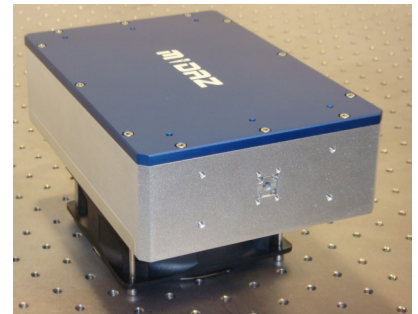


Midaz Flair-20 Air-Cooled Laser

Data Sheet

The Flair-20 laser represents a breakthrough in performance and sets new standards for diode-pumped solid-state lasers. Based on Midaz unique micro-slab amplifier technology, it offers unparalleled performance as a flexible pulsed laser source or operation in CW mode. This high-power air-cooled laser offers the highest level of performance without requiring water cooling, providing a cost effective customer solution including laser marking, micromachining or scientific applications.



Midaz Flair-20 is an air-cooled diode-pumped solid-state (DPSS) laser providing the user with multiple benefits of:

- High average power (20W)
- Highest DPSS pulse rates in the industry (>500kHz) for higher processing speeds
- Shortest pulses (~8ns) and high peak power for improved material interaction
- Compact laser head for ease of integration
- Advanced thermal management systems for reliable air-cooling
- Robust mechanical design with multiple mounting options
- High spatial beam quality (TEM₀₀)
- Highly polarised output beam (>100:1)

Flair-20 laser offers industry-leading high pulse rates superior to competing DPSS lasers by a significant factor. The extremely short pulse duration delivers higher peak power pulses than available to pulsed fibre lasers. The high peak power, high spatial quality and highly polarised output beam is also highly favourable for applications requiring efficient nonlinear frequency conversion (e.g. harmonic conversion to green, UV, and deep UV).

Midaz Flair allows customers to improve commercial or scientific applications.

Applications include:

- Laser marking
- Precision laser micromachining
- Solar (PV) cells
- Scientific applications

Midaz has a policy of continuous product improvement. Specifications are subject to change without notice

Midaz Lasers Ltd., Bessemer Building, Prince Consort Road, London SW7 2AZ, United Kingdom

Tel: +44 (0) 20 7594 1072, Fax: +44 (20) 7594 1073

email: sales@midaz.co.uk, website: www.midaz.co.uk

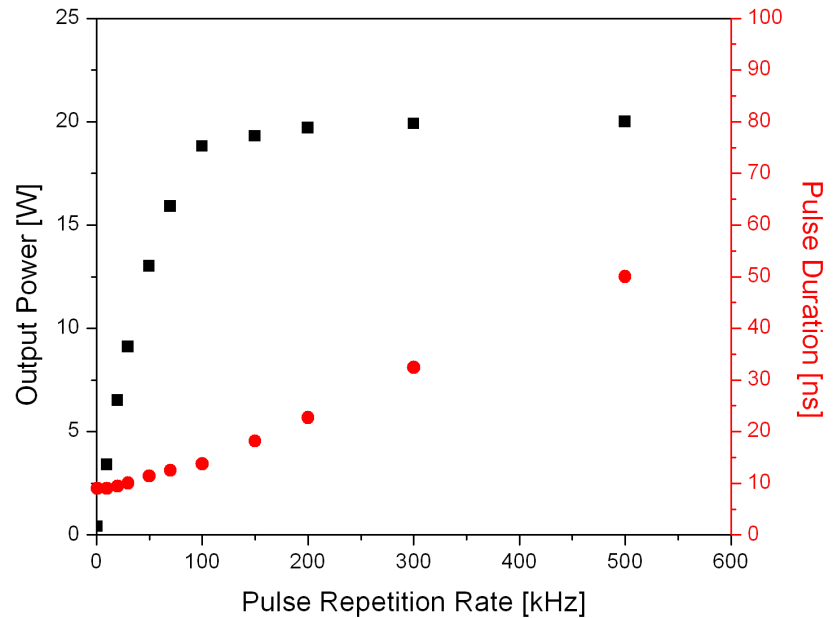
Specifications

Tabulated specifications are typical values.

