



RFGX00VT 13.56 MHz 100-300 Watts RF Plasma Generators

The RFGX00VT includes a wide range of RF output power with 13.56 MHz frequency. RFGX00VT made by VacTechniche is a combination of radiofrequency electronics achievements, accurate and repeatable output, advanced power amplifier protection, high safety factors, modular design and high efficiency power amplifier. These features have turned this product into a reliable device for industrial and laboratory applications.

Features and Capabilities

Continuous operation capability

Due to use of high quality electronics components and its optimal design and high security margin, the system can be used in heavy duty cycles.

Ease of operation and adjustment:

Through a graphical display-control panel, user can monitor or control parameter such as:

- Forward power,
- Reflected power,
- DC bias,
- Alarms and errors.

Ease of control and troubleshooting:

- Self-bias monitoring,
- Always showing the system state on the display,
- Declaring the type of the produced errors by means of embedded alarming systems.

Safety

CE Immunity and Emission standard.

A complete set of Protections:

- Closed-loop output power control,
- Reflected power protection,
- Over temperature protection,
- Over current and overvoltage protection,
- Reflected power limit protection.

Remote control capability

- Standard Digital (Modbus) and analog control (0-5 V),
- Control: System on/off, Mode selection, Forward power adjustment,
- Monitoring: Forward Power, Reflected power.

Compressed Air-cooling(Fan) systems

DC to RF conversion efficiency more than 70%.

RF Generator Specifications			
Model	RFG100VT	RFG200VT	RFG300VT
Output power (W)	Adjustable 3W to 100 W (to a 50 Ω load)	Adjustable 3W to 200 W (to a 50 Ω load)	Adjustable 3W to 300 W (to a 50 Ω load)
Output frequency	13.56(MHz)	13.56(MHz)	13.56(MHz)
Output impedance	50(Ω) (resistance)	50(Ω) (resistance)	50(Ω) (resistance)
Output connector	N type (male)	N type (male)	N type (male)
Protection	Reflected power protection, over temperature protection, over current and overvoltage protection and reflected power limit protection.	Reflected power protection, over temperature protection, over current and overvoltage protection and reflected power limit protection.	Reflected power protection, over temperature protection, over current and overvoltage protection and reflected power limit protection.
Reflect Power limit	20-watt max. Reflect power limit is 20 watts up to 60-watt forward power and decreases automatically and linearly for higher power. Therefore, the reflect power limit, is 10 watts in 100-watt forward power. This additional protection option is for reducing power loss and increasing the system life time.	30-watt max. Reflect power limit is 30 watts up to 60-watt forward power and decreases automatically and linearly for higher power. Therefore, the reflect power limit, is 15 watts in 200-watt forward power. This additional protection option is for reducing power loss and increasing the system life time.	45-watt max. Reflect power limit is 45 watts up to 60-watt forward power and decreases automatically and linearly for higher power. Therefore, the reflect power limit, is 20 watts in 300-watt forward power. This additional protection option is for reducing power loss and increasing the system life time.
Display and control panel	Graphic display and touch screen control panel: Forward power, reflected power, User requested power, self-bias monitoring and Alarms and system state are shown on the display.	Graphic display and touch screen control panel: Forward power, reflected power, User requested power, self-bias monitoring and Alarms and system state are shown on the display.	Graphic display and touch screen control panel: Forward power, reflected power, User requested power, self-bias monitoring and Alarms and system state are shown on the display.
Remote control	Standard Digital (Modbus) and analog control (0-5 V). Control: System on/off, Mode selection, Forward power adjustment. Monitoring: Forward Power, Reflect power	Standard Digital (Modbus) and analog control (0-5 V). Control: System on/off, Mode selection, Forward power adjustment. Monitoring: Forward Power, Reflect power	Standard Digital (Modbus) and analog control (0-5 V). Control: System on/off, Mode selection, Forward power adjustment. Monitoring: Forward Power, Reflect power
Operating temperature range	10 to 40 $^{\circ}$ C	10 to 40 $^{\circ}$ C	10 to 40 $^{\circ}$ C
Cooling	Air (fan)	Air (fan)	Air (fan)
Dimensions (cm)	45 \times 22 \times 13.5 (length \times width \times height)	45 \times 22 \times 13.5 (length \times width \times height)	45 \times 22 \times 13.5 (length \times width \times height)

	3U rack mountable	3U rack mountable	3U rack mountable
Main input power	220 V (190-240 V) & 50 Hz (50-60 Hz)	220 V (190-240 V) & 50 Hz (50-60 Hz)	220 V (190-240 V) & 50 Hz (50-60 Hz)
Weight	Less than 9kg	Less than 9kg	Less than 10kg
Case material	Aluminum	Aluminum	Aluminum



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