Excimer Lasers

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 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

- 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

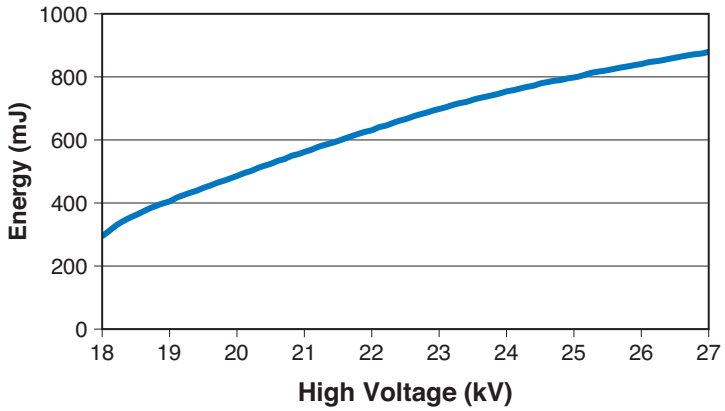
COHERENT

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	-
Maximum 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) (mrad2) (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	N/A

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.

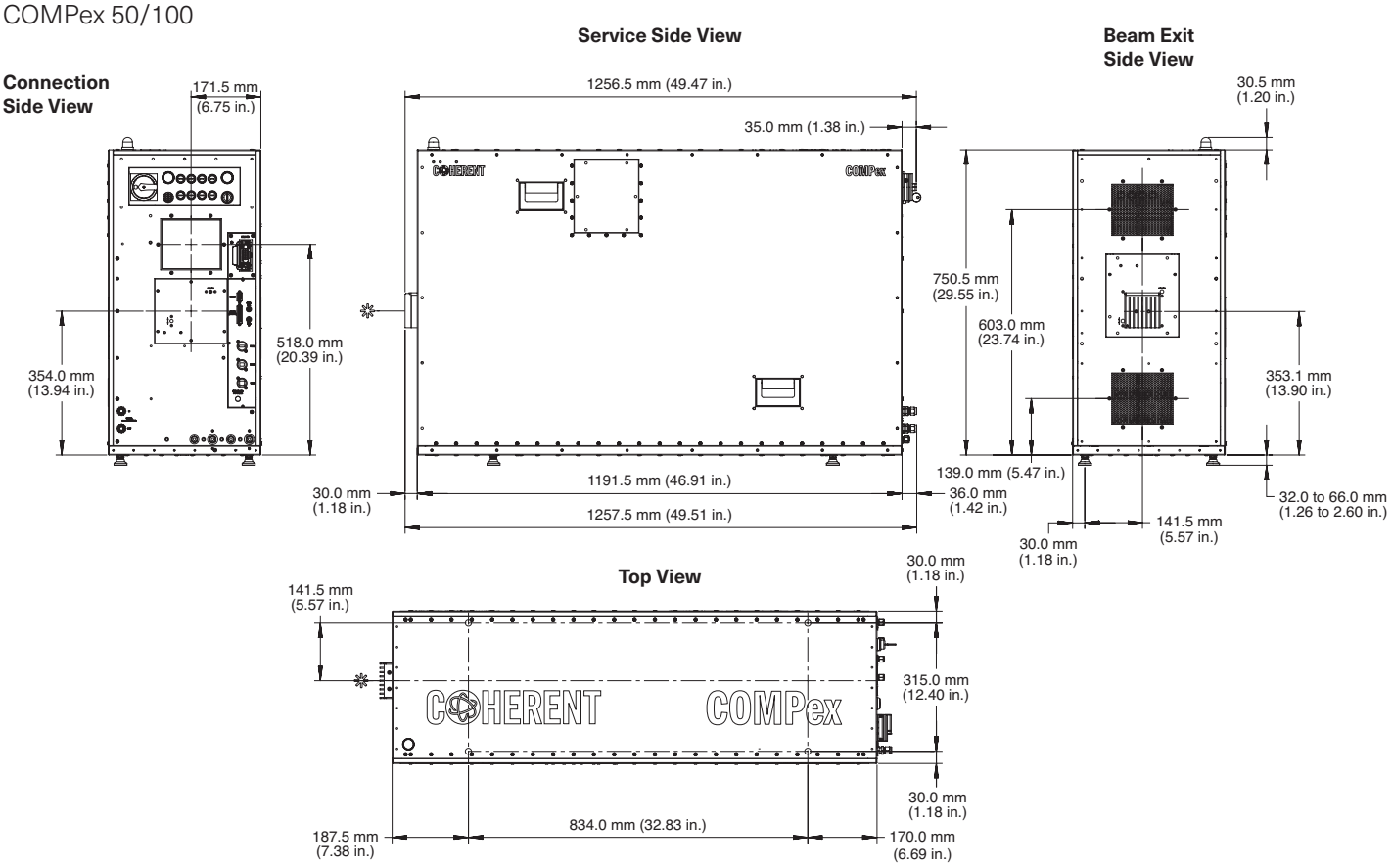
Typical Performance Data

