KRONA ELECTRONICS

Vue-MV Multi-Diode Controller

Applications
- Fiber lasers and amplifiers
- Medical systems
- Direct diode materials processing
- RGB displays

Features
- Drives multiple, high-power diodes
- WinVue user interface software
- Developer Kit or PCB-only options
- CW or Pulsed operation
- DiodeGuard™ Safety Circuitry on MV-21 and MV-40 versions

The Vue-MV controller is designed for applications that use multiple high-power discrete laser diodes operated in series. Thanks to its digital and analog interfaces, multiple controllers can be combined and operated either individually or as a group.

With WinVue software and an attached PC the user can do more than just control the laser diode. WinVue provides tools to aid the researcher in R&D and the production engineer in manufacturing: data logging, one-click LIV acquisition, power calibration, pulse repetition rate and width selection, power and current limits, and display of all control settings and inputs.

In addition to the array of safety features common to all VueMetrix products, the MV-21 and MV-40 are equipped with **DiodeGuard™** to protect your laser diodes against short circuits and intermittent connections.

As a stand-alone system controller, the Vue-MV controller can be programmed with warm-up and operating conditions. The controller will maintain a pre-set operating state while protecting the diode and the system by monitoring temperature, input and output voltages, current, and an interlock.
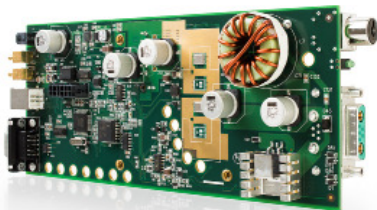
The most convenient choice for a single user is the Developer Kit, which combines a controller, a power supply, connectors, and the WinVue User Interface software program.

For OEM system integrators we offer the Vue-MV driver as a PCB only option with an extensive library of serial commands.

The Vue-MV has all the attributes expected in an OEM controller - and more. In addition to being compact, low cost and configurable, its extensive feature set allows it to be a bench top controller, a stand-alone system controller, or an embedded control component in a complex instrument.

Developer Kit option (MV-21 shown)

PCB only option (MV-21 shown)

KRONA ELECTRONICS

SPECIFICATIONS	MV-12	MV-15	MV-21	MV-40
Output				
Output Current and Voltage				
Option-01	10A, 12V max.	10A, 15V max.	10A, 21V max.	10A, 40V max.
Option-02	12A, 10V max.	12A, 12V max.	12A, 16V max.	12A, 34V max.
Option-03	15A, 8V max.	15A, 10V max.	15A, 14V max.	15A, 27V max.
Option-04	n/a	n/a	n/a	18A, 25V max.
Output Current Resolution	0.03% full scale			
Noise/ripple @ Max. Load	0.1% RMS	0.2% RMS	0.05% RMS	
Compliance Voltage @ Max. Current	1.5 - 12.0V	6 - 15V	6 - 21V	10 - 40V
Laser Voltage Measurement Range	0 - 12V	0 - 15V	0 - 21V	0 - 40V
Laser Voltage Measurement Resolution	0.03%			
Laser Voltage Measurement Accuracy	3%			
Pulsed Operation				
Pulse Rate (Internal Control)	User settable up to 1 kHz max.		User settable up to 100 Hz max.	
Pulse Width (Internal Control)	User settable			
Pulse Rise Time @ max. current	< 800 µsec		< 1.5 msec	
External Trigger	TTL, edge trigger			
External Level Control	0 - 2.5V		0 - 5V	
Monitor Inputs				
Light-loop / monitor Input Signal Range	0 - 2mA or 0 - 2.5V, factory settable (default is 0 - 2.5V)			
Light-loop / monitor Input Signal Resolution	0.03% of full scale			
Light-loop / monitor Input Signal Accuracy	User-calibrated using software interface			
Temperature Sensor (not included)	NTC 10kΩ			
Temperature Resolution / Accuracy	0.03°C, typical / User-calibrated			
Connectors				
Data	USB-B		RS-232 or USB-B	
Output	Combo D-sub 7W2 female			
External Trigger / External Level	SMB / SMB			
Interlock	Molex Micro-Fit 2 x 1			
Power	DIN-8		AC w/ ground	
General				
Input Voltage	90 - 264 VAC (PSU is external)		90 - 264 VAC (PSU is internal)	
Input Current	8.6A at 115V		< 6A at 115V	< 8A at 115V
Frequency	47 - 67 Hz			
Efficiency	95%		90%	
EMI	Designed to meet FCC-B			
Operating Temperature	0°C to 40°C, non-condensing			
Dimensions (LxWxH) - Developer Kit	6.5" x 2.6" x 2.0"		8.5" x 3.8" x 3.5"	10.7" x 4.8" x 4.0"
Dimensions (LxWxH) - PCB	5.6" x 2.5" x 1.2"		8.5" x 3.4" x 1.3"	9.7" x 4.5" x 1.4"

Krona Electronics is continually improving the performance of its products. Specifications are subject to change without notice.
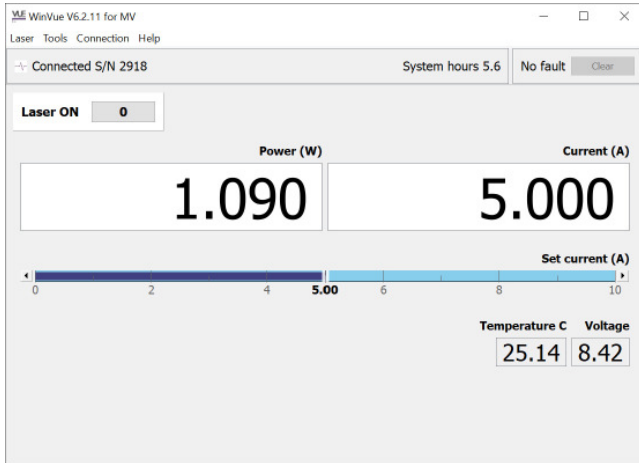
WinVue user interface software
Main laser control window
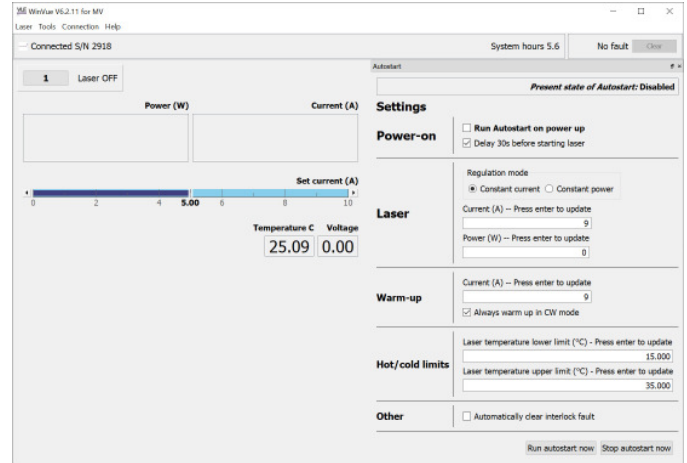
WinVue user interface software
Autostart window