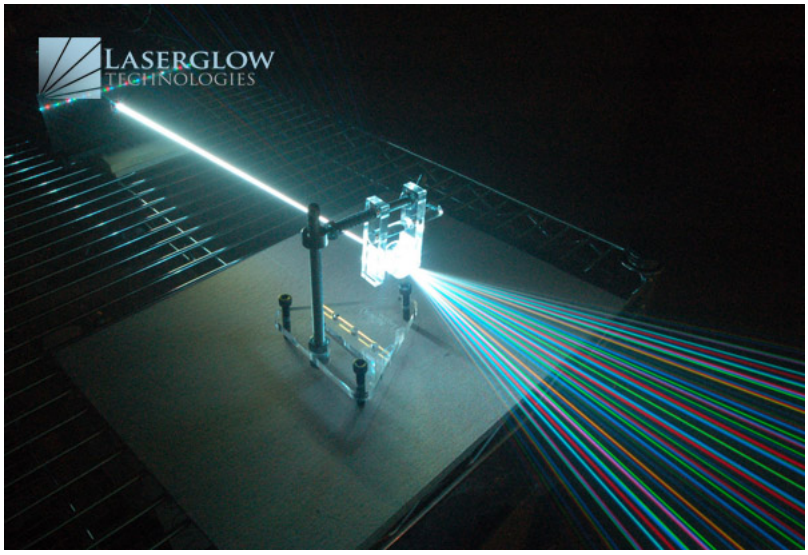
Arktis Laser Product Datasheet

LMM-RGB1 Combined Triple-Wavelength Laser System



Series Specifications:

Nominal Wavelength	473 nm, 532 nm, 635 nm
Output Type	CW
Laser Source Type	DPSS & Diode

Overview:

The LMM-RGB1 Series of Combined-wavelength Diode-Pumped Solid-State (DPSS) / Diode Lasers are ideal for applications requiring red, green, and blue wavelengths to be emitted from a single laser module. These RGB laser systems are available from 500 mW to 1 W combined with a high level of long-term output power stability and long operating lifetime at an aggressively competitive cost.

These lasers are commonly used for laser light shows (entertainment) as well as a variety of scientific applications including, PIV, Raman Spectroscopy, and a broad spectrum of other applications. The driver is available as a complete FDA-compliant system or as an O.E.M. component with significantly reduced dimensions.

Available with TTL and Analog modulation, and in a wide array of output power and stability levels, Laserglow products are currently being used by some of the World's top universities and other prominent research facilities.

Key Features:

- Air cooled - no need for water cooling or external chiller
- Lightweight, compact design
- Efficient DPSS technology runs on standard AC power (85 - 264 V, 47 - 63 Hz)
- >10,000 hours continuous maintenance-free operating life
- TTL and Analog modulation (input via BNC connector) *lab-spec models only*
- Adjustable output power via lockable dial) *lab-spec models only*
- LED display showing LD current, laser cavity temperature *lab-spec models only*
- FDA CDRH Compliant Class IIIb / Class IV enclosure
- 48-hour replacement coverage available for an additional fee on specific models

Package Includes:

- Laser Head
- Driver/Power Supply
- Power Cable
- BNC Connector (LabSpec models only)
- Keys, Safety Interlock
- Hard-shell Carrying Case

Specifications:

This spec sheet has been generated specifically for part number M32-3, per your request. Each column represents the specifications of the individual component lasers that make up the multi-wavelength system.

Component Laser Wavelength (nm)	635	473	532
Output Power (mW)	>200	>200	>200
Output Power Stability (%RMS/4h)	<3	<3	<3
Divergence (mrad, full angle)	<2.5	<1.5	<1.5
Beam Dimensions (mm, $1/e^2$)	5x8	3	2
M^2		<2	<1.2
Max. Analog Modulation Freq. (Hz)	30000	30000	30000
Max. TTL Modulation Freq. (Hz)	30000	30000	30000
Modulation Input Signal	0-5 VDC	0-5 VDC	0-5 VDC
Total Power Consumption (W)	16	80	32
Max. Power Input Duty Cycle	100%	100%	100%
Standard Warranty (months)	12	12	12
MTTF (operational hours)	10000	10000	10000

CW: All specifications are based on performance at full output power and after the specified warmup period. Output characteristics may change if the laser is run at a different power level.
Q-Switched: Specifications are based on the laser pulsing at the specified design frequency. Output characteristics may change if the laser is run at a different frequency.

Power Supply Options:

These lasers are available with several different power supply options. The model that you have selected is highlighted below, and any other options are shown for easy reference.

