



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
MATERIALS MANAGEMENT DIVISION
Powai, Mumbai - 400076

Technical Specifications of ND:YAG Laser

RFx No. 6100000961 (Reference No. 1000022275)

1. Nd: YAG Laser

- a) Flash lamp pumped Q-Switched Nd: YAG Laser
- b) Repetition Rate: 10Hz
- c) Pulse energies for Fundamental and Harmonics
- d) Fundamental (1064 nm) 150-250 mJ/pulse
- e) Second harmonic (532 nm) 75-120 mJ/pulse
- f) 2 spare flash lamps
- g) Pulse to Pulse energy stability: $\pm 2\%$
- h) Pulse duration: 4-6ns
- i) Beam diameter: 5-6 mm
- j) Beam divergence: 0.5-0.8 mrad
- k) Pointing stability: $< 100 \mu\text{rad}$
- l) Fit to Gaussian N/F field (%): 70/95
- m) Timing Jitter: $< 1\text{ns}$
- n) Lamp life: 50 million shots
- o) Air-water cooling, in built without need for external cooling source
- p) Power Supply: Single Phase, 220 – 250 VAC/50Hz
- q) Standalone controller with programmable options
- r) External TTL triggers for Flash lamp and Q-Switch
- s) Q-Switch Sync output
- t) Warranty – Instrument should be supplied with 1 year warranty from the date of Installation

2. Third harmonic (355 nm) 20-50mJ/pulse

3. Fourth harmonic (266 nm) 15-30 mJ/pulse