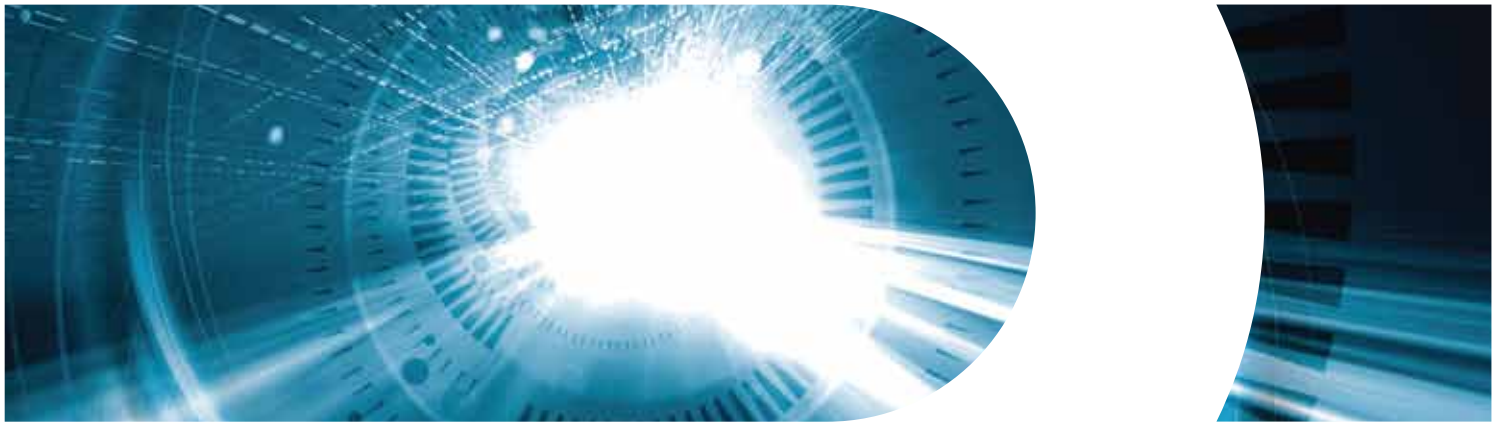
3SP Group



ML-PL-R-OEM/TKS
Series

KeyFeatures

- Up to 1 mJ
- Up to 50W
- 40 ns AND 150 ns pulse width versions
- Exchangeable pump laser technology
- Pulsed AND CW operation mode
- Optical power feedback detection
- Back reflection output isolator
- Highly reliable laser diode pumps
- Maintenance free operation
- 8 bits TTL / Analog / USB
- Compact & rugged design
- Including heat sink & fan
- Excellent beam quality
- Safety Interlock
- Air cooled

Applications

- Marking
- Cutting
- Drilling
- Welding
- Scribing
- Ablating
- Soldering
- Trimming
- Engraving
- Research

For moreInfo

Please contact us at:
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or via e-mail at **sales@3spgroup.com**

NERZH Product Line

1.0µm Pulsed Fiber Lasers

The ML-PL-R-OEM laser is a compact Pulsed Ytterbium Fibre Laser delivering up to 30W of average output power, through a near diffraction limited beam. It allows to obtain >20 kW of peak power in a pulse duration of 40 ns. A 150ns version is also available for specific applications. One of the key features is the possibility to operate the fibre laser in pulsed or CW mode. Pulse repetition rate and output power can be controlled either by 8-bits TTL signal, Analog or USB + TTL.
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 stabilise. Designed under the proprietary “EPL“ technology (Exchangeable Pump Laser), there is no need to send back the ML-PL-R-OEM laser to Manlight for maintenance as one can make the swap of the pump diode very easily. Maintenance and lifetime of the product are no more issues. The simple integration of the system requires no after-installation service. The ML-PL-R-OEM laser is the ideal solution for a broad range of industrial applications.

3SP Group

NERZH
Product Line
1.0µm Pulsed Fiber Lasers

ML-PL-R-TKS
Series

SPECIFICATIONS*
STANDARD CONFIGURATIONS

Parameter	Value					Unit
Operation mode	Pulsed or CW					-
Nominal average output power	5	10	20	30	50	W
Energy per pulse	0.25 @20kHz	0.5 @20kHz	1 @20kHz	1 @30kHz	1 @50kHz	mJ
Pulse duration	150 or 40			150		ns
Pulse peak power	> 20 (at 40ns) and > 8 (at 150ns)					kW
Pulse repetition rate (External trigger)	20 to 100			30 to 100	50 to 100	kHz
Output power tunability	10 – 100					%
Output power stability (RMS, over 1h@20°C)	<+/- 2					%
External TTL modulation frequency	Up to 5.0					kHz
Laser wavelength	1080					nm
Signal linewidth (FWHM)	< 3					nm
Polarization	Random					-
Output fibre length	3					m
Typical beam diameter @1/e^2	6 to 8					mm
Red pilot	Included					-
Optical isolation	Inter-stage and output isolators					-
Beam quality M^2	Gaussian profile					-
Dimensions (heatsink included)	448 x 451 x 132					mm^3
Weight (heatsink included)	< 13					kg
Storage / Operation Temperature	0 to + 55 / + 15 to + 40					°C
Control interface inludes RS232	Front panel and USB					-
Operating voltage AC	88 - 264					V
Typical power consumption (@ 25°C)	<100	<180	<350	<480	<1000	W

