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# CYL-8kW~12kW

1.0µM Multimode Group Continuous Fiber Laser

#### **PRODUCT DESCRIPTION**

GT Lasers's CYL-8k~12k/M 1.0µm multimode group continuous fiber laser, adopts latest industry technology and the optimization design, with high electro-optical conversion efficiency, high lifetime, high safety and reliability. The unit with high-quality output beam and strong capability on resisting high-reflective, can be widely used in all kinds of materials of laser cutting, welding, punching, 3D printing and other high-end smart manufacturing.

GT Lasers, which is based on Internet technology, established a scientific after-sales service system. Each device has a unique identity code (the internal storage of original technology and



material information). Can achieve remote online real-time monitoring; can provide users with equipment fault early warning and efficient technical support and good after-sales service.

GT Lasers's products with high quality, high reliability and excellent cost performance, can meet the requirements of the customer diversification and personalized customization. It also with good after-sales service, is the ideal choice for system integrates and equipment manufacturers.

### **PRODUCT FEATURE**

- ► High wall plug efficiency, greatly reduce power consumption
- ► Strong capability on resisting high-reflective, suitable for different materials processing.
- ▶ Remote real-time monitoring.
- ► High lifetime, high safety and reliability.
- Can achieve personalized customization.
- Excellent after-sales service system.
- Excellent cost performance

#### MAIN APPLICATION

- Laser cutting.
- Laser welding.
- Laser cladding.
- Laser brazing.
- Laser thermolizing.



## **TECHNIQUE INDEX**

|                                  | Performance                  |       | Min.   | Тур.            | Max.          | Supplement                      |  |  |
|----------------------------------|------------------------------|-------|--|-----------------|---------------|---------------------------------|--|--|
|                                  | Central wavelength           | (nm)  | 1070   | 1080            | 1090          |                                 |  |  |
|                                  | Spectral bandwidth           | (nm)  |  | 5               | 8             | 3dB                             |  |  |
|                                  |                              | (W)   |  | 8000            |               |                                 |  |  |
| Optic<br>Feature                 | Output optical power         |       |  | 10000           |               |                                 |  |  |
|                                  |                              |       |  | 12000           |               |                                 |  |  |
|                                  | Power ADJ. range             | (%)   | 10   |                 | 100           |                                 |  |  |
|                                  |                              | (0()) |  | -1              | 1             | 100% continuous > 1h            |  |  |
|                                  | Output power stability       | (%)   |  | ±2              | ±3            | 100% continuous > 24h           |  |  |
|                                  | Modulation frequency.        | (KHz) |  |                 | 5             | 100%output                      |  |  |
|                                  | Glow power                   | (mW)  | 0.3  |                 | 1.0           |                                 |  |  |
|                                  |                              |       |  | QBH             |               | 8000W                           |  |  |
|                                  | Output connector             |       |  | QD or Q+        |               | 10000W                          |  |  |
|                                  |                              |       |  | QD or Q+        |               | 12000W                          |  |  |
|                                  |                              |       | 3.5  |                 | 4.5           | Output fiber core-diameter100um |  |  |
| Output                           | Beam quality(BPP)            | (µm)  | 5  |                 | 6.5           | Output fiber core-diameter150um |  |  |
| Output<br>Feature                |                              |       | 6.5  |                 | 9             | Output fiber core-diameter200um |  |  |
| Fealure                          | Output fiber length          | (m)   |  | 20              |               | Customize                       |  |  |
|                                  | Output fiber core-diameter   | (µm)  | 100 (  | 150 / 200 Custo | omize)        |                                 |  |  |
|                                  | Output fiber bending radius  | (mm)  | 200  |                 |               |                                 |  |  |
|                                  | Working mode                 | Co    | ntinuous modul   | ation           |               |                                 |  |  |
|                                  | Polarization state           |       | Random   |                 | Random        |                                 |  |  |
|                                  | working voltage              | (V)   | 360  | 400             | 440           | VAC                             |  |  |
|                                  |                              |       |  |                 | 22            | CYL-8000 100% output            |  |  |
| <b>Flastrias</b>                 | Input power                  | (KW)  |  |                 | 28            | CYL-8000 100% output            |  |  |
| Electrical<br>cooling<br>Feature |                              |       |  |                 | 34            | CYL-12000 100% output           |  |  |
|                                  | Laser on time                | (µs)  |  |                 |               |                                 |  |  |
|                                  | Laser off time               | (µs)  |  |                 |               |                                 |  |  |
|                                  | Modulation frequency.        |       |  |                 |               |                                 |  |  |
|                                  | Cooling method               |       | Water-cooling  |                 | Circumscribed |                                 |  |  |
| General<br>Feature               | Working environment temp.    | (°C)  | 10   | 25              | 40            |                                 |  |  |
|                                  | Working environment humidity | (%)   | 10   |                 | 80            |                                 |  |  |
|                                  | Storage temp.                | (°C)  | -10  | 25              | 60            |                                 |  |  |
|                                  | Weight                       | (kg)  |  | 63              |               |                                 |  |  |
|                                  | Cooling medium               |       | distilled water(Above 0 $^\circ \mathbb C$ )/Ethylene glycol antifreeze(Below 0 $^\circ \mathbb C$ ) |                 |               |                                 |  |  |



## **ORDER INFORMATION**

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|   |                    |   |                      |                        |               | -      |                     |       |                               |         | /            |           |
| с | Continuous<br>wave | Y | YDF<br>1.0μm         | Optical<br>fiber laser | Output powers |        | Output<br>connector |       | Output fiber<br>core-diameter |         | Fiber length |           |
| Р | Puls               | E | EDF<br>EYDF<br>1.5µm |                        | 8000          | 8000W  | QBH                 | QBH   | 100                           | 100/360 | 20           | 20m       |
|   | Fuis               |   |                      |                        | 10000         | 10000W | QD Q+               | QD Q+ | 150                           | 150/360 | 20           | 20m       |
|   |                    |   |                      |                        | 12000         | 12000W | QD Q+               | QD Q+ | 200                           | 200/360 | xx           | Customize |
|   |                    |   |                      |                        |               |        |                     |       | 030                           | 30/400  |              |           |
|   |                    |   |                      |                        |               |        |                     |       | 020                           | 20/400  |              |           |
|   |                    |   |                      |                        |               |        |                     |       | 050                           | 50/360  |              |           |