



ACS Material Equipment Series

Differential Output Low-temperature Plasma Experimental

Power Supply

(CTP-2000K/S)

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Product Composition

1. Main Machine - 2000K/S

2. TDGC2-1 Contact Voltage Regulator

Rated input voltage: 220v | Rated capacity: 1kVA | Frequency: 50Hz | Output voltage range: (0-250) V
Rated output current: 4A | Number of phases: 1 | Weight: 6.5kg | Insulation heat class: F



Photo of Differential Output Low-temperature Plasma Experimental Power Supply



Photo of Voltage Regulator

Product Features

- Drives the DBD discharge device with a large discharge gap (20-30 mm) under various atmospheres (Air, oxygen, nitrogen and other inert gases) for long-term and stable discharge
- Generates various Dielectric Barrier Discharge (DBD) gas reactors or gas-solid reactors with large discharge gaps
- Includes interfaces for input power measurement, high-voltage output voltage and current detection
- The efficiency of the power supply can reach above 90%

Product Specifications

| | |
|-----------------------------------|---|
| Product Name | Differential Output Low Temperature Plasma Experimental Power Supply |
| Model | CTP-2000K/S |
| Output voltage (KV) | 0~60 |
| *Center frequency (fo) (KHz) | 10 (Customizable 1~100) |
| **DBD Discharge Gap | 10-20mm |
| Frequency Range | Medium-frequency |
| ***Frequency (KHz) | 0.5 fo~2 fo (Adjustable) |
| Fundamental Wave | Sine wave |
| Output Signals | Dual/Two high-voltage outputs, equal amplitude, opposite phase of 180 degrees. |
| Power (W) | 0~500 |
| Unit Dimensions W × D × H (mm) | 250×250×380 (H) |
| Weight (kg) | 12 |
| Equipment Composition | 1.Main Machine 2.Voltage Regulator |

*~10KHz calibrated using our [50mm Diameter DBD reactor \(SKU#EPDBD050\)](#).

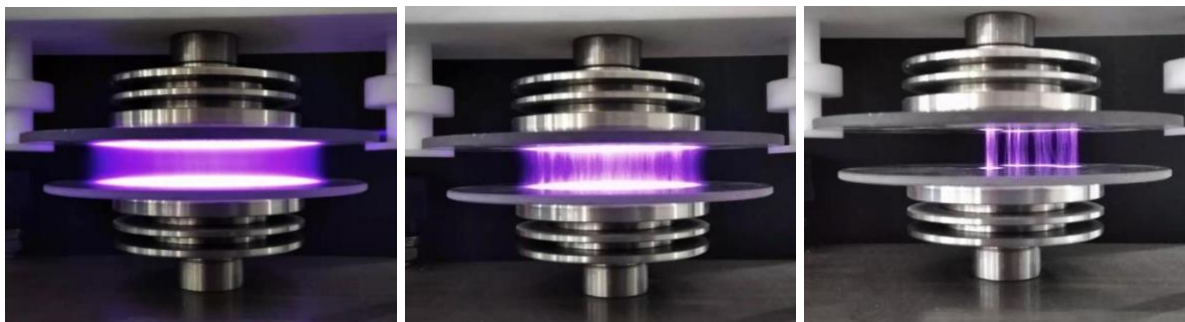
** DBD-50 only works with Models: [CTP-2000K](#), [CTP-2000K/P](#) and [CTP-2000K/L](#). For [CTP-2000K/S](#), this model will require a customized DBD reactor.

***The Center frequency of 1-40 khz has adjustable frequency range of 0.5 Fo~2 Fo; 40-70 khz has adjustable frequency range of 0.5 Fo~1.3 Fo; Above 75khz has adjustable range of 0.5 Fo~1.2 Fo.

Applications

- Surface modification treatment of organic and inorganic materials
 - Enhance compatibility of different polymer surfaces
 - Enhance biocompatibility of the material surface
 - Clad nanomaterials
- Preparation of organic or inorganic nanoparticles
- Cleaning and sterilization

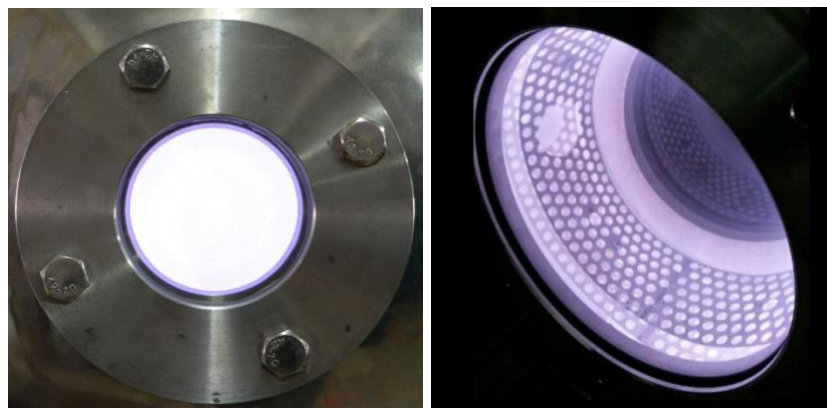
Application Examples:



(a)

(b)

(c)



(d)

(e)

Photo of Plasma Discharge

(a) DBD strong discharge (b) DBD medium intensity discharge (c) DBD weak discharge

(d) Vacuum argon discharge (e) Vacuum air discharge

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