

alta

compact



nLIGHT alta™ compact fiber lasers are the next generation of high power fiber lasers. Designed to meet the performance and reliability requirements for industrial applications, nLIGHT alta™ compact is the highest power, smallest footprint fiber laser.

Improved Cutting and Welding Performance: nLIGHT alta™ is capable of delivering a modulation rate up to 100 kHz and rise and fall time of less than 5 μ s. Enabled by next generation electronics, these capabilities allow faster piercing, faster processing of fine features, and smaller heat affected zones.

Back Reflection Isolation: nLIGHT's novel back reflection isolation technology allows uninterrupted full power processing of highly reflective materials.

The nLIGHT alta™ fiber laser platform is designed and manufactured in the U.S., leveraging nLIGHT's vertically integrated high brightness laser diode and fiber technology, and is supported through a global network of sales and service staff.

Features	Applications
• Failsafe processing of highly reflective materials • Proprietary design for high uptime and easy service • Durable in harsh environmental conditions	• Thick Metal Cutting • Remote Welding • Battery Welding • Hardening / cladding • Additive manufacturing

Typical Specifications

Optical	Units			
Maximum average power (CW or modulated)	W	1500	2000	2500
Power tunability	%		5 – 100	
Power variation (8 hr)	%		≤ 1	
Modulation frequency	kHz		≤ 100	
Rise/fall times	µs		≤ 5	
Beam quality	mm-mrad		Tailored to customer need: ≤ 2.3 with 50 µm fiber ≤ 4 with 100 µm fiber ≤ 9 with 200 µm fiber ≤ 14 with 300 µm fiber	
Wavelength	nm		1080 ± 10	
Electrical				
Operating voltage	Vac		3-phase 380/480	
Operating voltage frequency	Hz		50/60	
Control interface			External HW Control, Analog Power Control, ASCII Command Line (RS-232), GUI and API (Ethernet)	
Optional control interface			EtherCat or Ethernet/IP or DeviceNet or PROFIBUS or PROFINET	
Mechanical				
Dimensions (with casters, covers, interfaces)	mm		445 w x 625 h x 930 d	
Mass	kg		131	
Optical fiber			20 m, QBH connector standard	
Cooling method			Water	
General condition				
Operating temperature	°C		+10 to +40	
Storage temperature	°C		-10 to +60	
Relative humidity	%		10 to 80	

Laser Safety

This laser product does NOT comply with IEC 60825-1 or 21CFR1040.10/21CFR1040.11 and is solely intended to be integrated into a laser product certified by the Purchaser. The Purchaser acknowledges that their product must comply with the applicable regulations before it can be sold to an end user.



Notice

nLIGHT continually improves its products to provide our customers with outstanding quality and reliability. nLIGHT may make changes to specifications and product descriptions at any time, without notice. In addition, nLIGHT offers a limited warranty to ensure customer satisfaction. For complete details, please contact your nLIGHT sales representative.