

## 405nm Fiber Coupled Diode Laser System(1)

**DS3-11444-K405EMSCN**



### Features:

- ◆ 405nm wavelength
- ◆ Up to 30W output power
- ◆ 400 $\mu$ m core diameter
- ◆ 0.22NA

### Applications:

- ◆ Laser Direct Writing
- ◆ Biological Detection
- ◆ 3D Printing

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, Shanghai and Shenzhen, and invested in the construction of intelligent and digital production base in Tianjin. In order to build the world's highest 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, applications involving industry, medical, commercial, scientific research, information and many other fields.

| Version number | Change content | Change date |
|----------------|----------------|-------------|
| 1.0            | First edition  | 2021.09.17  |

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|     |            |            |
|-----|------------|------------|
| 1.1 | UI Upgrade | 2021.10.08 |
|-----|------------|------------|

| Specifications (25°C)              |                                      | Unit            | DS3-11444-K405EMSCN                          |
|------------------------------------|--------------------------------------|-----------------|--|
| <b>Optical Data</b> <sup>(2)</sup> | Output Power                         | W               | Up to 30 W                                   |
|                                    | Center wavelength                    | nm              | 405±5  |
|                                    | Spectral width (FWHM)                | nm              | ≤6   |
|                                    | Power Range                          | %               | 10~100                                       |
| <b>Fiber Data</b>                  | Core diameter                        | μm              | 400  |
|                                    | Numeric aperture                     | -               | 0.22   |
|                                    | Fiber output                         |                 | Pluggable                                    |
|                                    | Fiber termination                    | -               | Pluggable SMA905                             |
| <b>Electrical Data</b>             | Power supply                         | V               | DC 24V                                       |
|                                    | Drive mode                           | -               | Constant current                             |
|                                    | Operation mode                       | -               | CW   |
|                                    | Control mode                         | -               | RS232, I/O                                   |
|                                    | Operation temperature <sup>(3)</sup> | °C              | 20~30  |
|                                    | Operation current                    | A               | 5.5A   |
|                                    | The method of protection             |                 | Over voltage, Over current, Over temperature |
| <b>Mechanical Parameters</b>       | Dimensions (L×W×H)                   | mm <sup>3</sup> | 223× 224× 63                                 |
| <b>Others</b>                      | Cooling method                       | -               | Water cooling                                |
|                                    | Temperature Ambient in Operation     | °C              | 15~30  |
|                                    | Storage temperature <sup>(4)</sup>   | °C              | 5~50   |
|                                    | Cooling requirement                  | -               | 制冷量 60W, water flow: 2L/min                  |
|                                    | Relative Humidity                    | %               | 5~80   |

(1) Consult BWT for other available options.

(2) Operating temperature defined by the package case. Acceptable operating range is 25°C, but performance may vary.

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

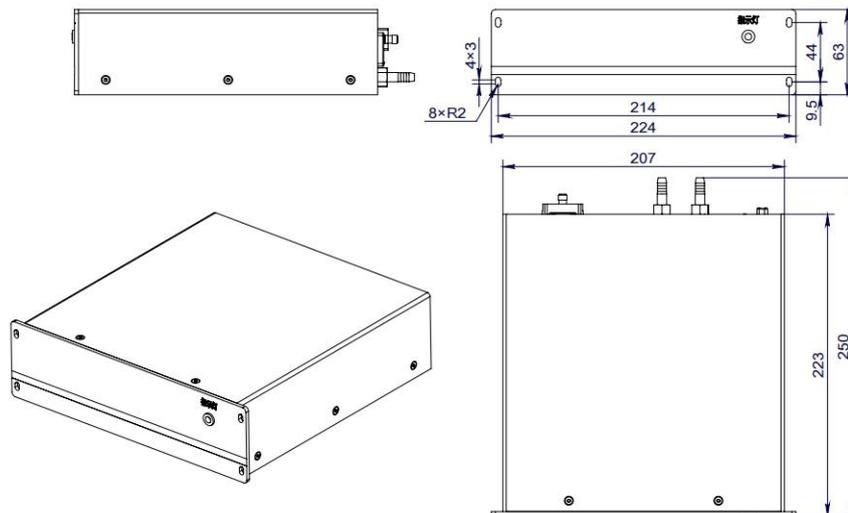
(4) Operating temperature refers to the bottom plate temperature, the acceptable use of the temperature range of 15 degrees C to 35 degrees C, but the performance may be slightly different at different temperatures.

(5) Laser system appearance size, fiber appearance size, and connection head appearance size, please take the physical, sample picture for reference only.

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### Dimensions ( mm )



### 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.20-1

