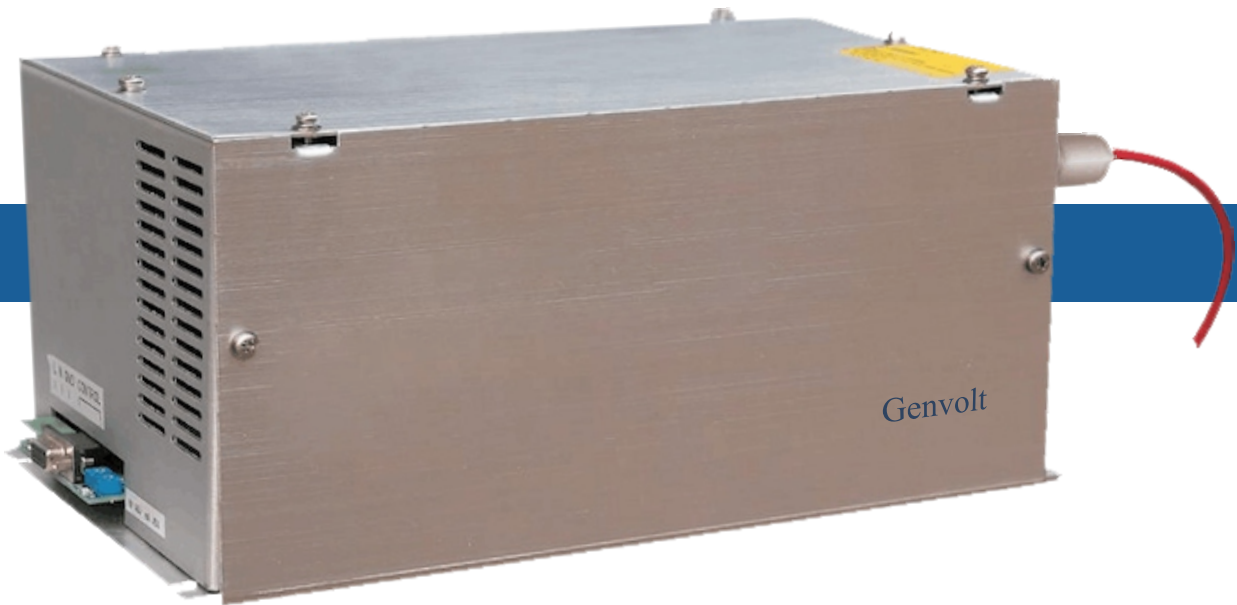




# GENVOLT CCL



Capacitor Charging  
Power Supply



The 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, 50kV and 60kV. Both positive and negative output polarity (with respect to ground) are available; please specify which at the time of order.

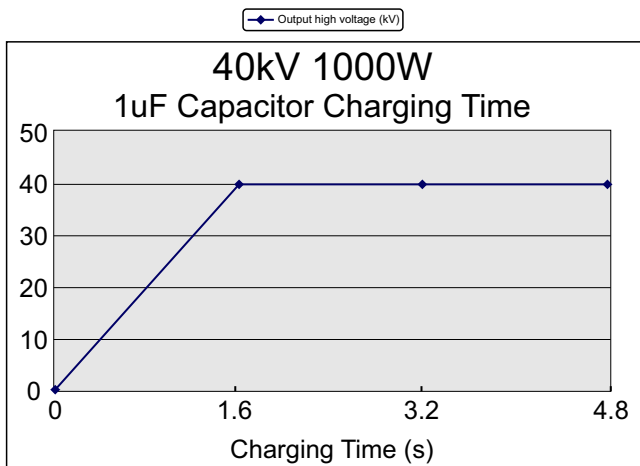
### Features

- Optional remote control output voltage or local control
- Potentiometer adjustment
- Charge and discharge frequency can be customized
- Repeatability is less 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%

