

CPI/Microwave Power Products (MPP) offers klystrons for particle accelerator applications. The VKP-8291A is an 805 MHz, 550 kW peak, 50 kW average long-pulse klystron for the US Department of Energy Spallation Neutron Source. The VKP-8291A fills 70 sockets at SNS. These tubes have a combined 1.3M filament hours through February 2008.

The VKP-8291B is a higher power version also for SNS. It produces 700 kW peak, 63 kW average power.

FEATURES

- Cathode-pulsed Electron gun
- 6-cavity rf circuit, including one 2nd harmonic cavity for enhanced efficiency
- Single output window
- Collector capable of dissipating the entire beam power



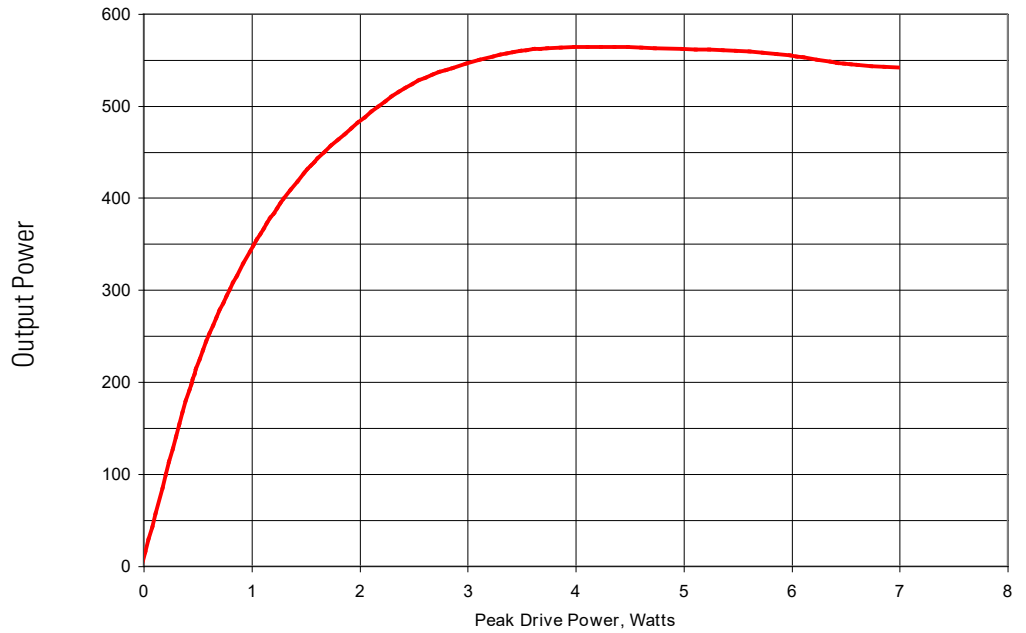
TYPICAL OPERATING PARAMETERS

	VKP-8291A	VKP-8291B	
Peak Power Output	550	700	kWatts (min)
Average Output Power	50	63	kWatts (min)
Peak Beam Voltage	75	82	kV
Peak Beam Current	11.2	13.1	A
Frequency	805	805	MHz
Duty	9%	9%	---
RF Pulse Width	1.50	1.50	msec
-1 dB Bandwidth	± 1.3	±1.3	MHz (min)
Saturated Gain	50	50	dB (min)
Efficiency	65% min	65% min	--- (min)
Collector Coolant Flow	35 / 130	45 / 170	gpm / l / m
Body / Magnet Coolant Flow	5 / 20	5 / 20	gpm / l / m
Electromagnet:			
Gun Coil Current	16	15	A
Gun Coil Voltage	3	3	V
Main Coil Current	28	26	A
Main Coil Voltage	80	80	V
Size with Accessories:			
Height	105 / 267	105 / 267	inches / cm
Weight	500 / 1100	500 / 1100	pounds / kg

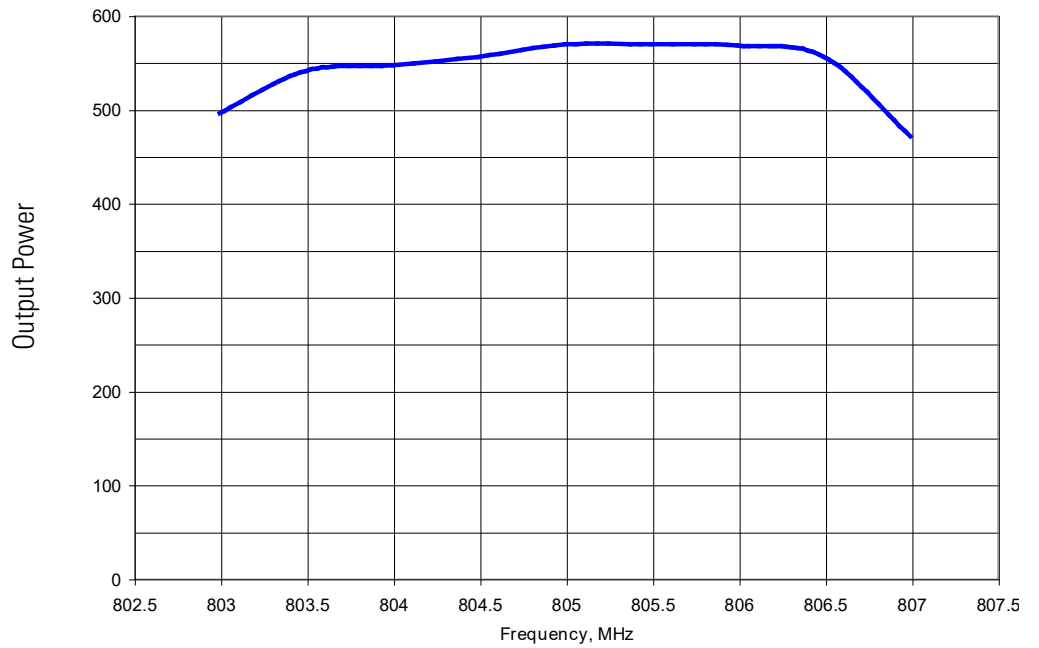
TYPICAL OPERATING CHARACTERISTICS

Measured data is from VKP-8291A, S/N 007

TRANSFER CURVE



FREQUENCY RESPONSE



The values listed above represent specified limits for the product and are subject to change. 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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