

DIODE-PUMPED SOLID STATE LASER

Model DTL-413

SPECIFICATIONS

Wavelength.....	527 nm
Laser crystal	YLF:Nd ³⁺
Mode of operation	CW
Spatial mode.....	TEM ₀₀
Output power (nominal value)	1500+3% mW
Output power adjustment range (of nominal value, by trimmer/via RS-232)	1-100 %
Spectrum line width (FWHM), typ.....	4.5 cm ⁻¹
Beam diameter at output aperture (w/o optional beam expander, 1/e ²)	0.8 ± 0.1 mm
Beam divergence (w/o optional beam expander, full angle, 1/e ²)	≤ 1 mrad
Beam ellipticity	≤ 1.11:1
Beam quality M ²	≤ 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 30-100% output power range).....	≤ 5%
Polarization ratio	≥ 200:1, horizontal (≤ 2°)
Output power stability (over 8 hours, at the output power level not less than 250 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 x 122
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
<u>Compliance.....</u>	<u>RoHS, CDRH, CE</u>
Parameters are guaranteed in the 5 -100% output power range except other stated	