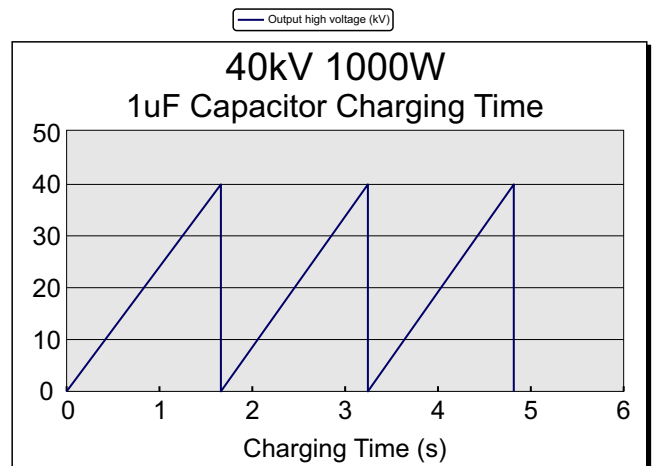


Input Specifications							
Input voltage	220 VAC (200-240 VAC)						
Input Current	<6A at 220VAC						
Output Specifications							
Model	5kV	10kV	20kV	30kV	40kV	50kV	60kV
Output Voltage Range	0-5kV	0-10kV	0-20kV	0-30kV	0-40kV	0-50kV	0-60kV
Power	1kW	1kW	1kW	1kW	1kW	1kW	1kW
Output Current	200mA	100mA	50mA	33mA	25mA	20mA	16.6mA
Line Regulation	<0.5%						
Load Regulation	<0.5%						
Temperature Coefficient	When operating temperature is below 55°C <330ppm/°C						
Voltage Stability	Less than 1% under load conditions						
Operating Temperature	-10°C to 50°C						
Storage Temperature	-20°C to 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

