

POWER SUPPLIES



Models VR-2M and VR-3M



Models VR-6M and VR-6MU

Product description:

Our Power Supplies are designed to power tunable monochromatic quasi-optical sources of millimeter and sub-millimeter wavelength (VR-2M, VR-3M) or terahertz (VR-6M, VR-6MU) radiation based on Backward Wave Oscillators (BWO's).

The Power Supplies consist of a cathode power supply, grid power supply and heater power supply unit. All the voltages are highly regulated, insuring stable BWO operation with very low level of incidental modulation on the output power. The Power Supplies are equipped with an interlock system, which protects the BWO's from accidental fluctuations in the applied voltages. An optional software package and digital-to-analog converter (DAC-16) enable computer control of the system via RS232 or GPIB interfaces.

MODEL ->	VR-2M	VR-3M	VR-6M	VR-6MU
Designed for the following BWO models:	QS6, QS4, QS3	QS6, QS4, QS3, QS2	All QS1 models	All models
CATHODE POWER SUPPLY				
Output Voltage:	300...3000V at load current 0...40mA		0...6000V at load current 0...50mA	
Ripple and Noise:	< 10mV (peak to peak)		not more than 40 mV (peak to peak)	
Output Voltage Slew Rate:	1 V/ μ s	1 V/ μ s	1 V/ μ s	1 V/ μ s
Modulation:	triangle form 2.5 kHz, 0-50 V (peak to peak)			
GRID POWER SUPPLY:				
Voltage DC:	200V	200V	N/A	200V
Maximum Current:	7mA	7mA	N/A	7mA
HEATER POWER SUPPLY:				
Maximum DC Current:	2.75A, regulated	2.75A, regulated	0...2.75A AC, 360Hz (sinusoidal)	0...2.75A AC, 360Hz (sinusoidal)
Maximum Voltage:	1.4V	1.4V	0...8V AC (eff.)	0...8V AC (eff.)
INPUT POWER REQUIREMENTS				
Voltage AC:	110 V or 220 V +/-5%			
Power Consumption:	120 W	150 W	500 W (typical)	500 W (typical)
MECHANICAL SPECIFICATIONS				
Dimensions:	6" x 15" x 15"	6" x 15" x 15"	10" x 20" x 20"	10" x 20" x 20"
Weight:	15 kg	15 kg	29 kg	29 kg