



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

We Provide Solutions....

AN ISO 9001:2015 COMPANY



LASER POWER SUPPLY



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

GROW CONTROL Laser Power Supply is a state-of-the-art solution designed to provide precise and stable power for various laser applications. Leveraging indigenous technology, this power supply is engineered for high performance and reliability, ensuring optimal operation in demanding industrial and research environments. Whether for cutting, welding, or medical applications, our laser power supply delivers consistent energy, meeting the specific needs of your laser system.

GROW CONTROL Laser Power Supply provides a high-performance solution for a variety of laser applications, ensuring reliable and precise power delivery. Utilizing **indigenous technology**, these power supplies are engineered to meet the demands of industrial, medical, and defense sectors, delivering exceptional performance and versatility.

Features

- **Wide Power Range:** Capable of delivering power outputs from a few watts to several kilowatts, suitable for a variety of laser types, including CO₂, fiber, and solid-state lasers.
- **High Efficiency:** Achieves efficiencies greater than 90%, minimizing energy losses and operational costs.
- **Precise Current and Voltage Control:** Advanced digital control systems ensure accurate regulation of output parameters for stable laser operation.
- **User-Friendly Interface:** Equipped with a digital display and intuitive controls for easy monitoring and adjustment of power settings.
- **Integrated Safety Features:** Built-in protections against over-voltage, over-current, and thermal events to safeguard both the power supply and the laser system.
- **Modular and Compact Design:** Space-efficient design allows for easy integration into various setups, including compact workspaces.
- **EMI/EMC Compliance:** Designed to meet MIL-STD-461 and EN 55022 standards, ensuring minimal electromagnetic interference.



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THE LASER POWER SUPPLY

Key Advantages

1. Indigenous Technology:

Developed and manufactured in India, our laser power supplies are tailored to meet local industry requirements with readily available support.

2. Versatile Applications:

Suitable for a wide range of laser applications, from industrial manufacturing to medical treatments, offering flexibility in usage.

3. High Reliability:

Built for durability and stability, ensuring consistent performance in challenging operational environments.

4. Energy Efficient:

Low power losses contribute to cost savings and improved sustainability, making it an environmentally friendly option.

5. Comprehensive Customization:

GROW CONTROL offers tailored solutions to meet specific operational requirements, ensuring optimal functionality for each application.

Applications

1. Industrial Laser Cutting:

Provides the precise and stable power necessary for efficient and effective laser cutting in manufacturing processes.

2. Laser Welding:

Ideal for high-speed laser welding applications, ensuring reliable energy delivery for strong welds.

3. Medical Lasers:

Supports medical applications such as laser surgeries and therapies, where accuracy and reliability are paramount.

4. Defense Applications:

Utilized in various defense technologies requiring laser systems, enhancing operational capabilities.

5. Research and Development:



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Perfect for laboratory use, supporting experimental setups in research projects involving laser technology.

Customization Options

GROW CONTROL offers a variety of customization options for the Laser Power Supply to accommodate specific application requirements:

- **Custom Power and Voltage Ratings**
- **Enhanced Control Features** for specific laser types (e.g., pulse modulation, power ramping)
- **Integrated Monitoring Systems** for real-time feedback
- **Optimized Cooling Solutions** (Air or liquid)
- **Modular Configurations for Scalable Power Ratings**
- **Communication Interfaces** for enhanced integration with other systems

Our engineering team collaborates with clients to deliver tailored solutions that precisely fit their operational needs, ensuring optimal performance and compatibility.

Why Choose **GROW CONTROL**?

- **Indigenous Expertise:** Tailored to meet Indian industry standards with local support for customization and maintenance.
- **Reliable and Consistent Performance:** Ensures precise and repeatable power delivery essential for critical laser applications.
- **Low Maintenance Requirements:** Durable design reduces wear and tear, minimizing downtime and maintenance costs.
- **Energy Efficient and Cost-Effective:** Low energy losses lead to cost savings and enhanced operational efficiency.
- **Customer Support:** From initial design consultation to installation and ongoing support, **GROW CONTROL** offers a full range of services.

Certifications

- **MIL-STD-810** – Environmental Testing Standards
- **MIL-STD-461** – Electromagnetic Compatibility Standards
- **EN 55022** – EMI Compliance
- **ISO 9001:2015** – Quality Management Systems



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WE LOADS CONTROL!!!

Technical Specification

Model no (new)	GCPT32V1 0ALPS	GCPT60V 100ALPS	GCPT160V 40AAC-DC	GCPT60V 150ALPS	GCPT30V1 00ALPS	GCPT135 V75ALPS	GCPT80V 150ALPS	GCPT130V 120ALPS	GCPT48V14 5ADCPS
Output power (W)	310	6000	6400	9000	3000	10000	12000	15500 (peak)	7000
Input power supply	180-275, 50Hz	415V, 3- ph, 50Hz	415V±10%, 3-ph	415V, 3-ph, 50Hz	415V, 3ph	380 to 440V, 50Hz, 3-ph	415V, 3- ph, 50Hz	415V, 3ph	415V, 3 Ph
Output Voltage (V)	32	60	160	60	30	135	80	130	48
Output Current (A)	10	100	40	150	100	75	150	120	145
Efficiency	85	85	90	85	85		85	85	90
Current Regulatio n (%)	0.5	0.5	≤1	1	≤1	0.5	1	1	≤1
Current Ripple (%)	<0.5	0.5	≤1	0.5	0.5	0.5	0.5	0.5	≤1
Current overshoot (%)	<1	1	-	≤5	<1	1	5	1	-

