

Pulsed Lasers



Model	L5D	L15D	AL30D	AL50D	DL500	AL50Q
Technology Feature	Dual Drive (-D)				-	Q-Switching (-Q)
Laser Power						
Wavelength	10.6 μm or 9.3 μm				9.3 μm	10.6 μm
Average Power (at Freq.)	6 W (2kHz)	12 W (2 kHz)	24 W (2 kHz)	40 W (2 kHz)	5 W (500 Hz)	10 W (25 kHz)
Power Stability (-FCCL*)	± 15 %	± 15 %	± 5 %	-	± 10 %	-
Power Stability (-WCCL*)	± 10 %	± 10 %	± 5 %	± 5 %	-	± 5 %
Modulation / Rep. Freq.	0 - 5 kHz				0 - 500 Hz	0 - 50 kHz
Rise and Fall Time	100 μs				15 μs	20 ns
Pulse Width (Range)	150 μs (0 - 400 μs)				20 μs	200 ns
Pulse Energy	3 mJ	6 mJ	12 mJ	20 mJ	10 mJ	400 μJ
Peak Power	20 W	40 W	80 W	133 W	500 W	2000 W
Beam Characteristics						
Beam Waist Diameter	2.4 mm				2.2 mm	2.8 mm
Waist Location	Output Coupler				Output Coupler	Output Coupler
Mode Quality	M ² ≤ 1.1				M ² ≤ 1.1	M ² ≤ 1.2
Full Divergence Angle	5.5 mrad				6.2 mrad	5.5 mrad
Polarization	Random, Linear		> 20:1 Linear Vertical		Random, Linear	> 20:1 Lin. Vert.
Heat & Cooling						
Cooling Requirement	FCCL or WCCL			WCCL	Air Cooled	WCCL
Heat Dissipation	≤ 200 W	≤ 300 W	≤ 600 W	≤ 750 W	≤ 500 W	≤ 750 W
Working Temperature	5 - 40 °C (non-condensing)					
DC Power Requirements						
Laser RF Driver	48 V ~4 A	48 V ~6 A	48 V ~12 A	48 V ~15 A	48 V	28 V < 28 A
Dimensions & Weight						
Laser Weight	10.0 lbs	15 lbs	20.5 lbs	34 lb	35.5 lbs	34 lb
Dimensions L x W x H	12.5 x 3 x 3 in	20 x 4 x 3 in	23.5 x 4 x 5 in	29 x 4 x 5 in	23.5 x 5.5 x 5.5 in	29 x 4 x 5 in

*1 Fan Cooled Closed Loop. *2 Water Cooled Closed Loop. Further customization and configurations are available. Average or pulsed power may exceed listed value. All specifications are measured at the strongest line and are subject to change without notice. Stability measured after 45 minute warm-up to allow laser head to reach thermal equilibrium.

