



# PT-FL-CW500 Fiber Laser

Photonics Technologies Lightning series fiber lasers have excellent beam quality, and the beam can be focused close to the diffraction limit, which makes them perfect choices for precision processing. The two operation modes, CW and modulation, minimize heat-affected zone. Reliable performance, modular and all-fiber design, and robust case enclosing all optical and electronic components ensure that they can be used under strict industrial conditions.

Photonics Technologies Lightning series fiber lasers can be used in wide application like precision processing, 3D printing, sheet metal processing, lithium-ion battery manufacturing, etc. The lasers can process various types of metal, including aluminum-based and nick-el-based alloys, titanium alloys and alumina ceramics.

Photonics Technologies professional laser application team, with good knowledge & experience, provides the best laser system solution for our customers all around the world.

## Features

<i>Good beam quality</i>	<i>High electro-optical conversion efficiency</i>
<i>Excellent power stability</i>	<i>Two operation modes: CW and Modulation</i>
<i>Excellent system reliability</i>	<i>Max modulation frequency up to 5kHz</i>
<i>Easy-to-use control interface</i>	<i>Cost effective and maintenance free</i>

## Application

<i>Precision cutting</i>	<i>Precision welding</i>
<i>Surface treatment</i>	<i>Drilling</i>
<i>3D printing (SLS/SLM)</i>	<i>Sheet metal processing</i>



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### Photonics Technologies

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## Specifications

### Optical Character

Power	500W
Wavelength	1080±10 nm
Output Fiber Core Diameter	14, 20 or 50 um
Output Cable Length	12 m or customized
Output Cable Connector	QBH
Aiming Beam	Red
Operation Mode	CW or modulation
Polarization	Random
Power Stability (25°C)	<±1.5% (2h)
Power Adjustment Scope	10%-100%
Max Modulation Frequency	5kHz

### Size and Weight

Physical Size (H X W X D)	80 mm X402 mm X296 mm
Weight	14.5kg

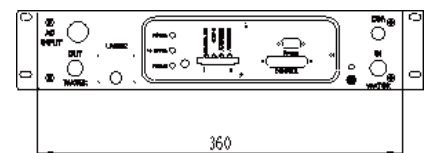
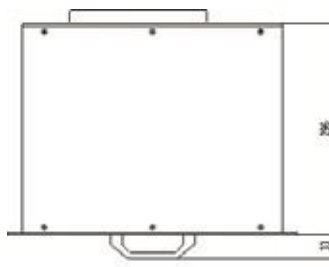
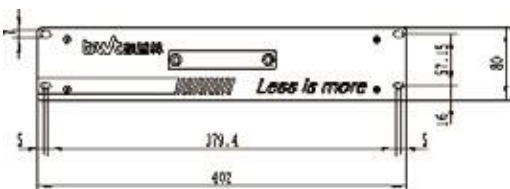
### Electronic Character

Power Supply	Single Phase, 220/240 V, AC, PE, 50/60 Hz
Power Consumption	1.5 kW
Control Interface	RS232/AD

### Water Cooling Parameters

Minimum Water Cooling Capacity	1.0 kw
Temperature Settings	25°C (Laser Module), 30°C (QBH)
Cooling Tubes Size	I.D. Ø 12 mm
Cooling Water Flow Rate (Laser Module)	>8 L/min
Cooling Water Flow Rate (QBH)	1.5~2.0L/min

## External Structure Size





# PT-FL-CW1000 Fiber Laser

Photonic Technologies Lightning series fiber lasers have excellent beam quality, and the beam can be focused close to the diffraction limit, which makes them perfect choices for precision processing. The two operation modes, CW and modulation, minimize heat-affected zone. Reliable performance, modular and all-fiber design, and robust case enclosing all optical and electronic components ensure that they can be used under strict industrial conditions.

Photonic Technologies Lightning series fiber lasers can be used in wide application like precision processing, 3D printing, sheet metal processing, lithium-ion battery manufacturing, etc. The lasers can process various types of metal, including aluminum-based and nickel-based alloys, titanium alloys and alumina ceramics.

