



**GROW CONTROL**  
**POWER TECH PVT. LTD.**

We Provide Solutions....

**AN ISO 9001:2015 COMPANY**



**EQUILIBRIUM FIELDPOWER SUPPLY**

**GROW CONTROL** is a research-based power electronics organization that blends technology, innovation, and engineering to transform concepts into world class products and solutions.

The **Equilibrium Field Power Supply** by **GROW CONTROL** is a high-performance solution engineered to deliver reliable, precise, and stable high-frequency AC power for a wide range of industrial, defense, and research applications. Designed for continuous high-current operations with minimal ripple and noise, it is ideal for critical processes such as electroplating, battery testing, and high-demand power systems.

This advanced power supply is specifically designed to **generate precise, high-energy pulses**, ensuring fast and reliable power delivery for applications requiring controlled, high-intensity energy bursts with adjustable parameters.

With over 20 years of expertise in power electronics and a commitment to indigenous technology, **GROW CONTROL** provides rugged, reliable, and customizable power supply solutions tailored to meet the stringent demands of Indian industries, defense, and research sectors.

### **Features**

- **High Current Output:** Supports output currents up to 10,000A, with voltage levels from 5V to 1000V, catering to a wide range of power requirements.
- **High Efficiency:** With efficiency rates of over 90%, these supplies reduce energy wastage and optimize operational costs.
- **Advanced Protection Mechanisms:** Integrated protection against over-voltage, over-current, short-circuit, and overheating, ensuring safe and reliable operation.
- **Rugged and Durable Design:** Designed to meet Industrial Standards for durability, making it suitable for industrial applications in harsh conditions.
- **Modular and Scalable:** Modular configuration allows for easy system expansion and integration to meet evolving power requirements.
- **Remote Monitoring and Control:** Equipped with digital interfaces for real-time monitoring and adjustments, providing flexibility and ease of use in operational environments.

- **EMI/EMC Compliance:** Designed to comply with EN 55022 standards, ensuring minimal electromagnetic interference.

### Key Advantages

1. **Indigenous Technology:**

Completely designed and manufactured in India, **GROW CONTROL** Equilibrium Field Power Supply deliver solutions optimized for domestic industrial, research, and defense needs.

2. **Precision and Stability:**

The power supplies deliver precise voltage and current with low ripple and noise, essential for high-accuracy applications like battery testing, electroplating, and electrochemical processing.

3. **Energy Efficient:**

With high efficiency, these power supplies reduce operational costs by minimizing energy losses and heat output, leading to longer-lasting components and fewer cooling requirements.

4. **Advanced Protection:**

Built-in safety mechanisms, including over-voltage, over-current, and thermal protection, ensure reliable performance in demanding applications.

5. **Customizable Configurations:**

**GROW CONTROL** offers flexible options in terms of voltage, current range, and form factor, ensuring that each unit meets the unique requirements of its intended application.

### Applications

1. **Research Applications:**

Pulse power systems play a critical role in various research applications that require high-energy, short-duration pulses. These systems are used for studying material properties, conducting simulations, and powering high-performance equipment in fields such as nuclear physics, plasma research, medical device testing, and electromagnetic.

2. **Electroplating:**

Provides stable, Equilibrium Field Power Supply for electroplating applications, ensuring even coating and improved process efficiency.

3. **Battery Testing and Charging:**

Ideal for battery testing and formation, supporting high current requirements with precise control over voltage and current for accurate results.

4. **Laser Systems:**

Supplies clean, stable DC power for high-power laser systems used in defense, research, and industrial applications.

5. **Electrochemical Processing:**

Supports applications like electrolysis and anodizing, delivering stable and continuous high-current power with low ripple for consistent results.

6. **Aerospace and Defense:**

Provides reliable power for defense and aerospace applications, including testing and powering high-current systems used in critical operations.

### Customization Options

**GROW CONTROL** offers a range of customization options to meet the unique power requirements of diverse industrial and defense applications:

- **Output Voltage & Current Range Adjustments**
- **Cooling System Customization (Air or Liquid)**
- **Advanced Monitoring and Control Interfaces**
- **Extended Protection Features**

Our engineering team collaborates with clients to deliver tailored solutions suited to their operational, environmental, and performance needs.

### Why Choose **GROW CONTROL**?

- **Indigenous Design:** Backed by over three decades of power electronics expertise, **GROW CONTROL** Equilibrium Field Power Supply meet high standards of reliability and performance.
- **Efficiency & Stability:** High efficiency and low ripple output ensure stable power delivery, critical for sensitive and precision applications in industrial, defense, and research sectors.
- **Safety and Reliability:** Designed with comprehensive protection mechanisms, these power supplies offer safe and dependable performance under demanding conditions.



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- **Ruggedized for Harsh Environments:** Compliant with military standards, **GROW CONTROL** Equilibrium Field power supplies are built to operate reliably in extreme environmental conditions.
- **Customer Support:** From customization and installation to support and maintenance, **GROW CONTROL** ensures seamless integration and optimal performance for all clients.

### Certifications

- **EN 55022** – EMI Compliance
- **ISO 9001:2015** – Quality Management Systems



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### **Technical Specification**

<b>Model no.</b>	<b>GCPT-5KA-EFPS</b>
<b>EFPS overall requirements</b>	
<b>Rated Output Pulse Current</b>	500 A to 5000 A
<b>Duty Cycle</b>	0.5s-ON & 900s-OFF Continuous
<b>Polarity</b>	Positive
<b>Size</b>	~ 2m x 1.5m x 2m (L x W x H)
<b>Measurement</b>	EFPS Output Voltage EFPS Output Current



