



# redENERGY G4

Pulsed Fiber Laser  
Wavelength: 1060nm

## 100W EP-Z

Air-cooled



### Benefits



**Greater flexibility**

Range of pulses for new and improved applications



**Superior quality**

Industry leading reliability and product warranty



**Increased productivity**

Higher powers and pulse rates for faster processing



**Improved profitability**

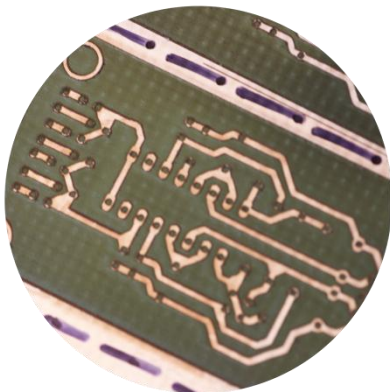
Low cost of ownership with no service requirements

### Applications

- Ablation
- Engraving
- Precision cutting
- Thin film patterning
- Cleaning
- Marking
- Scribing
- Thin foil cutting
- Drilling
- Micro-machining
- Solar cell processing
- Welding

### 100W EP-Z is ideal for...

**High speed engraving**  
With peak power >10kW



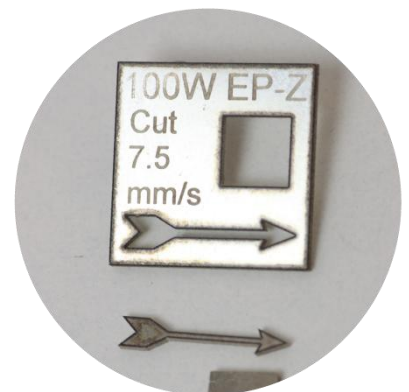
- Engraving metals
- Removal rates >65mm<sup>3</sup>/min

**High quality welding**  
With pulse energy >1.2mJ



- Foils up to 0.7mm
- Dissimilar metals

**High speed cutting & drilling**  
With higher power & pulse energy

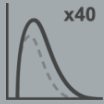


- Cutting metal foils up to 0.8mm
- Drilling holes down to 60µm



# redENERGY G4

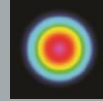
**100W EP-Z** Air-cooled  
**Pulsed Fiber Laser**  
**Wavelength: 1060nm**



## PulseTune functionality

### EP Series

- Up to 40 optimised PulseTune waveforms
- Single shot to 4 MHz pulse repetition frequency



## Beam quality

### Z Type ( $M^2 < 1.6$ )

- Higher peak power and pulse energy with only minor increase in spot size and good depth of focus

## Laser characteristics

Parameter	Unit	SP-100P-A-EP-Z
Central emission wavelength	nm	1059 - 1065
Nominal average output power	W	100
$M^2$		<1.6
Collimated beam diameter	mm	3 / 5 / 7.5 / 10
PulseTune waveforms		37
Maximum pulse energy	mJ	>1.2
Maximum peak power	kW	>10
Pulse duration range	ns	4 - 2000
Pulse repetition frequency (PRF) range	kHz	1 - 4000
CW mode (with modulation)	kHz	YES (1 - 100)

## System integration details

Parameter	Unit	SP-100P-A-EP-Z
Cooling		Air
Beam delivery cable length	m	3 / 5
Laser module dimensions	mm	377 x 249 x 115
Power supply voltage	V DC	24
Power supply requirement	W	530
Operating temperature range	°C	+5 to +40
Relative humidity range		5-95% RH (non-condensing)

To learn more about our **redENERGY G4** Fiber Laser products visit our website: [www.spilasers.com](http://www.spilasers.com)



### Terms and Conditions

All product information is believed to be accurate and subject to change without notice. A complete product specification will be issued on request and also at time of order acknowledgement. The user assumes all risks and liability whatsoever in connection with the use of the product and its application. These lasers are designed as products for incorporation or integration into other equipment.