

We Provide Solutions....

AN ISO 9001:2015 COMPANY



6UVPX POWER SUPPLY



GROW CONTROL proudly presents the indigenously designed and developed 6U VPX Power Supply, engineered to meet the stringent power requirements of defense, aerospace, and critical embedded systems. Compliant with VITA 62 and Military standards, this high-efficiency power supply ensures rugged reliability and advanced thermal management for mission-critical applications.

Designed and manufactured in India, this VPX power solution offers wide input voltage compatibility, multiple isolated outputs, and intelligent protection features, making it ideal for high-power VPX-based computing and radar systems. Empowering self-reliance in defense technology.

With two decades 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:

- **VITA 62 Compliant:** Fully compliant with VITA 62 standard for VPX systems, ensuring interoperability and reliability.
- **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.
- **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.



1. Indigenous Technology:

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Completely designed and manufactured in India, *GROW CONTROL* 6UVPX 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. Electroplating:

Provides stable, 6U VPX power supply 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. 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 6U VPX 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.
- **Ruggedized for Harsh Environments**: Compliant with military standards, *GROW CONTROL* 6U VPX 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



Technical Specification

Model no.	GCPT-6U-VPX-PS
Form Factor	6U
Pitch	10HP
Weight	<2.5 kg (withoutbackplane)
Storage Temperature	-40°C to+85°C
Operating Temperature	-40°C to+71°C
Dielectric with stand	As per IEC60950-1
Load derating	2.5%/°C from+55°C
Humidity	Up to 95%RH, Non-condensing
Cooling	Natural convention (Aircooling)
EMI	As perMIL-STD-461
Input & Output connector	High current output mating connector withpowerback plane
INPUT	
Input voltage range	230V (+15%, -20%)
Inputfrequency	47Hz – 63Hz
Input current	4.3A at fullload
OUTPUT	
Nominal output voltages	+12 VDC /50A
	+5 VDC / 25A
	+3.3 VDC / 5A
May Onderstein and	±12 VDC / 2A
MaxOutputpower	850W (at 184 –264.5VAC)
Holdup time	>1msec
Ripple andNoise	 @ 12 VDC < 120mV @ 3.3 VDC & 5 VDC < 60 mV
Lineregulation	±5%
Load regulation	±5% @ 12VDC
	±1% @ 3.3 VDC & 5 VDC
Thermalprotection	Thermostatplaced
Remote sense	Optional for 12 VDC & 5VDC
Efficiency	>80%



OUR CLIENTS



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