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## Features

<i>Good beam quality</i>	<i>High electro-optical conversion efficiency</i>
<i>Excellent power stability</i>	<i>Two operation modes: CW and Modulation</i>
<i>Excellent system reliability</i>	<i>Max modulation frequency up to 5kHz</i>
<i>Easy-to-use control interface</i>	<i>Cost effective and maintenance free</i>

## Application

<i>Precision cutting</i>	<i>Precision welding</i>
<i>Surface treatment</i>	<i>Drilling</i>
<i>3D printing (SLS/SLM)</i>	<i>Sheet metal processing</i>



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## Specifications

### Optical Character

<b>Power</b>	<b>1000W</b>
Wavelength	1080±10 nm
Output Fiber Core Diameter	20, 50 um or customized
Output Cable Length	12 m or customized
Output Cable Connector	QBH
Aiming Beam	Red
Operation Mode	CW or modulation
Polarization	Random
Power Stability (25°C)	<2±1.5% (2h)
Power Adjustment Scope	10%-100%
Max Modulation Frequency	5kHz

### Size and Weight

Physical Size (H XW XD)	80 mm X402 mm X296 mm
Weight	14.5kg

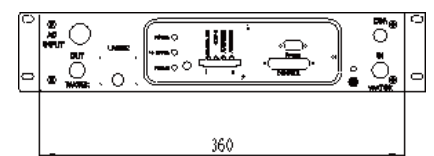
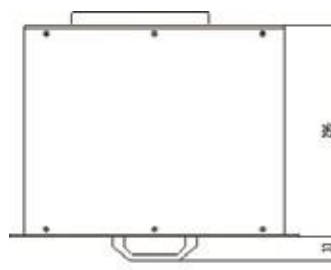
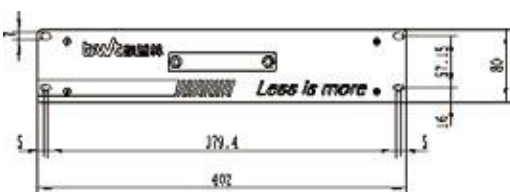
### Electronic Character

Power Supply	Single Phase, 220/240 V, AC, PE, 50/60 Hz
Power Consumption	4.5 kW
Control Interface	RS232/AD

### Water Cooling Parameters

Minimum Water Cooling Capacity	3.5 kW
Temperature Settings	25°C (Laser Module), 30°C (QBH)
Cooling Tubes Size	I.D Ø 12 mm
Cooling Water Flow Rate (Laser Module)	>10 L/min
Cooling Water Flow Rate (QBH)	1.5~2.0L/min

## External Structure Size





# PT-FL-CW1500 Fiber Laser

Photonics Technologies Lightning series fiber lasers have excellent beam quality, and the beam can be focused close to the diffraction limit, which makes them perfect choices for precision processing. The two operation modes, CW and modulation, minimize heat-affected zone. Reliable performance, modular and all-fiber design, and robust case enclosing all optical and electronic components ensure that they can be used under strict industrial conditions.

Photonics Technologies Lightning series fiber lasers can be used in wide application like precision processing, 3D printing, sheet metal processing, lithium-ion battery manufacturing, etc. The lasers can process various types of metal, including aluminum-based and nick-el-based alloys, titanium alloys and alumina ceramics.

Photonics Technologies professional laser application team, with good knowledge & experience, provides the best laser system solution for our customers all around the world.

## Features

<i>Good beam quality</i>	<i>High electro-optical conversion efficiency</i>
<i>Excellent power stability</i>	<i>Two operation modes: CW and Modulation</i>
<i>Excellent system reliability</i>	<i>Max modulation frequency up to 5kHz</i>
<i>Easy-to-use control interface</i>	<i>Cost effective and maintenance free</i>

## Application

<i>Precision cutting</i>	<i>Precision welding</i>
<i>Surface treatment</i>	<i>Drilling</i>
<i>3D printing (SLS/SLM)</i>	<i>Sheet metal processing</i>



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## Specifications

### Optical Character

<b>Power</b>	<b>1500W</b>
Wavelength	1080±10 nm
Output Fiber Core Diameter	20, 50 um or customized
Output Cable Length	12, 15 m or customized
Output Cable Connector	QBH
Aiming Beam	Red
Operation Mode	CW or modulation
Polarization	Random
Power Stability (25°C)	<±1.5% (2h)
Power Adjustment Scope	10%-100%
Max Modulation Frequency	5kHz