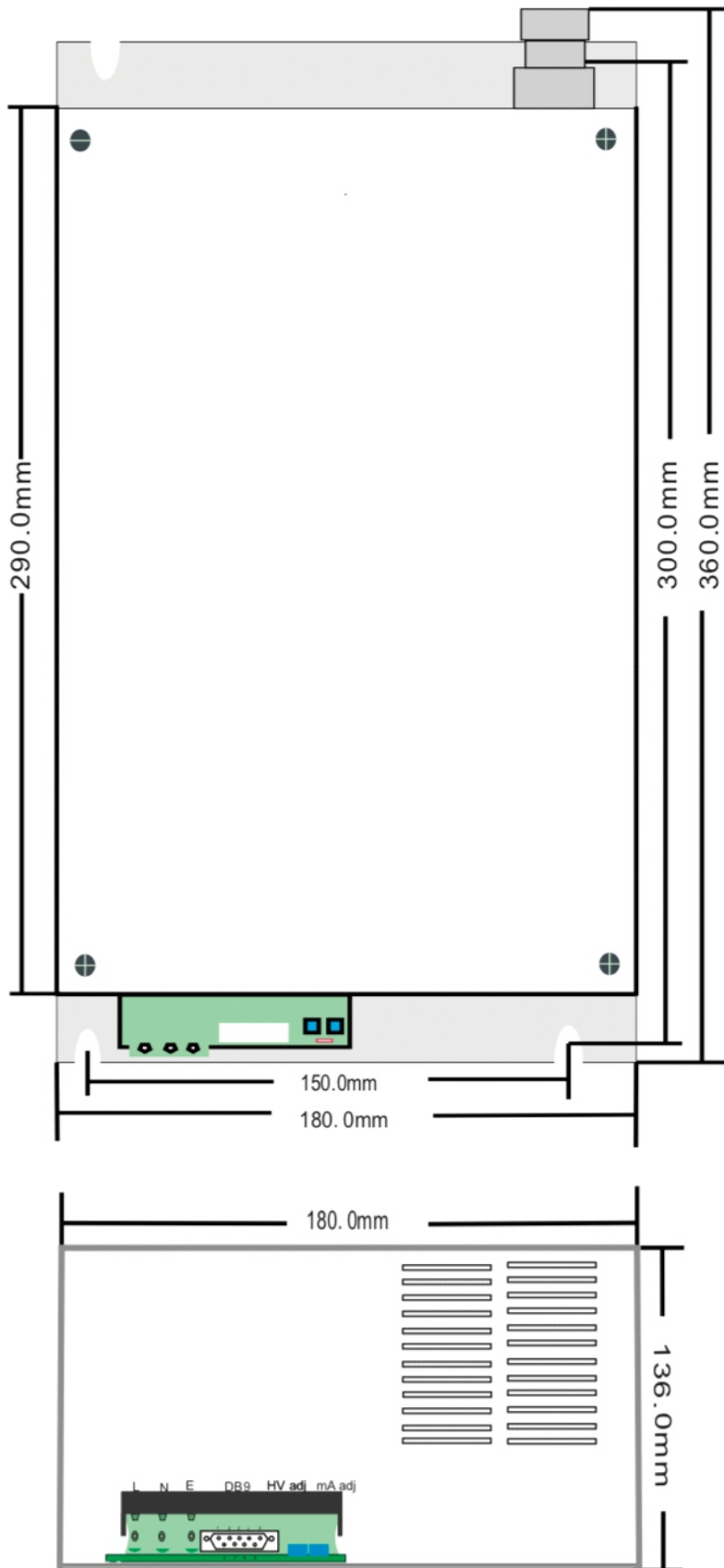




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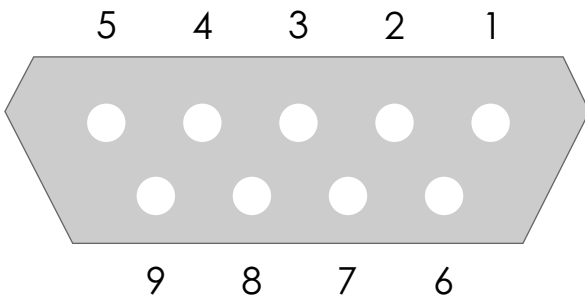
HIGH VOLTAGE POWER SUPPLIES

# DIMENSIONS





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 Demand
4	VREF	Voltage Reference
5	VFBK	Voltage Feedback
6	+12V DC	+12V DC Voltage
7	HV ENABLE	High Voltage Enable
8	IDEM	Current Demand
9	IFBK	Current Feedback



**\*\*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.\*\*

- **Pin 1** Interfaces with the chassis ground (GND).

- **Pin 2** Detects the “End of Charging” cycle. 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**). This allows no more than 20mA to flow. When the voltage on the capacitor is lower than the set charging voltage, the **pin 2** 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** If this pin is connected to **Pin 6** the high voltage output is enabled. If the pin is left it will float 0V when connected to ground and the high voltage output will be disabled.

- **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.



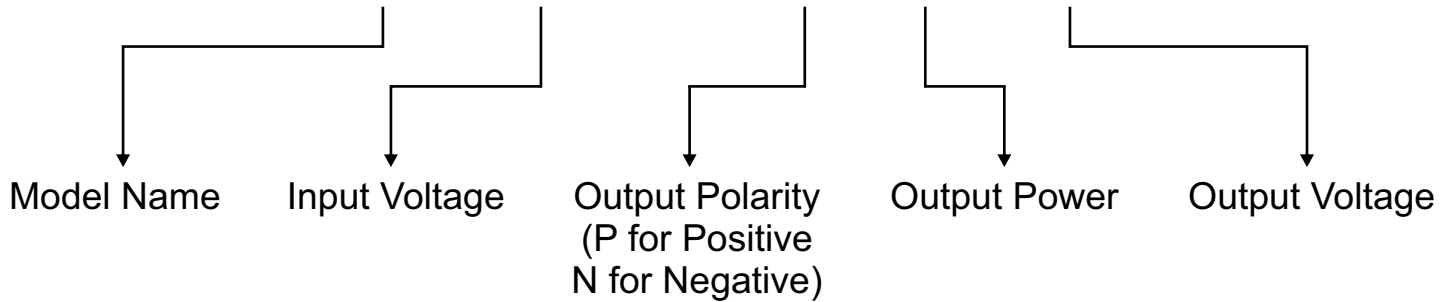
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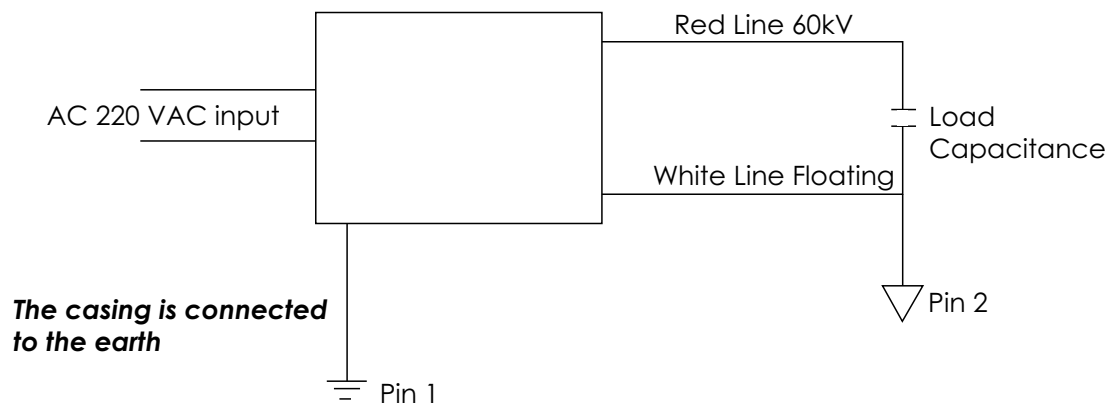
PRODUCT CODE

## PRODUCT NUMBER

CCL - 220VAC - P1000 - 30



## WIRING DIAGRAM



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



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