

# COMPex

## Market Leading UV-Technology

COMPex Excimer lasers are highly effective light sources, featuring a compact design and easy installation and operation. They deliver superior results in demanding applications, such as solid sampling systems (LA-ICPMS), material research (PLD) and precise material processing.

Featuring new ceramic preionization, the COMPex provides multi-hundred millijoules output, plus unmatched pulse-to-pulse stability. The COMPex also comes with an improved gas processor that extends both gas and optics lifetimes.



### FEATURES & BENEFITS

- Selection of 193 nm, 248 nm, 308 nm, and 351 nm wavelengths for full material flexibility
- Superior pulse energy of up to 750 mJ to enable effective ablation at large field size
- Unrivalled pulse stability of 0.75%, rms to ensure high fluence control
- Ultimate pulse control and system parameter logging to deliver smart and reproducible thin films

### APPLICATIONS

- PLD – Pulsed Laser Deposition
- Thin Wafer Processing
- Laser Lift-Off/Debonding
- LA-ICP-MS

SPECIFICATIONS		COMPex 50 FBG	COMPex 50	COMPex 102	COMPex 110	COMPex 201	COMPex 205
Wavelength (nm)							
Pulse Energy <sup>1</sup> (mJ)	193	-	100	240	240	400	400
	248	140	150	400	400	750	750
	308	-	-	250	250	500	500
	351	-	-	200	200	300	300
Max. Rep. Rate (Hz)		100	50	20	100	10	50
Average Power <sup>2</sup> (W)	193	-	4	4.8	12	4	15
	248	12	7	8	30	7.5	33
	308	-	-	5	16	3.5	20
	351	-	-	4	12	3	15
Energy Stability <sup>3</sup> (1 sigma) (%)		≤0.75					
Pulse Duration (FWHM) (ns)		20	20	20	20	25	25
Beam Dimensions (V x H, FWHM) (mm <sup>2</sup> )		12 x 4.5	14 x 5	24 x 10	24 x 10	24 x 10	24 x 10
Beam Divergence <sup>3</sup> (V x H, FWHM) (mrad <sup>2</sup> )		≤0.3 x 0.2	≤2 x 1	≤3 x 1	≤3 x 1	≤3 x 1	≤3 x 1
Beam Pointing Stability <sup>4</sup> (1 sigma) (μrad)		≤50					
Spatial Coherence (FWHM) (μm) Horizontal		800	-	-	-	-	-
Electrical		200 to 240V AC, 16A, 50/60 Hz switchable, 1-phase 100 to 120V AC, 25A, 50/60 Hz switchable, 1-phase					
Water Cooling <sup>5</sup>		2 to 5 l/min. (0.5 to 1.3 gal./min.), 15 to 20°C, connection: 1/2"					
Weight		275 kg (605 lbs.)				350 kg (772 lbs.)	
Dimensions (L x W x H)		1282 x 375 x 793 mm <sup>3</sup> 51 x 15 x 31 in. <sup>3</sup>				1682 x 375 x 793 mm <sup>3</sup> 67 x 15 x 31 in. <sup>3</sup>	

1 Measured at low repetition rate.

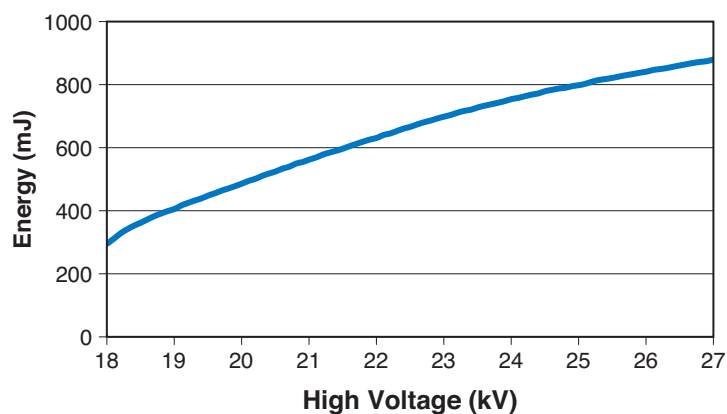
2 Measured at maximum repetition rate.

