

# VIRON

Compact pulsed diode-pumped Nd:YAG laser



## MAIN FEATURES

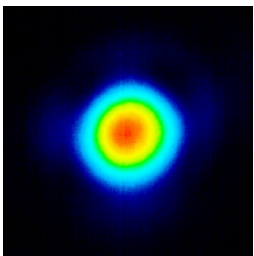
- Laser head and control electronics embedded into one housing
- Harmonic generators (532 nm, 355 nm, 266 nm) integrated internally
- Operation requires only 24 V DC power supply or battery
- Sealed for operation in harsh environments
- Excellent focusability
- Removable wavelength separation module
- Easy to integrate

## MAIN APPLICATIONS

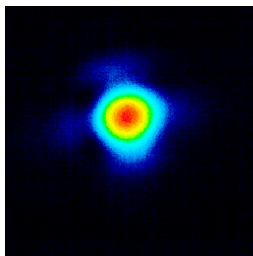
- LIBS
- BIOTECHNOLOGY
- LiDAR
- RANGING
- ACTIVE IMAGING

Now offering 213 nm!

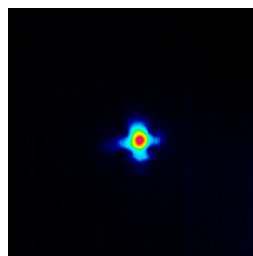
## Typical beam profiles



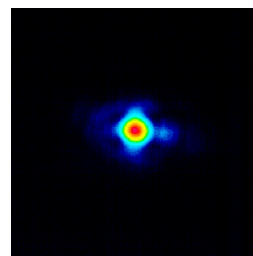
Far field 50 mJ  
@ 1064 nm, 20 Hz



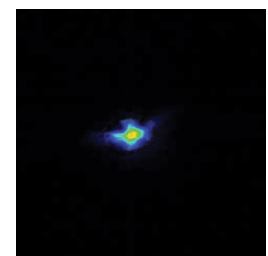
Far field 25 mJ  
@ 532 nm, 20 Hz



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](http://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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## Compact pulsed diode-pumped Nd:YAG laser



### 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) <sup>(1)</sup>	1064 nm	< 10	< 9
Beam diameter (mm) <sup>(2)</sup>	1064 / 532 nm	3.8 ± 1.2	
	355 / 266 nm	3.0 ± 0.8	
	213 nm	2.5 ± 0.8	
Beam divergence (mrad) <sup>(3)</sup>	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
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

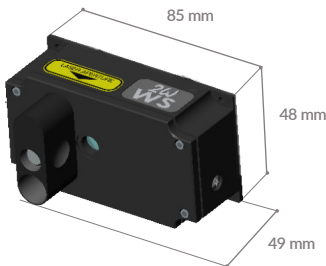
### Laser head & electronics



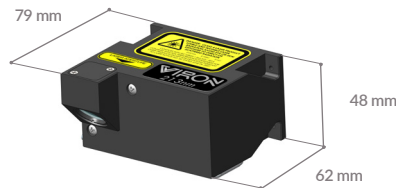
### OPTIONS

#### Wavelength separation module (532, 355, 266 nm)

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



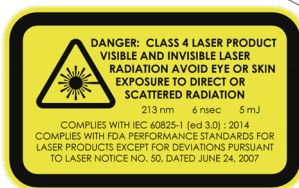
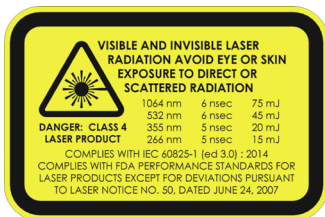
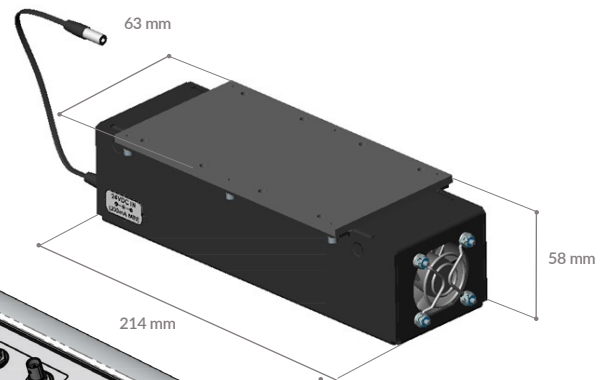
#### 213 nm option



#### Remote box



#### Fan cooled heat sink



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