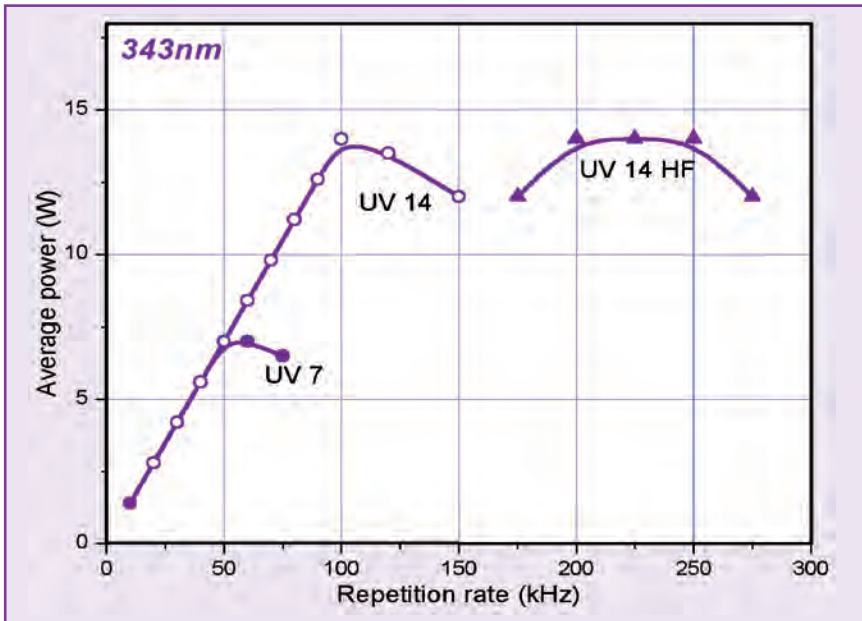


BOREAS UV

NANOSECOND HIGH POWER FIBER LASER



Key Features

High Power	up to 14W at 343 nm
High repetition rate	up to 275 kHz
Short ns pulses	down to 12 ns
Excellent beam quality	$M^2 < 1.3$ over full repetition rate
Superior beam pointing	5% over 8 hours
24/7 industrial design	

Applications

- Plastic marking
- PCB drilling
- Sapphire scribing
- Material processing
- Photovoltaic scribing
- Ceramics processing



BOREAS

NANOSECOND HIGH POWER FIBER LASER

Laser characteristics	UV7	UV14	UV14 HF
Wavelength	343 nm	343 nm	343 nm
Max average power*	7 W	14 W	14 W
Repetition rate	10-75 kHz	20-150 kHz	175-275 kHz
Energy per pulse**	140 μJ	140 μJ	70 μJ
Pulse width**	< 12 ns	< 12 ns	< 12 ns
Beam quality M ² over full frequency range	< 1.3	< 1.3	< 1.3
Polarization	> 99% linear	> 99% linear	> 99% linear
Beam circularity	> 85%	> 85%	> 85%
Beam diameter at laser output	3 mm	3 mm	3 mm
Beam divergence (full angle)	Approximately 2 mrad	Approximately 2 mrad	Approximately 2 mrad
Average power stability over 8h (RMS 1σ)	< 5%	< 5%	< 5%
Pulse to pulse energy stability (RMS 1σ)	< 5%	< 5%	< 5%
Bore sight accuracy	1 mm & 5 mrad	1 mm & 5 mrad	1 mm & 5 mrad
Beam pointing stability (RMS 1σ, in % divergence)	3%	3%	3%
	* @50 kHz up to 50 kHz	* @100 kHz up to 100 kHz	* @200 kHz between 200 and 250 kHz

General characteristics	UV7	UV14	UV14 HF
Laserhead size in mm	872 x 290 x 105		
Power supply size in mm	19 inch 6U rack - 428 x 266 x 605		
Laserhead Weight	40 kg		
Power supply Weight	33 kg		
Cooling type	water cooled		
Electrical power consumption	Max 800 W	Max 1000 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 = 5m, RF / Dsub25 = 5 m		
Interfaces	USB or RS232 or DB37		
Cooling requirement	800 W max. heat load	900 W max. heat load	900 W max. heat load

OPTIONS
External Shutter

