

## DS3 Fiber Coupled Diode Laser System

DS3-51512-LD NO.



### Features:

- ◆ 976nm wavelength or Customized
- ◆ 300W output power
- ◆ 200 $\mu$ m core diameter
- ◆ 0.22NA
- ◆ Multiple optional cabinet size

### Applications:

- ◆ Plastic welding
- ◆ 3D Printing
- ◆ Soldering

BWT, founded in 2003, is committed to the mission of "let the dream drive the light", the vision of becoming the "Global leader in laser solutions", and the value of "Outstanding innovation", providing diode laser, fiber laser, ultra-fast laser products and solutions to global customers.

The company pursues continuous innovation and insists on autonomous and controllable advanced process and technology. With Beijing headquarters as the core, BWT has successively established production and R&D centers in Jiangsu, and Shenzhen, and invested in the construction of an intelligent and digital production base in Tianjin. To build a high level of technical strength and product quality, BWT set up a German subsidiary in 2020, introducing European quality standards, and taking a solid step for the internationalization of R&D, production and technological innovation.

Up to now, BWT has traded more than 10 million lasers worldwide. BWT's products are available in more than 70 countries and regions, with applications involving industry, medical, commercial, scientific research, information, and many other fields.

| Version number | Change content | Change date |
|----------------|----------------|-------------|
| 1.0            | First edition  | 2022.12.21  |

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| Specifications (25°C)           |   | Unit  | DS3-51512-LD   |
|---------------------------------|---|-------|--|
| Optical Data <sup>(1)</sup>     | CW Output Power                                 | W     | 300  |
|                                 | Center wavelength                               | nm    | 976±10   |
|                                 | Spectral width(FWHM)                            | nm    | < 6  |
|                                 | Wavelength shift with temperature               | nm/°C | 0.3  |
|                                 | Output power instability (25°C)                 | %     | ±3 ( 5 hours )   |
|                                 | Power Range                                     | %     | 10~100   |
| Fiber Data <sup>(1)</sup>       | Core diameter                                   | μm    | 200  |
|                                 | Numeric aperture                                | -     | 0.22   |
|                                 | Fiber length                                    | m     | 5 / Customized   |
|                                 | Fiber termination                               | -     | D80/ Customized  |
| Electrical Data                 | Power supply                                    | V     | 200~240 ( 50-60Hz )  |
|                                 | Power consumption                               | W     | <1000  |
|                                 | Drive mode                                      | -     | Constant current   |
|                                 | Emission mode                                   | -     | CW or Modulated 1 Hz to 20kHz,                             |
|                                 | Control mode                                    | -     | RS232, I/O   |
|                                 | Modulation frequency                            | Hz    | 1~20K (DC>0.01%)   |
|                                 | Modulation Pulse Width                          | -     | 20μs -950ms (Pulse)  |
|                                 | Modulation Rise/Fall Time (Min. Value)          | μs    | ≤10  |
| Aiming Beam Data <sup>(2)</sup> | Center wavelength                               | nm    | 635±10nm   |
|                                 | CW Output Power                                 | mW    | 2  |
| Mechanical Parameters           | Dimensions (L×W×H)                              | mm    | L size 482*429*155   |
|                                 | Weight  | kg    | <17  |
| Others                          | Cooling method                                  | -     | Air cooling  |
|                                 | Storage temperature <sup>(3)</sup>              | °C    | 5~50   |
|                                 | Temperature Ambient in Operation <sup>(3)</sup> | °C    | 15~30  |
|                                 | Cooling requirement                             | -     | Air cooling: Leave 10cm of space on the outside of the fan |
|                                 | Relative Humidity                               | %     | 5~80   |
|                                 | Safety class                                    | -     | 4 ( EN 60825-01 )  |

(1) Consult BWT for other available options.

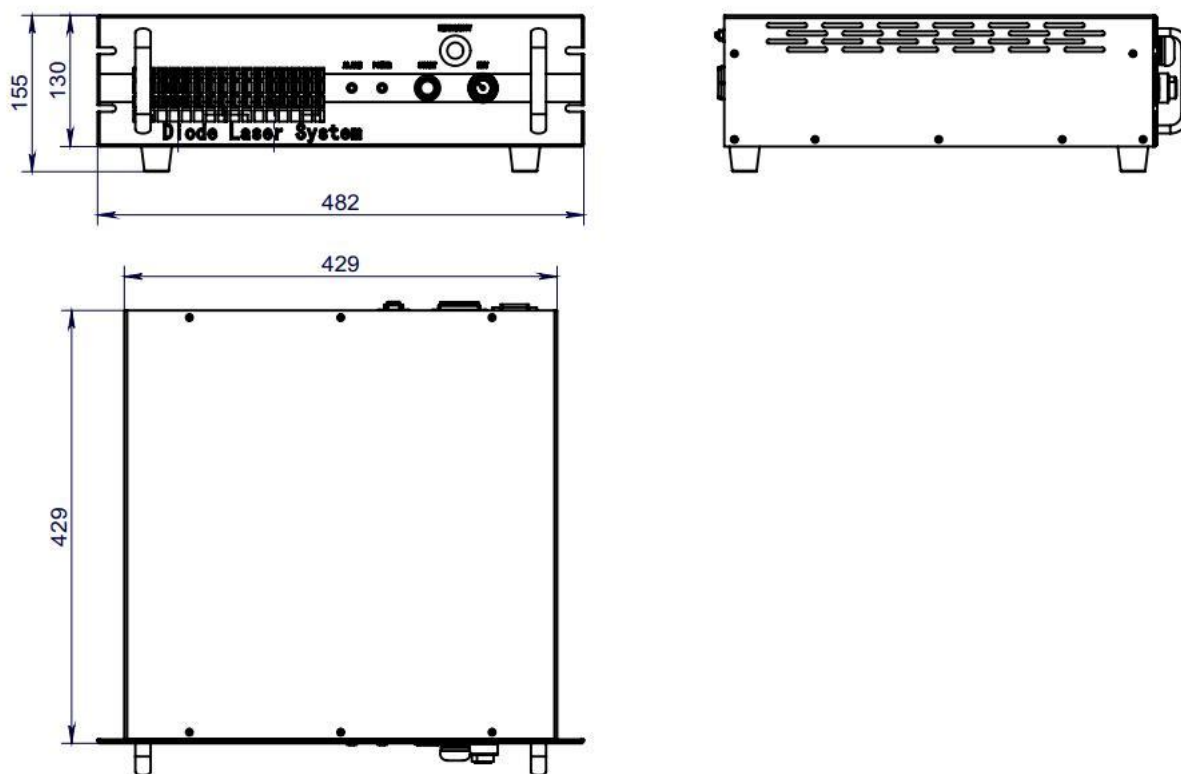
(2) The aiming beam can be customized according to customer requirements.

(3) A non-condensing environment is required for operation and storage

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### Package Dimensions (mm)-- L size



### OPERATING NOTES

- ◆ Avoid eye and skin exposure to direct radiation during operation.
- ◆ Make sure the fiber output end is properly cleaned before operation of laser. Follow safety protocols to avoid injury when handling and cutting the fiber.
- ◆ Laser diode must be used according to the specifications.
- ◆ Temperature Ambient in Operation ranges from 15°C to 30°C.
- ◆ Storage temperature ranges from 5°C to 50°C.



**Declaration:** information and specifications contained herein are deemed to be reliable and accurate. BWT Beijing reserves the right to change, alter or modify the design and specifications of these products at any time without notice.22-12