ELITE RF
Over A Century's Experience In Every Watt

Solid State GaN Microwave Generator System

Model - HPG2.456KW

Elite RF's latest generation of Solid State microwave generators have been specially designed for customers' industrial applications and plasma generation. The Solid State GaN architecture makes it a modern and highly reliable product, with smart power control. The System comes in two parts, a 6KW SSPA generator unit and a 15 KW power supply.

This product comes with an industry leading 2-year warranty.

Features

- Wide Band Operation
- High Output Power
- Thermal Overload
- VSWR
- Water cooling
- High Frequency Stability
- Built-in Protection
- Digital Control
- Indicator Options (DC Power, Temp Fault)
- Protections (Thermal Overload, VSWR)

6 KW Generator

Front View

Back View

ELECTRICAL CHARACTERISTICS

" Generator Model: HPG2.45G6KWRF"

Parameter	Symbol	Min	Typ	Max	Unit
Frequency Range	BW	2400	—	2500	MHz
Output Power CW	Psat	—	6000	—	Watt
Output Power Range	Pr	100	—	6000	Watt
Frequency Step	Fs	—	100	—	KHz
Frequency Stability	Fsb	—	+ / - 3	—	PPM
Phase Shift	Ps	0	—	360	Deg
Alarms	A	—	Power/Temp/VSWR	—	N/A
I/O Connectors	I/O	—	D-sub/Ethernet	—	N/A
Power Connector	Pc	—	4 pin power conn.	—	N/A
Operating Voltage	VDC	49	50	51	VDC
Efficiency	Eff	—	60	—	%
Mode of Operation	M	—	CW/Pulse	—	Mode
Water Temperature	Wtmp	—	20	—	Deg C
Cooling Rate	Cr	—	3G/min	—	Gal
Cooling Liquid	Cl	—	De-ionized water	—	N/A

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Operating Case Temperature	Tc	10	—	+55	Deg. C
Storage Temperature	Tstg	0	—	+65	Deg. C
Relative Humidity (non-condensing)	RH	—	—	95	%
Altitude	ALT	—	—	10,000	Feet
Vibration/Shock	VI /SH	—	Normal Truck Transport	—	—

MECHANICAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit
Dimensions	Dim	—	19.5 x 37.5 x 19.5	—	Inches
Weight	Wt	—	145	—	lbs.
RF Connector Out	RF Conn	—	WR340	—	—
Cooling	Th	—	Water cooling - 12 mm O.D. pipe	—	—

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Solid State GaN Microwave Generator System

Model - HPG2.456KW

15 KW Power Supply

Size:19.5" x 33.0" x 9.0"
Weight: 95 lbs

FEATURES

- High Efficiency 92% typical
- Constant output power at 50 VDC
- 15,000W from nominal 3Φ -380/480VAC
- Protections: Short circuit / Overload / Over voltage /Over temperature / Fan fail
- Forced air cooling by built-in fan with speed control function
- Alarm signal output (relay contact and open collector signal): AC fail, DC OK, fan fail, OTP
- Built-in active PFC function

• ELECTRICAL CHARACTERISTICS

- Power Supply Model:"HPGPS5015KWAC"

INPUT SPECIFICATIONS

Parameter		Symbol	Min	Typ	Max	Unit
Operational Range		V_{IN}	340	380/480	530	V_{AC}
Frequency Range		F_{IN}	47	50/60	63	Hz
AC Input Current, (3Φ - all phases operational)	@480V_{AC}			25		A_{AC}
Recommended AC Breaker Size	@480V_{AC}			35		A_{AC}
Leakage Current (per Φ, 530V_{AC}, 60Hz)		I_{IN}		2.5	3.5	
Isolation (per EN62368)	Input - Output Input - Chassis/Signals	V	3000 2000			V_{AC}

OUTPUT SPECIFICATIONS

Parameter		Symbol	Min	Typ	Max	Unit
Output Power		W	0		15,000	W
Factory Set Default Set Point		V		50		V_{DC}
Max Output Current		I_{OUT}			300	A_{DC}
Isolation Output Chassis		V	100			V_{DC}

HPG2.456KW SYSTEM FEATURES

- *Operational control via a touch screen display, RS-232, Modbus*
- *Frequency - Variable 2.4 - 2.5 GHz*
- *CW/Pulse mode operation to lower operational costs (lowers electricity bill)*
- *Auto-adjusts individual RF amplifier power output to prevent process interruption due to amplifier failure*
- *Adjustable power output*
- *Forward Power/Reverse Power monitor*
- *Max Temperature Reported on amplifier modules*
- *380- 480 Volts AC Power / 3 Phase*
- *Field replaceable RF amplifiers*
- *Two unit system (power supply and amplifier) for installation flexibility*
- *WR340 Waveguide output*
- *Water input and output connections, water flow sensor*
- *E-Stop button on power supply and RF amplifier, E-Stop system has 2 remote connections available*

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