

## Laser LGN-519

### Application:

- processing equipment;
- scientific research.

### Peculiarities:

- sectioned metal-ceramic laser tube possessing long operation life;
- stabilized power supply based on conversion equipment.

### Laser Emission Power, W, not less:

Filling	Ar		Kr		Ar + Kr
	Wavelength range, nm	Singlefrequency***	Wavelength range, nm	Singlefrequency***	
647.1-676.4	--	--	<b>1.0</b>	--	
457.9-676.4	--	--	--	--	<b>1.0</b>
457.9-514.5	<b>4.0</b>	--	--	--	
351.1-363.8	<b>0.2 **</b>	--	--	--	--
One wavelength, nm	TEM <sub>00</sub>		TEM <sub>00</sub>		TEM <sub>00</sub>
676.4	--	--	0.12	--	0.07
<b>647.1</b>	--	--	<b>0.5</b>	<b>0.25</b>	<b>0.3</b>
528.7	0.15 **		--	--	--
<b>514.5</b>	<b>1.0</b>	<b>0.5</b>	--	--	<b>0.3</b>
501.7	0.24		--	--	0.07
496.5	0.45		--	--	0.12
<b>488.0</b>	<b>1.0</b>	<b>0.5</b>	--	--	<b>0.3</b>
476.5	0.45		--	--	0.14
472.7	0.08		--	--	0.05
465.8	0.07		--	--	0.05
457.9	0.2		--	--	0.1
454.5	0.05 **		--	--	--
351.1	0.07 **		--	--	--
363.8	0.07 **		--	--	--

\* Parameters are guaranteed for the lines in bold type, other parameters are the achieved emission power values in the TEM<sub>00</sub> mode.

\*\* Changeable optics.

\*\*\* At the customer's demand it is possible to produce a singlefrequency laser with any of the pointed wavelengths

### Other Parameters

Polarization, not less*	100:1
Divergence, mrad, not more	0.5
Beam diameter at the distance 0.4 m from the laser head, not more	2.0
Supply (3F+N+G), V, Hz	380\220±10%, 50
Consumed power, kW, not more	14
Laser head cooling	водяное
Water discharge, l/min., not less	8
Water pressure, kg\cm <sup>2</sup> , not more	3.0
Power supply cooling	водяное
Water discharge, l/min., not less	1
Temperature of the cooling water, °C, not more	30
Warranty operation time, hours, not less	1500

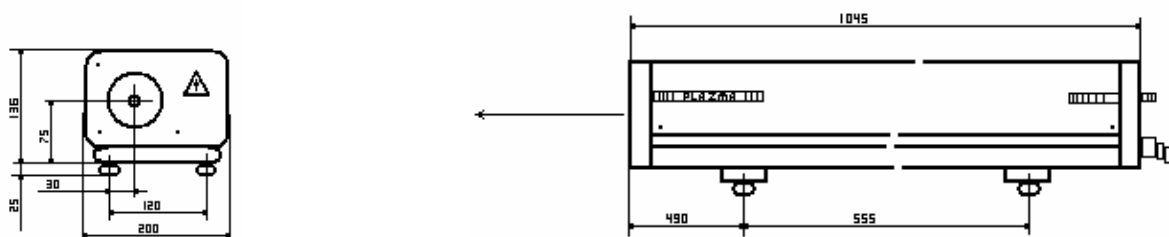
Average resource, hours, less	5000	
Laser head mass, kg, not more	35	36
Power supply mass, kg, not more	45	
Control panel mass, kg, not more**	1.5	
Water filter mass, kg, not more	3	

\* For the laser LG-106M4ST at the customer's order, vector **E** orientation can be performed both in vertical and horizontal planes, or there can be made the production of the laser without polarization in multilinear operation mode.

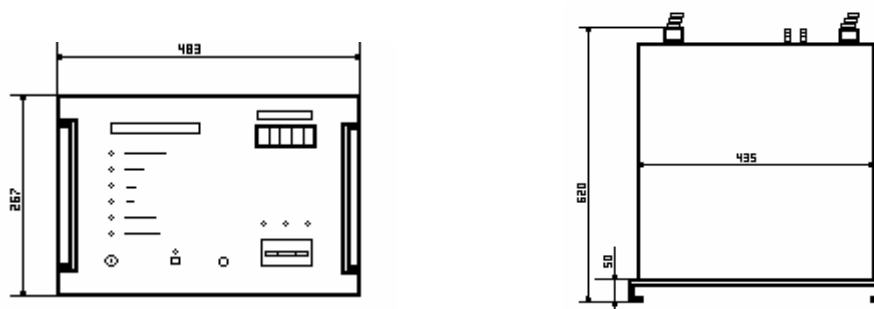
\*\* The control panel is delivered at the customer's demand.

## **Outline Drawing**

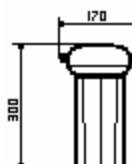
### ***Laser Head***



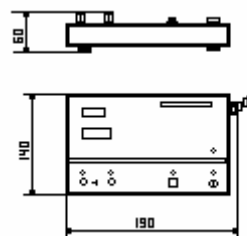
### ***Power Supply***



### ***Water Filter to the Laser Head***



### ***Control Panel***



- Plait Length:**
1. Laser head — power supply, 2.5 m.
  - 2\*. Supply line, 2.5 m.
  - 3\*. Control panel — power supply, 2.5 m.
  - 4\*. Water hoses, 12 m.
- \*---Plait lengths are specified by the customer.

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