

1500 Watts

- Available Frequencies from 400 kHz to 60 MHz choose any two
- Regulated Switch-mode DC Section
- Up to 1500W Per Output - Water Cooled
- Class C & Class D amplifier (LDMOS or MOSFET)
- 3U 19" Rack Mount
- DeviceNet, EtherCAT, RS232
- Frequency Agile
- Pulse Capability



Electrical Specification

Description	Specifications
AC Input Voltage	208, 400, or 480VAC; no neutral; 3 phase with ground.
AC Line Frequency	50/60Hz nominal.
AC Input Current	7.5A/phase (480V), depends on output specification.
Output Characteristics	Up to 1500W continuous forward power at each of the unit's rear bulkhead RF connectors into 50 Ohm loads. The forward power out is to track the command set-point for any load conditions where the reflected power is less than: 150W.
Accuracy/Regulation	±2W or ±1.0% 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	±1.0% for output power set-point (10-100%) during one continuous hour of output.
Long Term Stability	±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 (each side)	400kHz, 2MHz, 13.56MHz, 27.12MHz, 40.68MHz, 60MHz
Frequency stability	±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
Suggested (supplied) Mating Connector:	Shell: Harting 19300060546, Strain Relief: Harting 19000005092, Frame Insert (2): Harting 09140022701, Frame: Harting 09140060313
Output Power Connector:	Two female coaxial connectors. (Available type N, HN, C, 7/16, etc.)
DeviceNet Connector	Micro style 5 pin (male) (one connection for both sides)
RS232 Connector	9 pin sub miniature "D" type (female) receptacle. (each side)

Mechanical Specification

Description	Specifications
RF Unit Dimensions	483 mm x 133 mm x 457 mm (19"W x 5.25"H x 18"D) maximum chassis dimension
Weight	18 kg (39 lb.) maximum
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	AC on LED RF ON LED Interlock status LED Fault status LED All operating parameters displayed on a 20 X 2 -character alphanumeric display
Handles	Front Panel: Two handles mounted on the front panel exterior, evenly spaced on center.
Warning Labels:	Safety Labels for hazardous voltages, Heavy Object, and Caution for lifting by water fittings 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.

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	8.6 l/m (2 GPM) @ 414 kPa (60 psi) max, +5° to max 25° C (40° F to 77° F)
Coolant Type	Water
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 [mm] inches

