



YTTERBIUM FIBER LASER SOURCE OUTPUT POWER -4000W (YLR-U-K SERIES)



Applications

- Precision Cutting and Scribing
- Microdrilling, Blind Hole Machining
- Welding
- Sintering/ 3D Printing
- Heat Treating
- Scientific and Advanced Applications



Features

- Wavelength 1.07 μm^*
- Output Power 30000 W
- Direct Modulation up to 50 kHz
- Water Cooled
- High Reliability, Low Cost

YLR-U-K Series Fiber Lasers Source provide a unique combination of high power, high stability, ideal beam quality, fiber delivery, ultra-long lifetime and record wall-plug efficiency. Single-mode output may be integrated via collimator or QBH plug-in connector., allowing optimal performance in critical welding and additive manufacturing applications.

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. The YLR-U-K offer unmatched productivity in core material processing applications such as cutting and welding.





Optical Characteristics

Central Wavelength*, nm	: 1070 ±10
Mode of Operation	: CW/Modulated
Modulation Frequency, kHz	: 0-50
LASER POWER	: 4000W
Power Tunability, %	: 10-100
Power Stability**, %	: ± 0.5
Optical Noise***, % RMS	: <2, typ.1
Output Fiber Core	: Single-mode or 50, 100 and 200 µm diameter
Beam Parameter Product, mm × mrad	: <2 @ 50 µm, <5 @ 100 µm, <10 @ 200 µm
* Other wavelengths in 1006-1080 nm range are available upon request. ** Over 4 hours, T=const *** 10 kHz to 10 MHz	

General Characteristics

Cabinet Dimension (W × D × H), mm	Output Power, W	Cooling	Weight	Supply Voltage
448 × 798 × 177	4000	Water-cooled	<80	3-phase 50/60 Hz, 400-480

WORLD FAMOUS BRAND

- YLR-U-K Series Fiber Laser Source with a powerful cutting ability with Stainless Steel, Aluminum, Carbon Steel and other Metal Materials

LONG SERVICE LIFE

- The world leading IPG Laser Source has stable performance, the service can reach 100000 Hours and overall quality of the equipment can be guaranteed safely.

STABLE CUTTING PERFORMANCE

- Fiber Laser Source can produce excellent beam quality, finer cutting lines higher working efficiency and better machining quality. Fully closed constant temperature working environment makes Laser Source more effective to ensure stable operation.





IPG Provides the following recommendations to promote the long life of the IPG Laser

- Do not expose the device to a high-moisture environment (>95% Humidity)
- Install on a stable horizontal surface. Keep away from the source of shock vibrations.
- Operation at higher temperature accelerates aging, increase threshold current and lower slope efficiency. If the device is overheated do not use it and call IPG for assistance.
- Ensure that the work area is properly vented. Gases, sparks and debris that can be generated from interaction between the laser and the work surface can pose additional safety hazards.

RECOMMENDED COOLANT TEMPERATURE:

		Relative Humidity									
		10%	20%	30%	40%	50%	60%	70%	80%	90%	95%
Room Temperature	10°C	21-25°C									
	15°C										
	20°C										
	25°C								23-25°C	25°C	25°C
	30°C						23-25°C	25°C			
	35°C					24-25°C					
	40°C				25°C						
	45°C			25°C							
	50°C		22-25°C								
NOT ALLOWED											
Green =	Recommended coolant temperature range.										
Yellow =	Limited coolant temperature range.										
Red =	Not allowed.										