	Power Supply Type:	**FR**	**FF**	**FM**
FDA-Compliant LabSpec	Input Power	85v to 264v	85v to 264v	**85v to 264v**
	Power Supply Weight (kg)	1.5	2.6	**1.5**
	Dimensions (mm)	154 (l) x 155 (w) x 95 (h)	268 (l) x 145 (w) x 106 (h)	**154 (l) x 155 (w) x 95 (h)**

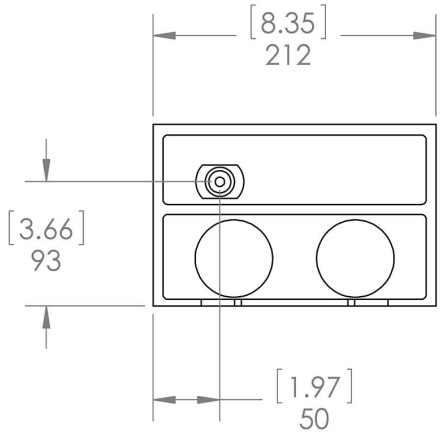
Multi-wavelength lasers include a separate power supply for each wavelength. In some cases the power supply for each wavelength may be slightly different in size. If the dimensions of the power supply are a concern for you please inquire with us before placing your order.

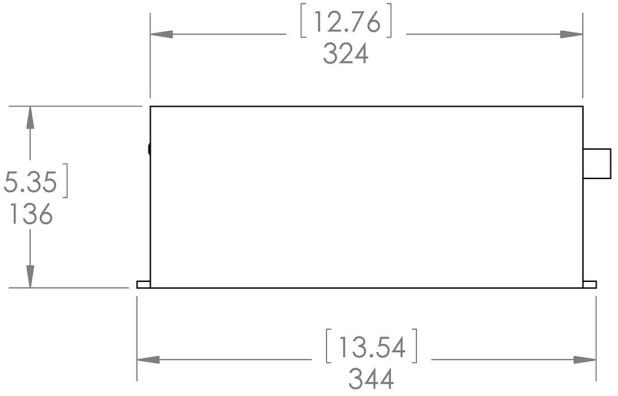
*Power supply may not be exactly as shown, see dimensional drawings on next 2 pages.
*Dimensions for fiber-integrated (I_) include laser head packaged inside.

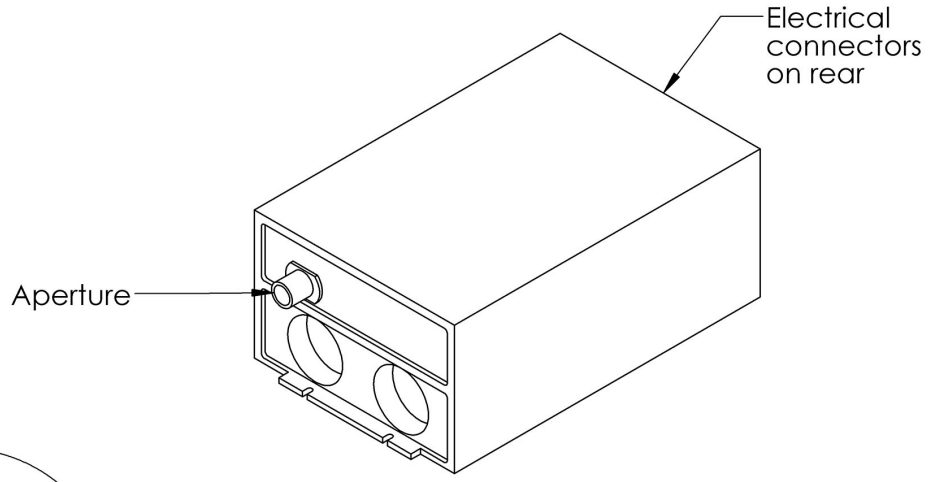
Regulatory Classification:

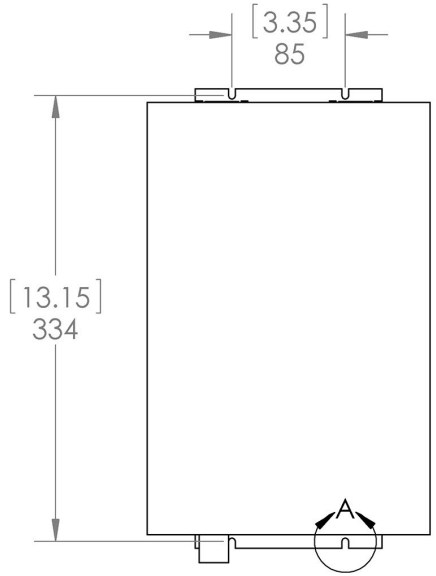
The model you have selected (M32-3) requires the following safety label(s):

