



YLS-2000/20000-QCW

High Power Quasi-CW Ytterbium Fiber Laser

NEW PRODUCT





Applications

- ➤ 2D/3D Thin and Thick Cutting
- ▶ Processing Copper, Brass and Aluminum
- Welding
- ▶ Surface Treatment
- ▶ Drilling



Features

- ➤ CW Output Power 2 kW @ Workpiece
- ▶ Peak Power: 20 kW
- ▶ Pulse Duration: 0.2-10 ms
- ► Maintenance-free Operation
- ▶ Modulation up to 2 kHz
- ➤ Cost-effective Cutting System
- ▶ Record Reliability
- ▶ Compact, Rugged Design

IPG Photonics has expanded its QCW fiber laser series with new higher power models, including the **new YLS-2000/20000-QCW** laser. With a peak power of 20 kW, pulse durations of 0.2-10 ms and a maximum pulse energy of 200 J, the newest offering is IPG's QCW product family is well suited to drilling and cutting applications within the aerospace industry, where percussion drilling, trepanning and fine cut features are often required.

Available in compact form factor, with very low price per watt, IPG's QCW fiber lasers are substantially more cost-effective than conventional YAG lasers due to >30% wall-plug efficiency and maintenance-free operation. The QCW lasers are available for requalifying existing lamp-pumped processes.



YLS-2000/20000-QCW High Power Quasi-CW Ytterbium Fiber Laser

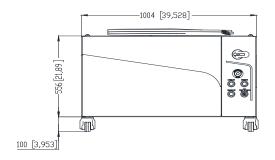
| Optical Characteristics | |
|-------------------------|-----------|
| Wavelength, nm | 1070 ±5 |
| Mode of Operation | Pulsed/CW |
| Repetition Rate, kHz | 2 |
| Average Power*, W | 2000 |
| Power Tunability, % | 10-100 |
| Peak Power, W | 20000 |
| Max. Pulse Energy, J | 200 |
| Pulse Duration, ms | 0.2-10 |
| Power Stability, % | ±2 |

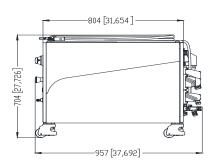
Beam Parameter Product, mm × mrad

15 @ 300 μm feeding fiber 4.2 @ 100 µm feeding fiber

^{*} Higher power levels are available upon request.

| General Characteristics | |
|--|---------------------------|
| Cabinet Dimensions (W \times D \times H), mm | 1004 x 804 x 556 |
| Weight, kg | 380 |
| Cooling | Water-cooled |
| Supply Voltage, VAC | 400-480 3-phase, 50/60 Hz |
| Power Consumption, kW | <9 |





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