



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

We Provide Solutions....

AN ISO 9001:2015 COMPANY



HIGH CURRENT DC POWER SUPPLY



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

GROW CONTROL High Current DC Power Supplies are high-performance solutions engineered to provide reliable, precise, and stable high-current DC power across a range of industrial, defense, and research applications. These power supplies are designed for operations requiring continuous high current with minimal ripple and noise, making them ideal for processes like electroplating, battery testing, and high-demand power systems.

GROW CONTROL High Current DC Power Supplies offer robust, energy-efficient, and stable power solutions for critical applications like electroplating, battery testing, and laser systems. Developed with indigenous technology and built to the highest industry standards, these power supplies meet the rigorous demands of industrial, defense, and aerospace sectors, delivering reliable performance in even the most challenging environments.

With 30+ years of expertise and a commitment to indigenous technology, **GROW CONTROL** delivers rugged, reliable, and customizable power supply systems built to meet the stringent requirements of Indian industries, defense, and research sectors.

Features

- **High Current Output:** Supports output currents up to 10,000A, with voltage levels from 5V to 1,000V, catering to a wide range of power requirements.
- **Stable Output with Low Ripple:** Provides clean, ripple-free DC power, ensuring the stability and precision required for sensitive applications.
- **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.



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- **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** High Current DC Power Supplies 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.



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Applications

1. **Electroplating:**
Provides stable, high-current DC power for electroplating applications, ensuring even coating and improved process efficiency.
2. **Battery Testing and Charging:**
Ideal for battery testing and formation, supporting high current requirements with precise control over voltage and current for accurate results.
3. **Laser Systems:**
Supplies clean, stable DC power for high-power laser systems used in defense, research, and industrial applications.
4. **Electrochemical Processing:**
Supports applications like electrolysis and anodizing, delivering stable and continuous high-current power with low ripple for consistent results.
5. **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** high-current DC power supplies meet high standards of reliability and performance.



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- **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.
- **Ruggedized for Harsh Environments:** Compliant with military standards, **GROW CONTROL** DC 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

Model No.	GC303HC DC	GC503H CDC	GC603H CDC	GC1003HC DC	GC1203HSD CPS	GC1503HCD C	GC20 03HC DC
Power (KW)	30	50	60	100	120	150	200
Input (V)	415V± 10%, 3-ph						
Frequency (Hz)	50						
Output Current (A)	10 to 300	50 to 500	100 to 300	800	800	200 to 1000	50 to 500
Output Voltage (V)	200	250	20 to 200	125	120	150	400
Line regulation (%)	±1						
Load regulation (%)	±1						
Ripple (%)	-	<2	-	<1%	<0.5	-	

