

VLPN Series

Visible QCW Single-mode Fiber Lasers

PRELIMINARY



Applications

- ▶ Laser Light Shows
- ▶ Medical
- ▶ Microscopy
- ▶ Laser Projectors
- ▶ Scientific



Features

- ▶ Wavelength 589, 615, 635 nm
- ▶ Output Power up to 40 W
- ▶ Beam Quality $M^2 < 1.2$
- ▶ Power Stability 1%
- ▶ Power Consumption <800 W
- ▶ Linear Polarization >100:1
- ▶ Compact & Low Cost
- ▶ Industrial Performance

IPG Photonics introduces the VLPN series of QCW fiber lasers with up to 40 W average power, single-mode beam quality and operating at wavelengths of 589, 615 and 635 nm. Based on IPG's highly efficient and reliable laser technologies, the VLPN lasers feature a super-compact and lightweight optical head connected with a fiber cable to an air-cooled rack-mountable main laser console. VLPN's all fiber laser technology directly enables adjusting the average power over the full range while maintaining perfect single-mode beam quality and high power stability. Due to its compact dimensions, industrial grade design and low power consumption, IPG's VLPN lasers are ready for integration into customer's systems in the field ranging from laser shows and cinema projectors to medical and scientific applications.

VLPN Series

Visible QCW Single-mode Fiber Lasers

Optical Characteristics

| | | | |
|--|------------------|-----|-----|
| Wavelength, nm | 589 | 615 | 635 |
| Linewidth, nm | 3 | 5 | 7 |
| Mode of Operation | Pulsed/ Quasi-CW | | |
| Average Power ¹ , W | 40 | | |
| Repetition Rate, MHz | 3 | | |
| Pulse Duration, ns | 15 | | |
| Power Tunability, % | 5.0-100 | | |
| Power Stability ² , % | ± 0.5 | | |
| Polarization | Linear, >100:1 | | |
| Beam Quality ³ , M ² | <1.2 | | |

General Characteristics

| | |
|---|-------------------|
| Main Console Dimensions ⁴ , mm | 448 x 503 x 176 |
| Optical Head Dimensions, mm | 100 x 200 x 40 |
| Cooling | Air-cooled |
| Supply Voltage, VAC | 50-60 Hz, 100-240 |
| Power Consumption, W | 800 |

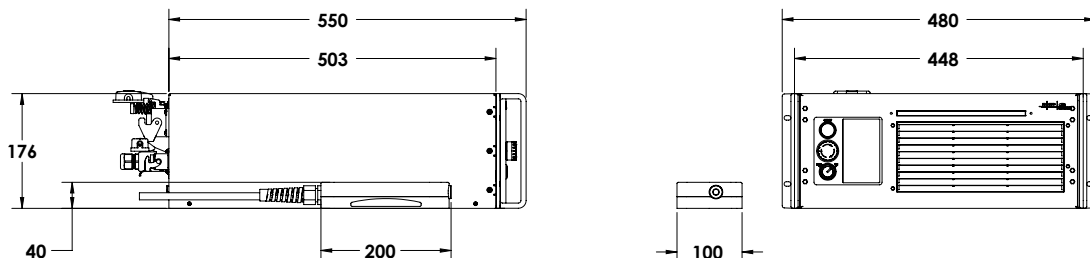
* Preliminary Specifications

¹ Custom power levels up to 100 W available upon request

² Over 8 hours, T= const.

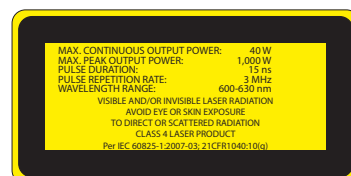
³ Multi-mode fiber-coupled output available upon request

⁴ OEM Modules with fiber-coupled output available upon request



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