

# DIODE-PUMPED SOLID STATE LASER

## Model DTL-423

### SPECIFICATIONS

Wavelength.....	1053 nm
Laser crystal .....	YLF:Nd <sup>3+</sup>
Mode of operation .....	CW
Spatial mode.....	TEM <sub>00</sub>
Output power (nominal value) .....	2500+2% mW
Output power adjustment range (of nominal value, by trimmer/via RS-232) .....	3 -100 %
Beam diameter at output aperture (w/o optional beam expander, 1/e <sup>2</sup> ) .....	1.2 ± 0.1 mm
Beam divergence (w/o optional beam expander, full angle, 1/e <sup>2</sup> ) .....	≤ 1.2 mrad
Beam ellipticity .....	≤ 1.05:1
Beam quality M <sup>2</sup> .....	≤ 1.1
Beam pointing stability, std. dev .....	≤ 5 μrad/ hour at constant temperature; ≤ 9 μrad/°C
Beam static alignment tolerance .....	≤ 0.5 mm
Beam angular alignment tolerance.....	≤ 5.0 mrad
Optical noise (RMS, 10Hz+20MHz, in the 20-100% output power range) .....	≤ 5%
Polarization ratio .....	≥ 200:1, vertical (≤ 2°)
Output power stability (over 8 hours, at the output power level not less than 500 mW).....	≤ 2 % peak-to-peak (< 0.5 % RMS)
Operating temperature/Humidity range .....	15 ÷ 40°C/up to 80% humidity non-condensing
Warm-up time, max.....	≤ 5 min
Start-up time from stand-by mode, typ .....	4 sec
PC control.....	via RS-232
Frequency of exchange via RS-232 interface.....	4800 b/second
Dimensions, L x W x H, mm:	
Laser head (w/o optional beam expander).....	241 x 90 x 55
Laser head with Heat sink .....	241 x 90 x122
Power supply (with key) .....	190 x 91(115) x 27
Power supply with Heat sink (with key).....	203 x 96(121) x 94
Weight:	
Laser head .....	≤ 1.6 kg
Power supply .....	≤ 0.6 kg
Operating voltage with AC adapter.....	90 - 240 VAC
Operating voltage without AC adapter.....	10.8 – 13.2 VDC
Total power consumption, typ/max.....	≤ 35/65 W
Current consumption, typ/max (12V).....	≤ 2.9 /5,4 A
Laser class .....	IV
Compliance.....	RoHS, CDRH, CE