


## TARV Product Line

1.0µm CW High Power Fiber Lasers

### Features:

- Up to 100W CW of output power
- up to 20W in PM version
- Excellent beam quality ( $M^2 < 1.1$ )
- Highly reliable laser diode pumps
- Maintenance free operation
- Compact & rugged design
- Forced air cooled
- Cables included
- Exchangeable Pump technology 
- Safety Interlock
- RS232
- EPL technology



### Applications:

- Marking
- Welding
- Cutting
- Printing
- Sintering
- Soldering
- Engraving
- Measurement
- Graphic Imaging

## ML-CW-R-OEM/TKS Series

## ML-CW-P-OEM/TKS Series

The ML-CW-R-OEM/TKS is a compact CW Fibre Laser delivering up to 100W of output power, through a near diffraction limited beam ( $M^2 < 1.1$ ). Designed under the proprietary “EPL” technology (Exchangeable Pump Laser), there is no need to send back the ML-CW-R-OEM/TKS to Manlight for maintenance as one can make the swap of the pump diode very easily. Maintenance and lifetime of the product is no more an issue. The excellent beam quality and power stability make the Manlight fibre laser a multi-purpose tool. Our patented “Injection Technology” allows the use of highly reliable broad area laser diode pumps, for a cost effective and maintenance-free operation. The all-fibre design guarantees the robustness of the laser, without any optical parts to align or to stabilize. The simple integration of the system requires no after-installation service. The ML-CW-R-OEM/TKS is the ideal solution for a broad range of industrial and scientific applications. A Polarization Maintaining version is available with output power up to 20W (ML-CW-P-OEM/TKS)

Manlight, based in Brittany, has chosen words in local Celt language, the Breton, to personalize its product portfolio. Each of the eight fiber laser and amplifier product lines starts with a letter of Manlight. **TARV** in Breton stands for *Bull*, symbol of the power. From all Manlight product portfolio, the maximum output power is achieved with our 1.0µm high power CW fiber lasers.

[www.manlight.com](http://www.manlight.com)

## Ordering Information: MLxx-CW-y-TKS

xx = Average output power in Watts  
y = R for random, P for polarized

### Technical Specification:

Parameter	Value							Unit
Operation mode	CW - modulated							-
Nominal output power	1	5	10	20	30	50	100	W
Output power tunability	10 – 100							%
Long term stability (RMS, over 1h@20°C)	<+/- 2							%
External TTL modulation frequency	Up to 10.0							kHz
Laser wavelength	1060-1100				1070 – 1100			nm
Signal linewidth (FWHM)	< 1				<3			nm
Polarization Extinction Ratio	>18	>18	>17	>15	N/A	N/A	N/A	dB
Laser output configuration	Gaussian profile							-
Output fiber length (typical)	3							m
Typical beam diameter @1/e <sup>2</sup>	<2.2				5			mm
Beam quality M <sup>2</sup>	<1.1							-
Dimensions	3U 19" (448 x 451 x 132)							mm <sup>3</sup>
Weight	< 13							Kg
Storage / Operation Temperature	0 to + 55 / + 15 to + 35							°C
Control interface	Front panel or USB							-
Operating voltage VAC	88 to 264							V
Typ. power consumption (@ 25°C)	<150	<180	<150	<320	<350	<1000	<1500	W

### Options:

- Variety of fibre lengths
- Different collimating optics
- Back reflection output isolator
- Control interface options
- Customised specs on request
- Red pilot option
- Extended warranty
- 12 V power supply
- Rack 19" version

### Operating and safety considerations

Manlight Fibre Amplifiers comply with CE, FDA & RoHS. All Manlight Fibre Lasers are patent pending.

The Manlight Fibre Amplifiers emit both invisible Class IV and visible Class II radiations. Direct and scattered radiation can be harmful to the human eye. Proper laser safety eyewear must be worn during operation. Information in this document is subject to change without notice.



## Ordering Information: MLxx-CW-y-OEM

xx = Average output power in Watts  
y = R for random, P for polarized

### Technical Specification:

Parameter	Value							Unit
Operation mode	CW - modulated							-
Nominal output power	1	5	10	20	30	50	100	W
Output power tunability	10 – 100							%
Long term stability (RMS, over 1h@20°C)	<+/- 2							%
External TTL modulation frequency	Up to 10.0							kHz
Laser wavelength	1060-1100				1070 – 1100			nm
Signal linewidth (FWHM)	< 1				<3			nm
Polarization Extinction Ratio	>18	>18	>17	>15	N/A	N/A	N/A	dB
Laser output configuration	Gaussian profile							-
Output fiber length (typical)	3							m
Typical beam diameter @1/e <sup>2</sup>	<2.2				5			mm
Beam quality M <sup>2</sup>	<1.1							-
Dimensions (heatsink included)	230 x 178 x 65			285 x 215 x 120		285 x 285 x 150		mm <sup>3</sup>
Weight (heatsink included)	< 5			<10		<18	<20	Kg
Storage / Operation Temperature	- 20 to + 60 / + 15 to + 40							°C
Control interface	Analog / RS-232							-
Operating voltage VDC	12							V
Typ. power consumption (@ 25°C)	<20	<30	<150	<320	<350	<1000	<1500	W

