

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 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 and Benefits

- Selection of 157 nm, 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



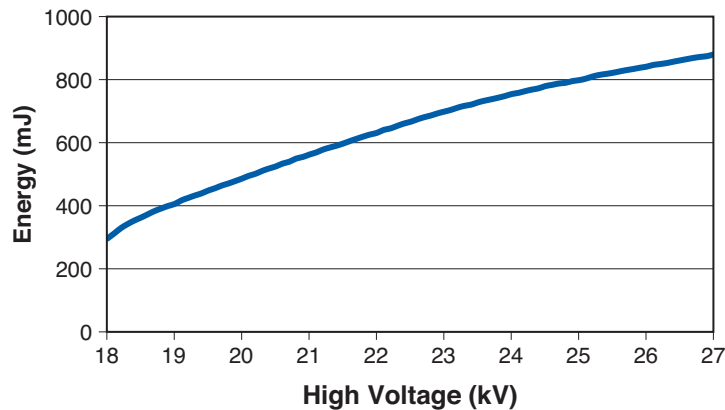
SPECIFICATIONS

		COMPex						
		FBG	50	102	110	201	205	F2
Wavelength								
Pulse Energy ¹ (mJ)	157	-	-	-	-	-	-	32
	193	-	100	240	240	400	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	50
Average Power ² (W)	157	-	-	-	-	-	-	1.6
	193	-	4	4.8	12	4	15	15
	248	12	7	8	30	7.5	33	-
	308	-	-	5	16	5	20	-
	351	-	-	4	12	3	15	-
Energy Stability ³ (1 sigma) (%)		≤0.75						
Pulse Duration (FWHM) (ns) (typ.)		20						
Beam Dimensions (V x H, FWHM) (mm ²) (typ.)		12 x 4.5	14 x 5	24 x 10	24 x 10	24 x 10	24 x 10	22 x 8
Beam Divergence ³ (V x H, FWHM) (mrad ²) (typ.)		0.3 x 0.2	2 x 1	3 x 1	3 x 1	3 x 1	3 x 1	3 x 1
Beam Pointing Stability ⁴ (1 sigma) (μrad)		≤50						
Spatial Coherence (FWHM) (μm) Horizontal (typ.)		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 ⁵		≤5 l/min. (1.3 gal./min.), 10 to 20°C, connection: 1/2"						
Weight		280 kg (617 lbs.)				325 kg (717 lbs.)		
Dimensions (L x W x H)		1258 x 375 x 813 mm ³ 50 x 15 x 32 in. ³				1658 x 375 x 813 mm ³ 66 x 15 x 32 in. ³		
Part Number								
F-Version		1314941	1314940	1314942	1314944	1314970	1314972	1314952
C-Version		N/A	N/A	1314943	1314945	1314971	1314973	

1 Measured at low repetition rate.
 2 Measured at maximum repetition rate.
 3 Specified at 248 nm.
 4 At shutter plane over 2000 pulses (157 nm: ≤100 μrad).
 5 Only required above 20 Hz, delivered as standard.

