

## Up to 1500 Watts

- Modular Design – 3U Half Rack
- Regulated Switch-mode DC Section
- Class C Amplifier or Class D Amplifier (LDMOS or MOSFET)
- Available Frequencies 400 kHz to 60 MHz
- Up to 1500W Output - Water-cooled
- Available 208/400/480VAC
- DeviceNet, EtherCAT, RS232
- Frequency Agile
- Pulse Capability



### 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	8A/phase (208V) typical, depends on output specification.
Output Characteristics	Up to 1500W 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: 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	1000 VDC minimum to the A/C supply line.
<b>Rear Panel Electrical Connections</b>	
Input Power Connection 3 phase -pins 1, 2, 3 GND -ground clamp	Harting HAN 5Q rear panel bulkhead connector. Mating connector: shell: Comdel JI0952, Harting 09200030427, strain relief: Comdel JI0950, Harting09000005082 insert: Comdel JI0958, Harting 09120053101, female pin: Comdel JI0957, Harting 09330006202
Output Power Connector	Type "N" female coaxial connector. Available (HN, C, 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)

### Mechanical Specification

Description	Specifications
RF Unit Dimensions	8.5"W x 5.25"H x 18"D ( 21.6cm x 13.4cm x 45.7cm)
Weight	21 lb. (9.6 kg)
Mounting	Standard 19" EIA rack mounting with ½ rack filler panel.
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 (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	1.0 GPM (5.68 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

<p>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.</p> <p>This unit is designed and tested for full functionality through all SEMI F47-0200 voltage sag immunity events.</p> <p>The unit is designed to meet Samsung Power Vaccine requirements.</p>
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### Mechanical Details

inches