3 Specified at 248 nm.

4 At shutter plane over 2000 pulses.

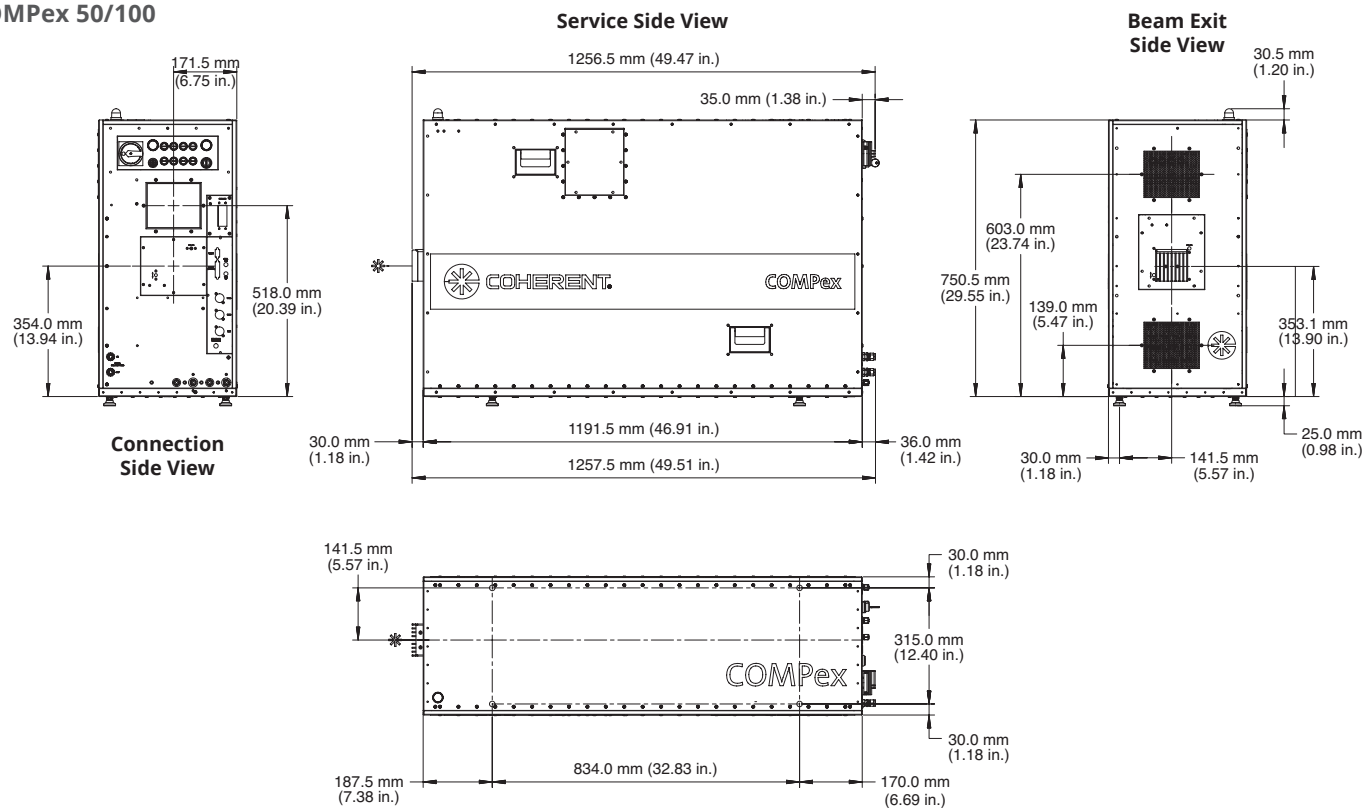
5 Only required above 20 Hz, delivered as standard.