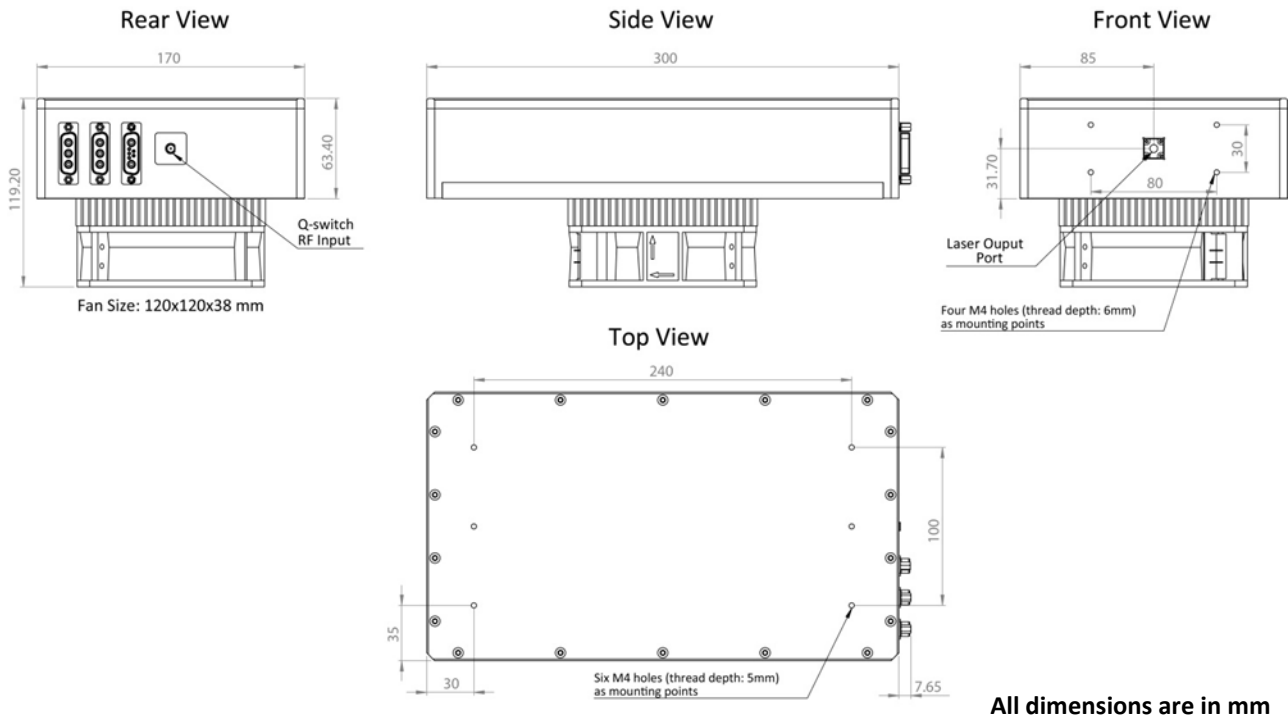
Model No	Flair-20
Amplifier	Nd:YVO ₄
Wavelength	1064 nm
Cooling method ^[1]	Air / Fan
Average power @ 100 kHz @ CW mode	18W 20W
Pulse duration @ 100 kHz @ 30 kHz	~13 ns ~8 ns
Repetition rate	10 – 500 kHz
Spatial Quality	TEM ₀₀ , M ² < 1.3
Polarisation Ratio (vertical: horizontal)	> 100:1

[1] Water cooled version available. Contact Midaz for details.

Typical power / pulse duration against Pulse repetition rates.



Dimensions



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