



# JenLas<sup>®</sup> fiber ns 10-40

## Air-cooled nanosecond Fiber Lasers



### Advantages:

- First + last pulse equal
- Isolated optical output
- Pulse width variable
- Highly reliable components
- Up to 20 kW peak power (nominal)
- OEM-design
- High pulse repetition rate (up to 500 kHz)

### Customer benefits:

- Constant application results
- Metal applications possible
- Optimized application
- Low cost of ownership
- Easy integration
- High speed application

### Applications:

- Marking
- Scribing
- Ablation
- Silicon processing
- Trimming
- Cutting

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## Air-cooled nanosecond Fiber Lasers

### Specifications

JenLas® fiber ns	10 - Basic	20 - Basic	12 - Advanced	20 - Advanced		30 - Advanced	40 - Advanced
				multi mode	single mode		
Output power	10 W	20 W	12 W	20 W		30 W	38 W
Pulse rep. range	0 - 100 kHz	0 - 100 kHz	0 - 500 kHz	0 - 500 kHz		0 - 500 kHz	0 - 500 kHz
Pulse width (FWHM)	30 - 200 ns (rep.rate dependent)	30 - 200 ns (rep.rate dependent)	9 - 200 ns (adjustable)	9 - 200 ns (adjustable)		9 - 200 ns (adjustable)	9 - 250 ns (adjustable)
Pulse energy (max.)	≥ 0.5 mJ	≥ 0.8 mJ	≥ 0.6 mJ	≥ 0.8 mJ	≥ 0.5 mJ	≥ 1.0 mJ	≥ 1.25 mJ
Peak power (max.)	≥ 7.5 kW	≥ 12 kW	≥ 10 kW	≥ 12 kW	≥ 7 kW	≥ 15 kW	≥ 20 kW
Modulation range in cw	N/A	N/A	DC up to 100 kHz	DC up to 100 kHz		DC up to 100 kHz	DC up to 100 kHz

Centre wave length	1062 nm (± 3 nm)						
Output power stability	10 %	10 %	10 %	10 %	5 %	5 %	5 %
Beam diameter (typ.)	~ 1.15 mm	~ 1.15 mm	~ 1.15 mm	~ 1.15 mm	~ 1.15 mm	~ 1.15 mm	~ 1.15 mm
Beam quality (M <sup>2</sup> )	< 2	< 2	< 2	< 2	≤ 1.3	~ 3.2 (typ.)	~ 3.2 (typ.)
Polarisation	random						
Beam delivery cable length	2 m	2 m	2 m	2 m (3 m*)	2 m	3 m (5 m*)	3 m (5 m*)
Internal pilot laser	optional						
External pilot laser	optional						

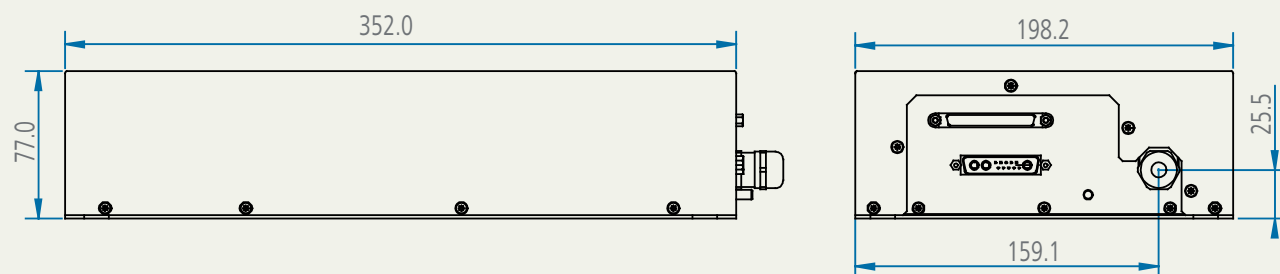
\* optional

Mechanical specifications							
Size	352 x 199 x 77 mm						
Weight	< 6 kg						
Operation temperature							
Base plate temperature	0 °C - 55 °C	0 °C - 55 °C	0 °C - 55 °C	0 °C - 55 °C	0 °C - 55 °C	0 °C - 55 °C	0 °C - 55 °C
Environment temp. (operation)	0 °C - 45 °C	0 °C - 45 °C	0 °C - 45 °C	0 °C - 45 °C	0 °C - 45 °C	0 °C - 40 °C	0 °C - 40 °C

Electrical specifications							
Laser head power supply	24 V / 7 A	24 V / 10 A	24 V / 7 A	24 V / 10 A	24 V / 10 A	24 V / 10 A	24 V / 13 A

#### Options:

- Beam expanders: 2.6 x, 4.0 x, 5.0 x, 7.0 x, 9.0 x
- JenLas® fiber control
- Cooling unit



It is our policy to constantly improve the design and specifications. Accordingly, the details represented herein cannot be regarded as final and binding.



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