### COMPex 205 Pulse Energy over Dynamic Operating Range

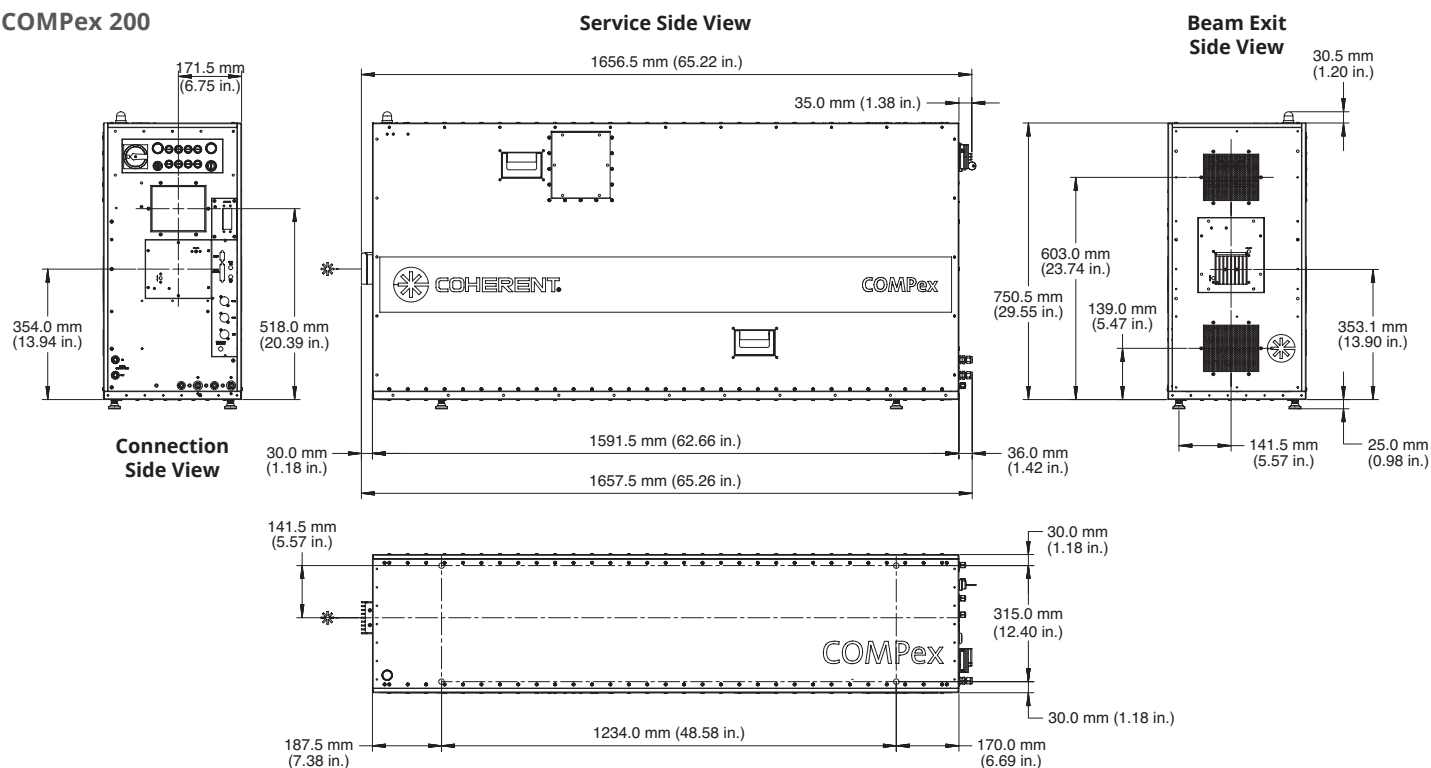


## MECHANICAL SPECIFICATIONS

### COMPex 50/100



### COMPex 200



## COMPex: Additional Control Options<sup>1</sup>



### HIGH SPEED USB 2.0 STANDARD A

Upload/download data from the Laser



### SPEED USB STANDARD B

Virtual Serial Port for input/output of operating modes



### ETHERNET NETWORK CONNECTION RJ45

Upload/download data to/from the Laser Controller

<sup>1</sup> Laptop not included.



Coherent, Inc.,  
5100 Patrick Henry Drive Santa Clara, CA 95054  
p. (800) 527-3786 | (408) 764-4983  
f. (408) 764-4646

[tech.sales@Coherent.com](mailto:tech.sales@Coherent.com) [www.coherent.com](http://www.coherent.com)

Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all COMPex Lasers. For full details of this warranty coverage, please refer to the Service section at [www.Coherent.com](http://www.Coherent.com) or contact your local Sales or Service Representative. MC-021-16-0M0618Rev.B Copyright ©2018 Coherent, Inc.

CE ISO 9001 Registered

