



## **CW Diode Laser System**

### DLMD Series



### **Overview**

The DLMD series is a family of visible red diode lasers that can deliver up to 1800 mW output power. The laser series features ultra-compact design, long operating lifetime, easy operation, and FDA-compliant system with driver. The DLMD series is widely used in measurement, spectrum analysis, laser lighting show, etc.

### **Features**

- Visible red spectral wavelength range
- CW operating mode
- Optical output power 500mW to 1800mW
- Ultra-compact design
- FDA compliant

### **Applications**

- Measurement
- Spectrum analysis
- Laser lighting show

**DLMD Series Laser Head Specifications**

Parameter	DLMD637	DLMD640	DLMD642
Wavelength	637 nm	640 nm	642 nm
Wavelength tolerance	±5 nm	±5 nm	±5 nm
Output power	>500 mW, >1000 mW	>500 mW, >1000 mW	>500 mW, >1000 mW
Operating mode	CW	CW	CW
Power stability (rms, over 4 hours)	<2%, <1%	<2%, <1%	<2%, <1%
Polarization direction	Horizontal/Vertical	Horizontal/Vertical	Horizontal/Vertical
Beam diameter at aperture (1/e <sup>2</sup> )	5.1x4.1 mm	5.1x4.1 mm	5.1x4.1 mm
Beam divergence, full angle	<1.0 mrad	<1.0 mrad	<1.0 mrad
Warm-up time	<5 min	<5 min	<5 min
Operating temperature	10-35°C	10-35°C	10-35°C
Dimensions	153(L)×81(W) ×93.7(H) mm <sup>3</sup>		
Weight	1.8 kg		
Modulation option	TTL/Analog: 1Hz-1kHz, 1kHz-10kHz, 10kHz-30kHz		
Expected lifetime	10,000 hours	10,000 hours	10,000 hours
Warranty period	10 months	10 months	10 months
FDA Compliance	FDA CDRH Title 21 CFR 1040.10/11 Class IV	FDA CDRH Title 21 CFR 1040.10/11 Class IV	FDA CDRH Title 21 CFR 1040.10/11 Class IV

## Remarks:

- Specifications of the CW laser is based on the laser performance at full power output after the specified warmup period. The stability of output power may change when output power is adjusted at a different power level.
- Specifications are subject to change without notice.

**DLMD Series Laser Head Specifications (Continued)**

Parameter	DLMD650	DLMD655	DLMD660
Wavelength	650 nm	655 nm	660 nm
Wavelength tolerance	±10 nm	±10 nm	±5 nm
Output power	>1000 mW, >1800 mW	>1000 mW, >1800 mW	>1000 mW, >1800 mW
Operating mode	CW	CW	CW
Power stability (rms, over 4 hours)	<2%, <1%	<2%, <1%	<2%, <1%
Polarization direction	Horizontal + Vertical	Horizontal + Vertical	Horizontal + Vertical
Beam diameter at aperture (1/e <sup>2</sup> )	~2x7 mm	~2x7 mm	~2x7 mm
Beam divergence, full angle	<4.7x4.0 mrad	<4.7x4.0 mrad	<4.7x4.0 mrad
Warm-up time	<5 min	<5 min	<5 min
Operating temperature	10-35°C	10-35°C	10-35°C
Dimensions	153(L)x81(W) x93.7(H) mm <sup>3</sup>		
Weight	1.8 kg		
Modulation option	TTL/Analog: 1Hz-1kHz, 1kHz-10kHz, 10kHz-30kHz		
Expected lifetime	10,000 hours	10,000 hours	10,000 hours
Warranty period	10 months	10 months	10 months
FDA Compliance	FDA CDRH Title 21 CFR 1040.10/11 Class IV	FDA CDRH Title 21 CFR 1040.10/11 Class IV	FDA CDRH Title 21 CFR 1040.10/11 Class IV

## Remarks:

- Specifications of the CW laser is based on the laser performance at full power output after the specified warmup period. The stability of output power may change when output power is adjusted at a different power level.
- Specifications are subject to change without notice.

