

COMPexPro Series

Small Footprint High Pulse Energy Excimer Lasers

The Precision Thin-film Engineering Laser

COMPexPro 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 COMPexPro provides multi-hundred millijoules output, plus unmatched pulse-to-pulse stability. The COMPexPro also comes with an improved gas processor that extends both gas and optics lifetimes.



Superior Reliability & Performance

COMPexPro Features:

- High pulse energy
- Preset stabilized energy operation
- Integrated, purgeable energy monitor
- Increased static gas lifetime

COMPexPro Options:

- Unstable Resonator
- Tube Temperature Stabilization

COMPexPro Applications:

- PLD – Pulsed Laser Deposition
- Thin Wafer Processing
- LA-ICPMS

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System Specifications ¹		COMPexPro 50	COMPexPro 102	COMPexPro 110	COMPexPro 201	COMPexPro 205
	Wavelength (nm)					
Pulse Energy ¹ (mJ)	193	100	200	200	400	400
	248	150	400	400	700	700
	308	–	250	250	500	500
	351	–	200	200	300	300
Max. Rep. Rate (Hz)		50	20	100	10	50
Average Power ² (W)	193	4	4	12	4	15
	248	7	7	30	5	30
	308	–	5	16	3.5	20
	351	–	4	12	3	15
Energy Stability ³ (1 sigma)(%)		1	1	1	1	1
Pulse Duration ⁴ (ns)		20	20	20	25	25
Beam Dimensions ⁴ (V x H)(mm ²)		14 x 5	24 x 10	24 x 10	24 x 10	24 x 10
Beam Divergence ⁴ (V x H)(mrad ²)		2 x 1	3 x 1	3 x 1	3 x 1	3 x 1
Dimensions (L x W x H)			1282 x 375 x 793 mm ³ (51 x 15 x 31 in. ³)		1682 x 375 x 793 mm ³ (67 x 15 x 31 in. ³)	
Weight			275 kg (605 lbs.)		350 kg (772 lbs.)	
Electrical			230V, ±10%, 16A, 50/60 Hz switchable, 1-phase 115V, ±10%, 25A, 50/60 Hz switchable, 1-phase			
Water Cooling ⁵			2 to 3 l/min. (0.5 to 0.8 gal./min.), 15 to 20°C, connection: 1/2"			

Option

Unstable Resonator³

Energy 70% of stable resonator version (near field)

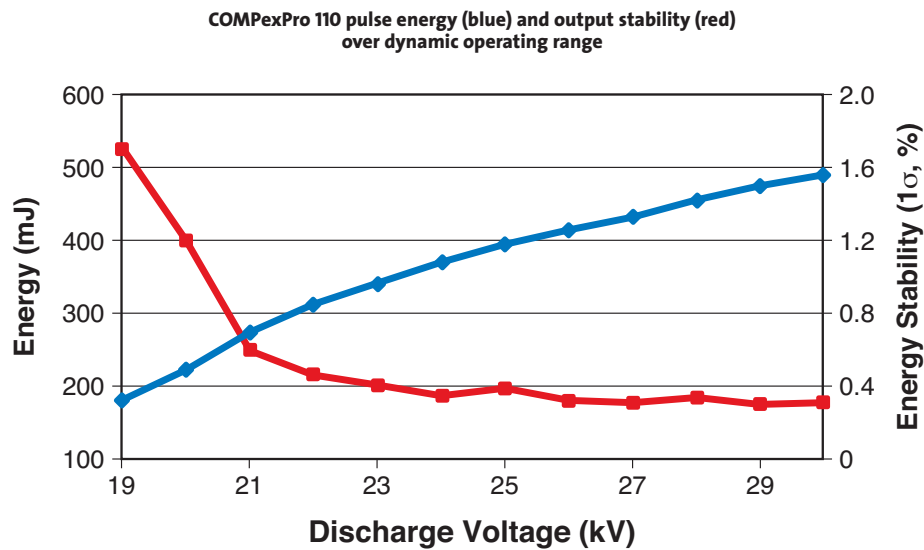
¹ Measured at low repetition rate.

² Measured at max. repetition rate.

³ Specified at 248 nm.

⁴ Typical, FWHM.

⁵ Only required above 20 Hz repetition rate.

