

# YLR-U SERIES

## Ultra-Compact & Ultra-Reliable

HIGHEST POWER TO VOLUME RATIOS  
WITH UNMATCHED PERFORMANCE



The new generation of IPG flagship YLR fiber lasers takes their famous performance to a whole new level. The unrivaled combination of high power, ideal beam quality, unsurpassed reliability and industry-leading wall-plug efficiency delivers the best value on the market.

**YLR-U Series** incorporates the latest advancements in IPG world-leading industrial pump diode packaging technology and are the only hermetically sealed mid-power lasers on the market that can operate in extremely high humidity environments up to 90% relative humidity. Remote control options include Analog, RS-232 or Ethernet, and built-in self-diagnostics with internet connectivity. The user-friendly rack mount configuration is the most cost effective and adaptable solution for integration into Industry 4.0, Smart Manufacturing production lines.

YLR-U lasers are ideal for a wide range of metal cutting and welding applications.

**NEW**



### FEATURES

- ▶ Average Power up to 6 kW\*
- ▶ Exceptional Operation in High Humidity Environment
- ▶ Built-in Diagnostics with Web Connectivity
- ▶ Record Energy Efficiency >40 %
- ▶ Extremely Small Size and Low Weight

\* 8 kW available soon



### APPLICATIONS

- ▶ 2D & 3D Metal Cutting and Welding
- ▶ High Speed Cutting
- ▶ Conduction and Keyhole Welding
- ▶ Various Steels, Al, Cu, Ti Alloys, and Other Metals
- ▶ Conduction and Keyhole Welding

# YLR-U SERIES

## The World's Smallest Kilowatt-Class Fiber Lasers

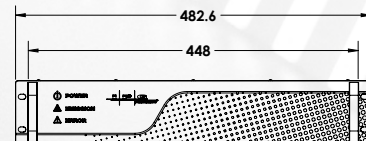
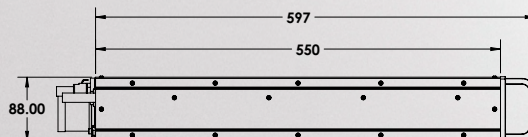
Optical Characteristics	YLR-1000-U	YLR-1500-U	YLR-2000-U	YLR-3000-U	YLR-6000-U
Central Wavelength Range, nm	1070 ±10				
Mode of Operation	CW/Modulated				
Modulation Frequency, kHz	Up to 50				
Max. Average Power Mode, W	1000	1500	2000	3000	6000
Power Tunability, %	10-100				
Power Stability, %	±0.5				
Output Fiber Core Diameter, µm	50, 100 and 200				
Beam Quality, BPP mm × mrad	2, 5, 10				

\* Output Power 4 and 6 kW available soon

General Characteristics	YLR-1000-U	YLR-1500-U	YLR-2000-U	YLR-3000-U	YLR-6000-U
Dimensions*, W×D×H, mm	448×550×88		448×760×88		448×760×177
Weight, kg	<30		<40	<45	<80
Cooling	Water				
Supply Voltage, 50/60 Hz, VAC	Single-phase, 200-240			3-phase, 400-480	
Power Consumption, W	2500	3700	5000	7800	16000
Operating Humidity Range, %	10 to 90				
Operating Temperature Range, °C	10 to 40				

\*The rack unit dimensions refer to sizes of consoles without handles, connectors and other extending parts.

YLR-U lasers are CE certified. Standard YLR-U lasers terminate to an HLC-8 connector. IPG manufactures a complete line of optical beam delivery components including delivery fiber and optics, collimators, beam couplers, switches and sharers, and processing heads and scanners, as well as process control and tooling solutions. Interchangeable collimators and processing heads connect easily to the HLC-8.



+1 (508) 373-1100;  
[IPGPhotonics.com/contact](http://IPGPhotonics.com/contact)  
[www.ipgphotonics.com](http://www.ipgphotonics.com)

MAX. AVERAGE OUTPUT POWER: 6 kW  
 MAX. PEAK OUTPUT POWER 6 kW  
 WAVELENGTH RANGE: 900-1200 nm

DANGER - INVISIBLE LASER  
 RADIATION AVOID EYE OR SKIN  
 EXPOSURE TO DIRECT OR  
 SCATTERED RADIATION  
 CLASS 4 LASER PRODUCT

IEC 60825-1:2014

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