

3000 Watts

- Small, Lightweight Packaging
- Standard Power Ranges: 2000-3000W 400kHz - 2MHz
- Any Single Frequency from 250 kHz to 2 MHz
- Frequency Agile Tuning $\pm 10\%$
- Meets EN61010 & SEMI F47 Directives
- Regulated Switch-mode DC Section



Electrical Specification

Description	Specifications
AC Input Voltage	208, 400, or 480VAC; no neutral; 3 phase with ground (1 phase available in some configurations)
AC Line Frequency	50/60Hz nominal.
AC Input Current	17A/phase (208V) typical, depends on output specification.
Output Characteristics	Up to 3000W continuous forward power at the unit's rear bulkhead RF connector into a 50 Ohm load. The forward power out is to track the command set-point for any load conditions where the reflected power is less than: 300W.
Accuracy/Regulation	$\pm 3W$ or $\pm 2.0\%$ of set-point, whichever is greater, from 10% to 100% max output, as measured by either the actual output power and/or the forward analog read back signal.
Short Term Stability	$\pm 1.0\%$ for output power set-point (10-100%) during one continuous hour of output.
Long Term Stability	$\pm 3.0\%$ for output power set-point (10-100%) during 3 years of continuous output.
Rise Time	Less than 200ms; from leading edge of enable signal to 90% of power level requested.
Zero Set-point	Less than 1.0W actual output power and less than 1.0W read back power when set-point signal is at zero or at a negative
Available frequencies	400kHz, 2MHz
Frequency stability	$\pm 0.005\%$
Output Filtering (for full power into 50 Ohms)	Harmonic Signals: Less than -40dBc
	Spurious Signals: Less than -40dBc
	AM & FM Noise (@ 50 KHz offset): Less than -40dBc

Typical Control Signals and Rear Panel Electrical Connections

Description	Specifications
Signal Input Impedance	10K Ohms, minimum.
Signal Input Isolation	2300 VDC minimum to the A/C supply line.
Rear Panel Electrical Connections	
Input Power Connection	Harting HAN Modular 40A series rear panel mounted connector.
Output Power Connector	Female coaxial connector. (Available type N, HN, C, 7/16, etc.)
Control I/O Connector	15 pin sub miniature "D" type (female) receptacle.
DeviceNet Connector	5 pin micro style (male).
RS232 Connector	9 pin sub miniature "D" type (female) receptacle. (each side)
Chassis ground	$\frac{1}{4}$ - 20 stud on back panel.

Mechanical Specification

Description	Specifications
RF Unit Dimensions	17" W x 5.25" H x 16" D max. chassis dimensions
Weight	63 lb. (29 kg)
Mounting	Standard 19" EIA rack mounting.
Color and Finish:	All surfaces painted or have a coated finish such as zinc trivalent chromate, or equivalent.
Front Panel Indicators	All operating parameters displayed on a 20 X 2 -character alphanumeric display
Handles	Front Panel: Two handles (left & right) mounted on the front panel exterior, evenly spaced on center.
Warning Labels:	Safety Labels for hazardous voltages are provided on operator visible areas of the generator. IEC standard symbols in user visible areas for start, stop, enable and cautionary conditions, PE ground, high temperatures and RF energy present. Special marking available to customer requirements.

Environmental Specifications

Operating Temperature & Humidity	
Operating ambient temperature/humidity/air pressure	+10 to +40° C (50 to 104° F) ambient, 5-85% R.H. (non-condensing, no formation of ice), 86-106 kPa. Temperature, humidity and air pressure operating range class 3K3 per prEN50178.
Inlet Air Requirements	5-30° C max (41-95° F)
Inlet Water Cooling Requirements	2.0 GPM (8.6 l/m) @ 414 kPa (60 psi) max, 35° C max.
Coolant Type	Water
Coolant Fittings	¼" NPT female, one inlet and one outlet.
Storage and Transportation	
Storage temperature/humidity/air pressure	-25 to +70° C (class 1k4 per prEN50178), 5 - 95% humidity (non-condensing, no formation of ice, class 1k3), 70-106 kPa (class 1k4).
Transport temperature/humidity/air pressure:	-25 to +70° C, 5 - 95% humidity, 70-106 kPa (class 2k3).
Optional Features	Description
Pulsed mode operation	Single level, multilevel, synchronized, Advanced Envelope Control
Frequency Agile	Automatic frequency tuning to minimize reflected power
Fast Shutdown	Fast power shutdown for arc management
Common exciter (CEX)	Operate multiple supplies from a common clock source
Available Communication Interface	Analog, RS232, DeviceNet, EtherCAT

Regulatory Compliance

This unit is designed to meet the safety compliance requirements of EN 61010-1:2010, UL 61010-1:2012, and CSA C22.2 No. 61010-1:2012. Certified compliant systems carry the TUV mark for safety and/or EMC to all appropriate latest international standards.
This unit is designed and tested for full functionality through all SEMI F47-0200 voltage sag immunity events.
The unit is designed to meet Samsung Power Vaccine requirements.

Mechanical Details

Dimensions in inches

