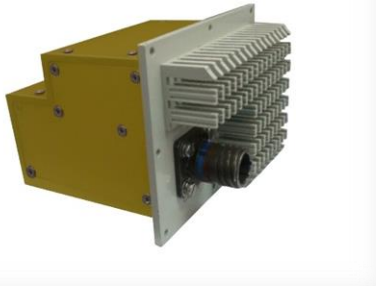
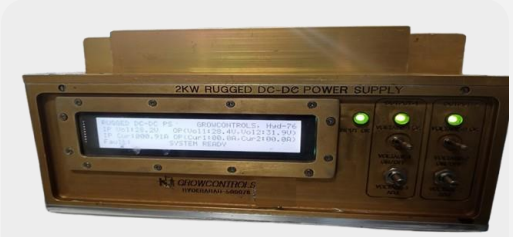
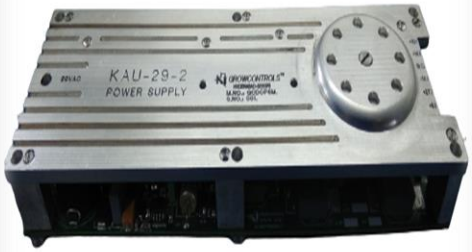
GROW CONTROL
POWER TECH PVT. LTD.

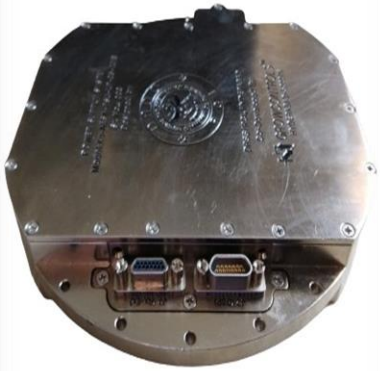
We Provide Solutions....

AN ISO 9001:2015 COMPANY









MULTI OUTPUT POWER SUPPLY

GROW CONTROL **Multi Output DC-DC Converters** are high-performance, indigenous power solutions designed to meet the specific needs of defense, aerospace, and industrial applications. These converters are capable of converting a single DC input into multiple isolated DC outputs, catering to complex systems requiring different voltage levels. With robust design features and adherence to stringent military standards, they are ideal for mission-critical applications in military vehicles, aircraft, drones, radar systems, and industrial automation.

Built with ***GROW CONTROL*** extensive experience in power electronics, these converters offer exceptional reliability and performance in harsh environments, ensuring stable power distribution across multiple outputs.

GROW CONTROL is dedicated to delivering reliable, high-performance, and indigenous power solutions. Our Rugged Multi Output DC-DC Converters are built to meet the toughest challenges in defense, aerospace, and industrial applications, ensuring reliable power delivery in even the harshest environments.

Features

- **Input Voltage**: 24V DC, 48V DC, 110V DC (Configurable as per platform specifications)
- **Output Voltages**: Multiple isolated outputs such as 5V DC, 12V DC, 15V DC, 24V DC, 28V DC, 48V DC (Customizable output combinations)
- **Power Rating**: Available in power ranges from 500W to 5kW, tailored for various high-power applications.
- **Efficiency**: Up to 95% efficiency, optimizing power usage across multiple outputs while reducing heat dissipation.
- **Operating Temperature**: -40°C to +85°C for reliable operation in extreme environmental conditions.
- **Rugged Construction**: Designed to withstand vibration, shock, and environmental stress as per **MIL-STD-810** standards.
- **EMI/EMC Compliance**: Certified to **MIL-STD-461** and **DO-160** for electromagnetic compatibility, minimizing interference with sensitive systems.

- **Multiple Output Isolation**: Each output is isolated to ensure high performance and prevent cross-talk between different power rails.
- **Protection Features**: Includes overload, short-circuit, over-temperature, and reverse polarity protection for enhanced system safety.
- **Compact & Lightweight**: Optimized design to fit into space-constrained and weight-sensitive applications