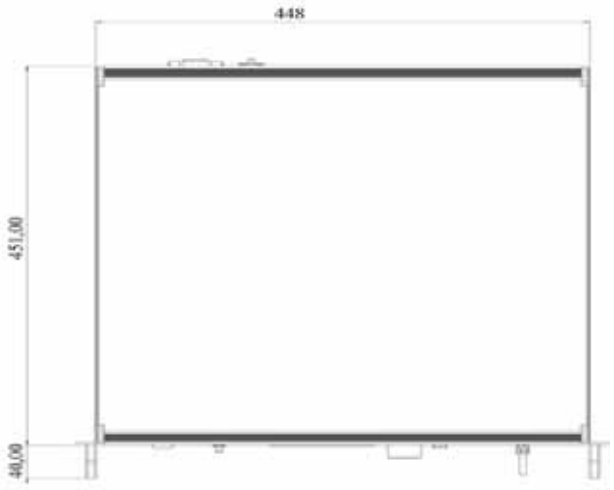
Revised March 2012

Ordering Information:
MLxx-PL-R-TKS
xx = Average output power in Watts

Operating and safety considerations 3SPGroup Fibre lasers comply with CE, FDA & RoHS. All 3SPGroup Fibre Lasers are patent pending.

The 3SPGroup Fibre lasers 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.

Mechanical drawings:



3SP Group

NERZH
Product Line
1.0µm Pulsed Fiber Lasers

ML-PL-R-OEM
Series

SPECIFICATIONS*
STANDARD CONFIGURATIONS

Parameter	Value					Unit
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Nominal average output power	5	10	20	30	50	W
Energy per pulse	0.25 @20kHz	0.5 @20kHz	1 @20kHz	1 @30kHz	1 @50kHz	mJ
Pulse duration	150 or 40			150		ns
Pulse peak power	> 20 (at 40ns) and > 8 (at 150ns)					kW
Pulse repetition rate (External trigger)	20 to 100			30 to 100	50 to 100	kHz
Output power tunability	10 – 100					%
Output power stability (RMS, over 1h@20°C)	<+/- 2					%
External TTL modulation frequency	Up to 5.0					kHz
Laser wavelength	1080					nm
Signal linewidth (FWHM)	< 3					nm
Polarization	Random					-
Output fibre length	3					m
Typical beam diameter @1/e^2	6 to 8					mm
Red pilot	Included					-
Optical isolation	Inter-stage and output isolators					-
Beam quality M^2	Gaussian profile					-
Dimensions (heatsink included)	178 x 230 x 65		285 x 215 x 120		285 x 285 x 150	mm^3
Weight (heatsink included)	< 3		<11		<20	kg
Storage / Operation Temperature	- 20 to + 60 / + 15 to + 40					°C
Control interface inludes RS232 or USB	& add. 8 bits TTL or Analog					-
Operating voltage DC	12					V
Typical power consumption (@ 25°C)	<80	<180	<350	<480	<1000	W

Revised March 2012

Ordering Information:
MLxx-PL-R-OEM
xx = Average output power in Watts

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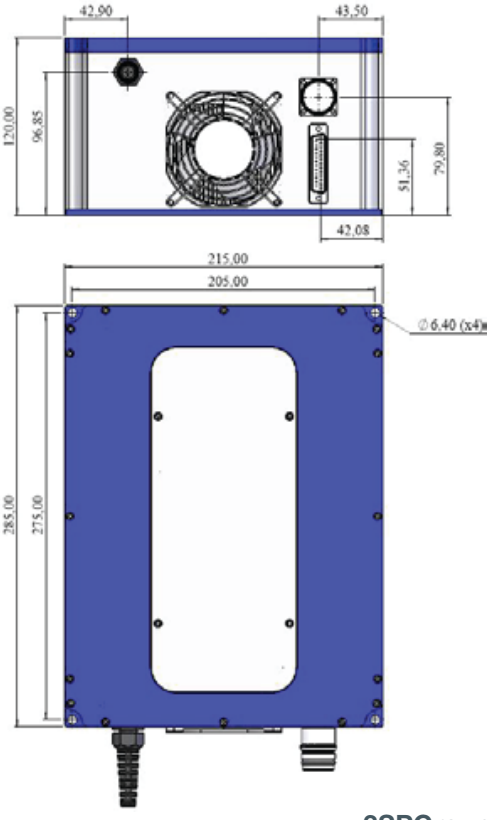

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ORDERING **INFO**

Please contact your Sales Manager. 3SPGroup can also develop custom products to meet a wide range of technical requirements.

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