



405nm-655nm Line Laser Modules for Machine Vision, Dia. 18mm

MVEC Series



Overview

The Lasermate MVEC series laser diode module is a line laser module designed for applications that require a wavelength in the 405nm to 655nm spectral range. The laser module is constructed with features of ultra-compact design, long operating lifetime, low cost and easy operation. With its industrial-suited design and stable performance, the laser is the ideal solution as an integrated module in collimation, laser medical treatment, scientific experiment, optical instrument, and many other applications.

Features

- Wavelength range: 405-655nm
- Diameter: Φ 18 mm
- Wide operating temperature range
- Low cost
- Easy operation

Applications

- Collimation
- Laser medical treatment
- Scientific experiment
- Optical instrument

Specifications (T_{op} = 25°C)

Part Number	MVEC405-100F6-Lx	MVEC450-30F6-Lx	MVEC635-100F3-Lx	MVEC637-100F3-Lx	MVEC655-100F3-Lx
Wavelength (nm)	405	450	635	637	655
Wavelength tolerance (nm) typical	±5	±5	±5	±5	±10
Output power (mW)	~100	~30	~100	~100	~100
Linewidth at <250mm	40-200um				
Linewidth at 1m	<1.0mm				
Fan angle	7° (x=7), 10° (x=10), 15° (x=15), 30° (x=30), 45° (x=45), 50° (x=50), 60° (x=60), 75° (x=75), 90° (x=90)				
Laser operation mode	CW				
Expected lifetime (hrs)	10,000				
Operating voltage	6V DC	6V DC	3V DC	3V DC	3V DC
Connection	Cable with flying leads				
Operating temperature (°C)	-10 to +45				
Storage temperature (°C)	-20 to +80				
Humidity	<90%, non-condensing				
Dissipated heat (W)	<1W				
Weight (g)	40g				
Length (mm)	60mm				
Diameter head (mm)	18mm				
Material	Aluminum				

Note: If the standard output power is too high for your applications, we can supply you a lower output power version. Please let us know the maximum or the range of output power needed.

Outline Dimensions (unit: mm)**Additional Notes**

- The MVEC series laser modules are designated solely as OEM components for incorporation into the customer's end products. Therefore, it is the customer's responsibility to comply with the appropriate requirements of FDA 21CFR, section 1040.10 and 1040.11 for complete laser products. For the code of FDA regulations, please refer to [FDA Performance Standards for Light-Emitting Products](#) for detailed information.
- Additional heat sink may be needed if the laser module is operated continuously for a long period of time.
- Specifications are subject to change without notice.

Accessories

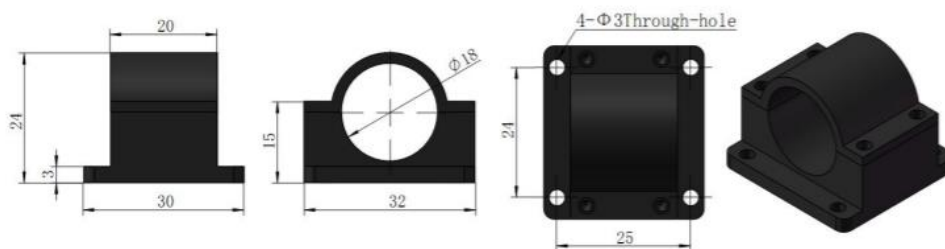
Module Mount

The module mount acts as a combined heat sink mount for 18mm diameter diode modules. To install, loosen the four small set screws and remove the top half of the module mount to put the laser in. The laser is held firmly by tightening the screws. The module mount reserves 4 through-holes for the user to fix the laser on a flat and thermally dissipating surface.

Mount Specifications

- Module mount size: 30mm x 32mm x 24mm
- Applicable models diameter size: 18mm
- Through-hole diameter: 3mm
- Through-hole distance: 25mm x 24mm

Outline Dimensions of Mount (unit: mm)



Connector

- USB connector: suitable for access to computer control
- Bayonet nut connector: to minimize distractions
- Headset connector: easy to connect and disconnect

Battery Case

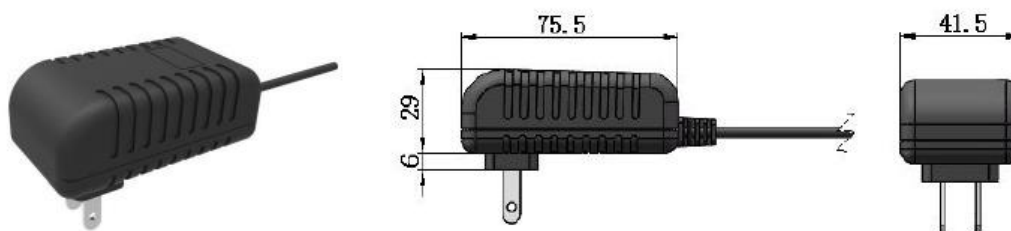
- Power supply: 3V AA Alkaline batteries x 2
- Battery case connector: Optional, suggest using headset connector

Power Adapter

Specifications

- Input voltage: 100-240V AC 50/60Hz
- Output voltage: DC 6V 1A
- Adapter size: 75.5mm x 41.5mm x 29mm
- Adapter cable length: 2m

Dimensions of Power Adapter (unit: mm)





www.lasermate.com

Lasermate Group, Inc.
19608 Camino De Rosa
Walnut, CA 91789 USA
Tel: (909)718-0999
Fax: (909)718-0998
sales@lasermate.com
www.lasermate.com