

Laser Systems

VLFL-405 Series Fiber-Coupled Laser Systems

An integrated laser system with "full power coverage and multi-scenario adaptation"

- Fully integrated system design, plug-and-play
- High-precision performance control with excellent stability
- Strong scene adaptability and flexible customization
- Long lifespan and low maintenance, with low usage cost



One Platform Many Possibilities

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Overview

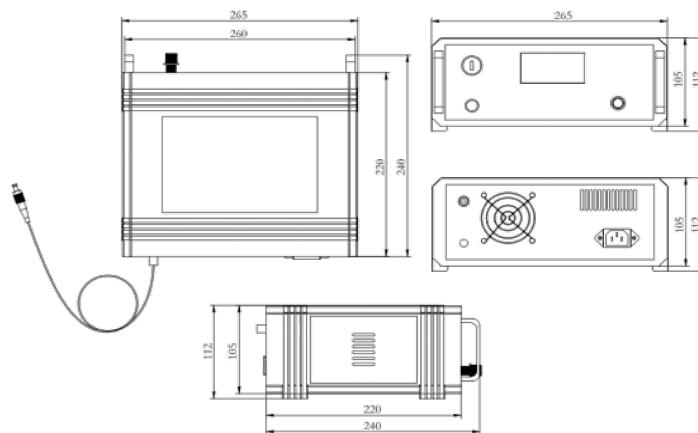
Introduction:

Developed by Venuslab, the 405nm central wavelength fiber-coupled laser system adopts a highly integrated design (integrating laser module, dedicated modulation module, high-precision driving power supply, and air-cooled refrigeration unit), uniformly adapts to the A-1 type chassis (size 265mm×240mm×112mm), supports AC 90V~240V (50~60Hz) or DC +12V power supply, has a preheating time of <5 minutes, an operating temperature range of +10 ~+40 , and a storage temperature range of -20 ~+60 . The core control technology is Automatic Current Control (ACC), which can realize three working modes: CW (continuous wave), 0~20KHz TTL modulation, and 0~5V Analog modulation. The stability during 2-hour continuous operation is 3%, and collimating lenses are optional for all, with customized services (power, size, connector, etc.) provided.

Features:

- High stability
- High beam quality
- High signal-to-noise ratio (SNR)
- Customized services

Dimension:



Specifications

Parameter details table

Parameter Category	Parameter Item	Common Specification Description
Optical Parameters	Central Wavelength	Min. 400nm, Typical Value 405nm, Max. 410nm
Optical Parameters	Laser Type	FP (Fabry-Perot) Laser
Control Data	Operating Modes	1. Standard CW (Continuous Wave) Mode; 2. 0~20KHz TTL Modulation Mode; 3. 0~5V Analog Modulation Mode
Control Data	Control Mode	Automatic Current Control (ACC)
Control Data	2-Hour Continuous Operation Stability	Min. 2%, Max. 3%
Control Data	Cooling Method	Air Cooling
Operating Environment	Operating Temperature	+10 ~ +40
Operating Environment	Storage Temperature	-20 ~ +60
Operating Environment	Warm-Up Time	< 5 Minutes
Power Supply	Standard AC Power Supply	90V ~ 240VAC, Frequency 50 ~ 60Hz
Power Supply	Optional DC Power Supply	+12V

Chassis & Accessories	Chassis Model	Type A-1
Chassis & Accessories	Chassis Dimension (Unit: mm)	265mm×240mm×112mm
Chassis & Accessories	Optional Accessory	Collimating Lens
Basic Product Attributes	Core Function	Integrated with laser module, dedicated modulation module, and high-precision driving power supply
Basic Product Attributes	Maintenance Feature	Easy to operate, maintenance-free, long service life

Explore Series

Model	Output Power	Central wavelength	Fiber TypeFiber	Optic Interface
VLFL-405-MF-130	130	400~410	Multi-Mode Fiber	FC/SMA905/SC/ST
VLFL-405-MF-300	300	400~410	Multi-Mode Fiber	FC/SMA905/SC/ST
VLFL-405-MF-500	500	400~410	Multi-Mode Fiber	FC/SMA905/SC/ST
VLFL-405-MF-800	800	400~410	Multi-Mode Fiber	FC/SMA905/SC/ST
VLFL-405-MF-2000	2000	400~410	Multi-Mode Fiber	FC/SMA905/SC/ST
VLFL-405-PM-80	80	400~410	Polarization-Maintaining Fiber	FC/APC
VLFL-405-SF-80	80	400~410	Single-Mode Fiber	FC/PC

 Get in touch with our team to explore configurations, request a quote, or learn more about customized solutions tailored to your needs.

Let us help you move science forward—faster and smarter.

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