



GROW CONTROL
POWER TECH PVT. LTD.

We Provide Solutions....

AN ISO 9001:2015 COMPANY



HIGH VOLTAGE DC POWER SUPPLY



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GROW CONTROL High Voltage Power Supply provides a reliable, precise, and efficient solution for applications requiring stable high-voltage output. Leveraging indigenous technology and over three decades of experience, these power supplies are tailored for critical applications in medical imaging, research, plasma generation, and defense. Our High Voltage Power Supplies are designed to ensure safe, high-performance operation even in demanding environments.

GROW CONTROL High Voltage Power Supplies offer reliable, high-efficiency solutions tailored to applications in medical imaging, plasma generation, research, and defense. With a focus on indigenous technology, these power supplies meet stringent industry standards, ensuring stable and safe operation in even the most demanding environments

Features

- **Precision High-Voltage Output:** Provides accurate, stable high-voltage DC output ranging from 1 kV to 100 kV, supporting applications that demand tight control and stability.
- **Low Ripple and Noise:** Engineered to maintain ultra-low ripple and noise levels, ensuring a clean output critical for sensitive applications like imaging and particle acceleration.
- **High Efficiency:** Operates at over 90% efficiency, reducing power loss and optimizing performance.
- **Advanced Protection Mechanisms:** Comprehensive protection against over-voltage, over-current, arcing, and thermal faults for safe operation.
- **Compact and Modular Design:** Modular, rack-mountable design allows easy integration and scalability.
- **Remote Monitoring and Control:** Equipped with digital interfaces for remote adjustments and real-time monitoring of voltage and current levels.
- **Compliance with EMI/EMC Standards:** Designed to comply with **MIL-STD-461** and **EN 55022** standards, minimizing electromagnetic interference and ensuring compatibility with sensitive equipment.
- **Thermal Management:** Available with advanced cooling options (air and liquid) for reliable performance in high-demand applications.

Key Advantages

1. **Indigenous Technology:**
Proudly developed in India, **GROW CONTROL** high-voltage solutions offer a cost-effective and reliable option tailored to meet the needs of Indian industries and defense applications.
2. **High Stability and Precision:**
Delivers low-ripple, high-voltage output with adjustable voltage levels, making it ideal for high-precision applications like X-ray systems, medical imaging, and plasma generators.
3. **Energy Efficient:**
High efficiency minimizes operational costs and reduces energy waste, making these supplies suitable for continuous, demanding applications.
4. **Robust Safety Features:**
Integrated safety mechanisms, including arc protection, over-temperature shutdown, and over-voltage protection, ensure safe and reliable operation in critical environments.
5. **Modular and Scalable:**
Designed for easy expansion and integration, allowing configurations from single units to complex multi-output systems.

Applications

1. **Medical Imaging and X-Ray Equipment:**
Provides stable, high-voltage power for medical imaging and X-ray systems, ensuring high-quality imaging with minimal noise.
2. **Plasma Generation:**
Delivers precise high-voltage output required for plasma generation in applications like material processing, etching, and thin-film deposition.
3. **Particle Accelerators:**
Supplies the high voltage necessary for particle acceleration applications in research laboratories and physics experiments.
4. **Aerospace & Defense Systems:**
Used in radar, electronic warfare, and testing systems where stable high-voltage power is crucial for critical operations.

5. **Laboratory Testing and Research:**

Ideal for use in laboratories for high-voltage testing, scientific research, and various experimental setups requiring precise control.

Customization Options

GROW CONTROL offers a range of customization options to meet the unique needs of high-voltage applications:

- **Customizable Voltage and Current Ranges**
- **Advanced Arc and Over-Current Protection**
- **Cooling Configurations (Air or Liquid)**
- **Modular Design for Multi-Output Requirements**
- **Digital Control and Monitoring Interfaces**
- **Additional Safety Features for Enhanced Protection**

Our dedicated engineering team works with clients to develop tailored solutions that meet specific operational and environmental requirements.

Why Choose **GROW CONTROL**?

- **Indigenous Expertise:** Developed with extensive knowledge of the Indian market, **GROW CONTROL** high-voltage solutions are designed for reliability and ease of service, providing long-lasting support for industrial, research, and defense applications.
- **Precision and Stability:** With high voltage stability, low ripple, and precise control, these power supplies deliver the performance required for sensitive and high-stakes applications.
- **Energy Efficient:** Optimized for high efficiency, our high-voltage power supplies offer cost-effective operation, particularly beneficial for continuous use.
- **Comprehensive Safety:** Integrated protection features ensure safe operation under demanding conditions, safeguarding valuable equipment and systems.
- **Customer Support:** **GROW CONTROL** provides complete support, from design customization to installation and ongoing maintenance, ensuring a dependable user experience.



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Certifications

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

Technical Specification

Model no.	GC23HVDCPS	GC153HVDCPS	GC103HVDCPS	GC123HVDCPS
Power (KW)	2	15	10	12
Input	230V \pm 10%, 50Hz	415 \pm 10%, 50Hz	415 \pm 10%, 50Hz	415 \pm 10%, 50Hz
Output Voltage	0.5 to 50 kV	-1000 to -300 V	0 to 6.5 kV	0 to 2 kV
Load regulation (%)	0.5	0.5	0.5	0.5
Line voltage regulation (%)	\pm 0.5	\pm 0.5	0.5	0.5
Load regulation (%)	0.1	0.1	0.1	0.1

