Spectra Physics

Des – Laser ND Yag

Model – Quanta Ray Lab 13030

Used / Sold as is / Untested / Condition unknown / Parts may be missing / Table stand included / Could be used for parts

□ □Power Output & Repetition Rate

Repetition Rate	1064 nm Energy	532 nm Energy	355 nm Energy	266 nm Energy
10 Hz	450 mJ	200 mJ	90 mJ	50 mJ
30 Hz	275 mJ	100 mJ	40 mJ	25 mJ
50 Hz	200 mJ	70 mJ	30 mJ	15 mJ

⏱ Pulse Characteristics & Stability

- **Pulse width (1064 nm)**: 8–12 ns
- **Short-term energy stability (1064 nm)**: ± 2%
- **Long-term power drift**: < 3%
- **Beam diameter**: < 10 mm
- **Timing jitter**: < 0.5 ns

□ □Beam & Operational Parameters

- **Pointing stability**: < ± 50 µrad
- **Beam divergence (full angle)**: < 0.5 mrad
- **Lamp lifetime**: ~30 million pulses

□ □Cooling, Power & Physical Specs

- **Cooling requirements**:

    - 10 Hz: air-cooled
    - 30/50 Hz: water-cooled (7.6 L/min, min. 40 psi, max. 60 psi)
- **Electrical draw**:
    - 10 Hz: < 35 A
    - 30 Hz: < 40 A
    - 50 Hz: < 55 A
- **Voltage range**: 190–260 V single-phase; ± 10% tolerance
- **Dimensions**:
    - Head weight: 55 kg (120 lb)
    - Umbilical and remote cord length: 3 m each

Harmonic Output & Modes

- Delivers 2nd, 3rd, and 4th harmonic outputs (532/355/266 nm) with energies listed above.
- Offers “short pulse mode” reducing pulse width to ~2.5 ns at the expense of ~10% energy drop.