4.4 GENERAL SPECIFICATIONS

The specifications listed below represent the minimum performance characteristics at the time of delivery.

SPECIFICATIONS

Frequency Response	0.8 to 2.5 GHz (Functional)
Rated Power Output:	500 Watts minimum 1.0-2.5GHz 250-500 Watts nominal increasing from 0.8-1.0GHz
Power Gain:	57 dB, 1.0-2.5GHz
Input Impedance:	Nominal 50 Ohms
Output Impedance:	Nominal 50 Ohms
Input Signal Levels:	< 0 dBm (1.0 mW) See data sheet for specific input drive levels
Harmonics:	-3dBc
Duty Factor:	CW
Prime Power :	220 VAC, 50/60 Hz, Single Phase
Power Requirements:	10Amps (less than 2.5 KVA)

4.5 Functional Description

The required voltages and currents to operate the TWT are provided by the Helix, Collector and Filament supplies. The Helix supply provides the negative high voltage potential between TWT Cathode and ground. The Collector supply provides the high voltage potential between the TWT Cathode and Collector. The Filament supply provides the Heater voltage and floats at high voltage Cathode potential. In some tubes a Grid element is used to switch the TWT beam ON and OFF. The primary control circuitry and the service power supplies (+5V, +/- 12V, + 24V) are energized when the main circuit breaker is turned ON. Upon pressing the AMP ON switch, the Filament and the Collector supplies are energized and a three minute warm up time is initiated. At the completion of the three minute time out, the Amplifier then goes to STBY mode if no faults were detected. Upon pressing the OPERATE switch the TWT is then turned ON.