

# YLM-QCW-MM SERIES

## Multi-mode Quasi-CW Fiber Lasers



### FEATURES

- ▶ Outstanding Pulse Power/ Energy Stability
- ▶ >30% Wall-plug Efficiency
- ▶ CW & Pulsed Modes
- ▶ Beam Quality Optimized for Applications
- ▶ Internal Pulse Generator & Pulse Shaping
- ▶ Low Cost High Peak Power



### APPLICATIONS

- ▶ Replacement for Lamp-Pumped Lasers
- ▶ Spot Welding
- ▶ Seam Welding
- ▶ Microwelding
- ▶ Drilling
- ▶ Cutting
- ▶ Batteries
- ▶ Medical Devices
- ▶ Computer Components

IPG has expanded its quasi continuous wave (QCW) fiber laser series which includes models with average power up to 450 W and peak power up to 4.5 kW. The new modules are more powerful and feature compact size and lower price per Watt. Short modulation time and temporal pulse shaping enable improved control and quality in micromachining applications.

The QCW fiber lasers are ideal for spot welding, drilling and cutting in the long pulse operation mode. These compact units are substantially more cost-effective than conventional YAG lasers due to >30% wall-plug efficiency and maintenance-free operation. The QCW fiber lasers are available for requalifying existing lamp-pumped processes. Retrofit services, including engineers familiar with system integration, are available to help customers replace older production lasers with energy-efficient fiber lasers from IPG.

# YLM-QCW-MM SERIES

## Multi-mode Quasi-CW Fiber Lasers

Optical Characteristics	YLM-150/150-QCW	YLM-200/2000-QCW	YLM-300/3000-QCW	YLM-450/4500-QCW
Wavelength, nm	1070 ±5			
Mode of Operation	Pulsed/CW			
Modulation Frequency, kHz	0-50			
Max. Average Power CW/QCW, W	250/150	250/200	300/300	450/450
Max. Peak Power, W	1500	2000	3000	4500
Max. Pulse Energy, J	15	20	30	45
Pulse Duration*, ms	0.05-50			
Power Tunability, %	10-100			
Power Stability**, %	±0.5			
Output Fiber Core Diameter, µm	50, 100, 200			
Beam Parameter Product, mm x mrad	2.5, 5, 10			

\* 1 The minimum pulse duration is 10 microseconds upon request

\*\* Over 4 hours, T=const

### General Characteristics

Cabinet Dimensions (W × D × H), mm	256 × 435 × 148	336 × 435 × 148	416 × 566 × 148	411 × 509 × 85
Weight, kg	<25	<30	<35	
Cooling	Air-Cooled*		Air-Cooled	Water-Cooled
Supply Voltage, VDC			48	
CW Power Consumption, W	<900		<1100	<1100
Pulsed Power Consumption, W	<600	<800	<1100	<1600

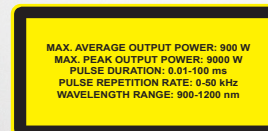
\* Water-cooling is available upon request



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