

CVFL-KILO

CW Visible Fiber Laser with kilohertz linewidth



B340/B341



MAIN FEATURES

- Rubidium, Potassium, Ytterbium, CaF,.. cooling lines
- Single frequency fiber laser
- Up to 3 W out of single mode fiber
- Diffraction limited output ($M^2 < 1.1$)
- Excellent SMSR
- Linear polarization
- Very low phase noise and RIN
- Wavelength tunability
- Laser frequency modulation
- Turn-key operation

MAIN APPLICATIONS

- **ATOM COOLING AND QUANTUM OPTICS**
- **FORMATION OF COLD MOLECULES**
- **ENTANGLED PHOTON GENERATION**
- **OPTICAL TWEEZING**
- **METROLOGY**

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The high performance design of the CVFL-KILO lasers is based on a high stability laser diode which is amplified by fiber amplifier stages and then frequency converted to visible range.

For the most demanding applications, the CVFL-KILO lasers can be thermally and current tuned to be locked on an absorption line. They include a monitoring output and an optional mid-stage access. The CVFL-KILO high performance design uses embedded air-cooling and provides exceptional high wall plug efficiency.

The high reliability of CVFL-KILO's integrated components ensures a long lifetime without any maintenance or preventive service (no realignment, no need to clean optics,...).

The lasers might be controlled via the front panel display or remotely via serial USB and Ethernet ports.

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Many options and configurations are available. Please contact Lumibird to find the best match for your needs and compatibility between options.

CVFL-KILO

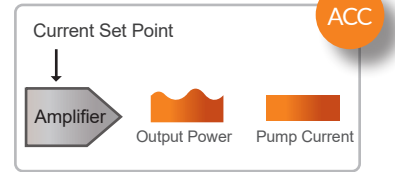
CW Visible Fiber Laser with kilohertz linewidth



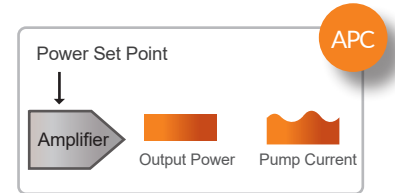
SPECIFICATIONS

	CVFL-KILO
Mode of operation	CW
Output power (W)	3
Operating wavelength (nm)	532 / 767 / 780
Wavelength stability over 1 hour, +/- 1 °C (MHz)	+/- 150 or +/- 250 (depending on wavelength)
Linewidth (kHz)	60 typ. (instantaneous, Lorentzian model) < 150 (frequency noise integration over 1 ms)
Wavelength thermal tuning range, WT option (GHz)	7 or 8 (depending on wavelength)
Laser frequency modulation range, FM option (GHz)	1
Polarization	Linear, PER > 20 dB (free-space output) or PER > 17 dB (fibered output)
Seed tap (option)	Seeder monitoring, output monitoring or mid-stage access depending on model
Control mode	ACC, APC
Output termination	FC/APC or free-space
Beam quality, M ²	< 1.1

Mode of operation



ACC (Automatic Current Control)



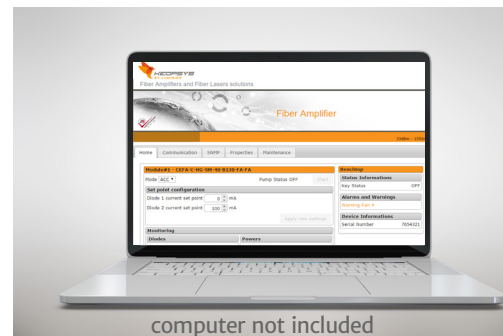
APC (Automatic Power Control)

EASY TO USE !



Front panel control

- User-friendly benchtop with dial and front panel display for easy control and monitoring of the product



computer not included

Remote control

- USB port and command set provided
- Web server, Telnet, SSH protocols

Reliability



All our fiber lasers and fiber amplifiers are manufactured according to our ISO certified quality management system, which places the needs and values of customers and partners at the heart of our organization. Throughout the manufacturing process, our components and systems are subjected to rigorous tests and inspections, which guarantees their robustness and reliability in the most demanding environments. Countless units operate continuously without maintenance around the world. The ISO 9001 certificates can be downloaded from our website.



LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION
CLASS 4 LASER PRODUCT

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Lumibird has locations across the globe that are available to provide support for any product, service or inquiry. Visit www.lumibird.com to connect with any of our global sites.