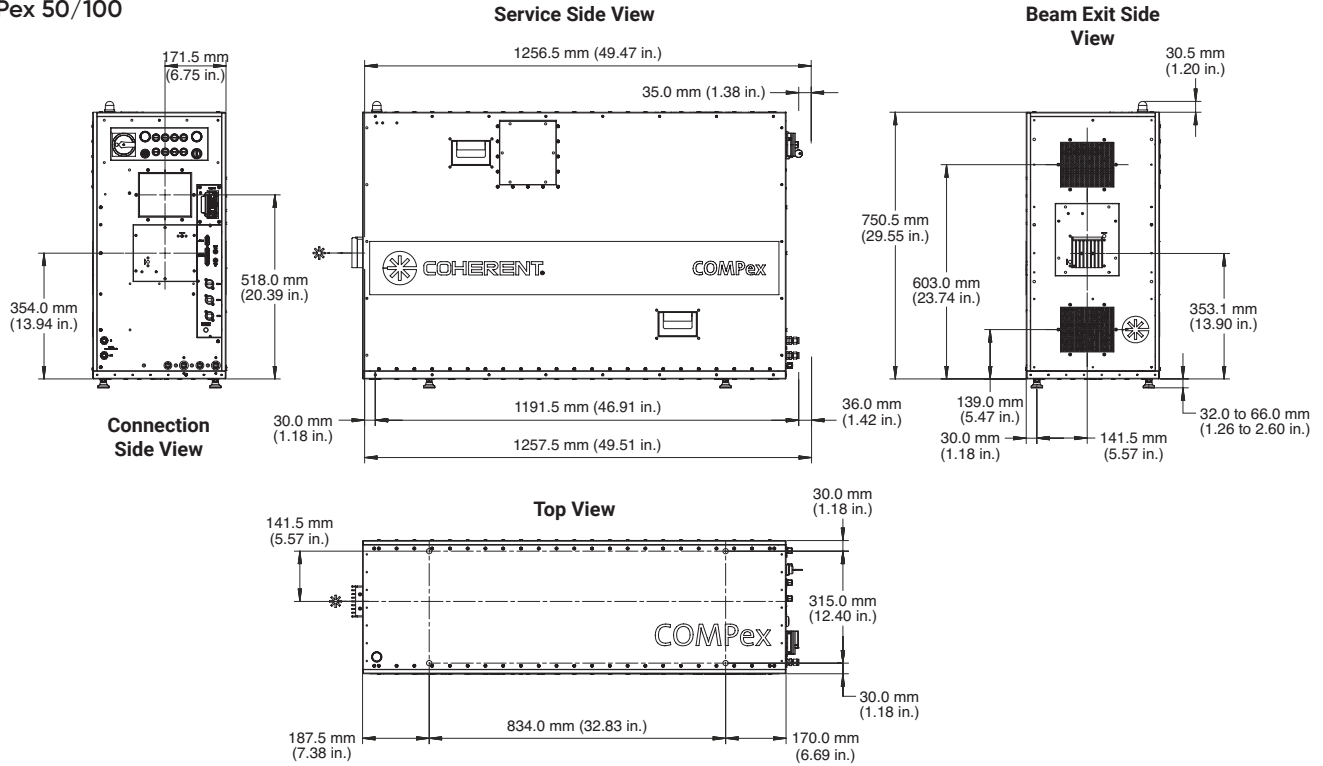
TYPICAL PERFORMANCE DATA

COMPex 205 Pulse Energy over Dynamic Operating Range

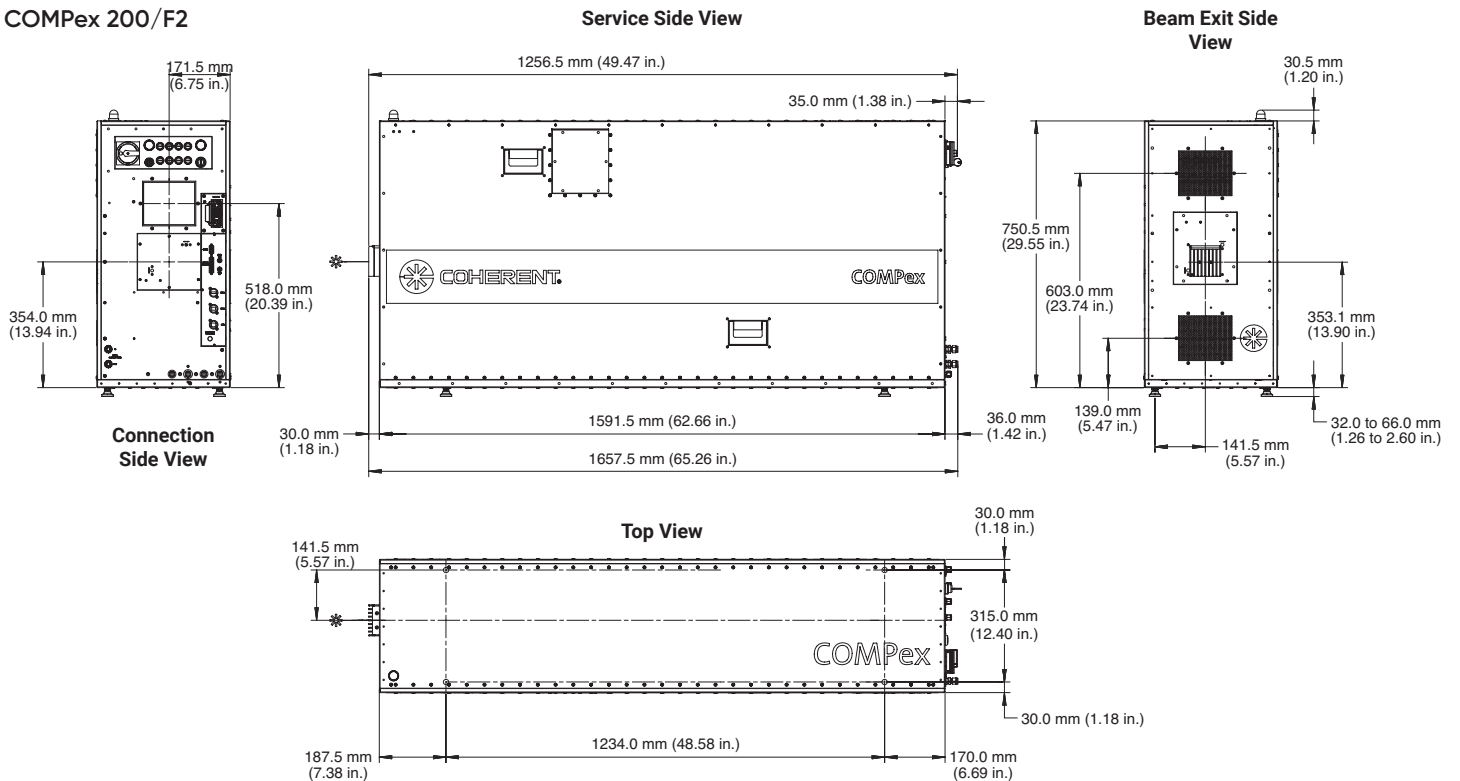


MECHANICAL SPECIFICATIONS

COMPex 50/100



COMPex 200/F2



COMPex: Additional Control Options¹

 **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



¹ Laptop not included.



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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 or contact your local Sales or Service Representative.

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VISIBLE AND INVISIBLE LASER RADIATION.
AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION.
CLASS IV LASER RADIATION PRODUCT
PER EN/IEC 60825-1 (2014)

MAX. OUTPUT POWER: 50 W
MAX. OUTPUT ENERGY: 1 J/pulse
PULSE DURATION: 10 to 50 ns
WAVELENGTH: 157 to 351 nm, 620 to 800 nm