

## **AN ISO 9001:2015 COMPANY**





**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** Auto Transformer Rectifier Unit (ATRU) is an essential electrical device used to convert alternating current (AC) to direct current (DC) for various industrial and commercial applications. It combines a transformer, which steps down the voltage, with a rectifier circuit that converts AC power to DC, ensuring a stable and regulated power supply.

#### **Features**

- AC to DC Conversion: Efficiently converts high-voltage AC to low-voltage DC.
- **Compact Design:** Optimized for space-saving and easy integration.
- **High Efficiency:** Minimizes power losses during the conversion process.
- **Voltage Regulation:** Ensures consistent DC output regardless of AC input fluctuations.
- **Robust Construction:** Built to withstand harsh industrial environments.

#### **Key Advantages**

#### 1. Reliable Power Supply:

Provides a stable DC output for sensitive equipment.

### 2. Energy Savings:

High efficiency reduces energy consumption and operational costs.

## 3. Versatile Application:

Can be used across various industries requiring DC power.

## 4. Maintenance-Friendly:

Easy to service and maintain with long operational lifespans.

# 5. Compact and Space-Saving:

Ideal for locations with limited space.



#### **Applications**

#### 1. Telecommunications:

Powers communication systems and equipment.

#### 2. Railways:

Used for electric traction in rail systems.

#### 3. Power Distribution:

Provides DC for industrial machinery and renewable energy systems.

#### 4. Military and Aerospace:

Ensures reliable power for critical systems and equipment.

#### 5. Data Centers:

Supports backup power systems and uninterrupted operations.

#### **Customization Options**

**GROW CONTROL** provides a variety of customization options for the Transformer Rectifier Unit to accommodate specific application requirements:

- Custom Input and Output
- Enhanced Control Algorithms for Specific Applications
- Integrated Monitoring Systems for real-time feedback
- Optimized Cooling Solutions (Air or liquid)
- Modular Configurations for Scalable Power Ratings
- Additional Communication Interfaces for enhanced integration

Our engineering team works closely 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 Efficient**: Designed for stability and high efficiency, ensuring consistent power delivery for critical 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



# **Technical Specification**

Model no	GCPT125V300ATRU
Input	
Rated AC Voltage	200V Ph-Ph, 400Hz
Variation of AC Supply	± 10%± 2%
Voltage	
No. of Phases	3(4 wire)
Output Specification	
Rated DC Voltage	270V DC
Rated DC Current	150Amps
Rating Class	Continuous
Ripple	Better than 3% RMS of Rated Output and at nominal AC Input Voltage
Harmonics	Better than 3% current harmonics



# **OUR CLIENTS**



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