



DC Power Supplies with PID Temperature Controllers

- Achieve excellent flux stability using closed-loop temperature or power feedback
- Package consists of power supply, PID temperature controller, cables and adapters
- Provides optimal effusion cell control with integrated PID controller
- Increase available voltage envelope by stacking
- Certified for all major regulatory compliance standards
- All power supplies covered by a 4-year warranty

Description

Veeco offers a complete line of power supplies that include PID temperature controllers for accurate, reliable operation of MBE sources and substrate heaters. Veeco's DC supplies are compatible with all Veeco effusion cells. The power supplies are offered in 1500 and 2500 wattages.

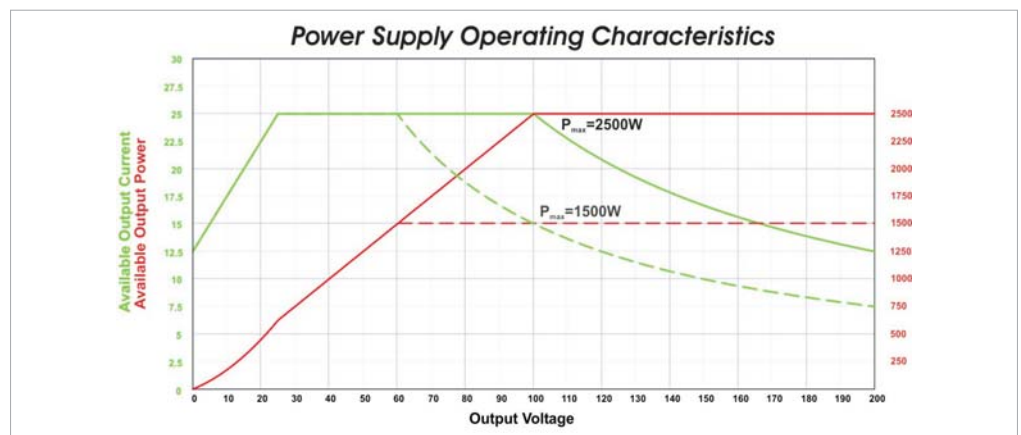
Product Model Options	
Wattage	Model Number
1500W	1508
2500W	2508

All models covered by a 4-year parts and labor warranty.

Product Specifications

Mechanical Specifications—All Models	
Item	Specification
Form factor	1/2 rack width, 3U height (5-1/4")
Dimensions	9.5"Wx5.25"Hx20"D
Weight	24.2lbs (11Kg)

Environmental Specifications—All Models	
Item	Specification
Temperature	0-40°C (ambient)
Humidity	<90% (non-condensing)
Cooling	Internal DC fan with external user maintainable filter



Typical output current and output power of the 1508 & 2508 power supplies as a function of voltage.

Electrical Specifications—All Models		
Type	Item	Specification
Input	AC power	100-240VAC, 50-60Hz, single-phase
	Input current	1508—7.6A, 2508—11.8A (see “De-rating” below)
Output	Output voltage	0-200VDC, 10mV resolution (up to 400V for stack configurations)
	Output current	0-25A, 10mA resolution
	Output power	0-1500W, 1W resolution (1508), 0-2500W, 1W resolution (2508) (see “De-rating” below) (up to 10kW in stack configuration)
	Noise and ripple	<100mV (RMS)
Protection	Input Protection	Over current protection with double pole circuit, breaker, surge protected with varistor and gas discharge, limiter circuits
	De-rating	1500W from 180-240VAC (1508), 2500W from 180-240VAC (2508)
		1000W from 100-179VAC (all models) For full rated power, connect to power mains rated > 180VAC
	Thermal Protection	Heat sink is temperature monitored, output is disabled on over temperature condition
	Shutdown conditions	Over temperature, under temperature, over voltage under voltage, unstable AC

Interconnect Specifications—All Models	
Item	Specification
PID thermocouple	Type C, D, K, S available
PID communications	500VDC isolation, software selectable RS-232 or RS-485, D-9 connector
Communications	500VDC isolation, software selectable RS-232 or RS-485, D-9 connector
1508 to 1508 or 2508 to 2508 (stack) communications	500VDC isolation, intermodule link for series stack connection control, D-9 connector
Remote analog in	500VDC isolation, 4-20mA control input, BNC connector
Interlock inputs	500VDC isolation <ul style="list-style-type: none"> • Primary safety interlock (normally closed), pins 1(+), 4(-) • Force PID controller to 2nd setpoint (normally open), pins 2(+), 5(-) • Spare pins 3(+), 6(-) Interlocks are 12VDC, dry contact requiring 10mA external switch capability

Regulatory Compliance—All Models

All power supply models comply with the following international standards.	
Safety	UL 60950 (USA), EN 60950 (Europe), CSA C22.2 No. 60950-00 (Canada)
Conducted/radiated emissions	FCC Part 15 Subpart B Class A (North America), CISPR11/EN55011 Class A Group 1, ISM Equipment (Europe)
EMI Immunity/Electromagnetic Compatibility	IEC61000-6-2: 1999, EN61000-6-2: 1999
EC Compliance	“CE” marked



Solutions for a nanoscale world.™

Compound Semiconductor • MBE Operations
4900 Constellation Drive, St. Paul, MN 55127 USA
Phone: (651) 482-0800, Fax: (651) 482-0600
www.veeco.com/mbe