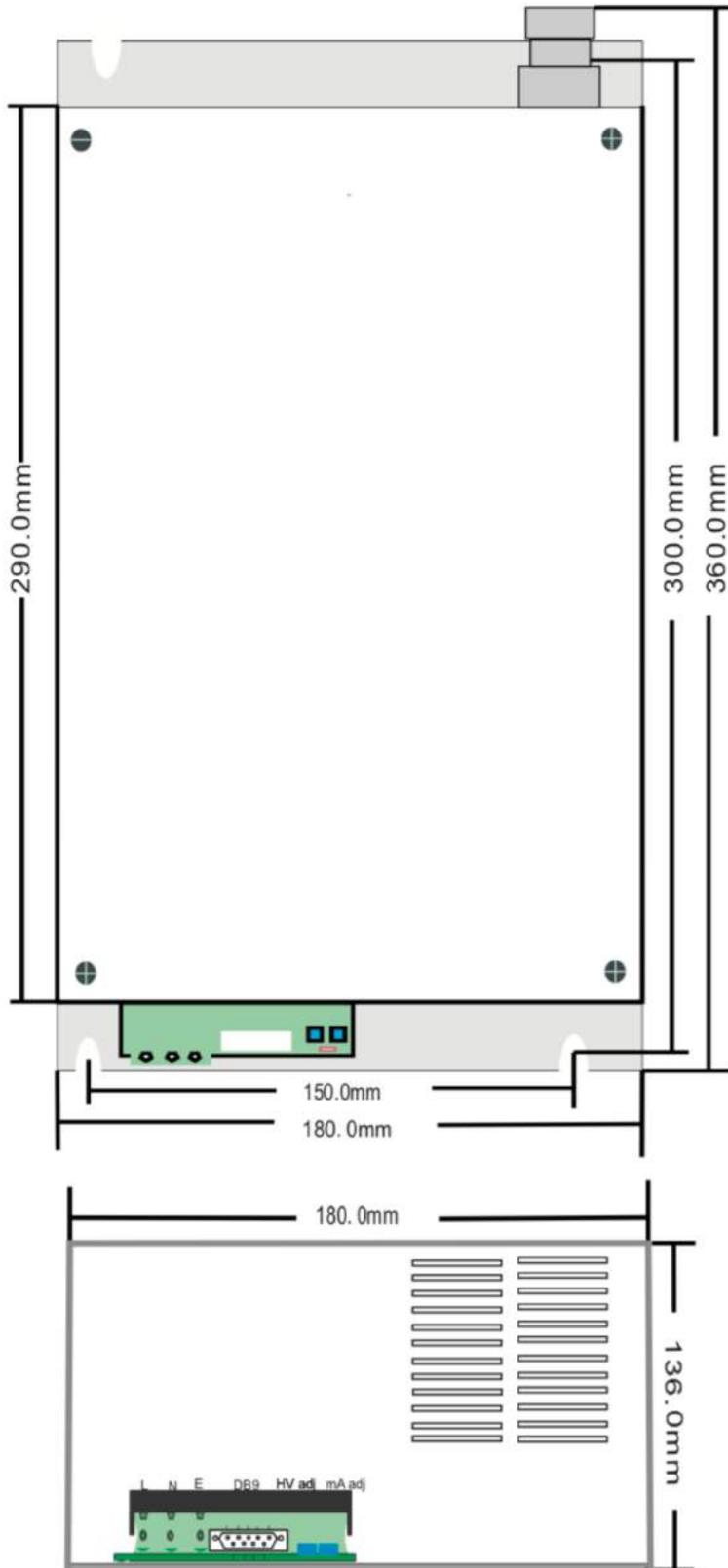
40kV 1000W

1uF capacitor charging time





## Dimensions

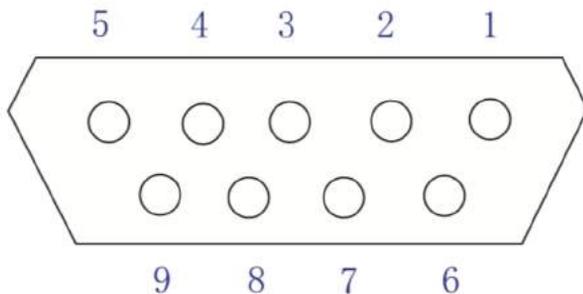




## Connection and control

Mains Connection		
Pin Label	Definition	
L	Live	
N	Neutral	
E	Earth	
Control Interface DB9 (female) connector		
Pin No.	Label	Definition
1	GND	Ground
2	EOC	End of Charging
3	VDEM	Voltage setting
4	VREF	Voltage reference
5	VFBK	Voltage feedback
6	+12V DC	+12V Voltage
7	HV ENABLE	High Voltage Enable
8	IDEM	Current setting
9	IFBK	Current feedback

- Pin 1 controls ground (GND).
- Pin 2 is detected at the end of charging. The internal circuit is an open-collector output of the optocoupler. When the power is in the charging state, pin 2 is grounded (1 pin) is off; when the capacitor voltage is full, pin 2 is turned on to ground (1 pin). Allows no more than 20mA to flow. When the voltage on the capacitor is lower than the set charging voltage, the 2-pin to ground (1 pin) is restored from the conduction state to the OFF state.
- Pin 3 voltage setting, 0-5V corresponds to 0-rated voltage.
- Pin 4 voltage reference output 5V.
- Pin 5 voltage output measurement, 0-5V corresponds to 0-rated voltage.
- Pin 6 +12V power supply for external use, current does not exceed 200mA.
- Pin 7 high voltage inhibit port, this pin and pin 1 plus +12Vdc, high voltage open; 0V or floating, high voltage off.
- Pin 8 current setting, 0-5V corresponds to 0-rated current.
- Pin 9 current output measurement, 0-5V corresponds to the output current is 0 - rated current. Note: The current of this product is the sampling primary current control, the current setting value should be set greater than 0.7V, otherwise there is no voltage and current output.