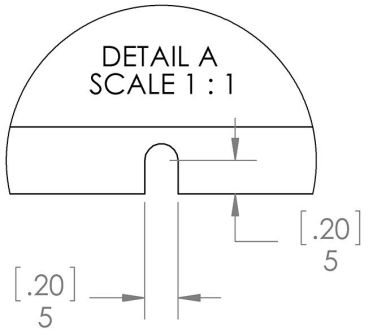
Dimensional Drawing - Laser Form Factor: 3:











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UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN MM[INCH]
TOLERANCES: +/- 0.75 MM

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TITLE:

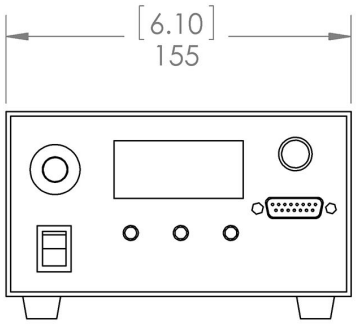
Lab/OEM 3 Housing

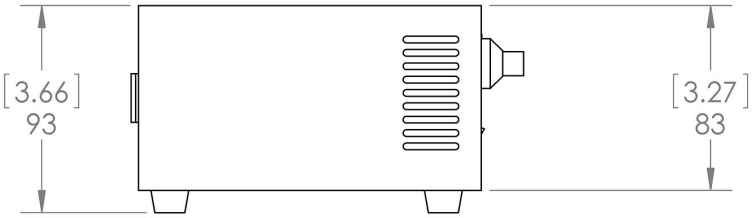
REV 1

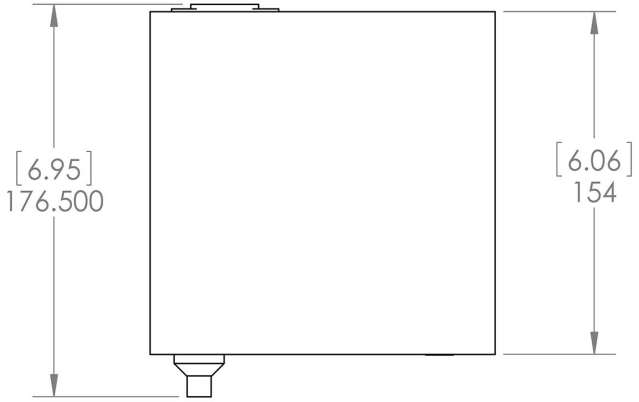
SCALE: 1:5

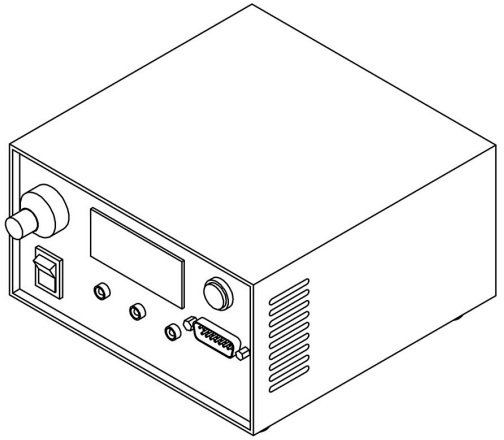
SHEET 1 OF 1

Dimensional Drawing - Power Supply Form Factor: FM:









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TITLE:

Power Supply FM/FR

REV 1

SCALE: 1:3

SHEET 1 OF 1

Accessories:

The most popular accessories for model M32-3 are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

Part Number	Description	
ACSVISHXA	SMA-905 Fiber Coupler/Collimator for visible spectrum wavelengths (400 to 700 nm) (installed and aligned) 11mm diameter input lens Full Details: www.arktislaser.com/ACS	
ACFVISHXA	FC/PC Fiber Coupler/Collimator for visible spectrum wavelengths (400 to 700 nm) (installed and aligned) 11mm diameter input lens Full Details: www.arktislaser.com/ACF	
ACALB237X	Carrying Case-107 Holds Lab/OEM 2/3 wavelength Labspec laser Full Details: www.arktislaser.com/ACA	Included With Laser
AFF2002XX	Armored Fiber With FC/PC Connectors 200um Core Multimode 2m length Full Details: www.arktislaser.com/AFF	
AFS2002XX	Armored Fiber With SMA 905 Connectors 200um Core Multimode 2 m length Full Details: www.arktislaser.com/AFS	

FOR MORE INFORMATION PLEASE CONTACT:

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E&OE: Data included in this sheet may be subject to change without notice.
Please confirm critical specifications with our staff prior to ordering.