



MVEC Series 405nm-655nm Line Laser Modules for Machine Vision

With Line Generating Optics, 18mm Diameter and Wide Operating Temperature Range

Overview

The 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: $\Phi 18$ mm
- Wide operating temperature range
- Low cost
- Easy operation



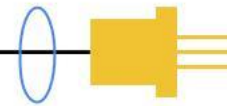
Specifications ($T_{op} = 25^{\circ}\text{C}$)

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

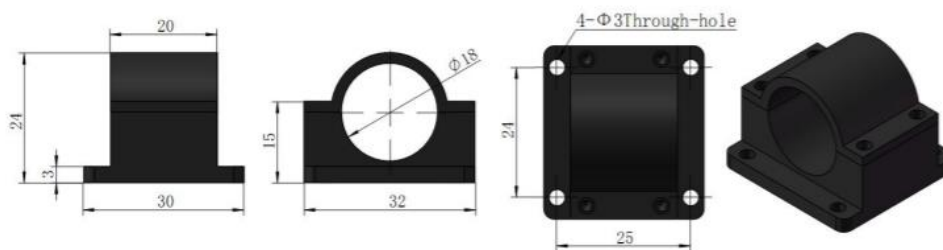
Module Mount

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

The universal laser diode module power supply with CE-marking provides a well-regulated 5VDC. The auto-ranging power module can be connected to any 85-264 VAC 47/63 Hz supply. There is an IEC 60320 input socket and a 0.5m output cable terminated with an easy connect/disconnect jack socket. The headset connector is compatible with the power supply jack.

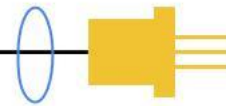
Specifications

- Input voltage: 85-264V AC 47/63Hz
- Output voltage: DC 5V 5A
- Adapter size: 120mm x 60mm x 37mm
- Adapter cable length: 0.5m
- Cable connector: Easy connect/disconnect jack

Lasermate Group, Inc.

19608 Camino De Rosa, Walnut, CA 91789, USA

Tel: (909)718-0999 | Fax: (909)718-0998 | E-mail: info@lasermate.com | URL: <http://www.lasermate.com>



Dimensions of Power Adapter (unit: mm)