### High Power Elite Power Supply

Parameter	Specification
Dimensions	275(L) ×145(W) ×104(H) mm <sup>3</sup>
Weight	2.1 kg
Input voltage	100-240VAC
Feature	Standard
Applicable models	DLMD637/640/642

### High Power Laboratory Power Supply

Parameter	Specification
Dimensions	277(L) ×145(W) ×106(H) mm <sup>3</sup>
Weight	2.3 kg
Input voltage	100-240VAC
Feature	Adjustable power
Applicable models	DLMD637/640/642

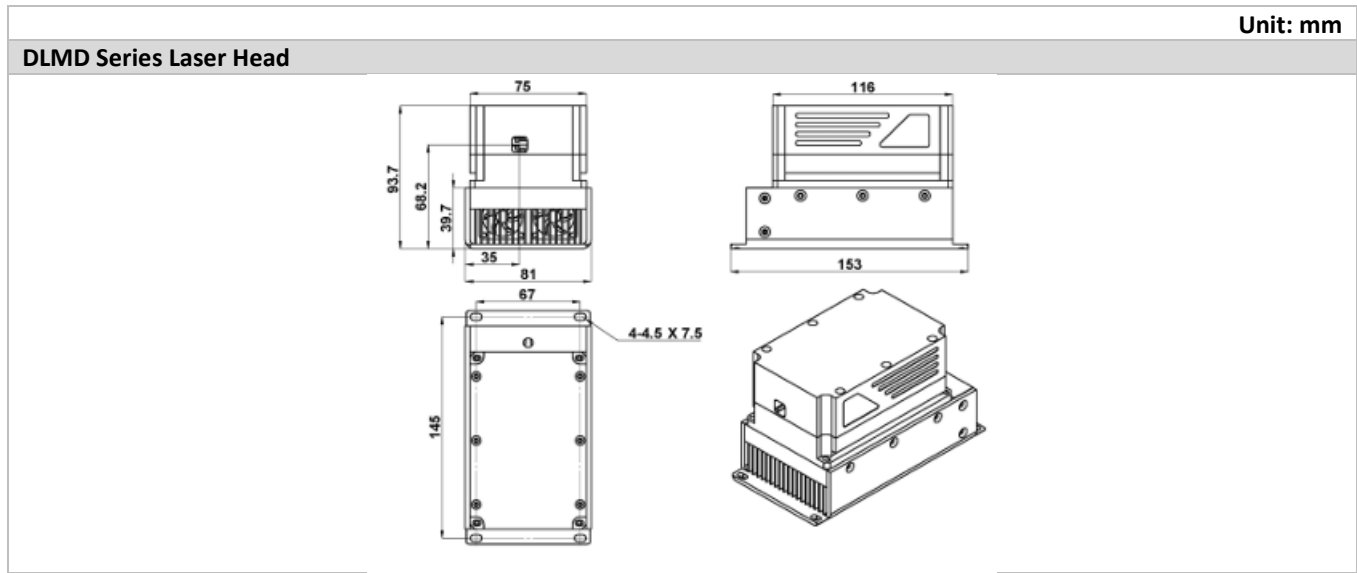
### Elite Power Supply

Parameter	Specification
Dimensions	171(L) ×130(W) ×62.2(H) mm <sup>3</sup>
Weight	1.2 kg
Input voltage	85-264VAC
Feature	Standard
Applicable models	DLMD650/655/660