Key Advantages

1. **Indigenous Technology**:
   Fully developed in India, ***GROW CONTROL*** indigenous DC-DC converters ensure compliance with national defense requirements, fostering self-reliance in technology.
2. **Multi-Output Capability**:
   The converters provide multiple isolated DC outputs from a single DC input, allowing diverse systems to operate efficiently with varying voltage requirements from a centralized power source.
3. **High Efficiency**:
   With conversion efficiency up to 95%, these converters deliver stable power while minimizing energy losses and reducing cooling demands, crucial for extended operation.
4. **Ruggedized for Extreme Conditions**:
   Designed to meet **MIL-STD-810** for vibration and shock resistance, the converters ensure reliable performance in tough operational environments like military vehicles, drones, and industrial automation.
5. **Customizable to Mission Needs**
   GROW CONTROL offers customization options for input and output voltage configurations, making the converter suitable for diverse platforms requiring specific power outputs.
6. **Defense-Grade Reliability**

Designed to meet stringent defense and industrial standards such as **MIL-STD-704** (aircraft electrical power), these converters are trusted for mission-critical applications.

Applications

1. **Military Vehicles**:
   Ideal for powering different onboard electronic systems such as communication, navigation, and control systems, all from a single input source.
2. **Aerospace & UAVs**:
   Suitable for powering avionics, sensor arrays, and communication systems with multiple voltage levels in aircraft and unmanned aerial vehicles.
3. **Radar & Communication Systems**:
   Provides stable power to radar systems, radios, and other critical communication equipment used in defense and industrial sectors.
4. **Industrial Automation**:
   Powers diverse industrial automation systems requiring multiple voltage outputs for controllers, sensors, and robotic systems.
5. **Defense Electronics**:
   Used to supply different voltage rails in defense electronics such as control systems, electronic warfare systems, and secure communications equipment.

Customization Options

GROW CONTROL offers fully customizable configurations to meet the specific power needs of defense, aerospace, and industrial platforms. Key customizable features include:

- **Input and Output Voltage Levels**
- **Number of Outputs**
- **Power Rating and Efficiency Adjustments**
- **Form Factor and Weight Customization**
- **Enhanced Environmental Protection**
- **Specialized Cooling Solutions for High Power Systems**

We work closely with defense and industrial partners to develop solutions tailored to meet the demands of their unique applications, ensuring mission success.

Why Choose *GROW CONTROL?*

- **Indigenous Expertise**: With over 30 years of experience in power electronics, ***GROW CONTROL*** is a trusted provider of high-performance, reliable, and indigenous technology solutions for defense and industrial applications.
- **Multi-Voltage Output Solutions**: Our converters deliver multiple isolated outputs from a single DC source, ideal for complex systems requiring different power levels.
- **Mission-Ready Design**: Built to meet military standards for shock, vibration, and EMI/EMC compliance, ensuring consistent performance in extreme environments.
- **High Efficiency & Performance**: Optimized for maximum efficiency, ensuring long operational lifespans and energy savings, critical for military and industrial use.
- **Customer Support**: From design to post-delivery, ***GROW CONTROL*** provides exceptional customer service and technical support to ensure seamless integration and operation.

Certifications

- **MIL-STD-704 D/E/F** – Aircraft Electrical Power Standards
- **MIL-STD-810E/F/G**– Environmental Testing Standards
- **MIL-STD-461E/F/G**– Electromagnetic Interference (EMI) Standards
- **ISO 9001:2015** – Quality Management Systems

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Technical Specification

Model no.	GC15V4AMOPS	GCPDC2-60	GC28V78A-RDCDCPS	GC103DC-DC
Input voltage 1 (V DC) (Nominal)	27	28V	400	400
Input voltage Range (V)	18 to 29.4	18 to 36	18 to 36	350 -600
Output power (W)	50W	60	2000W	10kW
No. of outputs	5	4	2	2
Output 1 (V/A)	-14 / 0.5	3.63 / 1.55	32V/6A	300V/30A
Output 2 (V/A)	+14 / 2	5.5 / 6	28V/10A	28V/15A
Output 3 (V/A)	10 / 1	-5.5 / 1A	-	-
Output 4 (V/A)	5 / 0.5	18 / 0.5	-	-
Output 5 (V/A)	29VAC	-	-	-
Temperature (℃)	-40 to +71°C	-55 to 70	-	-40 to 71
Storage Temperature (℃)	-55 to 85	-40 to 71 -55 to 85	-	-55 to 85
Environmental stress screening	MIL – HDBK-216			
EMI/EMC	MIL-STD-461 E/F/G			
Environmental Tests (static & Dynamic)	MIL-STD-810 E/F/G			

OUR CLIENTS

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