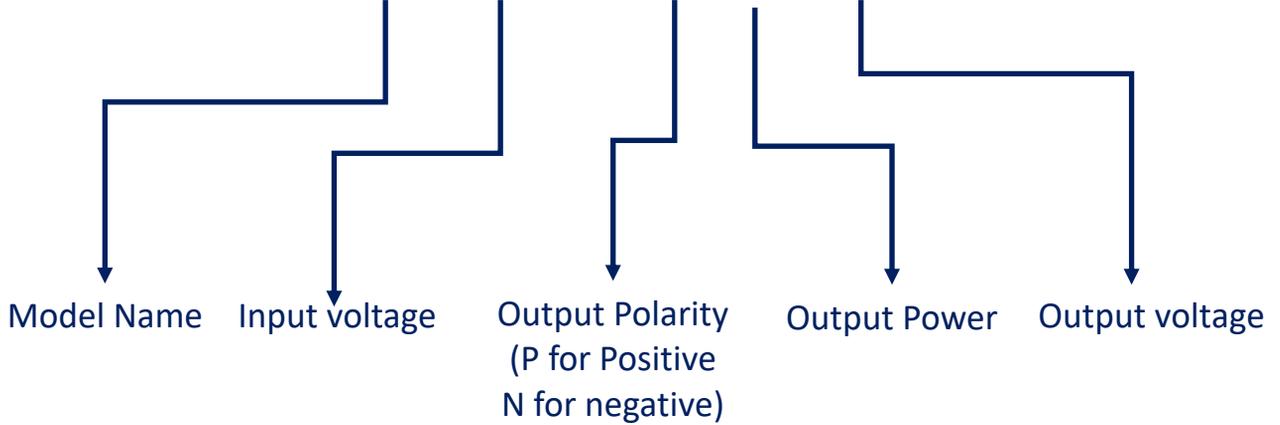


**\*\*DB9 control pin description The port on the power supply board is the female connector. It needs to be equipped with a male connector to complete the corresponding control function.\*\***

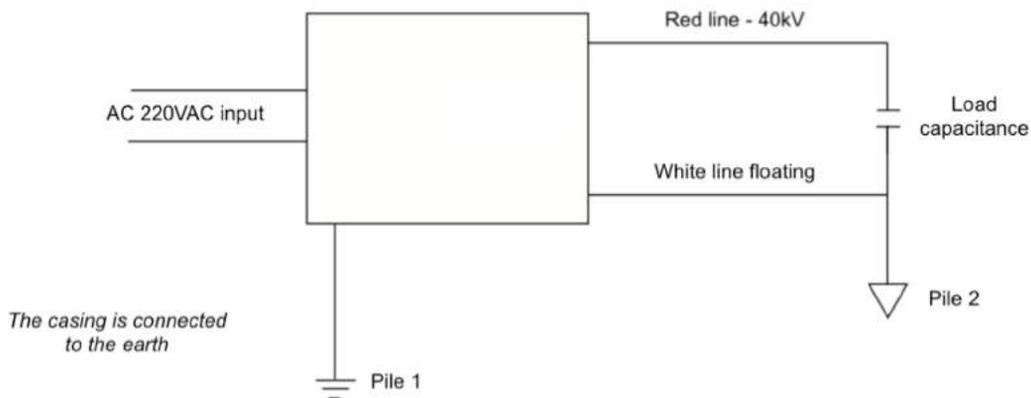


## Product Number

**CCL – 220VAC – P1000 - 30**



## Wiring Diagram



Wiring description: The grounding bolt of the rear panel of the product is grounded by the pile 1. The black terminal of the rear panel is connected to the floating white line, and the capacitor is negative, that is, the ground pile 2 in the above figure.



## Global Presence



### UK Office:

Genvolt, New Road, Bridgnorth Shropshire  
WV16 6NN, United Kingdom

*Tel: +44 (0) 1746 86 25 55 Fax: +44 (0) 1746 86 26 66  
Email: [info@genvolt.co.uk](mailto:info@genvolt.co.uk) Website: [www.genvolt.com](http://www.genvolt.com)*

### India Office:

#### **Genvolt India Private Limited**

806, Suratwala Mark Plazzo, Hinjewadi Village, Hinjewadi, Pune, Maharashtra – 411057, India  
*Email: [supportindia@genvolt.co.uk](mailto:supportindia@genvolt.co.uk) Website: [www.genvolt.in](http://www.genvolt.in)*

### Research and development:

#### **Genvolt Ltd**

*New Road, Bridgnorth, Shropshire WV16 6NN*

### Factories:

#### **Genvolt Ltd**

*New Road, Bridgnorth, Shropshire WV16 6NN*

#### **Boher High Voltage Power Supplies Ltd (Genvolt China)**

*No. 79 Yandangshan Road, Suyu District, Suqian City, Jiangsu, China*

