

## Communications & Power Industries Klystrons



CPI Microwave Power Products (MPP) offers klystrons for particle accelerator applications. The VKL-7966A is a 1.497 GHz, 100 kW CW klystron for the injector stage of the Free Electron Laser (FEL) Driver Accelerator at Thomas Jefferson National Accelerator Facility.

### FEATURES:

- Diode electron gun
- 6-cavity RF circuit
- Single output window, WR-650 waveguide flange
- Collector capable of dissipating the entire beam power

### BENEFITS:

- High reliability & efficiency
- Proven long life designs
- Customizable models for your application

### APPLICATIONS:

- Particle accelerator

### Typical Operating Parameters

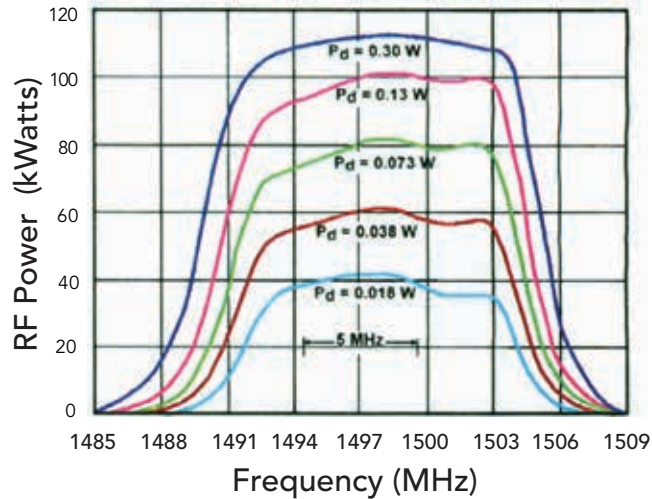
Power output	110 kW
Beam voltage	33.5 kV
Beam current	6.5 A
Frequency	1.497 GHz
1 dB bandwidth	14 MHz
Saturated gain	55.5 dB
Efficiency	51%
Collector coolant flow	65 gpm/250 l/m
Body coolant flow	5 gpm/20 l/m
Solenoid	
Current	22 Adc
Voltage	86 V
Current flow	2 gpm/8 l/m
Size	
Klystron height	58 in/148 cm
Klystron weight	350 lbs/160 kg
Solenoid Height	23 in/58 cm
Solenoid diameter	18 in/46 cm
Solenoid weight	375 lbs/170 kg

# CPI L-Band 100 kW CW Klystron: VKL-7966A

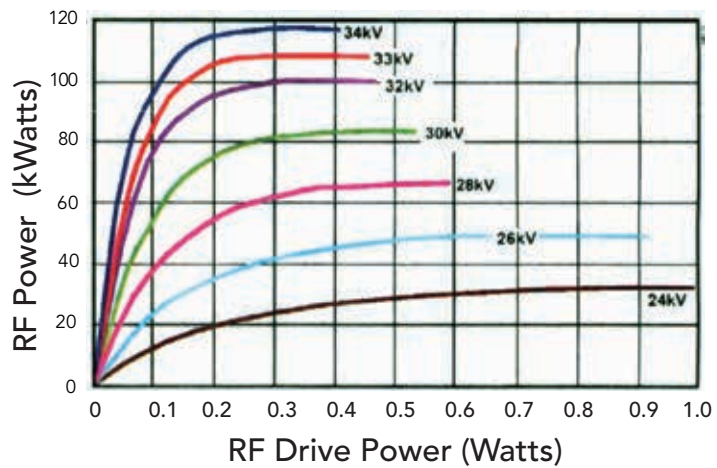
## Typical Performance Characteristics

### Frequency response:

Data taken at a beam voltage at 33.5 kV

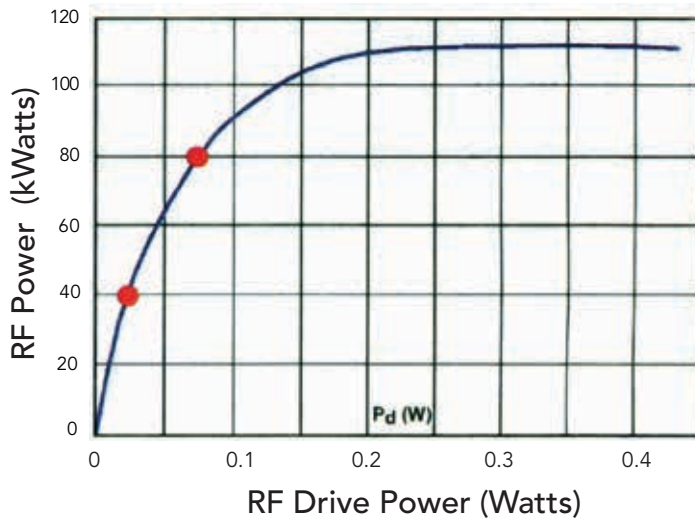


### Transfer curve:



### Incremental gain:

When the klystron is operating at either the 80 kW or 40 kW output power level and the RF drive is changed by 1 dB, there must be a corresponding output power change of 0.5 dB or greater.



With a history of producing high quality products, we can help you with your klystron.

Contact us at [MPPMarketing@cpii.com](mailto:MPPMarketing@cpii.com) or call us at +1 650-846-2800. The data should be used for basic information only. Formal, controlled specifications may be obtained from CPI for use in equipment design.



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For more detailed information, please refer to the corresponding CPI technical description if one has been published, or contact CPI. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design.

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