

YLR-SM FIBER LASER 2012 SERIES



The Power to Transform[®] using the YLR Single-mode Fiber Lasers

**NEW
PRODUCT**

IPG's YLR-SM Series represents a new generation of diode-pumped single-mode CW Ytterbium fiber laser systems of near infrared spectral range (1060-1080 nm) with a unique combination of high power, ideal beam quality, fiber delivery and high wall-plug efficiency.

The YLR-SM Series features a wide selectivity of operating wavelengths, ultra-low amplitude noise, high stability and ultra-long pump diode lifetime. Configurations include air- or water-cooled: air-cooled up to 600 W and the compact water-cooled unit powers up to 1 kW. Both options feature redesigned control electronics with extended functionality.

Features:

- 30% Wall-plug Efficiency
- TEM₀₀ ($M^2 < 1.05$) Beam Quality
- Air- or Water-cooled Versions
- Maintenance-free Operation
- Single-mode Fiber Delivery
- Internal Pulse Generator

Typical Applications:

- Fine Cutting
- Sintering
- Engraving
- Welding





YLR-SM Series YLR-20-1000 CW Single-mode Rack Mountable Fiber Lasers

| | | | |
|--------------------------|--------------------------|--------------------------|--------------|
| YLR-100-AC YLR-100-WC | YLR-300-AC YLR-300-WC | YLR-500-AC YLR-500-WC | YLR-1000-Y12 |
|--------------------------|--------------------------|--------------------------|--------------|

1.0 Optical Characteristics

| | | | |
|--------------------------------|--------|-----|-----|
| Mode of Operation | CW | | |
| Polarization State | Random | | |
| Nom. Power, W | 100 | 300 | 500 |
| Max. Modulation Frequency, kHz | 50 | | 5 |
| Emission Wavelength, nm | 1070 | | |
| Output Power Stability, % | ±0.5 | | |
| BPP, mm x mrad | 0.37 | | |

2.0 General Characteristics

| Cooling Method | Forced Air/ Water | | | Water |
|--------------------------|-------------------|---------------------------|---------------------------|---------------------------|
| Dimensions W x D x H, mm | AC* | 3 RU 19", 448 x 394 x 133 | 4 RU 19", 448 x 500 x 177 | 6 RU 19", 448 x 497 x 266 |
| | WC | 3 RU 19", 448 x 580 x 133 | 3 RU 19", 448 x 580 x 133 | 3 RU 19", 448 x 580 x 133 |
| Weight, kg | AC* | 25 | 30 | 50 |
| | WC | 30 | 30 | 50 |
| Operating Voltage, V AC | 100-240, 50/60 Hz | | 200-240, 50/60 Hz | |
| Power Consumption, W | 400 | 1000 | 1600 | 3200 |

* AC (Air-cooled)
WC (Water-cooled)

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