### Size and Weight

Physical Size (H XW XD)	80 mm X402 mm X346 mm
Weight	17kg

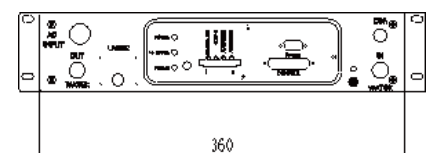
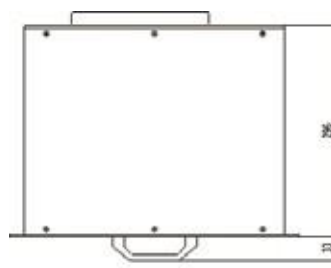
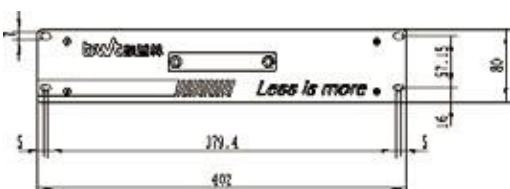
### Electronic Character

Power Supply	Single Phase, 220/240 V, AC, PE, 50/60 Hz
Power Consumption	3.0 kW
Control Interface	RS232/AD

### Water Cooling Parameters

Minimum Water Cooling Capacity	2.5 kW
Temperature Settings	25°C (Laser Module), 30°C (QBH)
Cooling Tubes Size	I.D. Ø 12 mm
Cooling Water Flow Rate (Laser Module)	>10 L/min
Cooling Water Flow Rate (QBH)	1.5~2.0L/min

## External Structure Size





# PT-FL-CW2000 Fiber Laser

Photonic Technologies Lightning series fiber lasers have excellent beam quality, and the beam can be focused close to the diffraction limit, which makes them perfect choices for precision processing. The two operation modes, CW and modulation, minimize heat-affected zone. Reliable performance, modular and all-fiber design, and robust case enclosing all optical and electronic components ensure that they can be used under strict industrial conditions.

Photonic Technologies Lightning series fiber lasers can be used in wide application like precision processing, 3D printing, sheet metal processing, lithium-ion battery manufacturing, etc. The lasers can process various types of metal, including aluminum-based and nickel-based alloys, titanium alloys and alumina ceramics.

Photonic Technologies professional laser application team, with good knowledge & experience, provides the best laser system solution for our customers all around the world.

## Features

<i>Good beam quality</i>	<i>High electro-optical conversion efficiency</i>
<i>Excellent power stability</i>	<i>Two operation modes: CW and Modulation</i>
<i>Excellent system reliability</i>	<i>Max modulation frequency up to 5kHz</i>
<i>Easy-to-use control interface</i>	<i>Cost effective and maintenance free</i>

## Application

<i>Precision cutting</i>	<i>Precision welding</i>
<i>Surface treatment</i>	<i>Drilling</i>
<i>3D printing (SLS/SLM)</i>	<i>Sheet metal processing</i>



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## Specifications

### Optical Character

Power	2000W
Wavelength	1080±10 nm
Output Fiber Core Diameter	34, 50 um or customized
Output Cable Length	12, 15 m or customized
Output Cable Connector	QBH
Aiming Beam	Red
Operation Mode	CW or modulation
Polarization	Random
Power Stability (25°C)	<±1.5% (2h)
Power Adjustment Scope	10%-100%
Max Modulation Frequency	5kHz

### Size and Weight

Physical Size (H X W X D)	80 mm X402 mm X346 mm
Weight	17kg

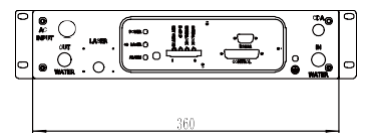
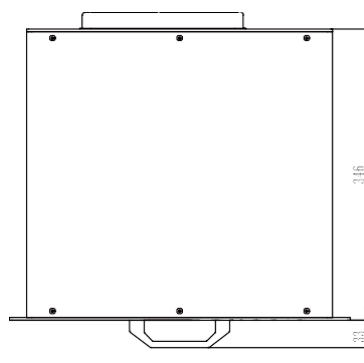
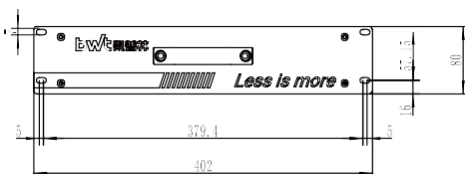
### Electronic Character

Power Supply	Single Phase, 220/240 V, AC, PE, 50/60 Hz
Power Consumption	6.0 kW
Control Interface	RS232/AD

