

# AL30 Series Specifications\*

## *AL30, AL30P, AL30D, AL30S, AL30SP, AL30SPD Specifications*

<b>Model</b>	<b>AL30</b>	<b>AL30P</b>	<b>AL30S</b>	<b>AL30SP</b>
Wavelength (μm)	10.5-10.7	10.5-10.7	10.5-10.7	10.5-10.7
CW Power (W)	30	14 (average)	30	14 (average)
Peak Power (W)	30	60	30	60
Power Stability <sup>1</sup>	±5%	±5%	±2%	±2%
Mode Quality (M <sup>2</sup> ) <sup>2</sup>	<1.1	<1.1	<1.1	<1.1
Beam Waist Diameter	2.4 mm	2.4mm	2.4 mm	2.4mm
Waist Location	Output Coupler	Output Coupler	Output Coupler	Output Coupler
Full Div. Angle	5.5 mrad	5.5 mrad	5.5 mrad	5.5 mrad
Polarization	>20:1 fixed linear vertical	>20:1 fixed linear vertical	>20:1 fixed linear vertical	>20:1 fixed linear vertical
Rise Time (μs)	200	100	200	100
Fall Time (μs)	200	100	200	100
Supply Voltage	36VDC 600W Regulated	48V DC 600W Regulated	36VDC 600W Regulated	48V DC 600W Regulated
Electronic PWM Parameters	Frequency up to 100 kHz, duty cycle 0-100%	Frequency up to 100 kHz, duty cycle 0-30%, pulse length up to 0.4 ms	Frequency up to 100 kHz, duty cycle 0-100%	Frequency up to 100 kHz, duty cycle 0-30%, pulse length up to 0.4 ms
Heat Dissipation	< 600W	<600W	< 600W	<600W
Cooling Requirement <sup>3</sup>	Fan Cooled	Fan Cooled	Fan Cooled Closed Loop	Fan Cooled Closed Loop
Working Temperature	5-40° C	5-40° C	5-40° C	5-40° C
Laser Weight <sup>4</sup>	19 lbs.	19 lbs.	19 lbs.	19 lbs.
RF Driver Weight	7 lbs.	7 lbs.	7 lbs.	7 lbs.
Dimensions (LxWxH, inch) <sup>5</sup>	20.8x3.9x6.5	20.8x3.9x6.5	20.8x3.9x6.5	20.8x3.9x6.5
<b>AL30D &amp; AL30SD</b>	AL30D has features of both AL30 and AL30P when the appropriate DC power supply is used. AL30SD has features of both AL30S and AL30SP when the appropriate DC power supply is used.			

\*All specifications are taken in a 20°C environment. Specifications are subject to change without notice.

<sup>1</sup> Power Stability is based on  $\pm (P_{max}-P_{min})/(2*P_{max})$  at constant duty cycle after thermal equilibrium

<sup>2</sup> Beam specifications are measured at  $1/e^2$

<sup>3</sup> Air Cooling: Fans are included as standard. 240 CFM

<sup>4</sup> Laser weight is for fan cooled model

<sup>5</sup>Water Cooling Height: 4.2"

### Water Cooling

Min Flow Rate: 3.8 lpm (1 gpm)  
Recommended Flow Rate: 9.5 lpm (2.5 gpm)  
Max Pressure: 10 bar (150 psi)  
Temperature Range: 15-30° C (59-86° F)