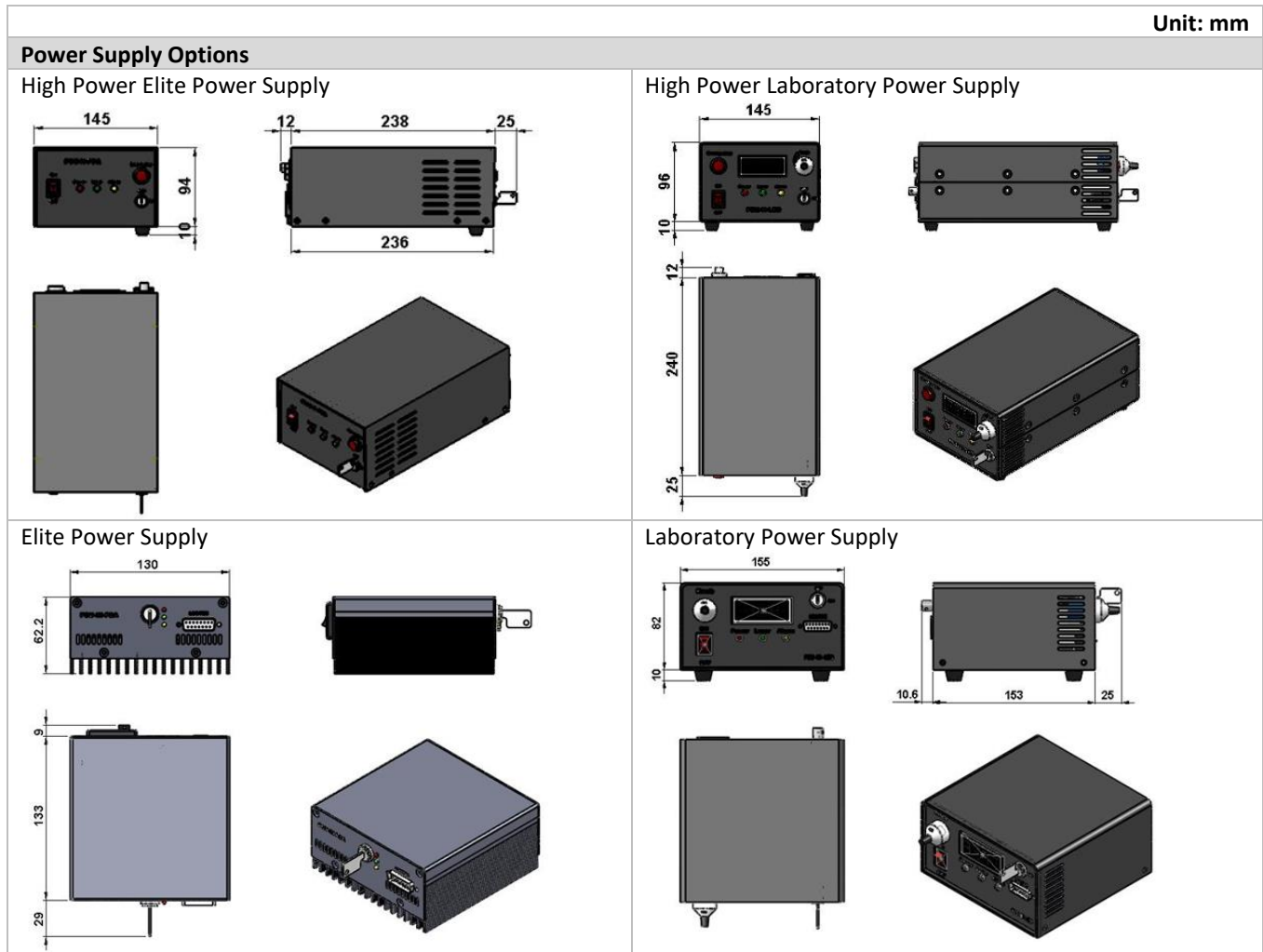
### Laboratory Power Supply

Parameter	Specification
Dimensions	188.6(L) ×155(W) ×92(H) mm <sup>3</sup>
Weight	1.5 kg
Input voltage	85-264VAC
Feature	Adjustable power
Applicable models	DLMD650/655/660

### DLMD Series Laser Head Outline Dimensions



### Power Supply Outline Dimensions



## Ordering Information

<b>Read Model No.</b>	<b>DLMD[1]-[2][3][4][5][6]</b>
DLMD = Laser Model Series	CW Diode Laser
[1] = Wavelength	637nm ( <b>637</b> ), 640nm ( <b>640</b> ), 642nm ( <b>642</b> ), 650nm ( <b>650</b> ), 655nm ( <b>655</b> ), 660nm ( <b>660</b> )
[2] = Output Power	>500mW ( <b>500</b> ), >1000mW ( <b>1H</b> ), >1800mW ( <b>1E</b> )
[3] = Power Supply	High Power Elite Power Supply ( <b>H</b> ), High Power Laboratory Power Supply ( <b>M</b> ), Elite Power Supply ( <b>E</b> ), Laboratory Power Supply ( <b>L</b> )
[4] = Power Stability	<2% ( <b>2</b> ), <1% ( <b>D</b> )
[5] = Modulation	None ( <b>0</b> ) <b>TTL:</b> 1Hz-1kHz ( <b>T1</b> ), 1kHz-10kHz ( <b>T2</b> ), 10kHz-30kHz ( <b>T3</b> ) <b>Analog:</b> 1Hz-1kHz ( <b>A1</b> ), 1kHz-10kHz ( <b>A2</b> ), 10kHz-30kHz ( <b>A3</b> )
[6] = Polarization Direction	Horizontal ( <b>H</b> ), Vertical ( <b>V</b> ), Horizontal + Vertical ( <b>M</b> )

Note: The above specifications are subject to change without notice.



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