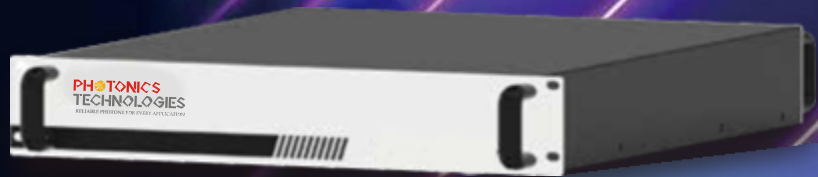
### Water Cooling Parameters

Minimum Water Cooling Capacity	4.5 kW
Temperature Settings	25°C (Laser Module), 30°C (QBH)
Cooling Tubes Size	I.D. Ø 12 mm
Cooling Water Flow Rate (Laser Module)	>18 L/min
Cooling Water Flow Rate (QBH)	1.5~2.0L/min

## External Structure Size







## PT-FL-CW3000 Fiber Laser

Photonics Technologies Lightning series fiber lasers have excellent beam quality, and the beam can be focused close to the diffraction limit, which makes them perfect choices for precision processing. The two operation modes, CW and modulation, minimize heat-affected zone. Reliable performance, modular and all-fiber design, and robust case enclosing all optical and electronic components ensure that they can be used under strict industrial conditions.

Photonics Technologies Lightning series fiber lasers can be used in wide application like precision processing, 3D printing, sheet metal processing, lithium-ion battery manufacturing, etc. The lasers can process various types of metal, including aluminum-based and nick-el-based alloys, titanium alloys and alumina ceramics.

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### Features

<i>Good beam quality</i>	<i>High electro-optical conversion efficiency</i>
<i>Excellent power stability</i>	<i>Two operation modes: CW and Modulation</i>
<i>Excellent system reliability</i>	<i>Max modulation frequency up to 5kHz</i>
<i>Easy-to-use control interface</i>	<i>Cost effective and maintenance free</i>

### Application

<i>Precision cutting</i>	<i>Precision welding</i>
<i>Surface treatment</i>	<i>Drilling</i>
<i>3D printing (SLS/SLM)</i>	<i>Sheet metal processing</i>



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## Specifications

### Optical Character

<b>Power</b>	<b>3000W</b>
Wavelength	1080±10 nm
Output Fiber Core Diameter	50 um or customized
Output Cable Length	12, 20 m or customized
Output Cable Connector	QBH
Aiming Beam	Red
Operation Mode	CW or modulation
Polarization	Random
Power Stability (25°C)	<±1.5% (2h)
Power Adjustment Scope	10%-100%
Max Modulation Frequency	5kHz

### Size and Weight

Physical Size (H X W X D)	80 mm X482 mm X521 mm
Weight	33kg

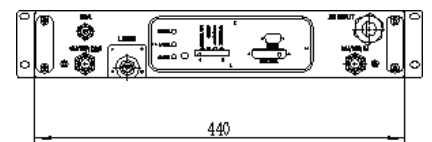
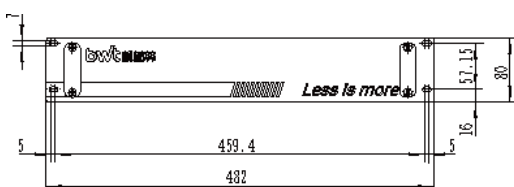
### Electronic Character

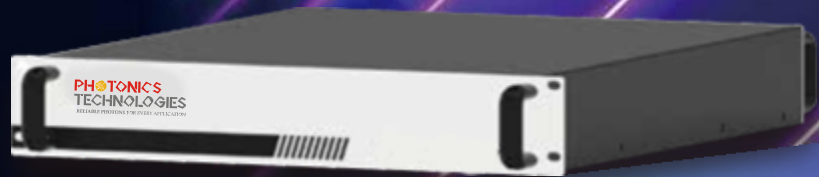
Power Supply	Three Phase, 38020 V, AC, PE, 50/60 Hz
Power Consumption	10.0 kW
Control Interface	RS232/AD

### Water Cooling Parameters

Minimum Water Cooling Capacity	7 kW
Temperature Settings	25°C (Laser Module), 30°C (QBH)
Cooling Tubes Size	I.D. Ø 12 mm
Cooling Water Flow Rate (Laser Module)	>25 L/min
Cooling Water Flow Rate (QBH)	1.5~2.0L/min

## External Structure Size





# PT-FL-CW6000 Fiber Laser

Photonics Technologies Lightning series fiber lasers have excellent beam quality, and the beam can be focused close to the diffraction limit, which makes them perfect choices for precision processing. The two operation modes, CW and modulation, minimize heat-affected zone. Reliable performance, modular and all-fiber design, and robust case enclosing all optical and electronic components ensure that they can be used under strict industrial conditions.

