

VIRON

Compact pulsed diode-pumped Nd:YAG laser



MAIN FEATURES

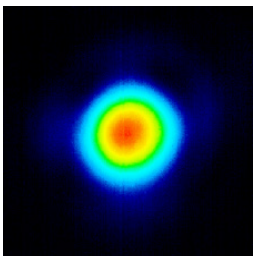
- Laser head and control electronics embedded into one housing
- Harmonic generators (532 nm, 355 nm, 266 nm) integrated internally
- Powered by the remote-control box, a +24 VDC supply or battery
- Sealed for operation in harsh environments
- Excellent focusability
- Removable wavelength separation module
- Easy to integrate

MAIN APPLICATIONS

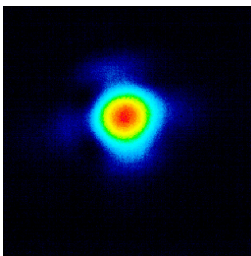
- LIBS
- BIOTECHNOLOGY
- LiDAR
- RANGING
- ACTIVE IMAGING

Now offering 213 nm!

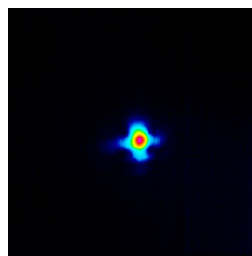
Typical beam profiles



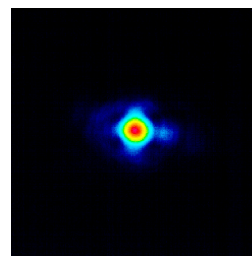
Far field 50 mJ
@ 1064 nm, 20 Hz



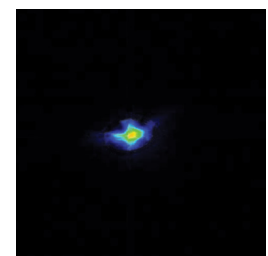
Far field 25 mJ
@ 532 nm, 20 Hz



Far field 12 mJ
@ 355 nm, 20 Hz



Far field 9 mJ
@ 266 nm, 20 Hz



Far field 4 mJ
@ 213 nm, 20 Hz

www.quantel-laser.com

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



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SPECIFICATIONS

| | | VRN20-30-G | VRN20-50-G |
|---|--------------------|---------------------|------------|
| Repetition rate (Hz) | | 20 | |
| Energy per pulse (mJ) | 1064 nm | 30 | 50 |
| | 532 nm | 15 | 25 |
| | 355 nm | 7 | 12 |
| | 266 nm | 5 | 9 |
| | 213 nm | - | 4 |
| Pulse duration (ns) ⁽¹⁾ | 1064 nm | < 10 | < 9 |
| Beam diameter (mm) ⁽²⁾ | 1064 / 532 nm | 3.8 ± 1.2 | |
| | 355 / 266 nm | 3.0 ± 0.8 | |
| | 213 nm | 2.5 ± 0.8 | |
| Beam divergence (mrad) ⁽³⁾ | All wavelengths | < 1.0 | |
| Polarization extinction ratio | 1064 nm | Better than 100 : 1 | |
| Pulse to pulse energy stability (% RMS) | 1064 nm | < 0.5 | |
| | 532 nm | < 2.5 | |
| | 355 / 266 / 213 nm | < 5 | |

- (1) Measured at FWHM with fast photodiode and 1 GHz oscilloscope
 (2) D4σ at output window
 (3) D4σ, full angle

| OTHER INFORMATION | |
|-----------------------|---|
| Power requirements | 24 ± 10 % VDC, 250 W |
| Other requirements | Viron must be operated with a computer (not included) |
| Cooling | Air cooled, conductively or liquid cooled option |
| Operating temperature | + 15 °C to + 35 °C |
| Storage temperature | - 10 °C to + 70 °C |
| Laser head sealing | IP 51 |
| Vibration and shock | Complies with MIL-STD-810 |

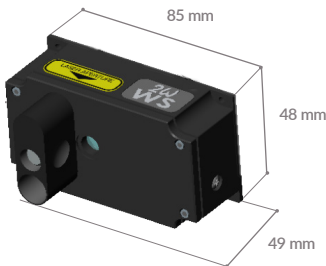
Laser head & electronics



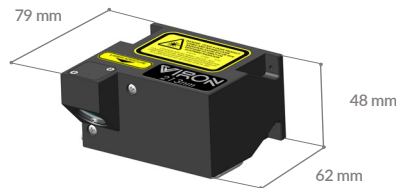
OPTIONS

Wavelength separation module (532, 355, 266 nm)

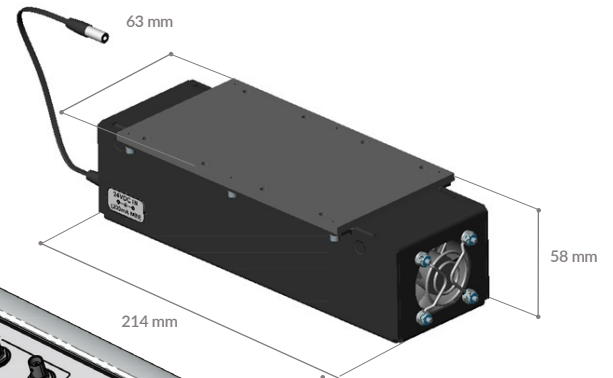
One (WS1) or two (WS2) apertures with rotatable beam blocks



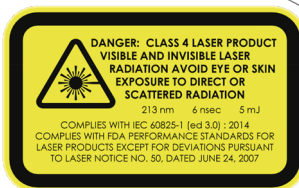
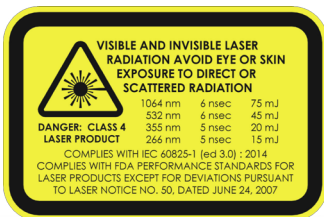
213 nm option



Fan cooled heat sink



Remote box



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