

# BOREAS

Green



**NANOSECOND** HIGH POWER FIBER LASER



## Key Features

High Power	over 30W at 515 nm
High repetition rate	up to 150 kHz
Short ns pulses	down to 12 ns
Excellent beam quality	$M^2 < 1.2$ over full repetition rate
Superior power stability	2% over 8 hours
24/7 industrial design	

## Applications

- Solar cell edge isolation
- Metal wrap through
- Thin film scribing
- Glass cutting
- c-Si wafer processing
- Ceramic drilling
- Deep engraving



# BOREAS

Green

**NANOSECOND** HIGH POWER FIBER LASER

Laser characteristics	G15	G30
Wavelength	515 nm	515 nm
Max average power*	15 W	30 W
Repetition rate	20-75 kHz	20-150 kHz
Energy per pulse**	0.3 mJ	0.3 mJ
Pulse width**	<12 ns	<12 ns
Beam quality M <sup>2</sup> over full frequency range	<1.2	<1.2
Polarization	>99% linear	>99% linear
Beam circularity	>95%	>95%
Beam diameter	2 mm	2 mm
Beam divergence (half angle)	0.2 mrad	0.2 mrad
Average power stability over 8 h (RMS 1σ)	<2%	<2%
Pulse to pulse energy stability (RMS 1σ)	<3%	<3%
Bore sight accuracy	1 mm & 5 mrad	1 mm & 5 mrad
Beam pointing stability (RMS 1σ, in% divergence)	2%	2%
	* **	@50 kHz up to 75 kHz  @100 kHz up to 100 kHz

General characteristics	G15	G30
Laserhead size in mm	995 x 290 x 110	
Power supply size in mm	19 inch 6U rack - 483 x 266 x 605	
Laserhead Weight	35 kg	35 kg
Power supply Weight	33 kg	33 kg
Cooling type	water cooled	
Electrical power consumption	Max 600 W	Max 1000 W
Power requirement	100 V / 240 V, 50/60 Hz single phase	
Fiber & cable length (from power supply to laser head)	Fibre length = 5 m, RF / Dsub25 = 5 m	
Interfaces	USB and RS232	
Cooling requirement	800 W max. heat load	900 W max. heat load

#### OPTIONS

External shutter, Attenuator, Multimode fiber delivery

