BLADE™ RF

Never ending power lasers

elenlaser.com

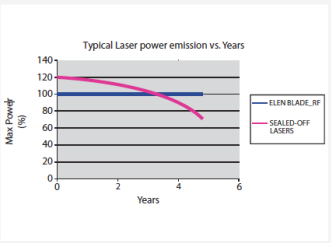
Mid Power CO_2 lasers
Power from 350W to 850W

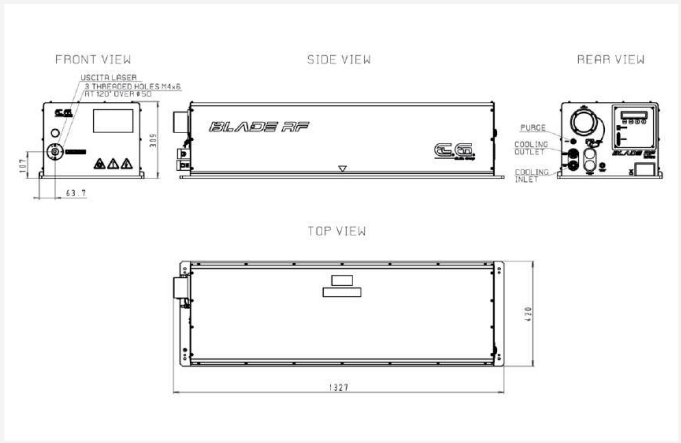
KEY FEATURES

- Semisealed technology: no factory refilling needed
- Radio Frequency excited
- Low operative cost & easy integration
- High reliability & high beam quality
- Same size for all powers
- High electrical/optical conversion efficiency
- Integrated RF power supply
- TCP/IP connection for remote diagnostics and control

RF 333 // RF 333P // RF 555 // RF 777 // RF 888 // RF 899

The **Blade RF Self refilling** technology provides an unsurpassed stability of the laser power, allowing absolute consistency of the processes parameters in long term operations. The internal gas cartridge is extremely easy to change (typically twice a year) at an extraordinarily low cost. The **Blade RF Self refilling** laser is the first laser that joins the advantages of the RF excitement technology (high peak power, high frequency modulation, compactness) with the incredible advantaged of virtually "no factory service" requiremnt of the self refilling solution.





MAIN APPLICATIONS:

- high performance galvo scanners applications;
- plastics, wood and leather cutting;
- digital converting
- polypropylene coating & film cutting
- labels kiss-cutting.

Systems Specifications					
MODEL	RF 333 (P)	RF 555	RF 777	RF 888	RF 899
Rated power (W)	350 (330)	550	750	850	850
Effective peak power (W)	>850 (>750)	>1650	>1750	>1800	>1800
Power stability (long term)	±4% (±5%)	±5%	±5%	±5%	±5%
Wavelength (μm)	10.6 ± 0.4 (10.2 ± 0.4)	10.6 ± 0.4	10.6 ± 0.4	10.6 ± 0.4	10.6 ± 0.4
Polarization	Linear horizontal	Linear vertical	Linear vertical	Linear vertical	Linear vertical
Beam diameter (1/e²at the exit) (mm)	9.5 ± 0.5	9.5 ± 0.5	11.8 ± 0.5	11.8 ± 0.5	11.5 ± 0.5
Beam divergence (full angle) (mrad)	2.0 ± 0.2	2.0 ± 0.2	1.0 ± 0.1	1.0 ± 0.1	0.8 ± 0.1
Maximum pulsing frequency (kHz)	100	100	100	100	100
Pulse width range (μs)	2 ÷ 1000 (2 ÷ 150)	2 ÷ 150	2 ÷ 150	2 ÷ 150	2 ÷ 150
Mode quality (M^2)	<1.1	<1.1	<1.2	<1.2	<1.2
Beam ellipticity	1.1:1	1.2:1	1.2:1	1.2:1	1.2:1
Typical gas mix consumption (Cartridge/year)	2	2	2	2	2
Pulse Rise /Fall Time (μs)	< 50	< 50	< 50	< 50	< 50
Environmental temperature range (°C)	5° ÷ 35°				
Maximum humidity	Non-condensing at inlet water cooling temperature				
Electrical Power Requirements					
Input voltage (V_{DC})	48 ± 1	48 ± 0.5	48 ± 0.5	48 ± 0.5	48 ± 0.5
Max current (A)	100	140	180	200	200
Coolant					
Heat dissipation (W)	5000	6800	9000	10000	10000
Coolant temperature (°C)	20° ± 1°				
Max water cooling input pressure (bar)	4	5	5	5	5
Water cooling flow rate (l/min)	11±1	15 ± 1	17±1	19±1	19±1
Dimensions/Weight					
Dimensions (LxWxH) (mm)	1327x420x309				
RF Power supply dimensions	Integrated				
Safety shutter	Optional	Optional	Optional	Optional	Integrated
Weight (kg)	92	92	110	110	110

NOTE: Aiming to product improvement, El.En. SpA reserves the right to change specifications without notice. Purchaser acknowledges that the products must comply with applicable regulations before they can be resold to customers. El.En. lasers are produced under a quality assurance system certified according to ISO 9001.

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