## **VIRON**

### Compact pulsed diode-pumped Nd:YAG laser



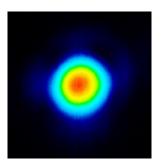


- Laser head and control electronics embedded into one housing
- Harmonic generators (532 nm, 355 nm, 266 nm) integrated internally
- Operation requires only 24 V DC power supply or battery
- Sealed for operation in harsh environments
- **Excellent focusability**
- Removable wavelength separation module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

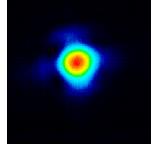
### **MAIN APPLICATIONS**

- LIBS
- BIOTECHNOLOGY
- LiDAR
- RANGING
- ACTIVE IMAGING

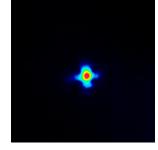
### **Typical beam profiles**



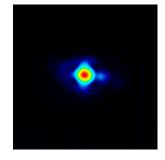
Far field 50 mJ at 1064 nm, 20 Hz



Far field 25 mJ at 532 nm, 20 Hz



Far field 12 mJ at 355 nm, 20 Hz



Far field 9 mJ at 266 nm, 20 Hz

www.quantel-laser.com





# **VIRON**

## 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
Pulse duration (ns) (1)	1064 nm	< 12	
Beam diameter (mm) (2)	1064 / 532 nm	3.8 ± 1.2	
	355 / 266 nm	3.0 ± 0.8	
Beam divergence (mrad) (3)	All wavelengths	< 1.5	
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 nm	< 5	
Burst mode energy stability (%, at 22 °C)	1064 nm	< 2	
	532 nm	< 4	
	355 / 266 nm	< 6	

- (1) Measured at FWHM with fast photodiode and 1 GHz scope
- (2) D4 $\sigma$  at output window
- (3) D4 $\sigma$ , 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 sealed
Vibration and shock	Complies with MIL-STD-810

#### **Laser head & electronics**





### Wavelength separation module





#### Fan cooled heat sink



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