COMPex 205 Pulse Energy over Dynamic Operating Range

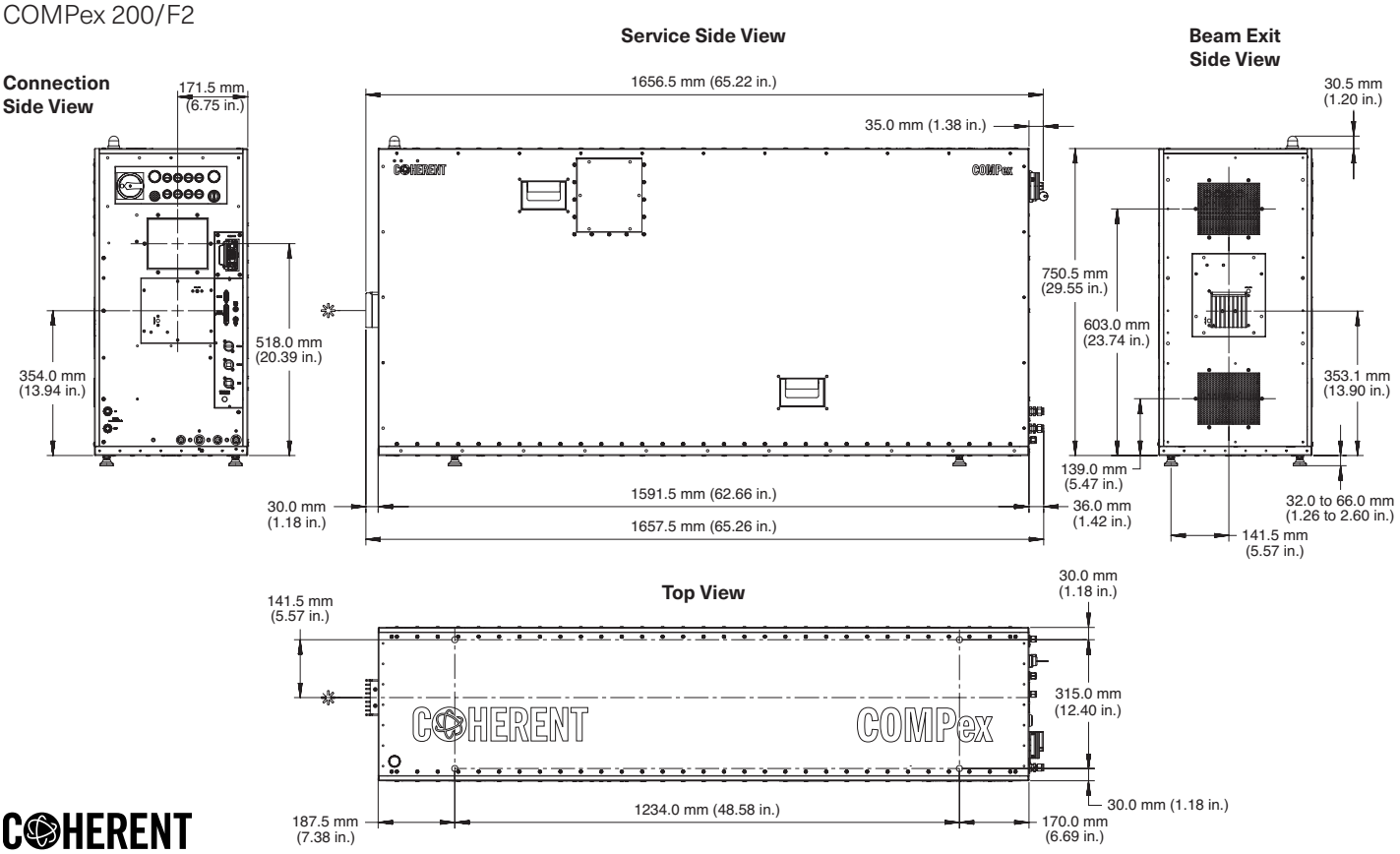


Mechanical Specifications

COMPex 50/100



COMPex 200/F2



Additional Control Options[1]

COMPex

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.

CE ISO 9001 Registered

VISIBLE AND INVISIBLE LASER RADIATION.
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION.
CLASS 4 LASER PRODUCT
ACCORDING TO 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

COHERENT

© 2026 Coherent Corp.
Legal notices : coherent.com/legal

For more information
www.coherent.com