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## Features

<i>Good beam quality</i>	<i>High electro-optical conversion efficiency</i>
<i>Excellent power stability</i>	<i>Two operation modes: CW and Modulation</i>
<i>Excellent system reliability</i>	<i>Max modulation frequency up to 5kHz</i>
<i>Easy-to-use control interface</i>	<i>Cost effective and maintenance free</i>

## Application

<i>Precision cutting</i>	<i>Precision welding</i>
<i>Surface treatment</i>	<i>Drilling</i>
<i>3D printing (SLS/SLM)</i>	<i>Sheet metal processing</i>



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## Specifications

### Optical Character

<b>Power</b>	<b>6000W</b>
Wavelength	1080±10 nm
Output Fiber Core Diameter	100 um or customized
Output Cable Length	25 m or customized
Output Cable Connector	QBH
Aiming Beam	Red
Operation Mode	CW or modulation
Polarization	Random
Power Stability (25°C)	<±1.5% (2h)
Power Adjustment Scope	10%-100%
Max Modulation Frequency	5kHz

### Size and Weight

Physical Size (H X W X D)	93 mm X482 mm X861 mm
Weight	67kg

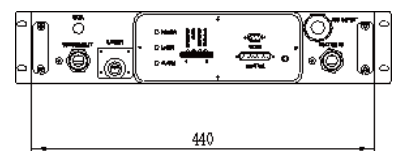
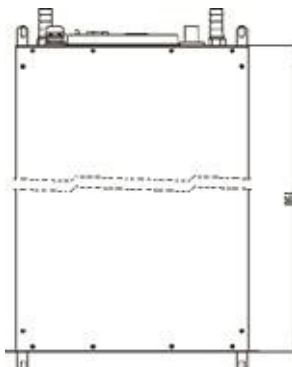
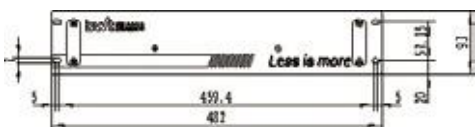
### Electronic Character

Power Supply	Three Phase, 380/420 V, AC, PE, 50/60 Hz
Power Consumption	18.0 kW
Control Interface	RS232/AD

### Water Cooling Parameters

Minimum Water Cooling Capacity	13.0 kW
Temperature Settings	25°C (Laser Module), 30°C (QBH)
Cooling Tubes Size	I.D. Ø 12 mm
Cooling Water Flow Rate (Laser Module)	>55 L/min
Cooling Water Flow Rate (QBH)	1.5~2.0L/min

## External Structure Size





# PT-FL-CW12000 Fiber Laser

Photonics Technologies Lightning series fiber lasers have excellent beam quality, and the beam can be focused close to the diffraction limit, which makes them perfect choices for precision processing. The two operation modes, CW and modulation, minimize heat-affected zone. Reliable performance, modular and all-fiber design, and robust case enclosing all optical and electronic components ensure that they can be used under strict industrial conditions.

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## Features

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<i>Excellent power stability</i>	<i>Two operation modes: CW and Modulation</i>
<i>Excellent system reliability</i>	<i>Max modulation frequency up to 5kHz</i>
<i>Easy-to-use control interface</i>	<i>Cost effective and maintenance free</i>

## Application

<i>Precision cutting</i>	<i>Precision welding</i>
<i>Surface treatment</i>	<i>Drilling</i>
<i>3D printing (SLS/SLM)</i>	<i>Sheet metal processing</i>



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## Specifications

### Optical Character

<b>Power</b>	<b>12000W</b>
Wavelength	1080±10 nm
Output Fiber Core Diameter	100 um or customized
Output Cable Length	25 m or customized
Output Cable Connector	QBH
Aiming Beam	Red
Operation Mode	CW or modulation
Polarization	Random
Power Stability (25°C)	<±1.5% (2h)
Power Adjustment Scope	10%-100%
Max Modulation Frequency	5kHz

### Size and Weight

Physical Size (H X W X D)	343 mm X482 mm X1026 mm
Weight	<170kg

### Electronic Character

Power Supply	Three Phase, 380/420 V, AC, PE, 50/60 Hz
Power Consumption	40.0 kW
Control Interface	RS232/AD

### Water Cooling Parameters

Minimum Water Cooling Capacity	25.0 kW
Temperature Settings	25°C (Laser Module), 30°C (QF)
Cooling Tubes Size	I.D. Ø 32 mm
Cooling Water Flow Rate (Laser Module)	>120 L/min
Cooling Water Flow Rate (QBH)	3.0L/min

## External Structure Size