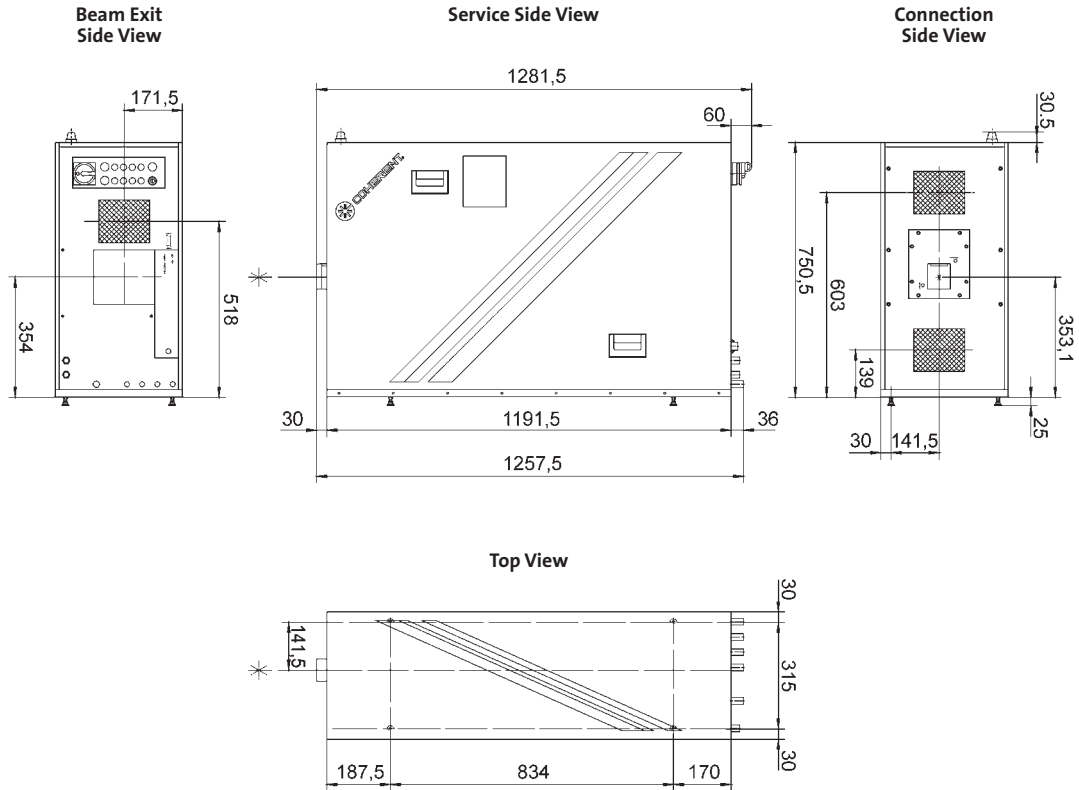


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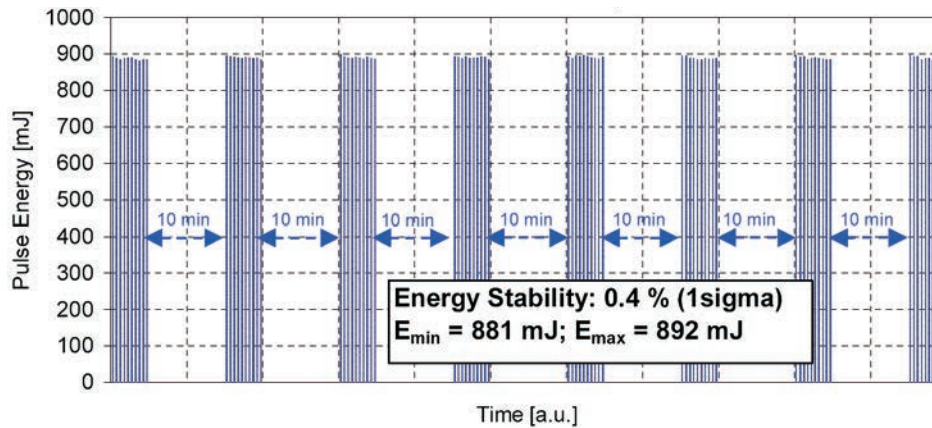
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Mechanical Specifications

COMPexPro 100



Energy stability of COMPexPro 201 at 248 nm under typical PLD operating conditions

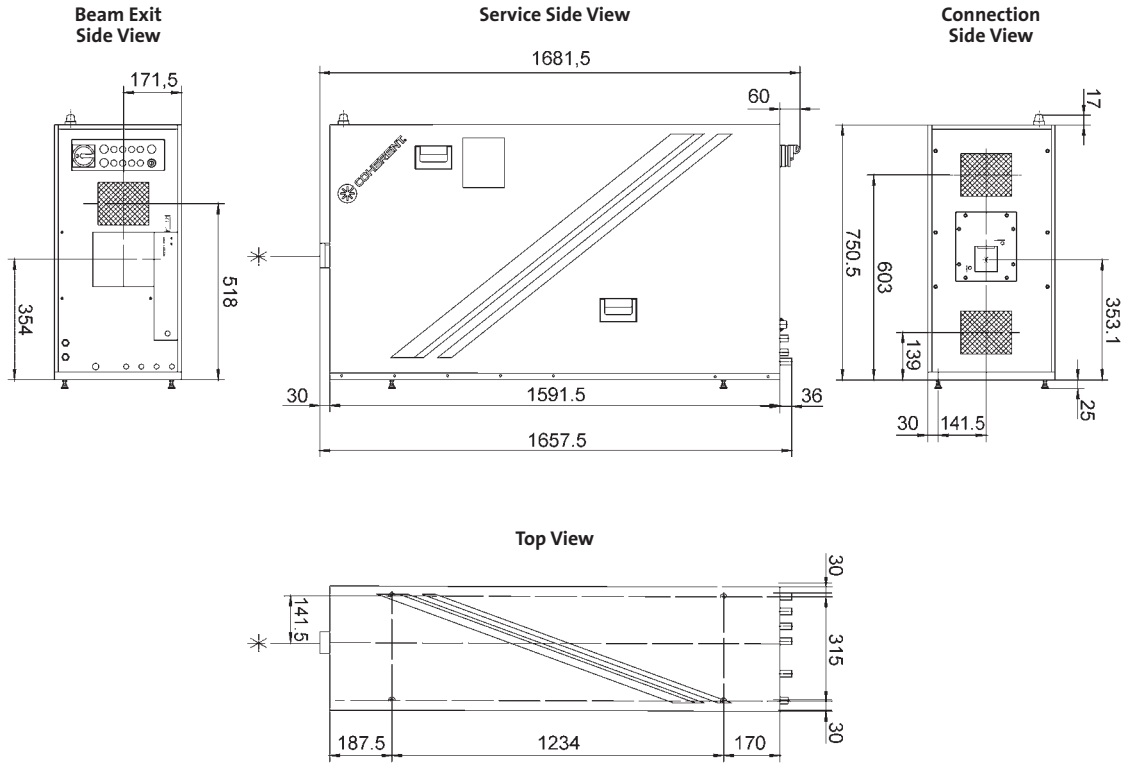


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Mechanical Specifications

COMPexPro 200



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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 COMPexPro 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.