### Options:

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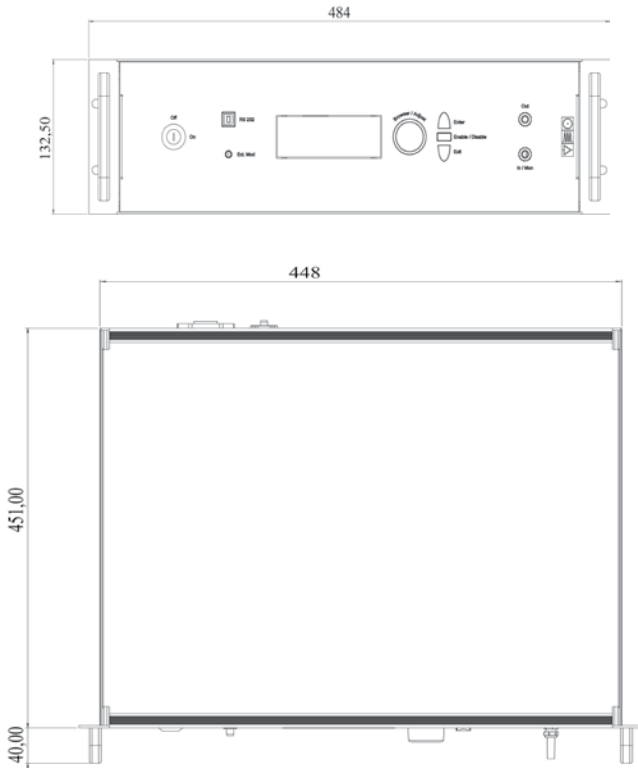
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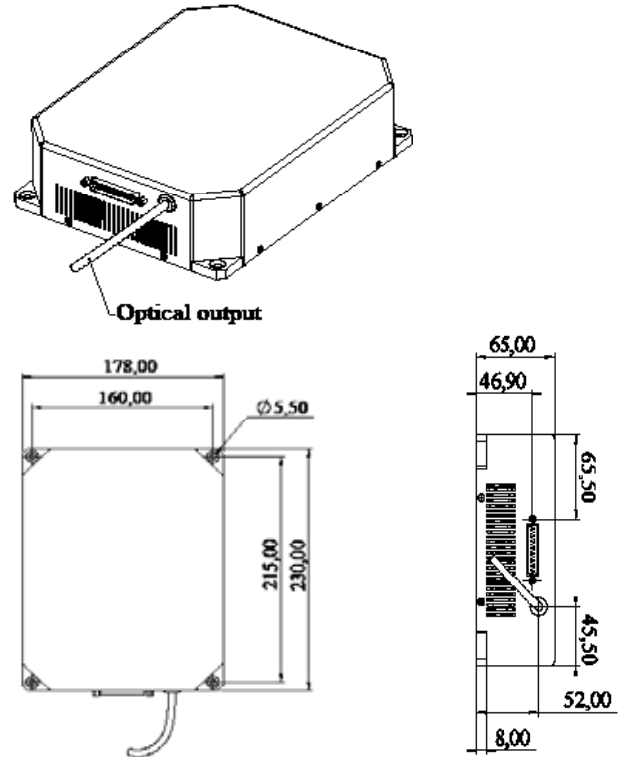
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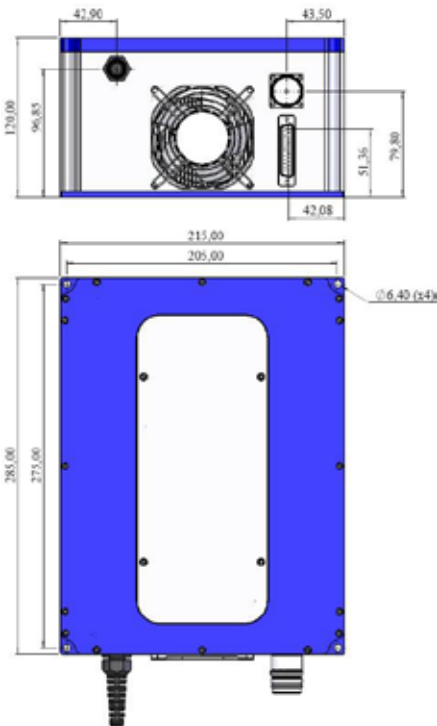
Benchtop units



OEM 1W to 10W



OEM 20W and 30W



OEM 50W and 100W

